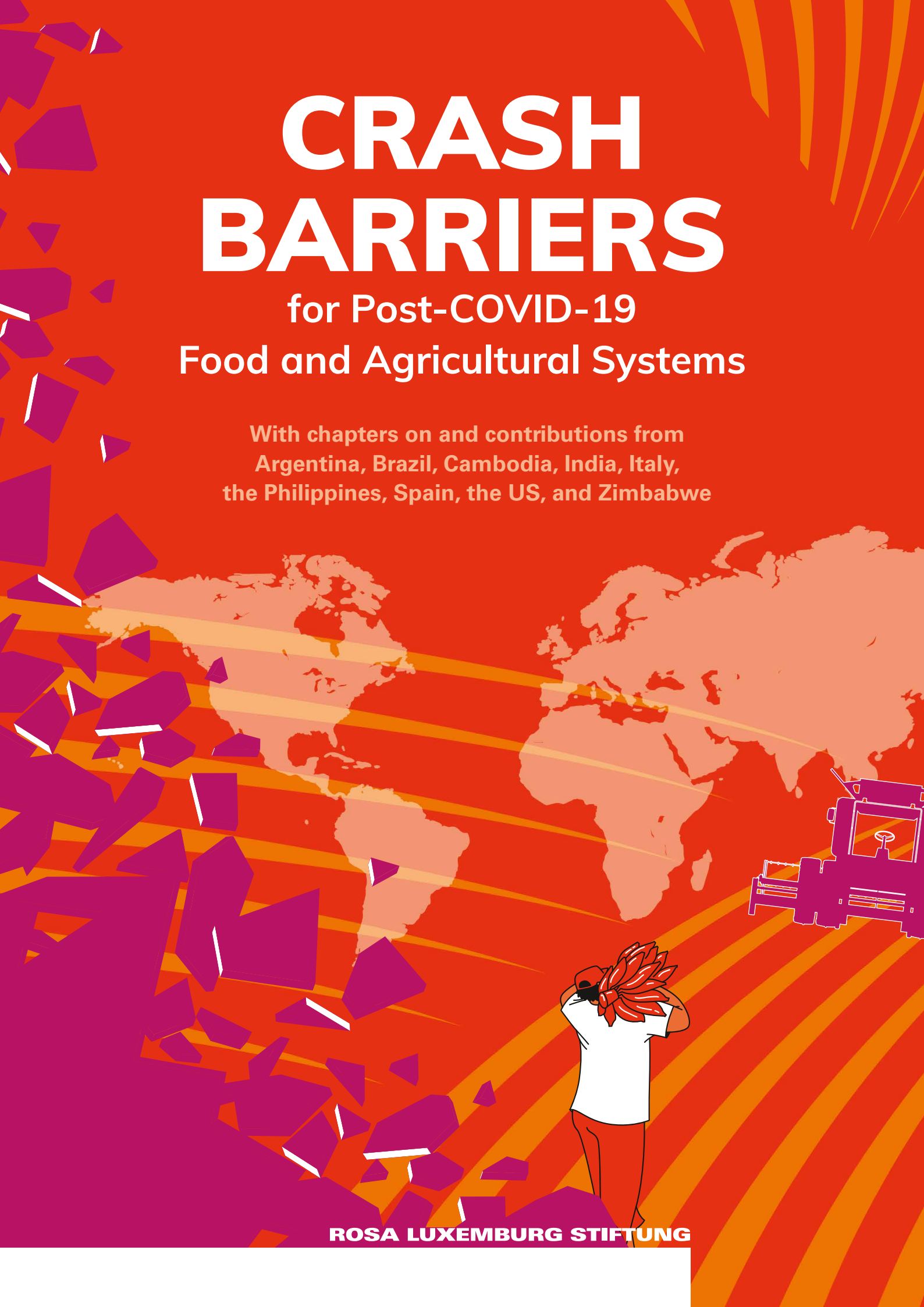


CRASH BARRIERS

for Post-COVID-19
Food and Agricultural Systems

With chapters on and contributions from
Argentina, Brazil, Cambodia, India, Italy,
the Philippines, Spain, the US, and Zimbabwe



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Acronyms

ABS	Access and Benefit Sharing
AFSA	Alliance for Food Sovereignty in Africa
AGRA	Alliance for a Green Revolution in Africa
AI	Artificial Intelligence
AMS	Aggregate Measure of Support
ARIPO	African Regional Intellectual Property Organization
CAP	Common Agricultural Policy of the European Union
CBA	Canasta Básica Alimentaria
CCFC	Coalition of Cambodian Farmer Community
COFCO	China Oil and Foodstuffs Corporation
CSA	Community Supported Agriculture (US)
CSA	Climate-Smart Agriculture
CSB	Community Seed Banks
CSO	Civil Society Organization
EBIA	Escala Brasileira de Insegurança Alimentar (Brazilian Household Food Insecurity Measurement)
ELC	Economic Land Concession (Cambodia)
ETC	Erosion, Technology and Concentration Action Group
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FCI	Food Corporation of India
FFS	Farmer Field School
FPO	Farmer Producer Organization
GMO	Genetically Modified Organism
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
IMF	International Monetary Fund
INDEC	National Institute of Statistics and Census of Argentina
IoT	Internet of Things
IPR	Intellectual Property Rights
KMP	Kilusang Magbubukid ng Pilipinas
KSG	Kelly Street Garden
MSP	Minimum Support Price (India)
NFSA	National Food Security Act (India)
NFSW	National Federation of Sugarcane Workers
NGO	Non-Governmental Organization
OMM	Odisha Millets Mission
PDS	Public Distribution System (India)
PKH	Ponlok Khmer
PPB	Participatory Plant Breeding
PVE	Participatory Variety Enhancement
PVS	Participatory Variety Selection
SADC	Southern African Development Community
SAT	Sindicato Andaluz de Trabajadores
SOC	Sindicato de Obreros del Campo
TBB	Total Basic Basket
TLE	Tolani Lake Enterprises
UAV	Unmanned Aerial Vehicle (Drone)
UN	United Nations
US	United States of America
USB	Unione Sindacale di Base
UTT	Unión de Trabajadores de la Tierra (Union of Land Workers)
WEF	World Economic Forum
WTO	World Trade Organization

Preface

When the COVID-19 pandemic hit, the chasms in the food and agricultural systems became plain for all to see. But even before COVID-19, the food and agricultural systems were in crisis: millions of people were hungry, there was a loss of biodiversity, climate change impacts were devastating, and labour conditions appalling. So, how do we do things differently to guarantee a different outcome in a world beset by seemingly insurmountable challenges and faced with a lack of strong political leadership, as well as collusion, corruption, authoritarianism, and theft, especially in times of crisis?

The authors of this publication present alternatives for post-COVID-19 food and agricultural systems from a politically-leftist perspective and discuss the impacts of the pandemic with a focus on small-scale food producers who feed the majority of the world's population, and the invisibility of farmworkers that grow, pick, and pack the food sold in supermarkets and other food retail outlets. By documenting the impacts of the COVID-19 pandemic on our food systems in different regions across the world, the publication aims to provide an account of the nature of the prevailing food systems globally and their outcomes, and reflect upon the experiences and perspectives of the hardest-hit communities within rural and urban settings.

The publication is a result of the collaborative efforts of the Agrarian Politics Working Group of the Rosa Luxemburg Stiftung (RLS). The content for this joint publication was facilitated by a number of RLS regional offices and authors from several countries including Argentina, Brazil, Cambodia, Germany, India, Italy, Mexico, the Philippines, South Africa, the US, and Zimbabwe.

The scope and focus are two-fold. COVID-19 exposed to an even greater extent the highly concentrated and inequitable distribution and commercialization of food. Therefore, the articles featured in this publication firstly analyse the impacts of the COVID-19 pandemic on access to food, and secondly, examine how the pandemic laid bare the deep contradictions in agro-food chains from multiple perspectives. The articles observe the socio-economic impacts, the assault on farmworkers, violations of the right to food, the aggressive hijacking of food production and commercialization by large corporations, levels of

concentration in food systems, unfair food pricing, incoherent food policies, the role of social organizations that produce and distribute food, and the role of the state. Interestingly, the experiences of social movements and peasant organizations during the pandemic show that different food systems are necessary and possible. A beacon of hope amidst the doom and gloom surrounding COVID-19 is the realization that a sense of community, care, and reciprocity is critical to sustaining life. The articles provide glimpses of what post-COVID-19 food and agricultural systems might look like by exploring the steps and strategies that would be required to bring about this change. In addition, the authors uncover the risks and dangers of corporate domination over our food systems.

As the RLS Agrarian Politics Working Group, we trust that the experiences and responses documented in this publication are useful to activists, civil society organizations, and social movements in the continuing struggle for food sovereignty. No doubt the responses from below will stimulate critical debate among policymakers to challenge the hegemonic food system and prompt the mindful contemplation and swift implementation of alternative food systems. On the occasion of the United Nations Food Systems Summit (UNFSS) 2021, we hope our contribution strengthens counter-narratives to food systems that have been increasingly captured by global capital.

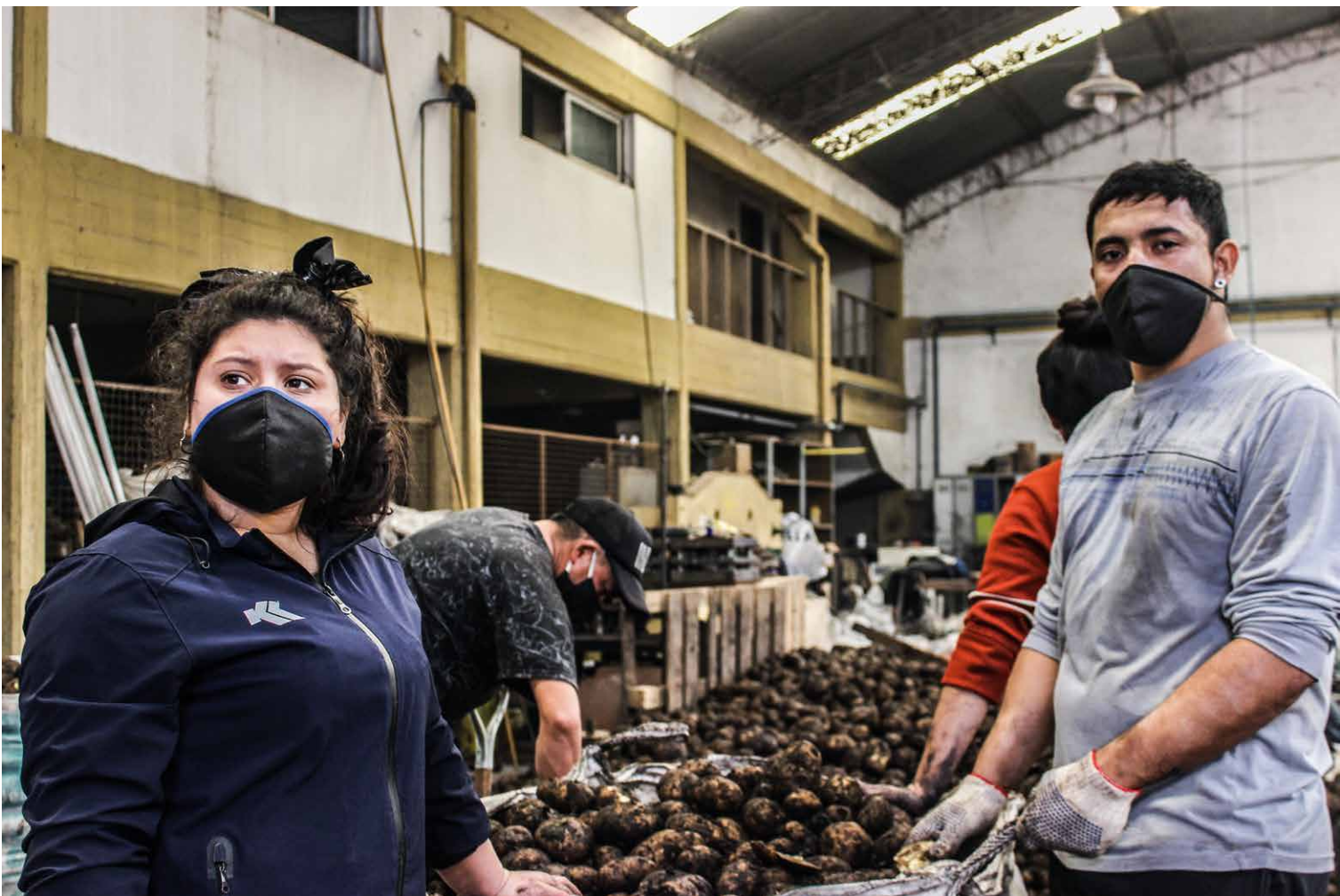
We also pay tribute to all small-scale food producers, farmworkers, communities, activists, and social movements in rural and urban areas across the globe who fight the corporate-dominated food systems, sometimes risking life and limb to do so. They are proof that real transformation of food and agricultural systems is possible. The UNFSS-proposed technical fixes to a broken system that mainly serve the interests of the rich and powerful are untenable and will never alleviate poverty or allow nations to attain food sovereignty.

In solidarity,

Jan Urhahn (RLS Southern Africa), Nadja Dorschner (RLS Germany), Patricia Lizarraga (RLS Southern Cone), Refiloe Joala (RLS Southern Africa), Verena Glass (RLS Brazil and Paraguay), and Vinod Koshti (RLS South Asia). On behalf of the Agrarian Politics Working Group of the Rosa Luxemburg Stiftung.

1. Preventing the Next Pandemic

Introduction



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Potatoes for community kitchens, Buenos Aires, Argentina

Silvia Ribeiro is the Latin American Director of the Action Group on Erosion, Technology and Concentration (ETC Group) based in Mexico. She is a journalist and researcher, and a well-known lecturer and educator on the impacts of new technologies on societies. She collaborates with many Latin American organizations and social movements. With ETC Group, Silvia has participated, as a civil society delegate, in a good part of the negotiations of the UN treaties on biodiversity, food, climate, and the environment.

Like being hit over the head. That is probably how many of us would describe our experiences over the last year with the COVID-19 pandemic and its economic fallout that forcefully reshaped our lives and communities through disease, death, and extensive hardship. With the recent resurgence of the virus, with increasingly virulent variants and further lockdowns, there appears to be no end in sight.

Nevertheless, in this publication, we find extraordinary testimonies that reveal solidarity, resilience, and examples of ingenuity and collective innovation in the face of this disease and upheaval. The authors provide evidence of the existence and growth of myriad paths towards just, safe, diverse, and ecologically-fair food systems. Change is in the air.

However, we also learn about the corporate context and technological undercurrents that were already in place before the pandemic, and which have enabled giant global companies in certain sectors to reap huge rewards on the back of the COVID-19 crisis.

Could the Pandemic Have Been Avoided?

Shockingly, the emergence of a global pandemic was a tragedy foretold. Different United Nations agencies, including the World Health Organization (WHO), issued warnings about this risk for some time, especially about zoonotic diseases stemming from animals. There have already been several severe epidemics that have swept across some regions of the world, and even another pandemic (swine influenza, later called H1N1). The WHO predicted that H1N1 could have a global reach although, unlike COVID-19, it eventually dissipated.

Just a few weeks before COVID-19 was declared a pandemic by the WHO, a group of powerful corporate-linked institutions organized a “global pandemic exercise”. Held at the end of 2019, it was hosted by the Johns Hopkins Bloomberg School of Public Health together with the World Economic Forum (WEF) and the Bill and Melinda Gates Foundation, and included invited CEOs, philanthro-capitalists, and some government officials. According to the organizers, “the exercise illustrated areas where public-private partnerships (PPPs) will be necessary during the

response to a severe pandemic to diminish large-scale economic and societal consequences”.¹

Within months, many PPPs were implemented, but not to diminish the consequences. As we can see from the examples narrated in this publication, these companies and governments never intended to support public healthcare for prevention, help communities become more resilient, or improve people’s immune systems. Instead, they opted to use the pandemic to advance privatization, establish new markets for digitization, and implement other risky but profitable new technologies. In short, so far there has been no attempt to address the root causes of pandemics to stop future ones.

Studies by UN organizations and entities have shown that the conditions generated by the industrial agricultural food system, especially its large and growing confined livestock feeding operations, triggered previous avian and swine flu outbreaks.

Companies and powerful governments have avoided any measures that might challenge their business models, even though they knew about the underlying cause of epidemics and pandemics. Studies by UN organizations and entities have shown that the conditions generated by the industrial agricultural food system, especially its large and growing confined livestock feeding operations, triggered previous avian and swine flu outbreaks.²

Although various factors converged to make COVID-19 a global disaster—including the lack of and/or collapse of public health systems in many countries—the key backdrop was, and continues to be, the industrial agricultural food system and its associated impacts in terms of weakening animal and human immune systems and devastating ecosystems.

The COVID-19 Pandemic and the Industrial Food System

The industrial food system as a whole, from agricultural production (including livestock breeding) to food processing and supermarket sales, plays a key role

in the emergence of epidemics and pandemics because of several interrelated aspects. This is partly because it is the main generator of mutant viruses and antibiotic-resistant bacteria in large, confined livestock facilities; and partly because fodder and pastures for industrial animal husbandry occupy most of the planet's agricultural land and are the drivers of deforestation and the destruction of wild habitats. This displaces wild animals, such as bats, that may be carrying viruses that would not otherwise have been a danger to humans.

remaining deaths are caused by infectious diseases.³ Among the latter, about three quarters of emerging human infectious diseases are of zoonotic origin, and most of them are related to confined livestock breeding.⁴

Large concentrations of overcrowded, genetically-uniform animals with weakened immune systems which receive regular doses of antibiotics form the breeding ground for the mutation of viruses and antibiotic-resistant bacteria. According to the WHO, this is the main cause of the growing global resistance to antibiotics: about 80 percent of all antibiotics used globally are applied in industrial animal husbandry and most are given to promote growth, not to treat disease.⁵ Confined-space breeding facilities have increased rapidly over the last two decades because they are big business for companies and investors. These installations are also closely connected to international trade routes because many of the animals are grown for export. Their main fodder types, including transgenic soybeans and maize, are also generally produced in one country for export to another. Expanded global trade accelerates the spread of mutant viruses and resistant bacteria.

Devastation of Ecosystems

The relationship between industrial agriculture/factory farming and epidemics/pandemics extends beyond large-scale pig and poultry farms, even though these are at the epicentre. Central to this is the destruction of the natural habitats and biodiversity that would have functioned as barriers to contain the spread of viruses in wild animal populations.

The industrial agricultural food system plays a key role in the destruction of biodiversity and thus wild animal habitats. According to the UN Food and Agriculture Organization (FAO), the main cause of deforestation in the world is the expansion of the industrial agricultural frontier.^{6,7} In Latin America, it causes more than 70 percent of deforestation and in Brazil up to 80 percent.⁸ Furthermore, about 70 percent of all the agricultural land on the planet is used by the large-scale livestock industry, either for pasture or fodder crops. And more than 60 percent of the cereals grown globally are for confined animal feed.⁹

The industrial agricultural food system also converges with other concomitant causes of environmental devastation. Industrial developments include



© Landless Workers Movement (MST)

Solidarity is key

Additionally, the industrial agricultural food system is directly related to environmental pollution and the production of highly processed and unhealthy food, which leads to comorbidities that weaken the immune system and make the population more vulnerable to epidemics. These could be chronic conditions such as diabetes, hypertension, cardiovascular disease, digestive cancers, and kidney diseases—all within the context of a global epidemic of both obesity and malnutrition. All these are high-risk factors for disease severity and mortality, as in the case of COVID-19.

The WHO attributes 74 percent of the global top ten causes of death to non-communicable diseases, including those mentioned above, while most of the

The majority of official responses to the pandemic have so far focused on emergency responses (where resources exist) and narrowly-conceived, corporate-dominated technological solutions, which do not in any way challenge or remedy the origin of the pandemic.

uncontrolled urban growth, mega-projects such as mining, power plants, and dams, large tree and crop monocultures, and new highways and transportation corridors.

Thus, the industrial agricultural food system and related destruction have become a ticking time bomb threatening an explosion of more epidemics and pandemics in the future. For the health of the people and the planet, this system has to be stopped.

Ways Forward

The COVID-19 pandemic has imposed, and continues to impose, devastation and hardship on people across the world. Demystifying and exposing how the industrial agricultural food chain causes pandemics is essential to our future health and wellbeing.

The majority of official responses to the pandemic have so far focused on emergency responses (where resources exist) and narrowly-conceived, corporate-dominated technological solutions, which do not in any way challenge or remedy the origin of the pandemic.

We must not let these concerns be marginalized. We need to take every opportunity to emphasize the roles that the industrial agricultural food system, and the corporations that control it, play in the present crisis. We must control and prevent these corporations from continuing to invade more and new aspects of our daily lives, including the food we eat and our health.

The human body's ability to fight disease and maintain good health depends on the resilience of an immune system that is fuelled by a balanced diet.

The corporate commoditization of food impedes fair access to food that is nutritious, safe, diverse, locally produced and consumed, and, most importantly, free from agrochemicals, additives, and industrial processing.

Fortunately, peasant food networks continue to provide food to at least 70 percent of the global population, despite having less than 25 percent of the land and water.

Agrarian reform is key for peasants and rural workers to have enough land and other resources to ensure more and better food for all.

To affirm our right to nutritious and safe food, these networks need to be strengthened and supported, both by way of public policies and other instruments that support diverse agroecological smallholder food production. As exemplified in the following articles, we need public policies that affirm other aspects of the common good, including practical and enforceable regulatory measures and boundaries that limit and monitor the operations of food and agricultural corporations. Public policies that create and/or strengthen effective protection of human and labour rights for all, including migrant and rural workers, that support the work of traditional and peasant communities and marginalized Black and Indigenous people, and that stop gender and racial discrimination.

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The Push Towards an Oppressively Bleak Future and Responses from Below

2. Agriculture 4.0: A New Dystopia of the Corporate Matrix

3. Farmer Seed Systems Feed the Future

**The Push Towards
an Oppressively
Bleak Future
and Responses
from Below**

2. Agriculture 4.0: A New Dystopia of the Corporate Matrix



Drones monitoring cotton fields

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How is agriculture, a primary sector of the economy, being aligned and merged with Industry 4.0, which is characterized by a fusion of technologies that blur the boundaries of the digital, physical, and biological? Agriculture 4.0 at scale is set to transform agricultural production into a next-generation, high-tech, global manufacturing platform driven by 5G technology. However, much remains unclear and uncertain for the millions of small-scale food producers around the world who are supposedly among the targeted users and beneficiaries of this agricultural and rural digital transformation.

Going digital promises a new 'farming management model' in which observing, measuring, and responding accurately to specific and localized needs will result in increased productivity and improve environmental sustainability by applying precise ratios of irrigation, artificial fertilizers, nutrients, pesticides, and so on. Big Tech giants and agribusiness corporations are in cahoots to promote this model of production within the context of climate change, sustainable development, and global policy frameworks and initiatives, all the while aligning it to international finance. Despite the lack of significant emissions from industrial sectors in countries of the Global South, the Agriculture 4.0 model is being advanced as a way to bridge and align climate and development goals. Climate actions (adaptation and/or mitigation of greenhouse gases) could be hijacked and used as an entry point for introducing and driving the 'transformation' of forests and land use patterns, including agricultural land.

From GMO Crops to Data Crops

The idea of using information technology (IT) for 'precision agriculture' gave rise to Agriculture 4.0, which is being presented as a more cost-effective, environmentally-friendly, scientific, and data-based farm management model. This framing reduces the true costs of industrialized agriculture to the environment and human health to an issue of quantity, whereby the problem lies not in the promotion of monocultures that require chemical fertilizer and pesticides to increase agricultural yields, but rather in how much synthetic fertilizer and pesticides are applied at farm level. Building on previous incarnations of agricultural transformations, the promotion of environmentally-friendly food production through 'precision agriculture' perpetuates an old and false idea that improving agricultural productivity and increasing production yields will end world hunger and food insecurity.

What is 'precision' farming? It took off in the late 1990s when agricultural machinery manufacturer John Deere hooked tractors up to GPS, a relatively new technology at the time, and advertised this with the line "information is your new crop!"¹

Commercially available at scale since the early 2000s, this generation of machinery-embedded digital technology combined GPS location data with readings from sensors and satellite information that was capable of determining the crop yield on different parts of the field, measuring and distributing inputs and irrigation, taking soil samples, and measuring productivity, among other functions. This technologically-enabled approach was key to legitimizing the promotion of a highly mechanized no-till agriculture package. The package was a combination of first-generation biotechnology combining genetically modified organism (GMO) seeds with pesticides as a science-based and accurate management model. Because it uses no-till machinery, it was labelled and publicized as 'conservation agriculture'.

However, 'precision agriculture', which started two decades ago, is part of a larger plan to restructure agricultural production by harnessing the global interconnectedness of territories and trade liberalization that has led to increasingly-globalized food supply chains embedded in corporate agriculture and food production. 'Precision agriculture' was a key technology in the consolidation of the soy complex in the Cono Sur (Southern Cone), combining Brazil, Argentina, and Paraguay. By and large, due to biotechnology and no-till machinery, soy production increased exponentially, creating a huge export-based monoculture enclave. In Brazil alone, the area covered with soy monoculture in 2021 was estimated to be 38.1 million hectares²—an area larger than Germany (35.7 million hectares).³

Technology-Driven Farming

'Smart farming' is now the buzzword and the progression of 'precision agriculture' that took off after 2010 with the large-scale commercialization of sensors designed for use in the fields and increasingly-mechanized farming practices. Digital technologies, georeferencing, and management software made existing agricultural machinery 'smart' by integrating data management systems to facilitate planning, and emphasizing the importance of generating, collecting, and analysing data to improve the various stages of the production cycle. These new technologies allow rural enterprises to obtain accurate,

real-time information about their crops or herds, and link on-farm production with global climate concerns and performance metrics—such as ‘low carbon commodities’. Weather forecasting, insurance, and access to potential markets for environmental services, such as carbon, are also possible. Yet, the demand for nitrogen fertilizer in North America,⁴ for instance, has not declined despite the high adoption rate of smart agriculture technologies such as soil mapping and variable rate fertilization.⁵

By harvesting data about the environment (such as atmospheric carbon absorption) supposedly provided by the agricultural sectors, and once properly quantified and monitored, it would be possible to monetize these services as ‘new crops’. The consolidation of potential environmental services generated through agricultural systems has been underway for some time now through eco-schemes for environmental services and direct payments to farmers that engage in more ‘environmentally friendly’ practices.

The convergence of agriculture and digitalization is embodied in the concept of Climate-Smart Agriculture (CSA).⁶ According to the Food and Agriculture Organization of the United Nations (FAO), CSA “is an approach that helps to guide actions needed to transform and reorient agricultural systems to effectively support development and ensure food security in a changing climate. CSA aims to tackle three main objectives: sustainably increasing agricultural productivity and incomes; adapting and building resilience to climate change; and reducing and/or removing greenhouse gas emissions, where possible”.⁷ Civil society argues that CSA, under the pretext of climate protection, threatens to cement existing power imbalances in the world food system and industrialized and globalized agricultural production. CSA opens the door for powerful agro-food corporations to declare their harmful practices as part of the solution.

‘Precision agriculture’ was a key technology in the consolidation of the soy complex in the Cono Sur (Southern Cone), combining Brazil, Argentina, and Paraguay.



Soy farms destroying the Amazon Rainforest in Pará, Brazil

© Verena Glass

On the flip side, Agriculture 4.0 also relies heavily on the potential of synthetic or engineering biology (used for example to produce protein alternatives, such as meat and dairy analogues from plants or synthetic, lab-grown meats) and gene-editing technologies. This means one level up from ‘old fashioned’ genetic-engineering: technologies now allow for the ‘editing’ and reprogramming of the function of living organisms (as enzymes and microbes for fermentation in food and beverage production), which could also go to applications such as the biological control of plagues or the bioremediation of soils.

FinTech Innovations

The Agriculture 4.0 toolbox has the potential to systematically transform agro-food systems by introducing new forms of FinTechs (to access finance/investors, credit, and markets from the farm using phone apps and, potentially, directly establishing public-private partnerships [PPPs]), and remote and online rural extension services. These apps include: interactive online shopping options for pesticides, which allow farmers to send photos of infected plants to determine the most suitable product; Uber-like companies for machine-sharing; trading platforms with consumers; and futuristic visions of urban and peri-urban vertical and soilless agriculture in high-tech greenhouses or artificially-lit containers. New warehouses for artificial and highly-controlled environments for food production are being promoted, for example, as the answer to securing environmentally-sound and local fresh

food production around big cities, and as a way to drastically reduce water use, carbon footprint, and even eradicate pesticides.

Agriculture in the Era of Surveillance

The digital 'revolution' offered by the Agriculture 4.0 model relies on many disruptive technologies capable of significantly altering the way a sector, industry, or consumer operates, and potentially creating new markets, new supply chains, or acting as a force of change in the global economy. Consequently, Agriculture 4.0 is expected to incorporate cloud computing, artificial intelligence (AI), blockchain, the Internet of Things (IoT), augmented reality, smart contracts, sensors, robotics, self-driving vehicles, and drones.

Drones

Civilian use of unmanned aerial vehicles (UAVs), more commonly known as 'drones', has gained traction with both consumer and commercial users in recent years, and it is expected that they will be adopted in all forms of agriculture. Drones would be at the forefront of a technological revolution with the smart-intensification of agriculture, providing faster, cheaper, and more efficient sowing and crop-dusting than could be achieved using human labour.⁸

According to the mainstream narrative, using drones, farmers could optimize the spraying of pesticides in areas that need treatment, significantly reducing the quantity used, reduce water consumption, control crop quality, and reach areas previously inaccessible with traditional farming tools.⁹ They will appeal to the younger workforce in agriculture with its appetite for gadgets (phones, tablets, drones, virtual reality [VR] glasses, etc.), as a way to incorporate 'gaming' into food and farming routines. Estimates are that drone use in agriculture will account for about 80 percent of the total UAV retail market.¹⁰

From a more critical perspective, however, drones provide an ideal form of 'workforce' surveillance under the pretext of 'civilian' use. Drones are already being used to monitor rice paddies, for community monitoring of forests, or to patrol wildlife in parks and buffer zones between protected areas and farms. However, the uptake of drones, particularly

by industrial farmers in the absence of adequate regulatory frameworks, poses risks relating to privacy and trespassing. While current AI technology in drones is more suited to monoculture farming, the development of drone technology has enabled data collection on smaller plots for a selected few crops including rice, beans, and maize, and is packaged for small-scale producers through development initiatives.¹¹ Over time, this data is likely to be sold to small-scale producers along with the package of industrial seeds and chemical inputs that have already entrapped them in vicious debt cycles. Furthermore, drones are also used in mapping, conducting research, and monitoring to measure carbon emissions and the payment of other levies for environmental services projects. They have the potential to cause conflict, for example in protected areas where carbon project schemes are created in contested areas or infringe upon Indigenous or traditional community land.

Comprising technologies developed to stimulate intensive large-scale agriculture, the Agriculture 4.0 technological package facilitates the rapid expansion of commodity monocultures (soybeans, corn, cotton, etc.), which are rapidly encroaching on areas of small-scale food production, in violation of the human right to adequate food and food sovereignty in general.



Vast tracts of land grabbed from traditional communities for oil palm plantations in the Amazon, Brazil

The Threats to Food Sovereignty and Autonomy

The Agriculture 4.0 model is highly controversial worldwide.¹² Agriculture 4.0 inextricably links Big Ag and Big Pharma with the all-powerful Big Tech corporations, ushering in different types and degrees of vertical and horizontal integration in agriculture, subsumed by privately-controlled arch-infrastructure (5G and satellites), threatening global food production. Comprising technologies developed to stimulate intensive large-scale agriculture, the Agriculture 4.0 technological package facilitates the rapid expansion of commodity monocultures (soybeans, corn, cotton, etc.), which are rapidly encroaching on areas of small-scale food production, in violation of the human right to adequate food and food sovereignty in general.¹³

Technology is expensive so to achieve a return on investment, in countries such as Brazil, for example, the value of land has increased exponentially. This situation is prompting land theft/grabbing (including the invasion of conservation areas and forests, causing mass deforestation), severe agrarian conflicts, the expulsion of traditional populations from their territories, and is compounding a global trend of profit over land and agriculture.

Transformation in agriculture needs to be considered as a combination of three facets currently prevalent at this stage of capitalism. Agriculture 4.0 combines:¹⁴

- dematerialization (where marketing costs, packaging, return on financial investment, etc. are the underlying factors that influence and ultimately determine the final price of food);

- digitalization (with bio-informatics and patents on genetic sequencing, for example); and
- financialization (that has transformed land and food into assets for speculation, driving land grabbing and increasing rural conflict).

Agriculture 4.0's highly digital model claims to optimize all farming inputs and, in so doing, offer a solution to climate change, or at least mitigate the risks associated with it. For example, insurance schemes would support farmers using a specified technology (and no other resources because they would be viewed as not 'evidence based'). We can envisage situations where traditional small-scale food producers are accused of wasting water and increasing (or not reducing) emissions because they cannot, or will not, use expensive technology to avoid becoming indebted. Unable to show 'transparency' or 'full traceability' of their products, small-scale food producers may be forced to integrate into medium and large production companies or new forms of contract farming to bring their produce to market, or be sidelined by ever-increasing sustainability-conscious urban consumers.

What about access to digitalization for small-scale food producers and workers along the industrial food chain worldwide?¹⁵ This is imperative because de facto trade has migrated greatly to online processes (supported, for example, by payments using phone apps for cash transfers). Since the outbreak of COVID-19, certain existing trends have accelerated exponentially, such as the expansion of e-grocery and food delivery services like Uber Eats and Amazon Fresh, among others. Apps such as Getir (Turkey), Gorillas (Germany), and Dija (UK) promise delivery within ten minutes, for example.¹⁶ These changes in consumer behaviour and habits in cities, along with dependence on increasingly-precarious jobs in the food-grocery delivery market, are not likely to abate.

Advertised as a formula to promote the shift to restorative/regenerative agriculture, but requiring high-tech equipment which is exorbitantly expensive and requires large investments and bank loans that are inaccessible to small-scale food producers, Agriculture 4.0 renders the ancient food production practices of traditional communities obsolete, inadequate, and disposable or undesirable. There is a very real threat that humanity's centuries of learning about how to deal with the earth and the relationship between humans and nature could be lost in this process.



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An Indigenous man in Mato Grosso do Sul, Brazil symbolically defending community land from a land grab for industrial corn production

Falsely framed as a ‘nature-based solution’ to climate change, there are proposals such as laying land aside for restorative or rewilding purposes—in many cases even using agricultural land—for tree plantations to sequester carbon in exchange for eco-payments to farmers. These proposals must be gauged alongside other social dynamics and how outcomes will impact food sovereignty and local food production.

Within the context of landscape restoration, rural practices could shift from agricultural production to nature conservation, while cheaper food could be imported or produced elsewhere. However, there is the risk of creating patterns of dependency, loss of food sovereignty, and economic dynamics that erode conditions for change.

What is the Post-COVID-19 Scenario for Agriculture 4.0?

- **There will be more talk about food systems transformation.**

Global economic recovery has hastened broader conversations about an economic reset, ‘build back better’, and Green Deals. Agriculture 4.0 has become synonymous with food systems transformation.

- **Land and agriculture will be used as a quantifiable and verifiable way to show climate change action.**

Land and agriculture for climate action has emerged as a key theme in the political agenda as a way to produce quantifiable and verifiable mitigation and/or adaptation outcomes post-COVID-19. Hence the great emphasis lately on the challenge to transform global food systems and, in this context, the animal protein industry. Landmarks in the current stage of the debate were the release of scientific estimates attributing between 21–37 percent of net global anthropogenic emissions as directly or indirectly related to the global food system, according to the IPCC Special Report on Climate Change and Land, released in August 2019.¹⁷

- **Food systems will be reformed (from production to consumption, in particular, the shift in marketing and consumption trends towards healthier diets, fighting food waste, promoting transparency/traceability, etc.).**

These issues are emphasized throughout the UN/WHO ‘One Health’ agenda in a bid to fuse human, ecosystem, and planetary health given the likely zoonotic origins of COVID-19. A major target is industrial meat production and the vast impact it has on land dynamics and all related forms of environmental and social issues.¹⁸

We can envisage situations where traditional small-scale food producers are accused of wasting water and increasing (or not reducing) emissions because they cannot, or will not, use expensive technology to avoid becoming indebted.

- **Regenerative agriculture will be explored.**

Although agriculture and food systems have been identified as the main contributors to greenhouse emissions, they can also play a major role as nature-based solutions to climate change. Regenerative agriculture is possible using a variety of disruptive technologies aimed at reducing emissions from what we eat, including the following:

- **Promotion of soil carbon profit for farmers.**

Framed as a major nature-based solution to climate change, Agriculture 4.0 opens up new

frontiers of commodification, as in the case of soil carbon, which depends on the 5G infrastructure to be economically viable. At the same time, the possibility of selling soil carbon (promoted by companies such as Bayer/Monsanto, for example) is advertised as a money-spinner enabling farmers to buy the technological package and enter Agriculture 4.0.

– **Muddling corporate interests with state governance programmes on the pretext of economies of scale.** In the shift towards ‘regenerative agriculture’, Agriculture 4.0 is touted as the key to sustainability using a ‘landscape’ approach to incorporate territories at scale (from above and below) to fuse, integrate, and manage agricultural and environmental policies, and reap mutual developmental benefits. This is problematic because ‘landscape’ is being coupled with addressing problems at ‘jurisdiction’ level, in rural areas where new configurations of innovative governance models translate into advancing PPP models with corporate actors and corporate environmental and social governance programmes that threaten, weaken, and at times violate public policy at local, state, and national levels.

– **Blockchain will be used for tracking and tracing.** In this scenario, traceability and transparency for ‘deforestation-free’ and sustainable meat will probably push even harder for the adoption of tracking and monitoring schemes and technologies. Blockchain is considered a key technology to implement full transparency and traceability in global commodity chains tainted with deforestation, poor animal welfare, antibiotic usage, pesticides, poor labour practices, and so on—all production could be traced back (and monitored) from ‘Farm to Fork’. Blockchain is also strategically placed to bring new, intangible assets to market, such as soil carbon sequestration and other environmental services within the larger frame of achieving net-zero targets and decarbonization plans.¹⁹

– **Discerning consumers will be driven to expect more climate-friendly food.** The trend towards climate-friendly diets will give individual consumers a chance to politically contribute by reducing their personal carbon footprints and engage in climate action through lifestyle changes. To serve the environmentally

and socially conscious consumer who wants to buy clean and neutral brands, digitalization will be promoted further along the agriculture commodity chain and legitimized as a means of providing transparency and traceability, among other benefits.

• **Small-scale food producers left out in the cold with the advent of a digital agricultural revolution.**

Another important aspect that must not be overlooked is the transformation of rural imaginaries, associating modern and sustainable agriculture



A traditional community's land grabbed for industrial oil palm plantation in the Amazon, Brazil

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with high technology and emerging ‘techno-rural’ landscapes populated by drones, harvesting robots, monocultures under plastic greenhouses, yet uninhabited by people. In the face of this projected future, it is not only difficult to envision but entirely unclear how family and peasant farmers fit into the picture if they are unwilling to engage or partake in this techno-dystopia and what an automated agro-future means for food sovereignty.

• **Small-scale food producers will adapt and use digital tools and social media to disseminate their knowledge and practices.**

Both small- and large-scale food producers are currently using new digital technologies that are already affecting local peasant knowledge and practices. In this regard, on a positive note, disruptions in food production and distribution caused by COVID-19 led to farmer-to-consumer marketing facilitated by digital tools and social media. There are inspiring initiatives in the pipeline to promote free software for use on farms and peer-to-peer knowledge-sharing on pest control, seeds, etc.



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Small-scale food producers and Indigenous communities are so far the big losers in the digitalization of agriculture

It is unlikely that agriculture and food production can avoid being engulfed by the wave of digitalization in the global economy and at all levels of social life both rural and urban. How do we challenge and propose alternatives to confront the scale of infrastructure that is leading to global food production and distribution powered by corporations? The threats posed by corporate digital domination of food and agriculture cannot be ignored when attempting to understand and resist pervasive global capitalism. We need to know how it operates, acknowledge the dynamics at play, and seek alternatives. It is therefore paramount that rural and urban actors join forces across the entire food system.

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The Push Towards
an Oppressively
Bleak Future
and Responses
from Below

3. Farmer Seed Systems Feed the Future



© CTDO
Woman holding a tray of local farmer seed in Zimbabwe

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Seed is the foundation of life. It has been part of nature for thousands of years, starting with the domestication of wild plants for food, and nurtured by countless farmers through the ages in a careful process of observation, seed selection, and saving. The notion that whoever controls seeds controls the food system is at the heart of an ongoing and deep battle between corporations on the one side and mainly small-scale food producers on the other. Unfortunately, in many parts of the world, corporate giants are pushing farmers' seeds out of the system and replacing them with industrial proprietary seeds that are bred for large-scale industrial agriculture. Since small-scale agriculture remains the dominant form of production, the African continent represents one of the last frontiers for multinational seed companies to create and exploit new markets for their commercial seed.

The commercial seed industry underwent considerable restructuring between 2017 and 2018, with mergers and acquisitions among the top six companies (Monsanto, DuPont, Syngenta, Dow, Bayer, and BASF), creating what are now the top four seed companies. These are Bayer (merged with Monsanto), Corteva (a new firm established through the Dow-DuPont merger), Chemchina (merged with Syngenta), and BASF. They control more than 60 percent of the global corporate commercial seed market.¹ Generally, corporate seed is protected by Intellectual Property Rights (IPRs) for monopoly control and ownership of the technology. Therefore, as powerful corporations gain more ground and proliferate the African countryside through the hyper-visible promotion of, for instance, hybrid maize seed, a staple in many African diets, not only do they secure new spaces of accumulation, they effectively take control of local food production.²

However, the battle is not yet lost. The Access to Seeds Index of 2019 reveals that globally, only ten percent of the world's small-scale food producers were able to acquire commercial seeds from the world's 13 biggest global seed companies.³ Therefore, while commercial farmers in the Global North rely on brand-name seeds and the agrochemicals they require, such as artificial fertilizers and pesticides, a large majority of farmers in the Global South and Africa, in particular, still rely on farmer seed systems to access seed of their choice. According to a 2019 report by GRAIN and the Alliance for Food Sovereignty in Africa (AFSA) covering six country case studies, "many millions of small farmers in sub-Saharan Africa, most of whom are women, still supply 80–90% of all the seeds planted in Africa".⁴

Farmer Seed Systems in Sub-Saharan Africa

Despite the growth of the regulated breeding and marketing seed system, which is often referred to as the 'formal seed system', the dominant and standard system of selecting, preserving, and exchanging seeds for African farmers is through farmer seed systems, which are often subordinated to 'informality' in literature.⁵ This narrow perspective of farmer seed systems undermines the agency of farmers in managing and adapting their resources and how they have facilitated the passing down of invaluable indigenous seeds. Farmer seed systems are based on shared ideas and values, and their core function is to promote the use and exchange of seeds among farmers. Ultimately this allows them to disseminate and test their knowledge more efficiently rather than keeping it confidential. In so doing, farmer seed systems not only enable the equitable sharing of biodiversity among themselves and local communities but also contribute towards increased and diversified food production.

Key technical features that underpin and shape farmer seed systems in their multiple forms include, among others, the production of a diverse range of crops, biodiversity conservation and sustainable use, inter-cropping, and resilience-building, as they are all farmer-centric. Farmer seed systems are essential for food and agriculture, as plant genetic resources comprise a diversity of seeds, planting materials of local varieties, introductions from crop improvement programmes, and some wild crop relatives. These resources are used as food, animal feed, fibre, clothing, shelter, and energy.⁶

Farmers as Researchers

Knowledge increases by sharing it, not by withholding or saving it. And the viability of farmer seed systems relies on farmers freely sharing their knowledge primarily through tools such as farmer-managed community seed banks (CSBs), Farmer Field Schools (FFS), and diversity plots to name a few.

It is essential to facilitate a process where farmers are involved in the identification and testing of promising crop varieties. The process should include elements of joint scientist-farmer characterization, documentation, and conservation of crop diversity, based on key functional traits preferred by farmers. This should be followed by community protocols

regarding the accessing and benefit sharing of genetic resources, and registration of ecologically-adaptive farmer varieties. Farmers have accumulated knowledge from time immemorial and are experts in domesticating plant genetic resources for food and agriculture through on-farm trials in multiple

locations. Currently, farmer seed systems include many technological developments such as processes of Participatory Variety Selection (PVS), Participatory Variety Enhancement (PVE), and Participatory Plant Breeding (PPB), where farmers set the research objectives and agenda.

Key Concepts in Farmer Seed Systems

Participatory Variety Selection (PVS)

Participatory Variety Selection (PVS) is an approach and concept that offers farmers the opportunity to access a wide range of seed varieties to evaluate them in their own environments, using their

own resources, to increase productivity. By accessing advanced materials and segregating materials from public sector research institutions to plant in their own fields they observe, collect agronomic data, analyse, and select crop varieties suited to their own ecological conditions to enhance food and nutrition security, which is essential for technology adoption. They actively select suitable germplasm, set up on-farm trials in multiple locations, and identify preferred crop cultivars. These processes allow the farmers to validate the suitability, adaptability, and economic viability of multiple crop varieties. These concepts empower farmers, strengthen their technical capacity, and allow them to enter into seed sector development which is farmer-centric and demand-driven.

Participatory Variety Enhancement (PVE)

Participatory Variety Enhancement (PVE) is performed to recreate a local seed variety that has deteriorated in one or several traits or is not coping with changing growing conditions but is nevertheless highly appreciated by farmers. PVE is not only used to recreate an old variety but also to increase the productive potential of a deteriorated variety or its ability to adapt to changing conditions. Of importance is that farmers will be working with their own local varieties to improve them.

Farmer Field School (FFS)

A Farmer Field School (FFS) allows farmers to interrogate their situation and collectively find solutions to their problems. It is called a 'school without walls' as the learning sites are plots on a selected farm (that emulate the general growing conditions in the area). The learning approach is experiential, and the participants are the ones who gather data, analyse it, and draw their own conclusions. The knowledge generated from these exercises is owned by the farmers. FFS is an approach that builds and empowers communities.

Participatory Plant Breeding (PPB)

Participatory Plant Breeding (PPB) allows farmers to provide input, such as indigenous seed knowledge, and choose and change technologies to meet their ecological, social, and other requirements. Farmer-led or demand-driven crop improvement is based on the available known crop diversity, is adaptive to the ecological conditions, has genotype environment interaction over time—which provides the necessary elasticity to cope with local stresses both biotic and abiotic—and could provide food security. Knowledge management of such crop materials is inter-generationally transferred and preserved through biocultural practices. Developed knowledge libraries are shared within the gender and hierarchical community systems.

Farmers participate in agenda setting, decision-making, and understanding the key components and desired benefits of the products. The product ought to undergo multi-location variety testing in the farmers' fields to determine suitability, its adaptive complex, potential uses, storage quality, nutrition, agronomic characteristics, and pest and disease resistance. In this context, the farmers will validate the suitability, adaptability, economic viability, and social and cultural acceptability of that new variety.

Challenges to Farmer Seed Systems

The core threats to farmer seed systems are policies that impose monocultures requiring commercial seed. One variety of a single crop species planted across one field covering thousands of hectares of land renders production highly vulnerable to extreme weather events and other impacts of climate change and offers little nutrition to the soil, crops, or humans. Yet policy framing, technological advancements, and public sector institutions are besieged by this narrative as if there are no alternatives.

Powerful interests that actively promote monocultures for global markets are behind the Alliance for a Green Revolution in Africa (AGRA), created in 2006 by the Bill and Melinda Gates Foundation among others. AGRA promotes agricultural development based on adopting a package of Green Revolution technologies that include commercial seeds and the use of chemical fertilizers and pesticides. Although powerful corporations involved in farming and food have mobilized support for policy initiatives by the World Bank (Global Agriculture and Food Security Programme) and the 2014 African Union Malabo Declaration on Accelerated Agriculture Growth and Transformation, a recent study revealed that AGRA has not fulfilled its promises of higher yields and higher farmer incomes.⁷

The reason monocultures have endured is because they are profitable to the shareholders of seed and chemical industries. All seed traits must deliver on the short-term goal of 'return on investment'. These powerful industries define global perspectives and systems of food production. While the seed industry presents its interventions as solutions for both small-scale and large-scale food producers, farmers that use brand-name commercial seed end up with little or no control over their input costs and the environmental outcomes of this mode of production.⁸

Furthermore, IPRs on life forms entitle their owners to exclude others from making, using, or selling an invention for a limited period (usually 20–25 years), in exchange for publishing a public disclosure of the invention.

Plant breeders' rights (PBR) are a form of IPR regime that permits the IPR holder to sue anyone infringing on their rights.⁹ Through the International Union for the Protection of New Varieties of Plants (UPOV), established in 1961, a small group of inter-

national corporate seed producers have granted themselves the right to privatize and take control of plant varieties and exclude farmers and communities from accessing and using them freely. Strides to extend IPR legislation in Africa since the adoption of the World Trade Organization's (WTO) agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs) in 1995 have led to a push towards regional harmonization of Plant Variety Protection (PVP) systems and changes to national seed laws.¹⁰ On 6 July 2015, the adoption by member states in Arusha, Tanzania, of the Arusha Protocol for the Protection of New Varieties of Plants (commonly referred to as the Arusha Protocol) by the African Regional Intellectual Property Organization (ARIPO), marked the institutionalization of the

The question around quality seed systematically dismisses what farmers perceive as the best for their lived realities. This shows how the question of quality is indeed a relative one, contingent on agreed-upon standards.

UPOV framework in Africa. Despite well-documented criticism against PVP agreements modelled on the 1991 version of the UPOV from African farmers and civil society, regional blocks developed harmonized seed regulations. In 2017, Southern African Development Community (SADC) members adopted an SADC PVP Protocol.¹¹ The Arusha Protocol and related regional agreements and national seed law and policy amendments not only undermine existing farmer seed systems, but seek to exclude and criminalize a farmer's ability to breed, collect, and exchange seeds according to local agroecological conditions.¹²

Accessibility, affordability, sustainability, cost of inputs, and pest and disease issues are equally controlled by the private sector agrochemical industries. The push for industrial seeds and the Green Revolution package, which promotes the use of chemical fertilizers and pesticides as a vehicle to improved productivity and yields for African farmers, often centres on the notion of 'quality' seed. According to a 2019 Rosa Luxemburg Stiftung report, the question around quality seed systematically dismisses what farmers perceive as the best for their lived realities. This shows

how the question of quality is indeed a relative one, contingent on agreed-upon standards. But who gets to set them and for what reason? Industry seed standards generally do not consider criteria that may be important for small-scale food producers including the cost, the need to use chemical inputs, and irrigation to ensure desired yields.¹³

The Impacts of COVID-19

Health and food systems are buckling under the pressures of the COVID-19 pandemic. Seed and related industries were compelled to operate at reduced capacity and this fuelled increases in the cost of farm inputs. Unable to tend to their fields, gardens, and livestock, small-scale food producers across different regions faced different issues. While for some, access to markets after harvesting left farmers stuck with tonnes of grain and produce, others were not able to complete their harvesting due to labour shortages or faced reduced capacity for the new farming season. Policy and programmatic responses by African governments and the donor community tended to focus on providing corporate seeds and other inputs through multiple channels, with direct seed distribution being the most common. Programmes such as these often do not assess a farmer's choice or ideas about the factors that determine seed quality and viability.¹⁴

According to the World Economic Forum (WEF), relief organizations and governments currently represent the biggest buyers of seed in Africa, providing steady markets for the highly-concentrated corporate seed sector. The WEF highlights that seed-producing organizations and agricultural research institutes across Africa have been asked to reserve their seed for relief orders after the pandemic. In Nigeria, the government and the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) are distributing seed to 10,000 farmers to shield them from the impacts of COVID-19 and lockdown measures.¹⁵ While COVID-19 is new, seed-related aid programmes tend to be repeated rather than being one-off interventions in African disaster hotspots, chronically-stressed areas, and fragile state regions. Examples include Burundi, which has received some form of seed aid for over

38 growing seasons, Kenya, which has been an on-and-off recipient since 1992, and Ethiopia, which has received seed aid for over 42 years. Beyond concerns about creating farmer dependency and the impact of state-backed seed aid programmes on the public purse, the effects of commercial and often unadapted seed in aid scenarios can have important short- and long-term effects. Firstly, other than late and/or bad seed wasting a farmer's resources and labour in the short term, these effects can linger for many planting cycles as seed can be replanted. Secondly, repeated seed aid can significantly undermine farmer seed systems and the local seed and crop diversity.¹⁶

The impacts of the COVID-19 pandemic have highlighted the importance of local-level seed hubs and seed multiplication plots that can ensure the development of strategic household reserves and sustain localized food production and access even within the context of social crises and disasters.



Trainer explaining the Participatory Plant Breeding (PPB) process of pearl millet in Zimbabwe

Review of Corporate Interests in Seed

Countries need to take stock of the current seed policies, establish the level of corporate interest, and determine who ultimately benefits from the policies. Seed laws must benefit farmers. For instance, policy reforms need to focus primarily on national seed laws, which are essential to facilitating farmer seed

registration. The benefit must not be weighed solely along economic lines but should also consider biodiversity, social norms, adaptation to climate change impacts, and so on. Furthermore, competition commissions in African countries must play a watchdog role to ensure that corporations do not take control of the food systems. Some African countries have signed and ratified progressive global treaties and frameworks but failed to implement them. The International Treaty on Plant Genetic Resources for Food and Agriculture and the UN principle of Access and Benefit Sharing (ABS) are examples. These aspects will promote farmers' rights to save, use, exchange, and multiply farm-saved seed and create local markets for farmers.

Science Must Not Serve the Interests of a Select Few

Participatory forms of research and development are needed so that, instead of promoting 'silver bullet' solutions driven by corporations, they are driven by the needs and demands of the majority of farmers acting within the context of farmer seed systems.

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Farmer seed systems are participatory

Seed Must Remain a Public Commodity

The right to own, breed, exchange, and control seeds must never be given to the highest bidder. Seeds form an integral part of the African social fabric and farmers depend on them for their livelihoods. As such, they must never be controlled by a few entirely profit-driven interests. Instead, governments must consider strengthening farmers' rights as well as open access to localized seed banks.¹⁷ To do so, governments must ensure that they provide adequate funding to promote farmer seed systems and reject any external investments with conditions attached.

Policies Must Serve the Interests of the People First: The Fight for Land and Food Rights

4. The Role of the State in Guaranteeing the Right to Food: The Case of India

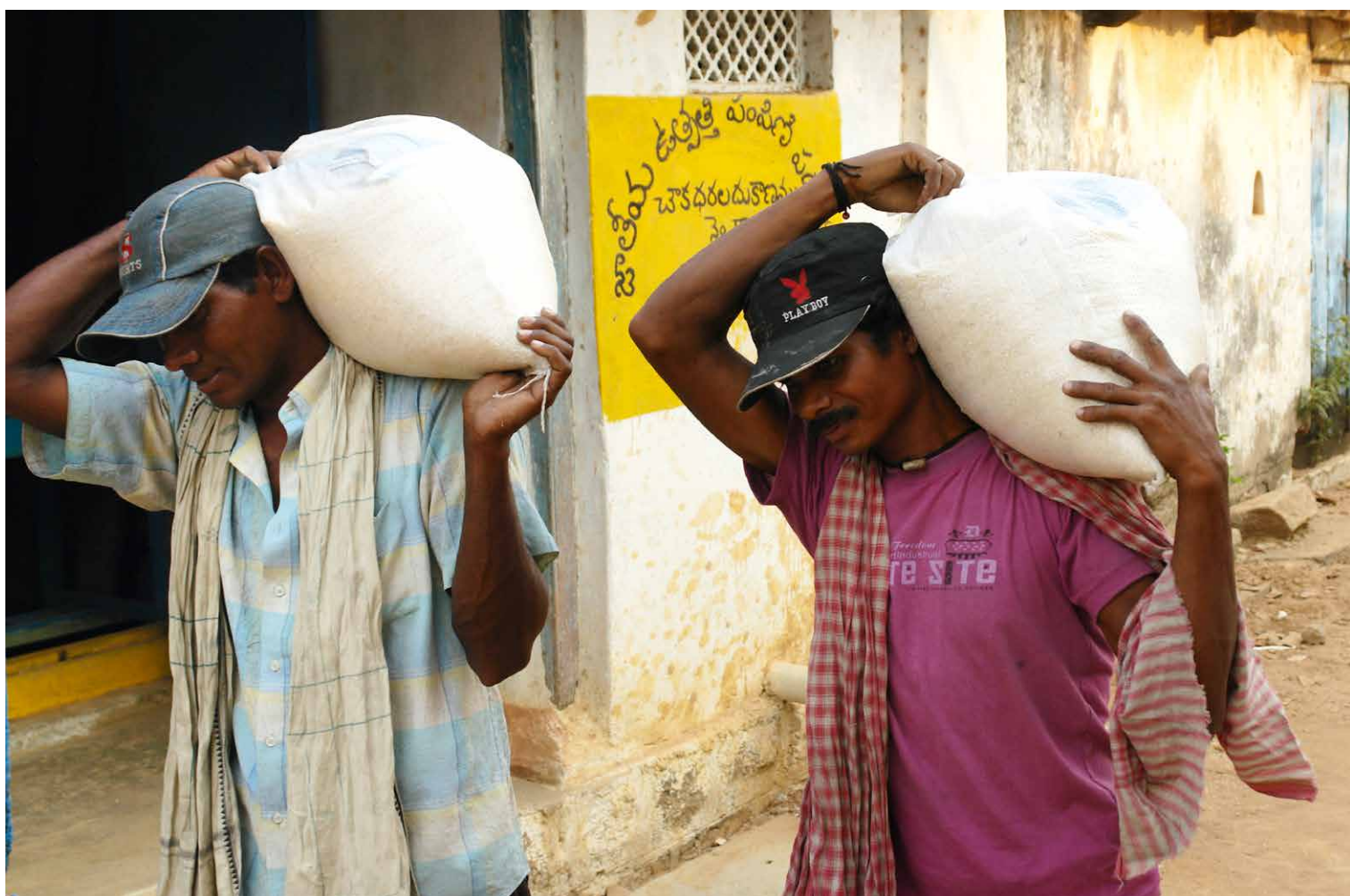
5. Cultivating Food and Social Justice in the Philippines and Cambodia

6. Transforming the Broken Food Chain into a Just Food Web: Experiences and Lessons from Asia

7. Invisible Hands: COVID-19 and Farmworkers in the European Union

4. The Role of the State in Guaranteeing the Right to Food: The Case of India

Policies Must Serve the Interests of the People First: The Fight for Land and Food Rights



Migrant workers from Odisha carrying bags of rice collected from the Public Distribution System in Andhra Pradesh, India

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Following the onset of the COVID-19 pandemic at the beginning of 2020, large sections of India's population were hard hit by widespread unemployment, loss of income, and deteriorating (and in some cases disappearing) livelihoods. The Centre for Monitoring Indian Economy (CMIE) estimated that 122 million people lost their jobs after the first national lockdown of 25 March 2020. Unemployment in the country stood at 11 percent in June 2020. The worst and deepest impact of this spike in unemployment has been on casual and migrant labourers and the landless. India's food supply system was among the most severely-impacted essential services that remained operational, albeit with a lack of certainty or guidelines from the state. Supplies of essential food items, through the state-controlled channels, were particularly affected by the restriction of movement of people and food stocks. Supply chains of perishable food items, such as vegetables, fruit, milk, and livestock products were severely impacted and food prices shot up sharply. Millions of people were left to deal with market forces and to fend for themselves during the pandemic, while the state was unable to provide social protection against the disaster.

Even as the country was slowly recovering from the impact of the first COVID-19 wave, India was overtaken by a disastrous second wave at the end of March 2021 with devastating results. India recorded as many as 400,000 COVID-19 cases daily at the end of April 2021 with several thousand deaths reported daily. The already thinly-stretched healthcare system has been under immense strain due to the sudden surge in the second quarter of the year. The surge in COVID-19 cases has led to a crisis of unprecedented proportions, which requires clear policy direction and concerted action.

Alongside the public health crisis, the national food security architecture is showing deep weaknesses and cracks. Despite rapid economic growth, the levels of adult and child undernourishment in India are appalling.¹ In a situation of such poor nutrition, the role of progressive and democratic forces is to ensure food is provided to the most vulnerable and marginalized in society. The state must be held accountable for its promises to the people, particularly in the context of a disaster like the COVID-19 pandemic. The failure of the system to protect the vulnerable should compel us to reimagine the role of public provision of food in India's food security architecture.

Public Measures for Food Security after Independence (1947)

State intervention in agricultural markets via public procurement was intended to achieve food security in the country, one of the most glorified policy goals in India since independence in 1947. The consensus was that raising agricultural production and building buffer stocks were the measures to be adopted by the state to control famines. Therefore, the idea of large food stocks became well-entrenched in India's food policy. State intervention in food production and supply was stepped up in the mid-1960s, with the establishment of the Food Corporation of India (FCI) in 1965 to enable the government to undertake trading operations through which it could influence market prices.² FCI was the agency meant for procuring essential food grains such as rice and wheat from the farmers at guaranteed minimum support prices (MSPs). Over the last few decades, with the emergence and consolidation of farmers as a strong political constituency, MSP became a major rallying point for farmer movements to negotiate with the state for fair market outcomes and more developmental benefits for themselves.³ However, one should be aware that the effectiveness of the MSP mechanism varies greatly across regions and crops.

Along with public procurement, the state played a major role in the distribution of food at subsidized prices to the poorer sections of the population through the Public Distribution System (PDS). The PDS operates through a string of 'fair price shops' spread across the country. In its initial design, the PDS was intended to keep inflation in check and keep the nominal wages of workers low in urban areas.⁴ It had a strong urban bias and was part of the 'cheap food regime'⁵ that India followed to support the massive industrialization drive that the country had embarked on since 1956. With the critical interventions by mass movements and civil society groups spanning several decades, the PDS was converted into an important right in the hands of the people.⁶ This eventually led to the adoption of the National Food Security Act (NFSA) in 2013, enshrining access to food as a constitutionally-guaranteed right. The NFSA mandated that 75 percent of the rural population and 50 percent of the urban population would be provided subsidized grain through the PDS. However, since political support for the PDS was patchy, the outreach and effectiveness of the PDS varied across regions. Historically, PDS coverage of households has been high in the southern provinces

of India whereas, in North India, participation of households in the PDS is low.

In addition to direct public procurement and distribution of food, state regulation plays an important role in India's food supply system. The regulatory role of the state was conceptualized to eliminate the unethical practices employed by traders and intermediaries who operate between the farmer and the consumer. Given that agriculture is a provincial mandate,⁷ most provinces in India passed Agricultural Produce Marketing Regulation (APMR) Acts in the 1960s and 1970s, under which regulated market spaces (called *mandis*) were set up to facilitate transactions by the farmers with traders in the presence of state representatives. Open auctions and bidding by a multitude of traders ensured competition and better price discovery by farmers. However, the coverage of regulated markets in terms of transactions is limited even today. It is estimated that in 2013, at a national level, only 25 percent of all transactions passed through regulated markets, while 56 percent were in the hands of private traders and corporate entities operating outside of the regulated markets.⁸ This reveals some deep structural issues in Indian agriculture that restrict farmer participation in agricultural markets.⁹

Public Procurement and Public Distribution

From the very beginning, public procurement of food grains in India was primarily focused on two crops—rice and wheat. The Indian state annually purchases about 45–50 percent of the marketed surplus of these crops at guaranteed MSPs. However, public procurement shows high spatial concentration. Three provinces, namely Punjab, Haryana, and Madhya Pradesh together contributed 85 percent of India's total public procurement of wheat in 2019–20. The geography of public procurement in rice is also focused on a few regions, with the exclusion of others. Strong price incentives, provided by public procurement, drive the cropping systems of many regions towards water-intensive crops. The pressure of these crop systems on natural resources like soil and groundwater has raised serious concerns about the ecological sustainability of farming in these regions. At the other end of the spectrum, the regional concentration of public procurement implied that many other regions and crops are left out and deprived of the benefits of the MSP system. The MSP mechanism must be used to shift the focus of public procurement to regions and

Switching to a more diversified public procurement will benefit millions of small-scale and marginal food producers residing in water-scarce environments and who are growing crops like millets and pulses.

crops that have hitherto been excluded. Switching to a more diversified public procurement will benefit millions of small-scale and marginal food producers residing in water-scarce environments and who are growing crops like millets and pulses.

There is an equally strong case for expanding PDS coverage so that an increasing number of families fall within its ambit. As mentioned above, the basic architecture of the PDS changed significantly with the growing popular pressure from mass movements for the right to food and universal access to the PDS as an entitlement. Though the 2013 NFSA mandates covered a large section of the population, the actual coverage of families under the NFSA was estimated to be about 950 million or 69 percent of the total population of the country in 2020.¹⁰ This still leaves about 400 million people who need to be covered under the NFSA. While the capacity for public procurement increased to 100 million tonnes in 2020, actual distribution through



Food Corporation of India storage facility

the PDS has been stuck at about 60 million tonnes.¹¹ A recent study by the National Institution for Transforming India (NITI Aayog) found that, although on average the number of households accessing the PDS had increased, the grain purchased from the PDS accounted for about 43 percent of the per capita household cereal consumption in India in 2011–12. This share could be improved.¹²

The case for state regulation is also evident. As previously mentioned, many transactions in agricultural markets are outside the purview of state regulation. The geographical outreach of regulated markets is limited and in many regions such markets are non-existent. The density of regulated markets varies from one per 119 km² in Punjab to one per 11,215 km² in Northeast India.¹³ Hence, a greater public investment is needed to create physical market spaces where farmers can get better deals, and which are closer to their farms. Typically, the points of first sale that farmers use are difficult to regulate as they seamlessly merge with non-market transactions. The farmers' bargaining power is weak in this situation. Since the agriculture sector is dominated by powerful private players, state intervention is required to improve the terms of exchange of the farmers in markets. The state's capacity to perform this role has to be considerably bigger than what it is today.¹⁴

A Changing Scenario

While the arguments above underline the need for a considerably expanded role of the state in food supply chains, the three farm acts legislated by the Union Government in India in 2020 are an effort precisely in the opposite direction. They argue for restricting and reducing the role of the state by giving greater leeway to other actors, notably the large corporate players in agricultural markets. For example, the 2020 Farmers'

Produce Trade and Commerce Act restricts the regulatory role of the state to the premises of the *mandi* (regulated agricultural market) and frees up other market spaces that are beyond the scope of regulation. The 2020 Farmers Agreement on Price Assurance and Farm Services Act provides more freedom for corporate players to negotiate contracts directly with farmers. This has created the fear of a corporate takeover of agricultural land in the minds of the farmers. Although the apparent intention is 'freeing' the farmers from bureaucratic red tape, these reforms effectively end up weakening the regulatory oversight role of the state and leave the farmer at the mercy of free-market forces.

Towards a Post-COVID-19 Progressive Food Supply System in India

What would a post-COVID-19 progressive food supply system in India look like? This article has emphasized endemic nutritional poverty as one of the prime reasons for public provision of food. The fundamental feature of a post-COVID-19 food system is that it should serve a larger number of both farmers and consumers and evolve a stronger regulatory framework for agricultural markets, especially for food. The access and coverage of small-scale food producers in state programmes can be enhanced by diversifying the system of public procurement at MSP, outside the traditional procurement states, and extending it to support farmers growing less-favoured crops in rain-fed regions. The reach of consumers and improved access of India's population to state programmes can be expanded by revamping the PDS and including nutritious cereals like millets and pulses. Public distribution can be tied to food-based entitlement programmes such as Integrated Child Development Services (ICDS)¹⁵ and the provision of midday meals in schools. This linkage could go a long way in reducing the nutritional poverty of the most vulnerable sections of society. The recently-initiated Odisha Millets Mission (OMM),¹⁶ implemented in 14 districts of the East Indian state of Odisha and reaching over 50,000 farmers, is an example of an initiative connecting procurement and distribution. Odisha has a high incidence of poor and undernourished within its population. The OMM is a government-civil society organization (CSO) collaborative programme that attempts to revive the cultivation of millets and pulses in the state and enhance its procurement at the local level. The OMM then works on the processing and marketing of millets and pulses and expands consumption by linking these



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to the PDS. This is an example for other provinces growing neglected crops to follow.

A major objection to this proposal of expanding the scope of the PDS is the possible implications it has for the food subsidy bill which already costs over USD 15 billion. However, given the dreadful levels of undernourishment in India, this is a cost that the nation must be prepared to pay. There is also the fear that much of the enhanced subsidy would be drained away through 'leakages' in the system. Recent experiences contradict this fear. The PDS has been substantially reformed in many provinces, including those such as Chhattisgarh and Odisha, where its coverage has been extremely low. A recent survey of the six poorest states in India showed that Chhattisgarh has a well-functioning, near-universal PDS which is capable of guaranteeing seven kilogrammes of food grains per person per month to rural households along with some pulses and fortified salt.¹⁷ Other provinces like Odisha and Madhya Pradesh have also reformed their PDS to keep leakages in check and deliver food to those in need of it. Such experiences show that with political will, the system can be made to serve the poorest sections of society.

Significant opposition to an expanded PDS also comes from international financial institutions like the International Monetary Fund (IMF) and the World Trade Organization (WTO). It is well known that developed countries like the US and those in Western Europe subsidize their agricultural sector substantially. However, the WTO finds India's food security system and subsidies to the poor to be 'price distorting' and has issued India directives to rationalize and reduce its Aggregate Measure of Support (AMS) to agriculture in line with levels prescribed by the WTO. Considering that, in per capita terms, the developed world's subsidies are much higher than what developing countries can afford, rolling back the food subsidy is a patently unjust recommendation. India has contested it at the WTO and the progressive forces in the country have also rejected the proposal. This means that the struggle for retaining the hard-won battles for the right to food must indeed continue.

The post-COVID-19 food supply system must also ensure an expanded regulatory role by the state. Small-scale food producers must be protected from the unscrupulous practices of private traders and corporate players and they must be ensured a fair price for their crops. While state regulation is critical, it must be expanded to facilitate the formation of small-scale

food producers into Farmer Producer Organizations (FPOs) and cooperatives to bolster their collective bargaining power. FPOs in India currently deal with a range of agriculture and livestock products and are striving to improve the terms of exchange for the farmers. These institutions of the poor still need strong policy support. Similarly, in credit markets, collectivization of the poor in the form of self-help groups can go a long way towards ensuring that adequate credit flow takes place to support farming, livestock, and other livelihood activities in rural India. They can play a vital role in restricting the scope of the deeply exploitative and interlinked modes of transactions between farmers and the informal sources of credit.

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**Policies Must
Serve the Interests
of the People First:
The Fight for Land
and Food Rights**

5. Cultivating Food and Social Justice in the Philippines and Cambodia



Cambodian farmers on a cart loaded with wood on their way home after a day of work in the field

© Carlo Manalansan

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The COVID-19 pandemic has brutally exposed and worsened the social and political fault lines in rural Cambodia and the Philippines, not to mention increasing problems such as hunger, peasant destitution, and grave human rights violations.

As the world enters an era of so-called ‘building back better’, the voices of rural food producers are crucial. To effect genuine change, peasant movements in the two countries argue that human rights, food sovereignty, Indigenous and rural people’s rights to land and resources, and sustainability should take centre stage.

Hunger Amid Plenty, Killings Amid Crises

On 7 March 2021, nine activists, including Puroy and Randy dela Cruz, two Indigenous people from the Dumagat tribe, and Ariel and Chai Lemita Evangelista, a fisherfolk couple, were gunned down by the Philippine police.¹ At least six others were arrested by the Philippine National Police in Batangas, Laguna, and Rizal. Dubbed by progressives as ‘Bloody Sunday’,² the carnage in Southern Luzon happened just two days after the Philippine President, Rodrigo Roa Duterte, said “kill them all” referring to alleged communists, and instructed the state forces to “forget about human rights”.³

These killings, according to the peasant movement, Kilusang Magbubukid ng Pilipinas (KMP),⁴ are the latest in the murderous rampage of the Duterte administration against small-scale food producers and activists in the country. Even during the first five months under lockdown, which started in March 2020, at least 190 small-scale food producers and rural activists were extra-judicially killed in the Philippines.⁵

Militarization of farming communities, rising hunger due to uncontrolled price hikes of basic food-stuffs, killings, and abuse describe the rural conditions amid the longest and arguably the most draconian lockdowns in Asia.

In Cambodia, heavy-handed measures and disruption of production have loomed over rural communities at a time when the COVID-19 cases were still reported to be almost zero. Over 50 land community representatives were slapped with trumped-up charges in 2020 with at least five farmer leaders arrested.⁶ Among those arrested was Phon Sopal, a farmer leader of the Cambodian Farmers’

Association from Choam Kravien commune in December 2020. He was charged with “conspiracy to incite serious acts of social unrest through social media”. A week later, Eng Vann, an organizer for the Coalition of Cambodian Farmer Community (CCFC), was arrested on her way home.

While the rural onslaught continues, the rising costs of rice and other staples plague the Philippines and Cambodia. Despite Cambodia being one of the top exporters of staple crops in the region, rice prices rose by a record high of 33 percent in May 2020—pushing more than half of Cambodia’s population into food insecurity. The Philippines, one of the world’s top rice importers, saw hunger rise to record levels—with 40.7 percent of its population experiencing hunger in September 2020.⁷

Blood Sugar: A Bitter Struggle for Land in Cambodia

For the small-scale food producers and Indigenous people living in Preah Vihear and Kampong Speu in Cambodia, sugar is not sweet: instead it leaves a lingering flavour of betrayal, violence, and blood.

Hengfu Group Sugar Industry, a Chinese company, operates Asia’s largest sugar mill in Preah Vihear, Cambodia. The company was granted 42,422 hectares of land through the notorious Cambodian Economic Land Concession (ELC) policy in 2011; Hengfu effectively stole the land of at least 23,000 people, including ancestral land from the Indigenous Kuy people, across 25 villages in the three districts of Chey Sen, Chhep, and Tbeng Meanchey.⁸ The Chinese company deployed numerous tactics to evict Indigenous and farming communities, including the outright flattening of their rice paddies and planting sugarcane in the presence of military and police forces. Forests, which contain ancestral relics of the Kuy Indigenous people, were also desecrated, preventing them access to cultural sites, collecting firewood, or even herbal medicines. Losing land and livelihoods forced many people to migrate while those who stayed were obliged to work for Hengfu and take on debt to survive, as they hardly ever received their full wages and never were paid on time.⁹

Similarly, Kampong Speu province in Cambodia is home to numerous farming communities, including the Suoy Indigenous community. Today, it hosts the second-largest sugar factory in Asia, Phnom Penh



The Land Concessions in Cambodia

According to figures compiled by local rights group LICADHO in March 2020, Cambodia has so far granted 297 Economic Land Concessions (ELCs)—equivalent to 2.1 million hectares

or about 12 percent of the country's total land area. The ELCs are large long-term leases that allow a concessionaire to clear land to develop industrial-scale agriculture and can be granted for various activities including large-scale plantations, raising animals, and building factories to process agricultural products. Of these concessions, Chinese firms control the largest total area of approximately 400,000 hectares, followed by those from Vietnam at more than 360,000 hectares.

The distribution of land in Cambodia has become increasingly inequitable: since the 1980s, 20–30 percent of the country's land has passed into the hands of less than one percent of the population. The average rural landholding is 1.3 hectares, and many rural households in Cambodia suffer either from landlessness or near landlessness. No reliable national data exists on the number of landless people in the country, but it is estimated that landlessness rose from 13 percent in the late 1990s to 20 percent in 2004, and between 20–40 percent of rural households were landless in 2009.

Sugar Company, owned by Senator LyYong Phat. Together with its sister company LyYong, Phat's plantation covers 22,095 hectares of land granted through the same ELC policy.¹⁰

In 2010 and 2011 thousands of hectares of land belonging to almost 1500 families spread over 21 villages in Kampong Speu were encroached upon by the sugar company, using military, police, and local authority enforcement, without any prior notice or court order.¹¹ One village, Pis, was totally destroyed and its 67 residents were forcibly relocated to small 40x50 m residential plots of rocky land at the foot of the mountain. Some of the families received nominal compensation (equivalent to between USD 25–500)

or replacement land that was significantly smaller and of inferior quality to what was taken. According to Equitable Cambodia, more than 200 families whose land was grabbed have yet to receive any compensation whatsoever.¹²

Senator LyYong Phat and company representatives have used Cambodia's notoriously corrupt courts to harass the villagers in Kampong Speu into ending their protests. At least four villagers have been jailed since the land seizures began and there are criminal charges, arrest warrants, or court summonses currently pending against at least 38 villagers.¹³

Some small-scale food producers fled, and were resettled in neighbouring villages with no land, no housing, and little to no access to water. Others were forced to buy expensive equipment through loans and adopt the new high-value crops—engaging in an endless cycle of debt and default. Ultimately, the small-scale food producers and Indigenous people became slaves on their own land.

Unsurprisingly, at the height of the COVID-19 lockdowns and trade restrictions, debt default rose among poor small-scale food producers in Cambodia, increasing pressure even on those who owned land. Some villages that plant export commodities such as corn stopped production altogether.

Furthermore, instead of providing relief to the marginalized and landless peasants as part of the government's response to the ongoing COVID-19 pandemic, Cambodian Prime Minister Hun Sen was granted extraordinary powers by a 'State of Emergency Law', approved by the Council of Ministers¹⁴ in March 2020, granting him disproportionate and indefinite power to restrict the fundamental freedom of citizens. This draconian law, proposed to militate against the spread of COVID-19, was then used to crack down on dissent and arrest activists and dissidents, including small-scale food producers who were claiming their right to land.

For over a decade, the affected communities, together with local NGOs like Ponlok Khmer, rebelled and engaged in sustained resistance to the destruction of their livelihoods and culture. They exposed the ELCs as land grabs, and demanded that ELCs be halted and that the land be returned to them. Their resistance attracted international attention and brought scrutiny to the case. Finally, the Hengfu company was compelled to shut down its entire operation.¹⁵

The Indigenous and farming communities have begun planting food crops in the land abandoned by Hengfu and other companies. Rice and root crops were cultivated to sustain their needs as well as stake their claim to the lands previously stolen from them. In other ELC areas, farmer organizations donated seeds and machinery to the Preah Vihear small-scale food producers in support of their reclamation.

People's Alternative for Land and Food in the Philippines

Negros Island, which is popularly known as the 'hacienda capital' and 'sugar bowl' of the Philippines, has also experienced its share of violence with the gunning down of dozens of small-scale food producers and farmworkers during the pandemic to suppress their resistance to land grabs.

More than half of the available agricultural land in the lowlands of Negros is devoted to sugarcane cultivation. Much of the landscape of Negros remains in monoculture sugarcane production under the control of wealthy plantation owners known as *hacendados*.¹⁶

Land grabbing since colonial times, and subsequent bogus land reforms, have condemned Negros small-scale food producers to landlessness and destitution. There are about 300,000 sugarcane workers on the Negros Island, who earn between USD 0.50–1.00 per day throughout the six to seven months of the harvest season. They are locked into a cycle of poverty, indebtedness, and physically-gruelling work. Their situation becomes more precarious during *Tiempo Muerto*, literally translated as 'dead time', a four to six-month gap between the planting and harvesting of the sugarcane crop, when farmworkers have no work or income. The steep rise in food prices has now made *Tiempo Muerto* a permanent phenomenon for the poor on the island.

With little to no support from the Philippine government, the farmworkers have started tilling idle land to grow short-term crops, a practice that has been around since 1971.¹⁷ Its current form has been practiced on Negros Island since 2009. Dubbed as *bungkalan* or 'cultivation-as-protest', landless small-scale food producers occupy barren and abandoned sugar plantations to plant staple crops such as rice, tubers, and vegetables to feed the local communities. Since then, thousands of hectares of land in Negros have become more productive under *bungkalan*.

Landlessness and Land Grabs in the Philippines

Today, despite nine post-colonial land reform programmes, landlessness persists in the rural Philippines. Of the 10.2 million small-scale food producers and farmworkers, 70 percent are landless. While considerable swaths of land have been redistributed, the most contentious private agricultural lands, which are also the most productive and fertile, remain in the hands of wealthy private landowners. There are an estimated 4.2 million small farms that average less than 1.5 hectares and 8,475 large private landholdings of up to 25,000 hectares.¹⁸ Indigenous people are marginalized and have been pushed out of their ancestral lands by the government for infrastructure projects and by private farming interests and natural resource concessionaires.

Seven out of ten rural small-scale food producers in the Philippines do not own the land they farm. Often, more than 75 percent of what they harvest goes to the landowner, a system that perpetuates an indebted peasantry, with small-scale food producers barely subsisting. Without clear land titles, it is exceedingly difficult for small-scale food producers to attain food security or invest in the long-term work of building healthy soil that draws down carbon from the atmosphere.¹⁹

While government retaliation against *bungkalan* has been harsh since the beginning, including numerous massacres, the Duterte regime has already surpassed the violence of past administrations by brutally attacking the peasant movement on the island.²⁰ In October 2018, nine small-scale food producers were shot and killed a day after they started the *bungkalan*, for attempting to cultivate 75 hectares of land inside Hacienda Nene, a plantation in Sagay City, Negros Occidental province.²¹ A year later, 14 small-scale food producers were massacred during combined police and military operations while at least 16 were arrested.

However, since the start of COVID-19, attacks have escalated, with the state using the pandemic as



a pretext to deploy more military troops to *bungkalan* areas. Trumped-up charges against the landless farmworkers of the National Federation of Sugarcane Workers (NFSW) have doubled since March 2020²² and ‘red-tagging’²³ posters have been popping up all over the rural villages.

Despite the brutal attacks, farmer movements remain steadfast in advocating for the right to food for all. Amid the looming famine in Negros, the *bungkalan* areas continued providing healthy and affordable food to communities. In North and Central Negros, *bungkalan* exists in 80 *haciendas*, benefitting 3,156 farming families.²⁴ Communal farms under *bungkalan* in Central Negros even distributed surplus produce to locked-down neighbouring communities.

However, at the height of extreme price spikes caused by lockdowns in Metro Manila, cultivators under the KMP movement opened a people’s market in the capital. KMP asserts that policies such as Duterte’s Rice Tariffication Law²⁵ pushed down rice farm gate prices to at least 60 percent below 2010 levels and small-scale food producers are losing out. With the *Bagsakan* (people’s market), small-scale food producers from North and South Luzon sold vegetables, root crops, tubers, and rice above farm gate prices but affordable to city dwellers. This demonstrates that even in desperate situations, such as a pandemic, it is possible to develop a food supply system that benefits both producers and consumers.

Solutions from Below

Peasant movements in both the Philippines and Cambodia have always claimed that the human rights to food, life, and human dignity should be the underlying principles in any transformation process.

In November 2020, peasant movement organizations in the Philippines held an agroecology festival, *Salu-salo* (eat together). It was part of a year-long campaign to prepare for a National People’s Food Systems Summit in the country in 2021. At its inaugural event, the participating organizations, including KMP, outlined longstanding proposed solutions to the hunger and human rights crises in the country.

The convening organizations stated that a genuinely redistributive land reform process is key to uplifting the rural producers and ensuring food security in the Philippines. Land reform is both imperative and

urgent. It is vitally important to dismantle the monopoly of land ownership by big landlords and distribute it gratis to landless peasants.

This redistribution of land will directly contribute towards food sovereignty as a genuine development of the agricultural sector. Food production can then be based on the principles of self-reliance and self-sufficiency. It has been noted that in areas where *bungkalan* has been implemented, peasant families can apply and develop peasant-led agroecology-based sustainable farming systems and practices. The *bungkalan* revives the spirit of peasant cooperation and solidarity.



Community consultation on impacts of Phnom Penh sugarcane plantation of LyYong Phat in Oral Kampong Speu, Cambodia

© Ang Cheatom

During the COVID-19 lockdown, KMP set up an online farmers’ market to deliver healthy and affordable produce from farming collectives in the northern provinces to urban centres. The platform has sold more than 13 tonnes of produce, including leafy greens like camote tops, snow cabbage, and mustard leaves, as well as root crops and fruit such as bananas, papayas, and avocados. The group’s efforts provided an alternative when food supply chains collapsed during the pandemic, securing resources for displaced and landless farmworkers across the country. Antonio Flores, who is involved in *bungkalan*, explains that “this is our way of ensuring that both small-scale food producers and consumers are staying healthy amid a global pandemic”.²⁶

Solidarity among small-scale food producers is also essential to preserve their role in building a climate-resilient food system and to defend peasants' rights to make the land productive for their families and the country.²⁷ Returning ancestral lands to Indigenous people, supporting Indigenous knowledge systems in farming and agroecological practices, the release of farmer political prisoners, and justice for land defenders, are some of the fundamental demands raised by the Coalition of Cambodian Farmer Community²⁸ and Ponlok Khmer²⁹ in Cambodia amid the pandemic.

To conclude, as articulated by the peasant organizations, the following are the four essential cornerstones of a post-COVID-19 food system:

1. a human rights-based approach in transforming food systems, where the right to safe, adequate, and culturally-appropriate food for everyone is central;
2. the peasants' right to land and natural resources, including genuine land reform, is important not only in securing local food supply but in exacting justice;
3. national strategies of food sovereignty and self-reliance, developing a local food production system that is free from unjust transnational land and trade deals; and
4. a radical shift to peasant-led agroecological sustainable production as opposed to corporate, chemical-intensive, and fossil-fuel-hungry production regimes.

In these uncertain times, the peasant movements in the Philippines and Cambodia remain beacons of hope that transformation for just, equitable, and sustainable food systems is possible.

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**Policies Must
Serve the Interests
of the People First:
The Fight for Land
and Food Rights**

6. Transforming the Broken Food Chain into a Just Food Web:

Experiences and Lessons from Asia

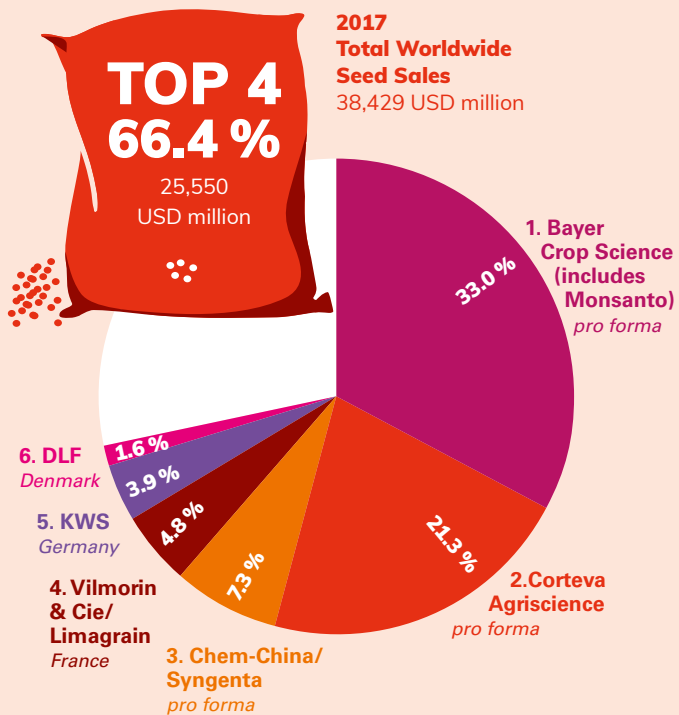
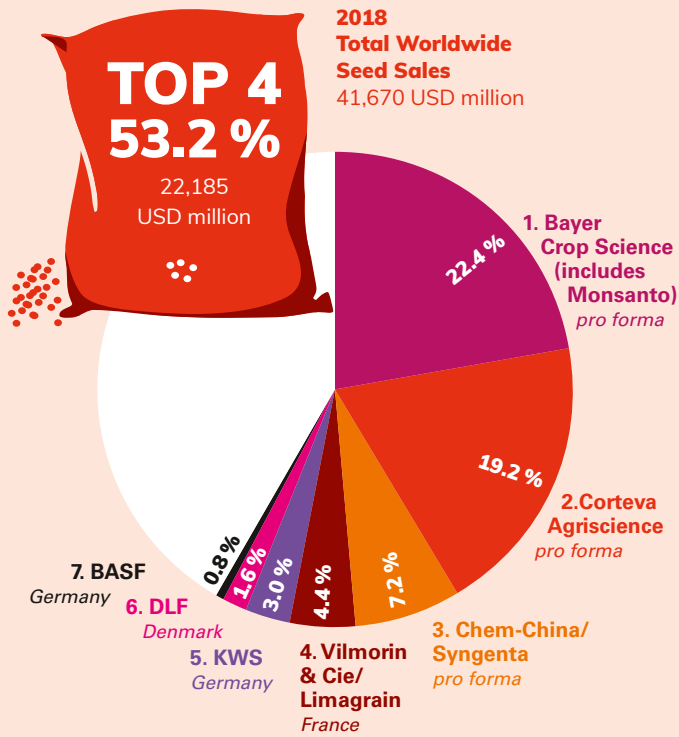


Agroecology in practice: rice terraces in Tabanan, Bali

Action Group on Erosion, Technology and Concentration (ETC Group) is an international civil society organization that closely tracks global governance of food and agriculture, and monitors new and emerging technologies, the corporate interests behind them, and their impacts on marginalized people. The ETC Group has headquarters in both Canada and the Philippines, with a presence in Mexico City and the United Kingdom.

Seed Sales of the Leading Companies

Source: ETC Group, November 2019, *Plate Tech-tonics: Mapping Corporate Power in Big Food*



Fixing the 'Broken Food System' in the Time of a Pandemic

The global food system is broken and needs fixing. This scathing diagnosis comes from both the most radical analysts¹ of the global food system and some of the most neoliberal CEOs of food transnationals² in the midst of the COVID-19 pandemic. It goes without saying that whoever writes the prescription to fix our broken food system determines who will implement the solution and how. It would be tragic if the same players who have wrought havoc on the global food system were entrusted with fixing it.

The 'broken food system' refers specifically to the industrial food chain. It describes the part of the global food system under the control of corporate interests that depends heavily on chemical inputs, promotes crop uniformity, and produces food mainly for the commercial market in developed countries and the middle classes in developing countries. It is this part of the food system that uses 75 percent of the world's agricultural land, consumes at least 80 percent of the fresh water, and is responsible for at least 90 percent of greenhouse gas emissions from agriculture.³ Despite what the food industry would like us to believe, this 'food chain' does not account for the entirety of the food system. In fact, its prominence obscures the reality of the global food situation. The ETC Group estimates that only 30 percent of the global population is fed primarily by the industrial food chain; the remaining 70 percent obtain their food from local smallholder food networks.⁴ The Food and Agriculture Organization of the United Nations (FAO) goes further and suggests that more than 80 percent of the world's food is produced by family farmers.⁵

Who Controls the Broken Food System?

Just as the current pandemic caused massive disruption to human lives, the head-spinning rates of corporate concentration in the food and agriculture sectors in the four years before COVID-19 created unprecedented fissures in the global food chain. After decades of consolidation, just four companies now dominate over half the commercial seed market and roughly two thirds of the agrochemical market. Mergers between giant agricultural companies have given old players new names and unprecedented power. Sinochem, ChemChina, and Adama consolidated their agricultural assets in January 2020, forming the humongous

Syngenta Group based in Switzerland, and controlled by China. Bayer has wholly absorbed the assets and infamous liabilities of its costliest and highly controversial acquisition, Monsanto, after divesting substantial interests in vegetable seed and GM crop markets to BASF whilst seeking regulatory approval in the EU and the US.

To further expand their markets, manufacturers of tractors and farm machinery now include both the hardware and software needed for so-called 'precision agriculture'. The top six farm equipment companies account for 52 percent of the global market. The interlocking alliances between seed, pesticide, and fertilizer giants hinge on the rise of the perceived power of big data that will drive greater concentration in the farm equipment sector, thereby allowing data giants such as Microsoft, Alibaba, and Amazon to enter the scene. In the synthetic fertilizer sector, the top ten companies account for just over 50 percent of worldwide sales but only two companies supply the entire North American potash market and just three producers account for a quarter of the world's phosphate fertilizer supply.⁶

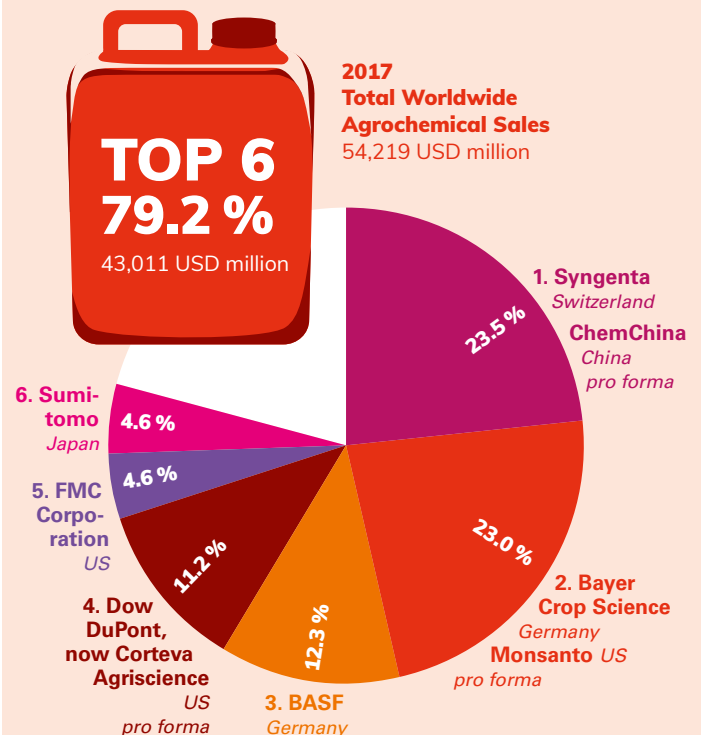
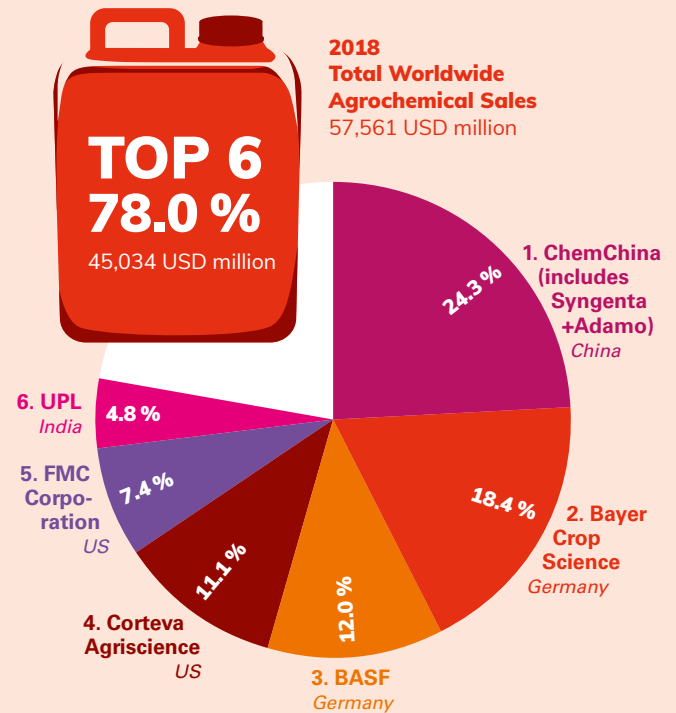
At the other end of the industrial food chain, all the major commodity-trading firms that dominate the production, processing, transport, finance, and trading of food are either from the US or Europe. The entry of China Oil and Foodstuffs Corporation (COFCO) into global commodity trading and the earlier acquisition of Smithfield Foods by Shuanghui, in order to gain a global foothold in meat processing, is seen as a challenge to that domination.

As COFCO consolidates with domestic commodity traders to fortify its international presence, commodity titans are also forging alliances on the development of emerging digital technologies (especially blockchain and AI) to automate grain and oilseed trading, as a principal tool for traceability and transparency, and to increase control of infrastructures.⁷ Cargill and ADM have formed Grainbridge as a joint venture to provide a common technology platform for North American grain farmers.⁸

The global food retail market is led by the biggest retailers, which include e-commerce platforms Amazon and China's JD.com that are now chipping away at the market of big brick-and-mortar supermarket chains.⁹ Amazon's acquisition of Whole Foods in the US in 2017, followed by Walmart's acquisition of India's Flipkart e-commerce pioneer in 2018, signalled the race for dominance in both online and physical retailing. As

Agrochemical Sales of the Leading Companies

Source: ETC Group, November 2019, Plate Tech-tonics: Mapping Corporate Power in Big Food



multinational supermarket chains strengthened their market foothold by providing online deliveries to consumers, e-commerce giants like Alibaba and Tencent have been buying smaller e-commerce platforms and investing in convenience stores in emerging economies, especially in Asia.

Lurking in the shadows of the increasingly concentrated industrial food system are gargantuan asset management firms involved in horizontal shareholding in seeds and agrochemical companies, buying up equity stakes in all of the biggest firms within a market sector, which even neoliberal proponents describe as “the greatest anti-competitive threat of our time”.¹⁰ A study found that, on average, “14.6 percent of soy, corn, and cotton seed prices over the past 20 years” can be attributed to horizontal shareholding by five asset management firms operating in the shadows.¹¹ While their interests span industries, companies like BlackRock, Vanguard, and Fidelity have designated funds for the food and agriculture sector to allow investors to farm without owning land. Alternative asset managers such as Blackstone that control hedge funds have been aggressively investing in agricultural land and agribusiness companies in the Global South, such as in Brazil, where the firm was identified as a direct driver of deforestation in the Amazon.¹²

COVID-19: The Broken Food System Exposed

The pandemic has unmasked the serious failures of capitalist neoliberal policies that neglected social protections for citizens in the Global South and exposed deficient public health systems in most parts of the world. It highlighted the tragic socio-economic fractures that are driving the poor to penury and displaced the middle class from their precarious comfort zone while making a few White male billionaires richer. On top of this, it has also laid bare the industrial food system for all the world to see.

Disruptions in the Industrial Food Chain

Like in the rest of the world, Asia has suffered severe disruptions in food supply chains that adversely affected the movement of produce from farms to markets across the region as a result of lockdowns, health protocols, and quarantine measures imposed by governments. The closure of commercial establishments

to curb the spread of COVID-19 drastically reduced demand for agricultural produce by manufacturers and food outlets. Food processing was also significantly disrupted by labour shortages and shutdowns as workers were forced to stay home, public transportation was halted, and factories and processing plants were scaled down or even shut down when hit by infection clusters. Farmworkers on the fields and employees in food industries, as well as retail and delivery services, were often relatively more exposed to the pandemic, while their indispensability in the food systems came to the fore. Transportation logistics, especially by air, suffered severe bottlenecks affecting the flow of perishable goods, food products, and agricultural inputs. Furthermore, weak and inefficient long commercial food supply chains failed to meet growing

The pandemic has exposed the inherent weaknesses of long supply chains that involve great distances to bring food from farm to market, and a linear chain of middlemen, consolidators, processors, distributors, and wholesalers who squeeze value from farm produce and leave farmers on the losing end.

consumer demand, which was compounded by stockpiling spikes during the pandemic, and which resulted in skyrocketing prices of food and consumer goods across Asia.¹³

Meanwhile, digital giants have seized lockdown opportunities to boost e-commerce as an easy alternative to local markets or brick-and-mortar grocery stores. In Southeast Asia where e-commerce sales before the pandemic were only a fraction of the USD 350 billion grocery spend, grocery sales and food deliveries on Amazon, Alibaba, Lazada, Shopee, Tencent, Gojek, and Grab are surging.¹⁴ Analysts predict that shopping trends have firmly shifted to digital mode, providing a smoother route for pushing industrial foods to the growing middle class and consumers in urbanized areas who have access to digital infrastructures and higher incomes.

The pandemic has exposed the inherent weaknesses of long supply chains that involve great

distances to bring food from farm to market, and a linear chain of middlemen, consolidators, processors, distributors, and wholesalers who squeeze value from farm produce and leave farmers on the losing end. The lower farm income and rising unemployment during the pandemic have pushed many to forego nutritious food in favour of cheap processed food items like instant noodles and canned goods that lack the vitamins and minerals essential for growth and development.¹⁵ Among the hardest hit in Asia are migrant and landless workers, those in the informal sector, and daily wage earners, who supply cheap labour for the industrial food chain. India witnessed its largest internal exodus of people, as displaced labourers—mostly engaged in the informal economy in cities—breached lockdown rules to return to their home towns where food was

more readily available and accessible.¹⁶ Weak and under-resourced rural public health systems are forced to contend with long-standing medical disparities and inadequate infrastructure in an attempt to provide care to even larger populations.

Food Web to the Rescue

The pandemic and policy responses that restricted mobility and imposed physical distancing have ironically fostered mutually-supportive relationships between producers

and consumers in many countries in Asia. The disruption of agricultural supply chains that severely affected livelihoods and the food supply has provided fertile ground for many civil society organizations to mobilize networks of local farmers and producer organizations to sell their produce directly to urban consumers through cooperatives, neighbourhood associations, and even through government channels. Disruption to jobs and livelihoods has also created social innovations and entrepreneurship. These vibrant collaborations are often facilitated by existing communication technologies and social media channels, as well as by rudimentary, often non-proprietary software and micropayments.

Some governments in Asia have acknowledged and supported short supply chains. Local government units in the Philippines directly procured produce from farmers and fisher communities during the lockdown months and made it available to consumers at lower prices in government-operated markets and mobile



Local markets are highly important, such as this one in Cherán, Mexico

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stores set up in urban neighbourhoods. Some local governments have included farmers' produce in food packages extended as government assistance to families. The Philippine government purchased agricultural, livestock, and fisheries produce directly from producers amounting to PHP 1.58 billion (around USD 32.7 million) during the initial lockdown period of March–May 2020.¹⁷

Urban gardening flourished in mega-cities across Asia during the pandemic, providing jobs, generating income, and providing accessible sources of nutritious food to communities.^{18, 19, 20} Women, in particular, have played prominent roles in urban farming initiatives.

Towards a More Just and Democratic Normal

The pandemic demonstrated the stark contrast between the long supply chain that characterizes the industrial food chain and the short supply chain quintessential in the food web of small-scale food producers. Many governments and institutions hailed the short supply chain as a key element of the 'new normal' or 'better normal' as if the shift will be spontaneous. Such transformation towards a farmer-based food web can only be realized and sustained through a coherent

framework built from the bottom up that will enable a shift in post-pandemic reality while curbing the power of the industrial food chain.

Promoting Shorter Supply Chain Models

As a counterweight to increasing corporate concentration, globalization, and digitalization of the food system, models of short supply chains and localized systems should be strengthened and promoted. Governments should:

- recognize the value of short supply chains and pass legislation in support of local agroecological production, prioritize local markets, and facilitate direct producer-consumer links;
- promote health consciousness with a demand for greater nutrition and awareness about locally-sourced food;
- establish infrastructures that facilitate direct links between farmers and consumers to provide opportunities for farmers and women working in the rural economy to manage and set fair prices for their produce; and
- educate urban consumers about the value of locally-sourced produce.

Enabling direct links between farmers and consumers provides a hands-on opportunity for small-scale food producers and women in the rural economy to manage and set fair prices for their produce. Urban consumers too will gain an understanding of the farmers' situation, what constitutes fair pricing, and the value of their produce.

Urban Farming as a Link in the Food Web

Urban agriculture could substantially contribute towards local food security in cities and urbanized areas as a component of integrated rural-urban development, and provide livelihoods in the forms of income and accessible nutrition for households. The role of women in urban agriculture needs to be recognized and supported. Vacant lots, unused publicly-owned land, and urban gardens should all be used for food production.

Hyperlocal versus Hyper-Nudging

Many civil society organizations have provided links between small-scale organic farmers and consumers by bringing farm produce to urban areas and setting up mobile markets in local neighbourhoods that made nutritious food accessible during COVID-19 curfews. Hyperlocal food markets, bringing food production closer to consumption, are becoming increasingly

popular for those who are health-conscious and demand nutritious food.

In contrast, 'hyper-nudging' influences consumers to opt for commercially-dictated options based on set algorithms. Hyperlocal markets, from the food web perspective, should be based on human relationships: between producers and consumers, and among communities guided by humane values, not dictated by AI-fed non-transparent algorithms.

Bottom-Up Assessment of the Digital

During the pandemic, basic digital technologies in the form of mobile communication and social media networks were used to link producers and consumers. Across Asia, where digital infrastructure is mainly concentrated in urban areas, farmers and rural communities use landlines and mobile phones without the advanced features of smartphones. Building networks based on digital technologies excludes those without access to basic services and infrastructure. A solidarity economy is not primarily built on digital platforms, but on social relations, trust, and values developed over time. While digital technologies could facilitate

The transformation towards a farmer-based food web can only be realized and sustained through a coherent framework built from the bottom up that will enable a shift in post-pandemic reality while curbing the power of the industrial food chain.



Transform and diversify farming: rice-duck farming, Tabanan, Bali

communication and transactions, it is interpersonal relationships, human interactions, and social investment that are the bedrock of mutual aid.

Civil society should help inform decisions on how to best use the potential of digitalization and set realistic expectations about what these technologies can offer to address the specific needs of communities and the environment. Societal debates could unlock opportunities for local innovation, determine appropriate use and control of these technologies, devise measures to protect community interests, and explore options beyond technological solutions.

Public-People Solidarity

Public investments must be accelerated in support of small-scale food producers to address disparities between rich and poor, between urban and rural areas, and between men and women, which have all worsened during the pandemic. Public-private partnerships (PPPs) cannot remedy the root causes of persistent food insecurity, malnutrition, and the highly unequal distribution of resources. Solid partnerships

between people and democratic governments, based on mutual trust, solidarity, and recognition of each other's roles, is a bottom-up investment approach. The recognition of farmers' labour, genius, and contributions to society is a first step towards broadening the concept of investment beyond money. Economic recovery measures should prioritize social protection, support community efforts to improve productivity through agroecology, and strengthen links to domestic markets and consumer groups.

Breaking the Chain to Make Way for the Web

Anti-competitive practices, such as horizontal shareholding, must end—as should the unbridled consolidation of corporate powers. There must be recognition that advancing competition under capitalism will not break the industrial

food chain, and more drastic steps are needed to rectify the dismal failures of this model of development to protect even the most basic human rights to live. The ideals of 'leaving no one behind' should not be drowned out by the chorus of PPPs without changing a system that is too broken to mend. Only by breaking the myth—that the industrial food chain can feed the world—will a farmer-based food web flourish.

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7. Invisible Hands:

COVID-19 and Farmworkers in the European Union

**Policies Must
Serve the Interests
of the People First:
The Fight for Land
and Food Rights**



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Trade unionists in the farmworkers' informal settlement, Torretta Antonacci in Puglia, Italy

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Italy and Spain represented until recently the third- and fourth-largest agricultural producers in the European Union (EU), where the agro-food sector plays a significant role. This article discusses the working and living conditions of farmworkers in these two countries at the outbreak of the COVID-19 pandemic, and outlines a vision for future labour relations in Europe's agricultural sector.

The Food System in the EU

While agriculture in the EU is characterized by small-scale farming,¹ the lion's share of profits goes to large agricultural enterprises. These enterprises represent only a little more than two percent of farms in the EU, but their share of the overall economic agricultural output is over 50 percent.² Despite the rising profit share of large agricultural enterprises, the number of small farms is in steep decline. During the last decade, over 3.5 million small farms went out of business, which accounts for more than 20 percent of total farms in the EU. This decline is partially attributable to the EU's competition policy and its agricultural subsidy system, which is regulated by the Common Agricultural Policy (CAP).³ While the labour intensity of small-scale farming often cannot compete with more efficient large enterprises, the CAP's subsidy scheme plays into the hands of large enterprises because subsidies depend on land size. Although steadily declining over the past several decades, the largest share of the EU budget still goes to subsidizing farming that benefits only a few large-scale commercial farmers at the expense of the majority, who are small-scale food producers.

Increasing levels of corporate concentration and unequal competition in the EU farming sector also impact the agricultural labour force. While there is an overall decline in the agricultural workforce in the EU, the share of international and cross-border seasonal migrant workers is growing. The majority of seasonal workers are migrant workers from either within or outside the EU. The largest number of EU migrant farmworkers are from member countries with very low wage levels, such as Romania and Bulgaria. Non-EU migrant farmworkers are mostly from Northern and Sub-Saharan Africa—which are also regions with very low wage levels. These non-EU labourers are mostly

undocumented without residency permits. This situation contributes substantially towards a deteriorating working environment in the agricultural sector, with workers often paid far below the minimum wage and subjected to dire living and working conditions. However, both large and small agricultural enterprises employ seasonal migrant workers. The ruthless price competition in the EU's (and international) agricultural markets is fought to a large extent on the backs of the most vulnerable: the farmworkers.

The root cause of hyper-exploitation in the EU agriculture sector, characterized by little or no labour law enforcement on the part of the agricultural enterprises, and a lack of worker literacy and knowledge about social rights, is the construction of the EU internal market competition policy and subsidy system.

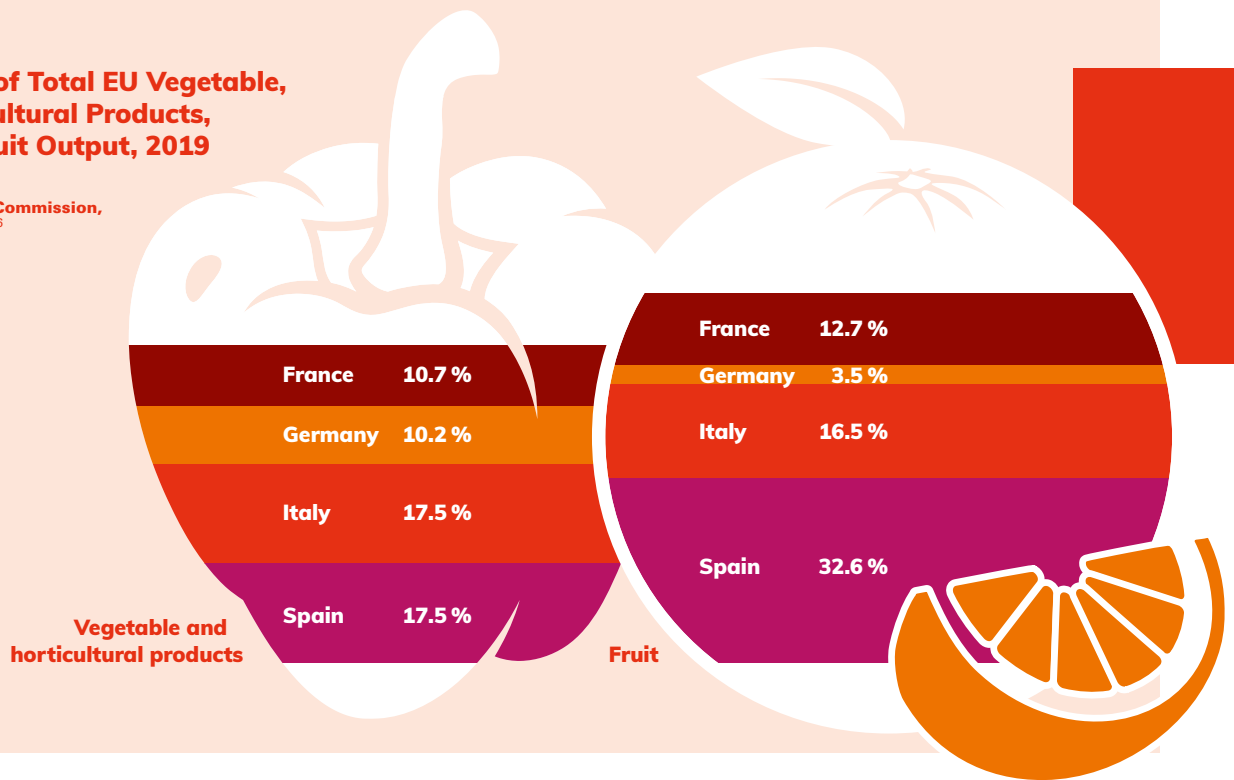
France is by far the largest agricultural producer in the EU, with a share of the agricultural output of almost 20 percent, followed by Italy, Germany, and Spain, which contribute around 12–14 percent to the total agricultural output per country. These four countries together contribute more than half of the EU's total agricultural output. However, when it

Spain and Italy produce more than one third of the EU's vegetables and horticultural crops and almost half of its fruit, where harvesting and processing are labour intensive. Therefore, the hyper-exploitation of seasonal migrant workers is particularly prevalent in the fruit and vegetable sectors of Spain and Italy.

comes to seasonal migrant labour in the agricultural sector, the picture is slightly different. Germany, and especially France, produce large quantities of the EU's less labour-intensive cereals, industrial crops, and forage crops.⁴ In contrast, Spain and Italy produce more than one third of the EU's vegetables and horticultural crops and almost half of its fruit, where harvesting and processing are labour intensive.⁵ Therefore, the hyper-exploitation of seasonal migrant workers is particularly prevalent in the fruit and vegetable sectors of Spain and Italy.

Share of Total EU Vegetable, Horticultural Products, and Fruit Output, 2019

Source: European Commission, June 2020⁶



Farmworkers and COVID-19 in Italy

In April 2020, Italy's Coldiretti, the country's main farmers' association, reported that it faced the possibility of being unable to bring in the spring harvest, critical for Italy's food production industry, due to a shortage of farm labour. For weeks, there was public debate about sending the unemployed or even retired people into the fields, as well as massive calls to set up so-called 'green corridors' for seasonal migrant workers. Germany and France had already opened such corridors to fly in labour from Eastern Europe to work in the agricultural sector. The political far right in the country demanded that work be given to Italians first, while left-wing liberals made an appeal for universal work permits to be issued to undocumented migrants for the harvest season only. The migration laws, which in practice thrust countless people into invisibility, remained in force alongside a superficial moratorium that introduced a temporary residence permit for those employed in harvesting. Irrespective of the pandemic, nothing has been done to improve the terrible and consistently unsanitary living conditions. Even worse was the lamentable response with the arrival of the much-feared second wave of the virus in autumn 2020 after the main harvests, as many workers, lacking access to social security, were confined to informal settlements because of the high levels of infection in those areas.

Mobilization against this situation grew in intensity as large alliances of unions and NGOs launched appeals stating that without rights for agro-food workers, Europe's food supplies were on shaky ground. The groundswell of protest by farmworkers started with a strike by undocumented migrant workers on 21 May 2020, a march from the symbolic informal settlement of Torretta Antonacci in the province of Foggia, followed by multiple demonstrations and strikes throughout the summer of 2020 in Puglia and Calabria, organized by the Unione Sindacale di Base (USB). These actions constituted small gains but drew attention to the atrocious living and working conditions of farmworkers and amplified their voices, despite their ongoing brutal marginalization. The USB set up local delegations for farmworkers as subdivisions of the national delegation, focal points were set up to raise awareness of rights and to meet the needs of the workforce, and trade union representatives were trained. It is essential for the seasonal migrant farmworkers to be able to unionize and become stakeholders themselves to claim their universal rights.⁷

Farmworkers and COVID-19 in Spain

Spain, like Italy, is an important producer of vegetables and fruit thanks to its favourable climate. It has a long history of robust farmworkers' movements, especially

since the arrival of intensive greenhouse farming, which allows a significant extension of the growing and harvesting season. The southern Spanish region of Andalusia became a major producer of fruit and vegetables in the EU, relying on a migrant workforce mostly from Northern and Sub-Saharan Africa. The Andalusian farmworkers' trade union, Sindicato de Obreros del Campo (SOC), founded in the 1970s, follows a 'direct action' approach to organizing farmworkers in Andalusia. With the creation of the Sindicato Andaluz de Trabajadores (SAT) union in the 2000s, this approach has been extended to other sectors in food production chains as well, for example in processing factories. The combined SOC-SAT union reiterated their 'direct action' approach to the various migrant worker communities in the region following the February 2000 riots in the municipality of El Ejido where Moroccan farmworkers were chased and killed by a mob.

In spring 2020, when most of Spain and Europe went into lockdown, Morocco closed its borders, and travel restrictions were implemented within the EU, hindering the movement of workers from Morocco and Eastern Europe to Andalusia. The Spanish Agricultural Minister, Luis Planas, proposed the recruitment of unemployed people from Spain and abroad for the harvest season (a pressing issue at that time was the labour-intensive strawberry harvest in the province of Huelva) in April 2020.⁸ The government also provided subsidies through the Plan de Fomento del Empleo Agrario (Plan for the Promotion of Agricultural Employment, PER), which included seasonal limited allowances that were directed at the Andalusian greenhouse sector.⁹ Meanwhile, the living conditions of seasonal migrant workers received little attention. While COVID-19 cases in Spain skyrocketed and the images of overcrowded intensive care units in Madrid flashed around the globe, COVID-19 infection rates amongst seasonal migrant workers allegedly stayed low.¹⁰ The agricultural employers association, Coordinadora de Organizaciones de Agricultores y Ganaderos (COAG) downplayed the risk of COVID-19 clusters being caused by the mobility of farmworkers. Workers sit in packed vehicles when transported to work sites, migrate between provinces and regions along with the harvest seasons, and have crowded living conditions. Nevertheless, regular outbreaks of COVID-19 have been reported in the region's greenhouses and remote shanty towns.¹¹

Naturally, this heavily affected the work of the trade unions. Implementation of the 'direct action'



Trade unionists in El Ejido, Andalusia, Spain

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approach was temporarily suspended and became generally more complicated because of lockdown restrictions. Most activities came to an abrupt halt in spring 2020 and once the lockdown was partially lifted, activities were adjusted to the pandemic and included general information on measures to prevent and protect against the spread of COVID-19. During the unbearable heat of the Andalusian summer, greenhouse farming was temporarily put on hold until early autumn, however, COVID-19 infections continued to increase during this period until the declaration of a state of emergency by the Spanish government on 25 October 2020. This again affected all group activities: SOC-SAT organizer, Federico Pacheco, describes the trade union work during this time as follows:

“ During the pandemic and the lockdown, the union continued its work, with locals and union members visiting the companies, increased phone calls, etc. Unfortunately, many companies have used the pandemic to sack people or demand more benefits. This crisis has demonstrated how crucial farmworkers are, including migrant workers, especially those with questionable immigration status. The sector has not stopped, production has been maintained or even increased during the pandemic, but the previous situation of exploitation and precariousness that we have been denouncing has worsened even further.”¹²

On the European level, in July 2020, the European Commission (EC) presented guidelines for seasonal migrant workers during the COVID-19 pandemic that also addressed the working and living conditions of farmworkers.¹³ However, in its role as 'guardian of the treaties', these EC guidelines primarily guarantee the free movement of labour, one of the 'four freedoms' in the EU treaties which has temporarily been threatened by internal EU border closures. The effectiveness of these guidelines in tackling the abysmal working and living conditions of farmworkers remains obscure and inadequate. They merely refer to the existing labour inspection systems and measures of member states, which were ineffective even before the pandemic.

Lessons Learned

The 2020 outbreak of the COVID-19 pandemic, with its accompanying fears and dangers regarding the destabilization and disorganization of food production chains, has clearly demonstrated three aspects of those food chains:

1. the fragility of the food system in Europe. It took strong and rapid government intervention and coordination to avoid crops rotting in the fields or harvesting being irreparably compromised with incalculable consequences;
2. the categorization of farmworkers as essential labour. The previously unimaginable (albeit temporary) dispensations by EU governments for workers to cross borders and board state-funded flights demonstrate the crucial role of the migrant farmworker in the entire European food system; and
3. the blatant disregard of poor working and deplorable living conditions that farmworkers endure and which have been exacerbated by an increased risk of infection due to a lack of protective measures. This brutally demonstrates the merciless exploitation of those at the lower end of food supply chains in Europe.

How to Liberate the Working Men and Women in Agriculture?

Regulating and revoking discriminatory migration laws would be the first key step to liberating farmworkers. Migrant farmworkers strongly demand an end to the practice of holding workers to ransom and using

coercion because of their 'illegal' and/or undocumented status.

A second and necessary step is dismantling the power of the organized retail sector. The sale of agricultural products is driven by large supermarkets that operate on the principle that everything must be readily available. However, extremely low prices come at the expense of workers and of product quality. If farmers are unable to sell their produce at a fair price and earn a decent income, farmworkers will continue to be exploited, have no social protection, and be forced to live in degrading conditions.¹⁴ Breaking the power of this oligopoly through an alliance between peasants, farmworkers, and consumers will enable decent working and living conditions for peasants and farmworkers and healthier food for the people.

Moreover, radical changes in the CAP are crucial to any transformation of the sector. Negotiations on the reform of the EU's agricultural subsidies mechanism CAP are still ongoing. In February 2021 several trade unions and civil society organizations published an open letter calling for the inclusion of specific social requirements that must be put in place for all workers, including migrant workers, to allow farmers and agribusiness to qualify for agricultural subsidies. These requirements include confirmation of employment, equal treatment, remuneration, working time, health and safety, housing, gender equality, social security, and fair conditions.¹⁵

Meanwhile, the EC presented the Farm to Fork Strategy, aligning the agricultural sector with the EU's climate goals set out in the European Green Deal. While being welcomed by civil society organizations



Burning garbage piles in the informal settlement, Torretta Antonacci in Puglia, Italy

The importance of farmworkers has finally become visible. Efforts to reclaim their power and fight for the true value of their work represent a seed to be nourished and grown ...

for outlining an agricultural sector that—in contrast to what can be expected from the CAP reform—focuses on sustainability, climate, and the environment, the plight of farmworkers does not feature in the Farm to Fork Strategy. The only mention of farmworkers' rights is in the form of a toothless reminder to “ensure that the key principles enshrined in the European Pillar of Social Rights are respected, especially when it comes to precarious, seasonal, and undeclared workers.”¹⁶

The international farmers' organization La Via Campesina recently warned that globally we cannot return to 'business as usual'; it is time to usher in social transformation. The movement presented a list of concrete proposals, i.e. implementing agrarian reform and full recognition of the UN Declaration on the Rights of Peasants (UNDROP) as a tool alongside many other international instruments.¹⁷ The declaration, adopted at the end of 2018, details for the first time specific human rights not only for peasants but for others working in rural areas.¹⁸

The importance of farmworkers has finally become visible. Efforts to reclaim their power and fight for the true value of their work represent a seed to be nourished and grown through the patient work of grassroots organizing. Indeed, most of these proposals start from a weak defensive position, mirroring the current relation of power. Nevertheless, it is only through the efforts and struggles of farmworkers themselves and their allies that the tide will begin to turn towards restoring human dignity and securing the social rights of all workers across entire food supply chains: from the fields, to logistics, to the consumer.



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Answers from Below: Reimagining Networks across Urban and Rural Landscapes

**8. Class Solidarity
in the Fight against Hunger:
Ongoing Experiences in Brazil and Argentina**

**9. Solidarity, Not Charity:
Emergent Strategies from the Front Lines on
Fostering a Food-Based Solidarity Economy
in the United States**

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Community corn harvesting, San Vicente, Buenos Aires, Argentina

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COVID-19 was handled very differently by the Argentinian and Brazilian governments, however, in both countries, as in the entire region, the debate around access to food was pivotal. In an almost unprecedented way, the pandemic brought to the fore, at a global level, the debate on the impacts of agro-industrial production models on human health and the environment. Debates were centred on the failure of the dominant corporate food system to either tackle hunger and its role in pervasive inequality, or the environmental crisis that we see everywhere.

This is the backdrop against which popular organizations developed solidarity schemes to supply food, adapted their logistics to safety measures, and wove networks to deliver healthy food at affordable prices to the sections of the population suffering from food insecurity. This article outlines two different experiences in Brazil and Argentina that show how rural popular movements undertook strong, solidarity-based endeavours to fight against hunger in urban centres.

COVID-19 Aggravated the Already-Existing Hunger Crisis

The COVID-19 pandemic intensified the impacts of a series of interconnected economic, social, environmental, and health crises which had already ravaged the Southern Cone region. The region became a major epicentre of infection and death in the spring of 2021, while Brazilian president, Jair Bolsonaro, gained international infamy for denying the pandemic's seriousness and sabotaging all known prevention methods, such as the wearing of masks and social distancing.

Impoverishment in Brazil is reflected in the high number of households suffering from serious or moderate food insecurity. This was pointed out by the National Study on Food Security in the Context of the COVID-19 Pandemic in Brazil,¹ in which the researchers concluded that out of Brazil's population of 211.7 million, 116.8 million endured some degree of food insecurity in 2020—43.3 million had insufficient food, while 19.1 million were living in a state of hunger during the first year of the pandemic.

In March 2020, Argentina implemented a lockdown²—a measure that was extended for over six months and, while it arguably prevented the health-care system from collapsing, it also had adverse socioeconomic effects. With the pandemic still in full swing, we have yet to fully gauge the extent of them. This

has taken place within an already-challenging social and economic landscape, with almost a decade of economic stagnation and inflation, a profound food crisis, and the implementation of neoliberal policies that resulted in the state taking on debt of historic proportions in the last four years.

The National Institute of Statistics and Census of Argentina (INDEC)³ released poverty rates for the second half of 2020 showing that 42 percent of the population is poor, and 10.5 percent extremely poor. Young children are the most affected by poverty as 58 percent of those living in poverty are under the age of 14. COVID-19 has increased the levels of poverty and vulnerability, given that the Gross Domestic Product (GDP) fell by almost ten percent. Despite the one-off top-up grants⁴ that were paid to existing beneficiaries of state cash transfers, the sections of the population with precarious jobs were hardest hit by income and job losses. Meanwhile, the Total Basic Basket (TBB)⁵ saw a total annual increase of 39.1 percent, even during the pandemic, as the upward trend in cost continued until December 2020. To avoid falling below the poverty line, families needed to earn an income of USD 670, while the adjusted minimum living wage was USD 255. For the same month, the consumer price index rose by four percent, thus increasing by 36.1 percent in 2020.

Historical Efforts to Achieve Food Security

In Brazil, food insecurity issues were far more serious because of the complete elimination of public policies previously put in place to end hunger. Since the Dilma Rousseff impeachment in 2016, successors Michel Temer and Jair Bolsonaro dismantled a series of measures that supported food sovereignty. These policies were adopted by the PT⁶ government (2003–16), along with a set of measures aimed at widely addressing this social issue, with an emphasis on the Zero Hunger programme. As a result of concerted steps taken by the government at that time to reduce and ultimately end hunger, the Escala Brasileira de Insegurança Alimentar



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In different sectors of Brazilian society, the pandemic has fuelled a ‘humanizing awakening’ that has resulted in the better understanding and recognition of the country’s surplus population (unemployed and underemployed people), whose living conditions have historically been invisible and/or normalized.

(Brazilian Household Food Insecurity Measurement Scale, EBIA) reported a significant drop in food insecurity. The EBIA ranges from the psychological effect of worrying about access to food, to persistent extreme hunger. Based on this index, the National Household Sample Survey⁷ revealed that food insecurity in the country fell from 17 percent in 2004 to 7.9 percent in 2013.⁸

The most important social policies devised over the first decade of this century included food-supply programmes for vulnerable populations, such as the Programa de Aquisição de Alimentos (Food Purchase Programme, PAA), which is a programme that facilitates the purchase of food by the state from peasants and small-scale food producers for distribution through the social welfare network. However, just like many social and economic inclusion mechanisms, Brazilian state policies have gradually been dismantled since 2016 allegedly due to lack of finance—the consequence of which being increased food vulnerability.

In Argentina, and around the globe, food distribution and marketing are highly concentrated. Mainly by price-fixing, the powerful corporate sector dominates goods for mass consumption, negatively impacting the supply chain, and ultimately the consumer. The current dominant corporate food production model, which is supported by agribusiness and operates primarily in US dollars, produces ‘goods’ left to move freely based on the principle of supply and demand. During the pandemic, food prices escalated sharply as a consequence of a production matrix vested in the hands of a few, and in the absence of food policies that prioritize the universal right to access healthy, affordable food. For example, between April 2020 and March 2021, the price of meat increased by 65.3 percent, while general inflation, measured by the Consumer Price Index, was 42.6 percent for the same period.⁹

In light of this, civil society organizations and popular rural and urban movements joined forces to defend the lives of the people most affected by the scourge of both the pandemic and hunger.

Periferia Viva and Popular Organization: A Process in Motion in Brazil

In different sectors of Brazilian society, the pandemic has fuelled a ‘humanizing awakening’ that has resulted in the better understanding and recognition of the condition under which the country’s surplus population (unemployed and underemployed people) live, whose daily struggles have historically been invisible and/or normalized.

From March 2020 onwards, initiatives of solidarity within society, such as the donation of food, personal hygiene items, and masks, were quickly torn apart by conceptual differences. These were spurred by private companies taking ownership of the solidarity concept and using donations for social marketing purposes to access free advertising during peak viewing time on television.

Apart from this opportunistic behaviour, it should be emphasized that the ruling classes promoting passive and welfare-oriented solidarity, silencing the people, and brushing them aside when it comes to political activity, is nothing new. In so doing, they keep ‘beneficiaries of solidarity’ submissive and inactive in the struggle to achieve structural transformation of conditions that are currently causing social, ethnic, racial, and gender inequality in the country.



In many circumstances the COVID-19 pandemic brought communities together

Periferia Viva¹⁰ was founded as the voice for different popular movements to instil solidarity during the pandemic and expose the need for class consciousness among workers. Solidarity endeavours must be class-conscious.

As a platform for popular movements, Periferia Viva constitutes a political playing field within the Brazilian left, known as Campo Popular. It is a network comprising the Movimento dos Trabalhadores Rurais Sem Terra (Landless Workers Movement, MST), the Movimento dos Pequenos Agricultores (Small Farmers Movement, MPA), Levante Popular da Juventude (Youth Popular Uprising), Movimento de Trabalhadoras e Trabalhadores por Direitos (Movement of Workers Fighting for their Rights, MTD), Rede Nacional de Médicas e Médicos Populares (National People's Network of Doctors), CPMídia (Popular Media Centre), Tricontinental: Institute for Social Research, and the Expressão Popular publishing house, among others.



We can therefore conclude that food opens doors and brings together meals and empty pots. Above all, food is the harvest of farmer and peasant struggles, seasoned with organization and collective struggle—a key element in the message of solidarity.”¹¹

The second stage delved into the reality of the urban periphery and its regional differences through a research project entitled *What's Inside the Activist Backpack*. The 2020 project was conducted by Tricontinental: Institute for Social Research¹² to better understand those living on the periphery, their aspirations in life, their dreams, and their views on the future. This reflection was only possible thanks to the engagement of urban activists in the different urban communities through Periferia Viva's activist brigades, as well as the organizations that were already working in the urban sector.

It was in Brazil's Pernambuco State, in the metropolitan area of the capital city of Recife, where the grassroots work methodology emerged which would contribute to developing the third stage. Periferia Viva managed to work with communities using *agentes populares de saúde* (community health agents). During this stage, Periferia Viva provided political training to develop new activists. They fostered solidarity practices by becoming involved in the daily work of the community, identifying needs, and supporting political alternatives in dialogue with the neighbourhood.¹³ This methodology fundamentally consists of identifying people from the communities who are engaged in actions of solidarity as potential 'community agents'. These people are trained, with the support of allied partners, and then carry out activities in the neighbourhoods or communities where they live by facilitating acts of cooperation and providing health guidance, among other actions.

The experiences in Pernambuco rapidly became a source of inspiration for other districts. They emulated the methods used by the community agents and adjusted them to suit their own work realities. Preliminary data from the 2020 assessment of the campaign shows that it achieved the following: eleven states participated (Alagoas, Bahia, Espírito Santo, Goiás, Paraná, Mato Grosso do Sul, Paraíba, Pernambuco, Rio de Janeiro, Rio Grande do Sul, and São Paulo); the target group was people living in urban peripheries; 156 groups of community agents were established and a total of 1942 agents participated in campaign activities.¹⁴



© Movimento Sem Terra (MST)

Periferia Viva activists working with communities, Pernambuco, Brazil

The first stage of the Periferia Viva activities included donations of food, masks, hygiene products, and guidance on sanitary precautions for extremely vulnerable populations in major urban centres. It was considered essential at that time to raise political awareness for the second stage of extended grassroots work aimed at establishing a solid link between solidarity and an organic bond with families living in peripheral communities. Periferia Viva delivered the following statement:

Building on the collective ownership of the community agent methodology, other groups were created to meet the demands of local sectors in at least three areas: health, food, and workers' rights. There have also been initiatives in areas of education, communication, and publicity.

The Network of Soup Kitchens for a Sovereign Diet in Argentina

While Periferia Viva was coming to life in Brazil, in Argentina the national coordinator of the Unión de Trabajadores de la Tierra (Union of Land Workers, UTT)¹⁵ was taking office as the coordinator of the Buenos Aires *Mercado Central* (Central Market).¹⁶ History was being made: a peasant organization was taking over the largest wholesale market in the country at the same time as the mandatory social isolation decree was being issued and food supply became crucial. The organization took up the challenge of trying to shake up the structures of power that had historically been in charge of price-fixing and food distribution in Argentina.

As previously mentioned, the rise in food prices, the fact that it was mainly informal trade, and the problem of low-income workers not being able to work or facing decreased or disappearing wages, all brought to the fore the need for social organizations to ensure food access. In this context, the UTT called upon social organizations to meet at the Central Market to put together a vegetable sack, costing approximately 100 pesos (about USD 5), intending to reach the hundreds of community canteens that were supporting people in neighbourhoods with produce supplied by the Central Market. Lucas Tedesco, the coordinator of Red de Comedores para una Alimentación Soberana (Network of Soup Kitchens for a Sovereign Diet, hereafter 'Soup Kitchen Network'), explained some of the issues:

“ Well, we are responding to an emergency with food, but it is the sort of vicious cycle that we're always trying to break. We can't be buying from those big middlemen who follow a farming logic that doesn't care about food.”¹⁷

This realization was, in a way, the beginning of the network as a political space. The focus then shifted: from the Central Market, to fellow farmers to build and strengthen the space for their network.

On 26 May 2020, the Soup Kitchen Network was launched. This initiative was carried out by rural and urban organizations to ensure healthy food for soup kitchens and people's canteens in the informal settlements of the City of Buenos Aires and Greater Buenos Aires. It turned into a cross-cutting programme coordinating more than 200 neighbourhood organizations, unions, parishes, schools, football clubs, soup kitchens, and farmers' organizations to supply healthy and safe food to each neighbourhood by implementing 'agroecology at the *barriadas* (informal settlements)'. Tedesco explained:

“ We had to deliver that food, we also had to respond to the mainstream sectors, because all these vegetables, all this fruit, all these products are produced by our comrades, our colleagues from cooperatives who joined the UTT in the first place to sell their produce. So, we had to charge affordable prices that differed from the traditional market, even better than those in the UTT stores in the Almagro neighbourhood, prices that allowed neighbourhood organizations to deliver healthy food.”¹⁸

Prices and access to food were the driving forces behind the Soup Kitchen Network, but other questions arose in terms of thinking not only of food access as a violated right but the quality of affordable food that reaches people through state programmes and school cafeterias. One of the first ideas was devising a recipe book for canteens,¹⁹ followed by initiatives such as cooking workshops and political training courses. The recipe book is an attempt to return to quality food, placing value on local products (old varieties such as cassava), as well as on culturally-diverse cuisine usually cooked by people in the community. Tedesco further explained:

“ Through the Soup Kitchen Network, we started thinking about how we could spark the conversation in the neighbourhoods on what we eat and how we are feeding ourselves. This is where the recipe book comes in. It was our comrades from the neighbourhoods and the soup kitchens, and the cooks who shared their recipes. We included some fruit and vegetables that were not part of the usual diets, and the idea is to share the recipe book as part of the first stage in

our work, and to start the conversation on how we want to feed ourselves.”²⁰

Agribusiness in Argentina, and elsewhere, has not only been unsuccessful in providing the quality of food promised but has also been unable to adequately feed our population. Hunger, malnutrition, and obesity in the country have increased over the 24 years of using transgenic agribusiness models.²¹ Yet, solidarity-based networks have demonstrated the capability of small-scale food producers and localized markets to build resilient food webs that provide diverse and nutritious food at affordable prices in a moment of crisis.

Conclusion

The political management of the pandemic in Brazil and Argentina, although very different, has shown that a sense of community, care, and reciprocity are key to sustaining life. It has also illuminated something that had been historically overshadowed by an oligopolistic industry: that small-scale food producers feed the people by providing access to healthy food at fair prices.

In Brazil, historical and structural problems of racism, patriarchy, prejudice, and social segregation became obvious during the pandemic—all of which have been compounded by Bolsonaro’s administration and its neo-fascist, fundamentalist, and ultraliberal political approach.

Now more than ever, grassroots work, popular education, political training, and the exchange of ideas are vital. Solidarity based on socialist values and practices must inspire new social activists from the current working class if we are to forge a more humanized society.

While trade unions and popular movements have their shortcomings, the harsh reality created by the pandemic, and the urgent need to build sustainable pathways out of the prevailing political and socio-economic hardships, pose new challenges for left-wing popular forces.

- 1 The Brazilian Research Network on Food and Nutrition Sovereignty and Security—Rede PENSSAN, “National Survey on Food Security in the Context of the COVID-19 Pandemic in Brazil”, 2021, available at: http://olheparaafome.com.br/VIGISAN_AF_National_Survey_of_Food_Insecurity.pdf.
- 2 National Executive Order N° 297/20 of 19 March 2020, on Social, Preventive and Mandatory Isolation. For more information see (in English): “Mandatory and Preventive Social Isolation in Argentina”, L&E Global,

21 March 2020, available at: <https://leglobal.org/2020/03/21/mandatory-and-preventive-social-isolation-in-argentina/>.

- 3 Instituto Nacional de Estadística y Censos de la República Argentina (INDEC), “Incidencia de la pobreza y la indigencia en 31 aglomerados urbanos: Segundo semestre de 2020”, *Condiciones de vida*, vol. 5, no. 4, Buenos Aires: INDEC, 2021, available at: https://www.indec.gob.ar/uploads/informesdeprensa/eph_pobreza_02_2082FA92E916.pdf.
- 4 In response to the severe impacts of the COVID-19 pandemic, extra payments were made to the 3.9 million beneficiaries of Argentina’s non-contributory social protection systems, including the child benefit programme (*Asignación Universal por Hijo/AUH*, or Universal Benefit per Child), the income-support programme for the disabled, and non-contributory pensions. The government announced a one-time increase of ARS 3,100 (USD 46) for AUH, a conditional cash transfer programme for poor and/or vulnerable children and adolescents (younger than 18 years old). Second, the government also established a new *Ingreso Familiar de Emergencia* (IFE, Emergency Family Income) cash transfer programme that consisted of three instalments of ARS 10,000 each for unemployed people aged 18–65, informal economy workers, or workers under the simplified tax regime. This allocation reached nine million people. The Emergency Assistance Programme for Work and Production (ATP) granted a direct state payment of up to 50 percent of the remuneration of registered private sector workers employed by companies that had to suspend activities completely, or were unable to pay wages in full. This programme also entailed an increase in the unemployment grant and permitted the postponement of employer contribution payments and a reduction of up to 95 percent, depending on the branch or sector.
- 5 The *Canasta Básica Alimentaria* (CBA, Total Basic Basket) is the set of food and beverages that satisfy nutritional, kilocaloric, and protein requirements, the composition of which reflects the consumption habits of a reference population, i.e. a group of households whose consumption covers these food needs. The value of the CBA is used in Argentina, for statistical purposes, as a reference to establish the *línea de indigencia* (LI, extreme poverty line).
- 6 The Partido dos Trabalhadores (PT, the Workers’ Party) is a political party in Brazil.
- 7 See: Instituto Brasileiro de Geografia e Estatística (IBGE), “Pesquisa Nacional por Amostra de Domicílios (PNAD)”, available at: <https://www.ibge.gov.br/estatisticas/sociais/rendimento-despesa-e-consumo/9127-pesquisa-nacional-por-amostra-de-domicilios.html>.
- 8 B.F.N.J. Souza, M.S. Bernardes, V.C.R. Vieira, P.M.S.B. Francisco, L. Marín-León, D.F.M. Camargo, and A.M. Segall-Corrêa, “(In)segurança alimentar no Brasil no pré e pós pandemia da COVID-19: reflexões e perspectivas: (In)segurança alimentar no pré e pós pandemia”, *Inter-American Journal of Medicine and Health*, vol. 4, 2021.
- 9 “El precio de los alimentos: La carne como bien de lujo (The price of food: Meat as a luxury product)”, Agencia Tierra Viva, 11 May 2021, available at: <https://agenciatierraviva.com.ar/el-precio-de-los-alimentos-la-carne-como-un-bien-de-lujo/>.
- 10 Literally means ‘living periphery’. The concept of periphery (outskirts, suburbs) is associated with horrible living conditions and poverty. Often the *favelas* (informal settlements) are located in the outskirts of big cities.
- 11 Periferia Viva, “Elementos del balance político y desafíos de la Campaña Periferia Viva (Elements from the political assessment and challenges for the Living Periphery Campaign)”, August 2020, unpublished.
- 12 Tricontinental: Institute for Social Research, “Lo que hay en la mochila militante (What’s Inside the Activist Backpack)”, solidarity programme conducted by the Periferia Viva Campaign, November 2020, unpublished.
- 13 “Agentes Populares de Saúde (Community Health Agents)”, *Campanha Mãos Solidárias*, 2021, available at: <https://www.campanhamaosolidarias.org/agentes>.
- 14 Periferia Viva, “Elementos del balance político y desafíos de la Campaña Periferia Viva”.
- 15 The Union of Land Workers (UTT) is an organization of farmworkers, peasants, and Indigenous peoples. It brings together 17,000 families in 16 provinces of Argentina. Further information on UTT is available at: <https://uniondetrabajadoresdelatierra.com.ar/>.
- 16 The Buenos Aires Central Market is one of the largest wholesale markets in Latin America: more than 100,000 tonnes of fruit and vegetables arrive from all over the country and are then distributed to grocery stores and supermarkets to feed more than 13 million people in Capital Federal and Greater Buenos Aires. One of the market’s functions is to set prices as a reference for other wholesale markets.
- 17 The authors, Matheus Gringo de Assunção and Patricia Lizarraga, interviewed Lucas Tedesco, the coordinator of Red de Comedores para una Alimentación Soberana (Soup Kitchen Network).
- 18 Almagro is a middle-class neighbourhood in the City of Buenos Aires.
- 19 UTT and Red de Comedores, “Recetario para comedores populares”, 2020, available at: <https://uniondetrabajadoresdelatierra.com.ar/prensa/RecetarioRedComedores2020.pdf>.
- 20 Interview with Lucas Tedesco by the authors.
- 21 According to the Second National Survey on Nutrition and Health (ENNyS 2), ten percent of children under the age of five are overweight, and 3.6 percent obese. Data shows that 20.7 percent of children aged 5–17 are overweight and 20.4 percent obese. 41.1 percent of the population is overweight. See: https://cesni-biblioteca.org/wp-content/uploads/2019/10/0000001565cnt-enmys2_resumen-ejecutivo-20191.pdf.

Answers
from Below:
Reimagining
Networks across
Urban and Rural
Landscapes

9. Solidarity, Not Charity:

Emergent Strategies from the Front Lines
on Fostering a Food-Based Solidarity
Economy in the United States



People coming together in the Kelly Street Garden in New York, USA

Qiana Mickie is the Founding Principal of QJM Multiprise and for over 11 years she has worked on fostering a food-based solidarity economy in the New York region that increases farm viability, healthy food access, and leadership opportunities for food producers. Qiana is also involved in local and international policy work on issues such as food sovereignty, land tenure, and health. Qiana serves on the International Council of Urgenci, the Coordination Committee of the Civil Society Mechanism (CSM) for the UN Committee on World Food Security (CFS), as well as the boards of Farmers Market Coalition, South Bronx Farmers Market, and The Point Community Development Corporation.

Crisis is the New Normal

From the fires in the Amazon, to famine in Yemen, and farmers protesting in India—we can no longer look away from the results of the impact of generations of colonization and capitalism on land, people, and resources. The compounding economic, health, and climate crises we are facing are intertwined, the intensity prolonged, and the breadth global. In the United States (US) alone, even with increased relief funds towards the food system and public health initiatives, food insecurity has increased,¹ millions still struggle to make ends meet, and the COVID-19 vaccine roll-out continues in its failure to adequately serve communities of colour and low income.² The response has felt frenetic, rather than completely strategic, and the approach problematic for intersecting crises. Short-term measures in our food system like mutual aid or charity-reliant emergency food efforts serve more as band-aids in capitalism rather than building equitable solutions. Nonetheless, there are some signs of resilient pathways moving forward. From the ancestral lands of the Navajo Nation to urban green spaces in the South Bronx, there are emergent approaches rooted in solidarity and regenerative practices led by people of colour that are empowering communities to use food as a driver of transformation.

Racialized Capitalism



The fact is that capitalism was built on the exploitation and suffering of black slaves and continues to thrive

on the exploitation of the poor—both black and white, both here and abroad.”

Martin Luther King Jr.,

‘The Three Evils of Society’, 1967³

Racism and capitalism are inextricably linked in the US. Racialized capitalism defines the deep intersection between the reliance on the exploitative labour of people of colour and harmful agricultural practices that generate profit but deteriorate the land.⁴

US food and farm policy was designed to disproportionately foster land-based wealth and power for White Americans at the expense of Black and Indigenous people. For decades, ancestors of Indigenous peoples were violently forced off of their homeland and onto reservations by the American government.⁵ Rather than within the power of Indigenous

peoples, reservation land is under US government control in ‘trust’ (different from democratically-controlled community land trusts). Black Americans suffered significant land losses as well. Black land-owners have seen their land dwindle from 16–19 million acres to just over one million acres, the majority of it being farmland.⁶ Unable to build sovereign agrarian economies, the impacts of systemic inequities that compromise the food rights of marginalized communities are still felt today. This is what LaDonna Redmond⁷ and the late Hank Herrera⁸ began to frame as food apartheid. A result of racialized capitalism, food apartheid is when food is used as a weapon to divest power and purposefully segregate resources. This disproportionately impacts people of colour and their ability to build wealth, access land, address health disparities, and self-determine their food supply chains.⁹

Charity Connections to Capitalism and Emergency Food Security Models

The modern emergency food models, such as food banks in the US, were initially humble efforts in the midst of an economic crisis set up by those who saw an opportunity to connect people to food which had been bound for landfill. Fuelled in the Reagan administration, when millions experienced the effects of economic recession and decreased relief funding, the number of food banks and the related network of food pantries and soup kitchens increased.¹⁰ According to Feeding America, there were about 24 food banks in the US in 1980, while currently there are over 200, and 60,000 food pantries under its network alone.¹¹ Food banks transformed from informal decentralized groups of community members collecting or ‘banking’ food to distribute to needy people, into a logistical and economic mechanism for the burgeoning food security sector. The food security system has also been marketed as an opportunity to lower food waste by channelling this supply through food rescue and meal

Racialized capitalism defines the deep intersection between the reliance on the exploitative labour of people of colour and harmful agricultural practices that generate profit but deteriorate the land.

preparation services. These forms of charity do not serve as short-term aid but operate as deeply-embedded systems targeting vulnerable communities as the end recipients and consumers of food at the end of its life cycle. Equally important to note, 'food rescued' in the emergency model often comprises processed, canned, and other food items that might not be considered part of a healthy diet.

By leveraging the laws of capitalism in the form of 'supply meets demand', large-scale and commercial agriculture and large food retailers are financially incentivized through tax deductions to produce a surplus for the emergency food system.¹² While there are a number of models being used to redistribute rescued or donated food to communities of colour and low income, the issue of food insecurity remains, and in many cases is on the increase. This is not the answer to ending persistent hunger but is rather a means to maintaining a demand for cheap food in an increasing number of food-insecure people. In response to the COVID-19 crisis, US cities began to see a ramping-up of emergency food models and eventually also mutual aid efforts as the pandemic continued. The majority of mutual aid efforts were developed by concerned, yet mostly inexperienced community members new to the supply side of the food system. While community-driven, these new efforts relied on emergency food models, large distributors, and grocery chains rather than community food justice organizations that support consistent regional food supply chains. While many farmers and food businesses also offered donated food, this model is economically-unsustainable in the long term.

Food models based primarily on donations, like mutual aid, will soon have to scale up further into capitalism to survive if alternative revenue is not identified. These efforts are incapable of dismantling the root causes of food apartheid and other societal inequities faced by disadvantaged communities.

Further investment in 'band-aids' is a missed opportunity to effectively dismantle food apartheid and support a more equitable regional economy. Mutualism is an important component of solidarity and organizing, but the long-term viability of a model to cater for community needs such as food will require the integration of additional elements such as self-determination, collective leadership, and the economy.



Community markets ensure the supply of healthy food to people during the COVID-19 pandemic

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In the South Bronx in New York lies a shining example of a food security model that fosters the dignity of both food and the community. The South Bronx has historically been one of the poorest congressional districts in the US since White and affluent residents moved out, but the need for healthy food access remained even during this time of divestment. Throughout these challenging times, there has been a garden in Kelly Street. In the past five years, under the stewardship of Sheryll Durrant, garden manager, and Renee Keitt, assistant garden manager, along with garden ambassadors from the community, the vibrancy has been ramped up and production more than doubled within the garden from 640 pounds (290 kg) to over 1,300 pounds (590 kg) of vegetables annually. This is a community garden of and by the people. The community comes together through cooking demonstrations by trained community chefs, exercise, and garden education. Fresh food grown in the garden is available to the community for free. Kelly Street Garden found a feasible scale for a food security operation that yields a bounty of locally-grown produce and extends food justice through education and apprenticeships.

Direct farm-to-consumer models like community supported agriculture (CSA) also faced many challenges during COVID-19; however they were able to be nimble, and pivot with minimal significant losses overall, to continue providing healthy, regionally-grown food to communities in need. In fact, some CSAs reported membership increases—even while providing flexible payment plans and subsidized food shares due

to the financial hardship of the pandemic. Community-driven models are inherently solidarity-based with deep community connections and provide much-needed food to cities.¹³ Black, Brown, and Indigenous communities deserve to survive and thrive. Alternative systems, like a solidarity economy, have proven to offer opportunities for community and peasant-driven models to flourish, leverage resources, effectively gain collective power in politics and land stewardship, and generate a multiplier economic effect that supports critical business initiatives. As capitalism continues to consolidate power and further become extractive and volatile, the revolution lives—by pivoting towards resiliency and solidarity.

“ The problems of racial injustice and economic injustice cannot be solved without a radical redistribution of political and economic power.”

Martin Luther King Jr.,

‘The Three Evils of Society’, 1967

Solutions in Solidarity and Sovereignty

As we enter a second year of battling COVID-19 and its implications, data and lessons learned from the past year are starting to be reported. What has often been missed in the mainstream media are stories and evidence from the frontlines of solidarity-based food justice and sovereignty models—in particular from voices of colour. Activist and community groups felt the pressure of integrating impromptu safety-related protocols and inequitable allocation of resources in food relief programming—while also trying to continue their original food justice work. However, small- to mid-scale food producers and community-based food justice leaders were still able to adapt during COVID-19. Most operations did not have to close, even though the pandemic took a toll on their respective work.¹⁴ There are great examples of innovative solidarity-based food models that are rooted in resilience, committed to the fair distribution of resources, and that offered responses in the midst of crisis. Rather than being short-term measures reliant on corporate interests, these were community-driven viable approaches. Tolani Lake Enterprises (TLE) provides a great example of this. This organization was able to honour its Diné food justice principles, build critical infrastructure for water and agriculture production, and effectively leverage government funding. In building towards a solidarity economy, there are innovative ways within

The Tolani Lake Enterprises (TLE)

The TLE is an Indigenous-led non-profit organization committed to supporting regenerative economies and agricultural practices. TLE centres its work on Indigenous ancestral principles, knowledge of the land, and working in harmony in complex systems with partners.¹⁵ It has supported multiple agricultural, infrastructure, and food access projects as well as provided technical support to work aimed at dismantling generations of food apartheid faced within the Navajo Nation. TLE and its partners on the ground use the Diné planning paradigm,¹⁶ based on the path of the sun, to foster genuine collaboration and strategy, and execute their work in solidarity. In 2020, TLE leveraged a USD 3.46 million grant in federal immediate relief response funds to the Navajo Nation Department of Water Resources under the Coronavirus Aid, Relief, and Economic Security Act (CARES).¹⁷ These government funds were used to build and expand water infrastructure, such as well drilling, catchment, and access to communities (including farms, but also to homes) that have had no direct access to running water, as well as the development of hoop houses to support increased vegetable and live-stock production in areas of need. An estimated 30–40 percent of Navajo Nation residents have been living with no direct access to water for decades due to impacts of climate change and systemic inequality experienced on the reservations.¹⁸ For example, a member of the Black Falls community would have to drive 60–100 miles just to get water resources prior to this project.¹⁹



While other non-profit organizations in the country primarily focused on commodity food-box distribution or other short-term efforts with relief grants, TLE found ways to launch innovative food and water projects that will generate a lasting impact, and be viable within the Navajo Nation far beyond the grant period.

capitalism to immediately fuel alternative models. Solutions rooted in sovereignty and solidarity show us ways to thrive, not merely survive.

Call to Action and Advocacy

The key to resilience in the US food system is dismantling racialized capitalism. We cannot undo racism without addressing capitalism, and we cannot undo capitalism without addressing land. Urban communities should no longer be used as dumping grounds for food bound for land-fill. Community gardens and urban farms have the potential to be not just places of respite and commodity food distribution, but important components in a regenerative food economy. Protecting the commons in urban neighbourhoods should include protecting these lands from the effects of climate change and also developing innovative land stewardship and tenure opportunities for residents. Government resources should be allocated to support new shared equity models that enable historically marginalized communities to build infrastructure like greenhouses to grow to scale year-round, and community-based food hubs for much-needed logistics and processing of regional food supply. These approaches will support food sovereignty and have a multiplier effect amongst low-income earners and communities of colour, enabling them to have increased power in the food system and generate healthy job creation and enterprise within their historically divested communities.

On the federal level, the US government needs to pursue measures that centre racial, economic, and environmental equity and fairness. The American Rescue Plan²⁰ is expected to make strides to acknowledge historical racism within the land policy and the intentional segregation of resources and land ownership away from Indigenous and Black people. The USD four billion²¹ in this bill which goes towards debt relief from federal loans for farmers of colour is an attempt to right the wrongs of previous policies that denied this section of the population access to capital and funding to purchase or maintain land for agriculture. Continued advocacy on the ground is needed to ensure the equitable allocation of resources in this bill as well as in future bills that will support the many other new and existing farmers of colour who have been impacted throughout the country.

Community gardens and urban farms have the potential to be not just places of respite and commodity food distribution, but important components in a regenerative food economy. Protecting the commons in urban neighbourhoods should include protecting these lands from the effects of climate change and also developing innovative land stewardship and tenure opportunities for residents.

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10. Crash Barriers, Create Solidarity- Based Food Systems

Conclusion



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Community harvest of pumpkins, San Vicente, Buenos Aires, Argentina

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A Moment of Reckoning: Calling Out the Corporate Capture of the Global Food System

The COVID-19 pandemic has led to unprecedented challenges in the health, food, and agricultural systems, laying bare the fragility and deep contradictions of the dominant model of food and agriculture. However, this moment has not only highlighted the failures of the highly corporatized food and agricultural systems to provide affordable and nutritious food during a pandemic, but it has also created the impetus for solidarity among different classes of people across the Global South and North.

This is also a critical time in the international policy landscape. After much discussion and opposition, the United Nations Food Systems Summit (UNFSS) is taking place in September 2021. The highly-contested UNFSS is set to happen against the backdrop of loud and clear civil society voices calling out corporate capture within science and policy, among other areas. Civil society efforts to expose private interests and tactics to dilute the power of the grassroots within food policy structures will not be deterred. The UNFSS provides an opportunity to amplify our voices in solidarity with civil society organizations and social movements across the globe, and with the Civil Society and Indigenous Peoples' Mechanism (CSM) in particular. The CSM is an integral part of the UN Committee on World Food Security (CFS), as it is the political arena legitimized by the global community to deal with world food issues. The CFS is also the space that has been recognized by international civil society and must not be marginalized within global policy processes.

The analysis and narratives in this publication provide a glimpse into the harsh realities of the COVID-19 pandemic, unpacking the experiences of some of the hardest-hit communities and also highlighting incredible examples of solidarity across the urban and rural divide and how decisive grassroots actions ensured access to the nutritious food of their choice for millions of people. While the commercial food and agriculture sector continued operations as an essential service during the wide-ranging versions of lockdowns that were imposed across the world, the working conditions of frontline food industry workers—that kept the sector going—have not changed and instead worsened. Furthermore, as local and so-called 'informal' food markets were forced to shut down in most countries as part of the COVID-19 lockdowns, hundreds of millions of people struggled

to access food. Massive job and income losses, combined with financial hardships, meant that the millions of affected individuals and households could not afford to purchase food through supermarkets, nor through other 'formal sector' food retail channels that remained open during the lockdowns. Nonetheless, alternatives are emerging at multiple levels: from individuals actively seeking out more direct ways of accessing food that link consumers to producers, to significant shifts in what and how food is produced, and, increasingly, how it is prepared.

The worrying trends and trajectories highlighted in this publication not only demonstrate how severely broken the dominant prevailing food system is, but also how, in its current form, this model of food and agriculture is irreparable. Hence, we need to urgently transform the food and agricultural systems into localized and people-centric food systems that are independent of corporate control.

The Push Towards an Oppressively Bleak Future and Responses from Below

The development of the dominant corporatized food and agricultural systems is inextricably linked to the development of global capitalism. Therefore, proposals such as the Green New Deal, aimed at creating opportunities for socially-just public policy responses to climate change, are already being captured and corrupted by powerful corporations. In the elusive quest for growth and new sites of accumulation, corporate interests have also hijacked the sustainable development agenda to pave a new pathway to digitized and surveilled farming and food supply chains that aim to bring high technology to the countryside. As outlined in the Agriculture 4.0 article in this publication, not only does this bleak picture of agriculture seem impractical, it demonstrates the limitations of the prevailing global food system. The Agriculture 4.0 project is designed by Big Tech as a system of total control and 'dependency'. It is highly biased towards industrial agriculture where production targets corporate buyers at the cost of local markets. It encourages centralization, concentration, and uniformity, which are all dangerously prone to misuse and monopolization. A perfect design to drive us deeper into the multiple crises related to the global food system.

The political economy of this high-tech and corporate-controlled digitalization project needs to be probed further. The application of the proposed

suite of technologies is not only inappropriate for the small-scale food producers who stand to be the biggest losers in this project but fundamentally threatens their access to and control over land and other natural resources. There is a need to develop an alternate use of this technology that is crowd-sourced, where 'people' are in the centre instead of 'profit'. We need a system of non-proprietary exchanges of information and research among local communities of small-scale producers and food-processing workers. During the COVID-19 pandemic, grassroots organizations have illustrated how social media can be appropriately used to establish a direct connection between producers and consumers.

The introduction of seed patents coupled with the commercial development, distribution, and ownership represents an earlier iteration and central part of the Agriculture 4.0 application of technologies. However, small-scale food producers across the world continue to rely on farmer seed systems to access seed, through which they select, recycle, preserve, and exchange seeds at the household and community levels. Farmer seed systems represent, arguably, the largest resistance against the corporate takeover of food and agriculture. Despite the aggressive promotion of commercial seeds through regional and national seed laws and policies, farmers have managed to preserve the diversity of their seeds and traditional crops in some parts of the world. These aggressively-promoted policies include initiatives such as the Alliance for a Green Revolution in Africa (AGRA), through which commercial seed is promoted along with the Green Revolution package consisting of chemical inputs (fertilizers and pesticides) targeting African small-scale food producers, and, historically, the Green Revolution state and donor programmes that gripped Asia and Latin America between the 1960s and 1980s. The preservation of farmers' accumulated knowledge and technological systems for selecting, enhancing, and breeding seed rests on participatory approaches that prioritize the needs of small-scale food producers, and multiply and preserve farmers' seeds at the household and community level to ensure that this knowledge is passed down to younger generations.

Policies Must Serve the Interests of the People First: The Fight for Land and Food Rights

Despite the marked differences in government responses to COVID-19 in the three Asian country

narratives in this publication—Cambodia, India, and the Philippines—the impacts of the pandemic in these three countries indicate some similarities in the food systems outcomes, with worsening hunger in the face of soaring food prices, and peasant destitution and landlessness. Although state intervention in India's food system plays a critical role in providing markets for small-scale food producers, and facilitates better food access by providing subsidized grains, the urban poor and rural populations were the hardest hit by the pandemic due to significant disruption in the food supply chains. In the Philippines and Cambodia, solidarity among small-scale food producers has led to radical grassroots action that involved reclaiming their land and growing food for local markets. Civil society is calling for greater state regulation, public provisioning of food, and a rights-based approach as key components of food sovereignty. Small-scale food producers play a central role in providing communities with culturally-appropriate and nutritious food that is rapidly disappearing in urban food markets.

The worrying trends and trajectories highlighted in this publication not only demonstrate how severely broken the dominant prevailing food system is, but also how, in its current form, this model of food and agriculture is irreparable.

Further afield, in the European Union (EU), food supply chains remained intact, although the COVID-19 pandemic severely impacted farming systems, which are dominated by heavily-subsidized large-scale commercial farms that depend on migrant labour. During COVID-19 lockdowns, which entailed extensive travel restrictions and border closures, EU governments provided temporary concessions and organized air travel for workers from Eastern Europe and other countries to rescue the horticulture harvests in Spain and Italy by providing a cheap and exploitable labour force. This demonstrates the critical role of migrant workers as the backbone of the EU's food system as essential workers. However, the EU has not taken concerted action to address its discriminatory laws, nor the poor working and living conditions endured by migrant workers. The EU's continued support for a model of agriculture that is fundamentally based on

the exploitation of an invisibilized and vulnerable workforce while displacing small-scale food producers highlights the complacency of capital and its co-opting of EU governments and the very institutions that are meant to govern and regulate it.

Reimagining Networks across Urban and Rural Landscapes

While pervasive inequality plagued the world before the outbreak of COVID-19, the pandemic has fuelled increasing levels of inequality on multiple fronts, exacerbating the urban-rural divide, and worsening gender and racial inequality. The three narratives from the Americas—in this publication Argentina, Brazil, and the US—highlight how uncoordinated government responses added another layer of complexity and strain to already broken food systems. In the US, corporate food chains that dominate the food systems have penetrated state-driven emergency food supply. In Brazil, the impacts of the COVID-19 pandemic were even more severe following a series of retrogressive policy reforms that led to the dismantling of key institutions in the fight against hunger. Increasing levels of corporate control and concentration in Argentina's and Brazil's food systems resulted in skyrocketing food prices during the pandemic. However, it is sometimes out of hardship and strife that the impetus for change is born. The power of community-led initiatives in Brazil has gone beyond simply distributing food and hygiene parcels during the pandemic or beating opportunistic corporations trying to piggyback on the efforts of community activists through PR-driven donations: this power can be seen in the creation of spaces for leftist political education and awareness-building.

In Argentina, new forms of resistance against the corporate capture of food supply and nutrition emerged through the Red de Comedores por una Alimentación Soberana (Network of Soup Kitchens for a Sovereign Diet), which attempts to move away from traditional soup kitchen menus consisting of ultra-processed and canned donated foods. This network, which was initially created as a result of the historic event in which a peasant organization took over the management of the *Mercado Central* (Central Market) of Buenos Aires, has been strengthened by the efforts of more than 200 organizations that, during the pandemic, focused their actions on supplying fresh

produce and locally-grown food at affordable prices to the poorest neighbourhoods. In the US, marginalized people of colour in different parts of the country, from the ancestral lands of the Navajo Nation to urban green spaces in the South Bronx in New York, are building their own and inclusive local food systems through approaches rooted in solidarity. At the core of these emerging hyper-local food markets are the principles of food sovereignty—the rights to self-determination, collective leadership, and dignity. In urban settings, the resilience and success of these models hinge on their ability to integrate mutually-supportive food production and distribution networks into local economies.

Our Food Systems are Broken and Need Urgent Fixing

If a world free of hunger is a direct outcome and the main measure of the efficiency of the monolithic global food system, then it should be clear for all to see how spectacularly badly this vast and complex machine is doing in fulfilling its intended purpose. Yet, policy thinking about the future of food and agriculture continues to be captured by corporate interests. The corporate influence in the sustainable development agenda is well documented and the unholy alliance between agribusiness and Big Tech signals the unleashing of an unprecedented race to the bottom as governments make way for the new digital evolution epoch. However, capital—agribusiness, Big Food, and Big Tech—cannot escape the new and widening rifts that are threatening the world's largest economies, from growing inequality to increasing environmental pressure, as these failures are reflected in the challenges confronting the global food system. Against the backdrop of these crises, new and resilient alternatives are taking hold in urban and rural communities across the world. While calling out their governments and keeping them accountable, local activists and communities are taking back ownership of their food production, distribution, and markets. The chapter on Brazil and Argentina, 'Class Solidarity in the Fight against Hunger' presents experiences to show that popular grassroots movements can undertake strong, solidarity-based endeavours to fight against hunger in urban-rural peripheries. It is possible to develop solidarity networks to deliver healthy food at affordable prices to food-insecure sections of the population. The pandemic and policy responses that restricted mobility and imposed physical distancing have fostered mutually-supportive relationships between producers and consumers.

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The RLS Agrarian Politics Working Group is a collective of people working for RLS offices around the world on issues of food sovereignty, farmworkers' rights, and agroecology. In collaboration with civil society and farmers' organizations they are analysing the corporate capture of agriculture and advocating for democratic and sustainable food and agricultural systems.

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This publication presents incredible examples of solidarity across the urban and rural divide and how grassroots and solidarity actions ensured access to nutritious food for millions of people during the COVID-19 pandemic. While the commercial food and agriculture sector continued operations as an essential service during the lockdowns imposed across the world, the working conditions of the frontline food industry workers—that kept the sector going—have not changed and instead worsened. Furthermore, as local and ‘informal’ food markets were forced to shut down in most countries, millions of people struggled to access food through the supermarket and other ‘formal sector’ food retail channels that remained open. The prevailing food system is not only severely broken but in its current form it is irreparable. Hence, we need to urgently transform the food and agricultural systems into localized and people-centric food systems independent of corporate control.

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