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Policy Brief Series

Urban Food Systems and the Pandemic

Assessing the Impact of COVID-19 on
Food Systems and Adaptive Measures
Practiced in Metro Manila

August 2021



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A Joint Research Project by the



About this publication

The Food and Agriculture Organization of the United Nations, the United Nations Development Programme, the World Food Programme, and the International Fund for Agricultural Development conducted a joint research on “Assessing the Impact of COVID-19 on Food Systems and Adaptive Measures Practiced in Metro Manila.” This research aims to support the implementation of the Socioeconomic and Peacebuilding Framework which guides the engagement of the United Nations in the Philippines with government and development partners in reinforcing efforts in the Philippines to recover from the COVID-19 crisis and stay firmly on the path towards achieving the Sustainable Development Goals. This synthesis report and policy brief presents the key findings from the research assessment covering impact experiences, emerging adaptive practices and evidence base of transformation of Metro Manila’s food systems amid the COVID-19 crisis. It provides recommendations to address challenges and issues to facilitate holistic and robust transformations.

About the cover

People lining up for food items at the Maginhawa Community Pantry in Quezon City. The COVID-19 pandemic has kindled the Filipinos’ spirit of *bayanihan* expressed through the many community pantries that have sprung across the country as a volunteer-led and community-based mitigation measure against hunger and food insecurity during the crisis. Photo © UNDP/Jilson Tiu

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Foreword

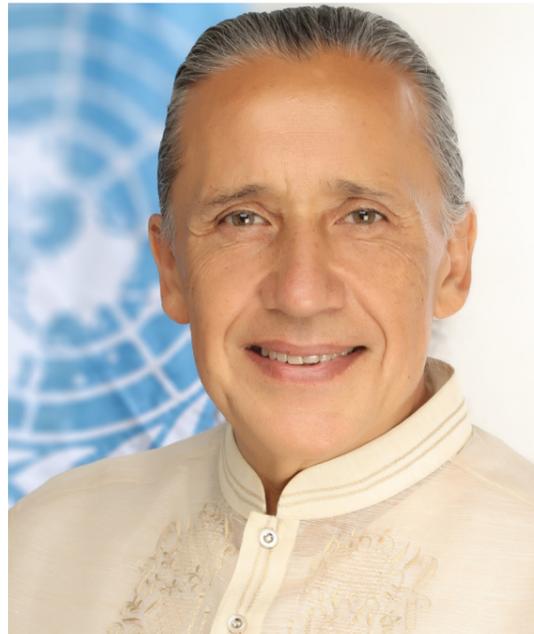
COVID-19 has caused severe disruptions to global food systems, reversing years of developmental gains in the agrifood and fisheries sector.

In the Philippines, the magnitude of impacts has revealed itself in loss of jobs and incomes, unforeseeable shocks to the economy, and widespread increases in food insecurity affecting the vulnerable.

To assess how the impacts manifest across the food systems in Metro Manila, the Food and Agriculture Organization of the United Nations (FAO), the United Nations Development Programme (UNDP), the World Food Programme (WFP), and the International Fund for Agricultural Development (IFAD) jointly undertook the research on **Assessing the Impact of COVID-19 on Food Systems and Adaptive Measures Practiced in Metro Manila**. This research covered impact experiences, emerging adaptive practices and evidence base of transformation of Metro Manila's food systems amid the COVID-19 crisis.

This synthesis report and policy brief presents the key findings from this research assessment and provides recommendations to address challenges and issues to facilitate holistic and robust transformations.

These recommendations will also inform the implementation of the United Nations' updated Cooperation Framework with the Philippines—the Socioeconomic and Peacebuilding Framework for COVID-19 Recovery in the Philippines (SEPF). The SEPF, which was endorsed by the United Nations



Country Team (UNCT) in 2020, is our blueprint for supporting the country to recover from the pandemic, while keeping the country on track to achieve the Sustainable Development Goals (SDGs), in a manner that leaves no one behind.

I am grateful to the Development Coordination Office (DCO) for its financial support that made this research possible.

Thank you.



Gustavo Gonzalez
Resident Coordinator
United Nations in the Philippines

Executive Summary

COVID-19 is the latest addition to the list of crises causing severe disruptions to global food systems and reversing years of developmental gains in the agrifood and fisheries sector.

As the pandemic unfolds, the magnitude of impacts has revealed itself in loss of jobs and incomes, unforeseeable shocks to the economy, and widespread increases in food insecurity affecting the vulnerable. It has magnified the risks and forced pressures that are considerable and have significant implications to the activities and roles of food supply chain actors, stakeholders, and governments alike.

In the Philippines, around 109 million people are at risk, with 26 per cent that rely on agriculture for livelihoods and 47.4 per cent urban food consumers that heavily depend on rural and peri-urban produce.¹ A rapid assessment conducted jointly by the Food and Agriculture Organization of the United Nations (FAO)

and the International Fund for Agricultural Development (IFAD) indicates that the effects of the COVID-19 pandemic on the agrifood system of the Philippines have created new vulnerabilities and long-term issues.² Surveys conducted by the National Economic and Development Authority showed that the agriculture sector lost an estimated PHP94.3 million (about \$1.9 million) from unsold produce from key producing regions supplying most of the food requirements of major demand centers, and an overall loss across agriculture, industry and service sectors amounting to PHP1.1 billion (around \$21.8 million), or about 5.6 per cent of the country's gross domestic product.³

Metro Manila, or officially the National Capital Region (NCR), the most densely populated region in the country where more than 10 per cent of the population reside, has become the hotspot of the COVID-19 pandemic in the Philippines, with more than 41 per cent of total cases in March 2021.⁴ NCR is the seat of government and the largest local food market worth \$9.3 billion every year, accounting for 18.5 per cent of the total annual food expense of the country.⁵ Majority of the urban population (60 per cent) is engaged in

¹ World Bank. "Population Estimates and Projections" (2021). Available at <https://datacatalog.worldbank.org/dataset/population-estimates-and-projections>. (accessed on 1 March 2021).

² Food and Agriculture Organization of the United Nations. *Rapid Assessment of the Impact of COVID-19 on Food Supply Chains in the Philippines* (2021). Available at <http://www.fao.org/documents/card/en/c/cb2622en/>.

³ Philippines, National Economic and Development Authority-Inter-Agency Task Force Technical Working Group for Anticipatory and Forward Planning. "We recover as one" report details road to new normal," (29 May 2020). Available at <http://www.neda.gov.ph/wp-content/uploads/2020/05/We-Recover-As-One.pdf>

⁴ Philippines, Department of Health. *COVID-19 Tracker. Updates on Novel Coronavirus Disease (COVID-19) Nationwide Cases* (2021). Available at <https://doh.gov.ph/2019-nCoV>. (accessed 3 March 2021).

⁵ Philippine Statistics Authority. *OpenSTAT, Demographic and Social Statistics* (2021). Available at <https://openstat.psa.gov.ph> (accessed 5 March 2021)

the informal economy sector, including casual labour and small-scale producers and distributors of goods and services within the food systems (street vendors, carinderias or informal food stalls, and wet markets), which are highly vulnerable and at most risk during a crisis or shock with the work arrangements that do not provide access to protection and social security.^{6,7}

After a year of lockdown in Metro Manila in the fight to contain COVID-19, the observed impacts have dramatically increased the levels of uncertainty and have disrupted the national food supply forecast and food security strategic plans. To undertake the assessment on how the impacts manifest across the food systems in the metropolitan region, the research assessment focused on the following objectives:

- To document the impacts of the COVID-19 crisis on the agrifood supply and distribution systems catering to Metro Manila, and to demonstrate the

trend on how these systems have adapted to the “new normal”

- To examine the extent or severity of the COVID-19 crisis impacts in terms of food security and nutrition of the most vulnerable, underserved, and special sections of the metropolitan population
- To assess the emerging best practices in local governance, sustainability and business delivery, and digital solutions to addressing bottlenecks in agrifood supply chains, and access and availability of food by consumers
- To identify the gaps in evidence, where further research and collaboration may be required, and recommend the relevant policies and programmes by the government and by development partners on the way forward to address the agrifood supply chain and food security challenges and issues

The research assessment used a food system approach that considers Metro Manila agrifood systems in its totality. The data collection was shaped by integration of information collected from the perspectives of key informants engaged remotely, desk reviews, findings of the existing assessment reports, and applicability of diverse COVID-19 experiences across Metro Manila to the complex food systems. The findings presented in this synthesis report and policy brief covers all food systems components, from production to consumption played by different sets of actors and stakeholders under existing societal elements such as socio-cultural, institutional, infrastructural and policy environments, among others.



WFP enumerators enforce COVID-19 preventive measures during the SCOPE registration of beneficiaries for the UNCERF project in the Municipality of Malilipot, Albay. Photo © WFP/ Maitta Rizza Pugay

⁶ United Nations Development Programme. “COVID PULSE PH: Urban Poverty in the Time of the Pandemic” (2020). Available at <https://www.ph.undp.org/content/philippines/en/home/library/poverty/covid-pulse-ph---urban-poverty-in-the-time-of-the-pandemic.html>.

⁷ International Labour Organization. *COVID-19 Labour Market Impact in the Philippines: Assessment and National Policy Responses* (2020). Available at https://www.ilo.org/manila/publications/WCMS_762209/lang-en/index.htm.

Key Findings

Risk pathways and the impact of COVID-19 crisis on agrifood systems

- **Primary production risks.** Small-scale food producers are considered less resilient to COVID-19 shocks, particularly in terms of restricted mobility and travel suspensions, due to farm operations requiring intensive labour, from planting, growing and harvesting to delivering farm produce, and their dependency on the market value chains. Farmers supplying fresh agrifood products to Metro Manila faced serious challenges accessing markets to sell their produce or buy essential farm inputs. Poor connectivity to markets amplified by marginalized farmers and fisherfolk’s heavy dependence on concentrated distribution points such as in urban demand centers were the most commonly mentioned and emphasized hurdles by both farmers and fisherfolk.

In the medium to long term, the primary production sector is affected indirectly by COVID-19 through the disruption of input supply chains and of consumer demand due to lost income and other economic impacts of the pandemic. One year into the pandemic, and with farm operations’ efficiency and productivity slowing down, farmers are put further at risk to secure adequate financing and cash flows for easy access to production inputs, and pre-harvest and post-harvest activities to sustain a resilient production system.

- **Food demand risks.** Demand-side risk seems to be the more important potential source of food insecurity, with the biggest risks on consumers’ access to food. As the pandemic continues, the COVID-19 containment responses resulted in

increasing economic hardship, transforming health risk problems into income and employment risks.

The crisis has created shock on food demand channeled through income risks by change in consumer spending behaviours, and the increasing number of people being out of jobs and losing their livelihoods. The short-term shock on food demand is strongly linked with the consumer panic-buying behaviour observed across food markets due to the perception that food will be unavailable as community quarantines are being enforced. Food demand risks are predominantly restricted to vulnerable population members, the majority of whom have no savings, have limited access to safety nets and need to allocate a bigger share of their budget to food. In the long term, declining demand by the change in consumer food spending driven by consumers’ decreasing purchasing power affects the ability of producers to invest in their products, which will further deplete food production.

- **Food supply and distribution risks.** The most visible risk is on food supply and distribution due to unprecedented disturbances in logistics and infrastructure connecting food value chains from the field to the table. The agrifood supply value chains have been disorganized and badly disrupted in the early weeks due to restrictions on vehicle movement and road traffic controls. The limited availability of public transportation services caused mobility and accessibility problems for consumers and food sector workers alike. Poor communication channels among food system players added to the supply shock.

The disrupted delivery movements of agrifood products resulted in an increased incidence of food wastage due to spoilage of highly perishable commodities, lower farmgate prices because of deteriorated quality, and higher retail price because of increased hauling cost. The potential risks on food loss and waste were particularly massive on the informal sector consisting of wet market sellers and operators, food vendors, and small retailers because they do not have storage capacity and access to food processing infrastructures.



Hundreds from Manila's indigent communities line up early in the morning for the community pantry set up by Mang Tootz Food House in Sampaloc. The pantry was inspired by the Maginhawa Community Pantry in Quezon City. Photo © UNDP/Jilson Tiu

Continued enforcement of social distancing and limits on internal and external logistics on food supply chains translate to increased logistical transaction costs and thus consumer prices. The impacts are more in the downstream retail and food service which are mostly informal-sector small and medium-sized food enterprises (SMEs) with higher densities of workers and limited spaces, as well as limited control and capacities to implement safety and hygiene practices. These effects can compound each other in a vicious cycle cascading to indigent urban food consumers.

- **Public policy and institutional risks.** Policy and institutions have major direct and indirect impacts on shaping the structure of, and decision-making in, agricultural supply chains, and on the relationship of food systems players. Evidence suggests that the impacts are widely felt but varied and unevenly seen across food systems.

SMEs across metropolitan areas faced significant problems. Public and private market operators

were distressed by the orders to stay at home and close their stalls during the Enhanced Community Quarantine (ECQ) implemented by the government, without clear information or assistance on how they could comply with the long list of health safety requirements to reopen. However, retail and food service firms in modern food supply chains faced fewer problems, and least affected were the supermarket chains which can enforce the flow of customers, social distancing and hygiene standards. For example, supermarkets were allowed to remain open even during ECQs while informal and open-air food markets, which typically sell fresh agrifoods such as fruits and vegetables, were shut down as they are seen as spaces for potential disease transmission. This move was especially detrimental to people who are more reliant on such markets because they can only buy produce and food in smaller quantities and to the informal food market workers who depend on selling food commodities as their main livelihood.

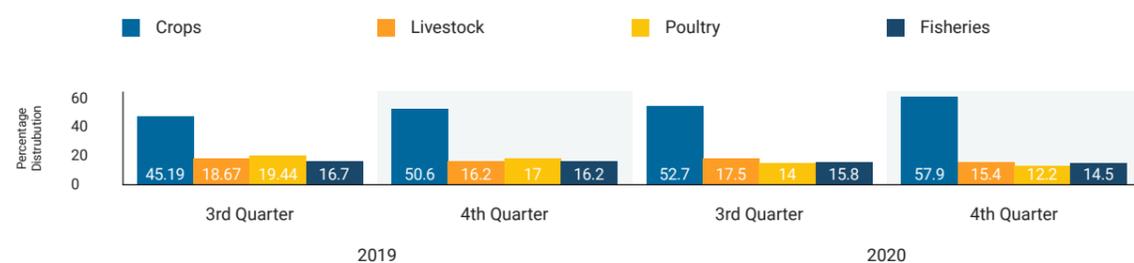
Impact dynamics on selected agrifood commodity value chains

FAO project team. Members of an FAO project team hike to a remote, agriculture-dependent village in Altavas, Aklan Province. FAO, in partnership with the government and with funding from UNICEF, supported the construction of a water impounding system to improve water access, farm productivity and nutrition in the area. Photo © FAO/Ed Borra

The Philippines has managed a relatively healthy level of agriculture production during the pandemic period, in part facilitated by the government response measures to ensure agrifood systems continue to operate.

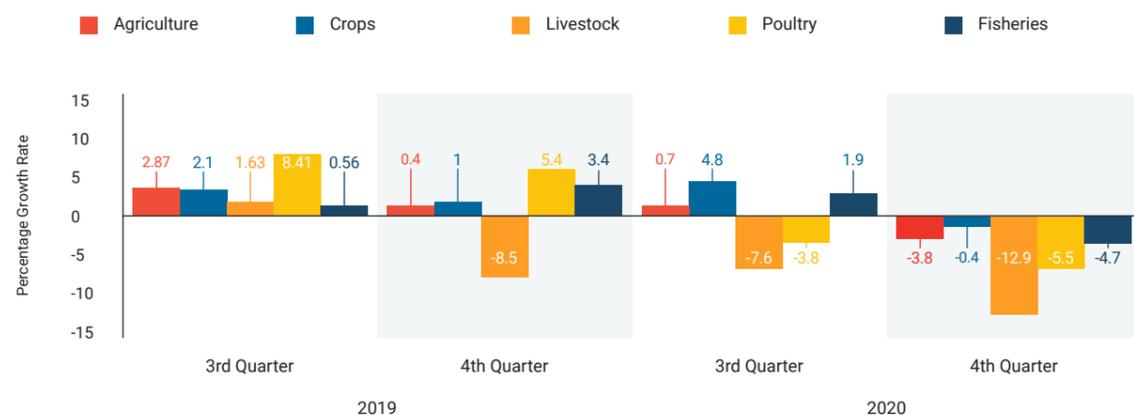
In the fourth quarter of 2020, however, the value of agricultural production at constant 2018 prices decreased by 3.8 per cent. The decline was noticeable in all four key subsectors, with livestock having the highest accounted reduction primarily due to the ongoing African Swine Fever (ASF) crisis, followed by poultry, fisheries, and a slight decline in crops.⁸ Not all key agricultural subsectors have been equally affected, and different agri-commodities have experienced disruptions at different stages of the value chain.

Figure I Philippine agriculture performance in terms of subsector percentage distribution from 2019 to 2020



Source: PSA, Online Database-Performance Summary/Infographics

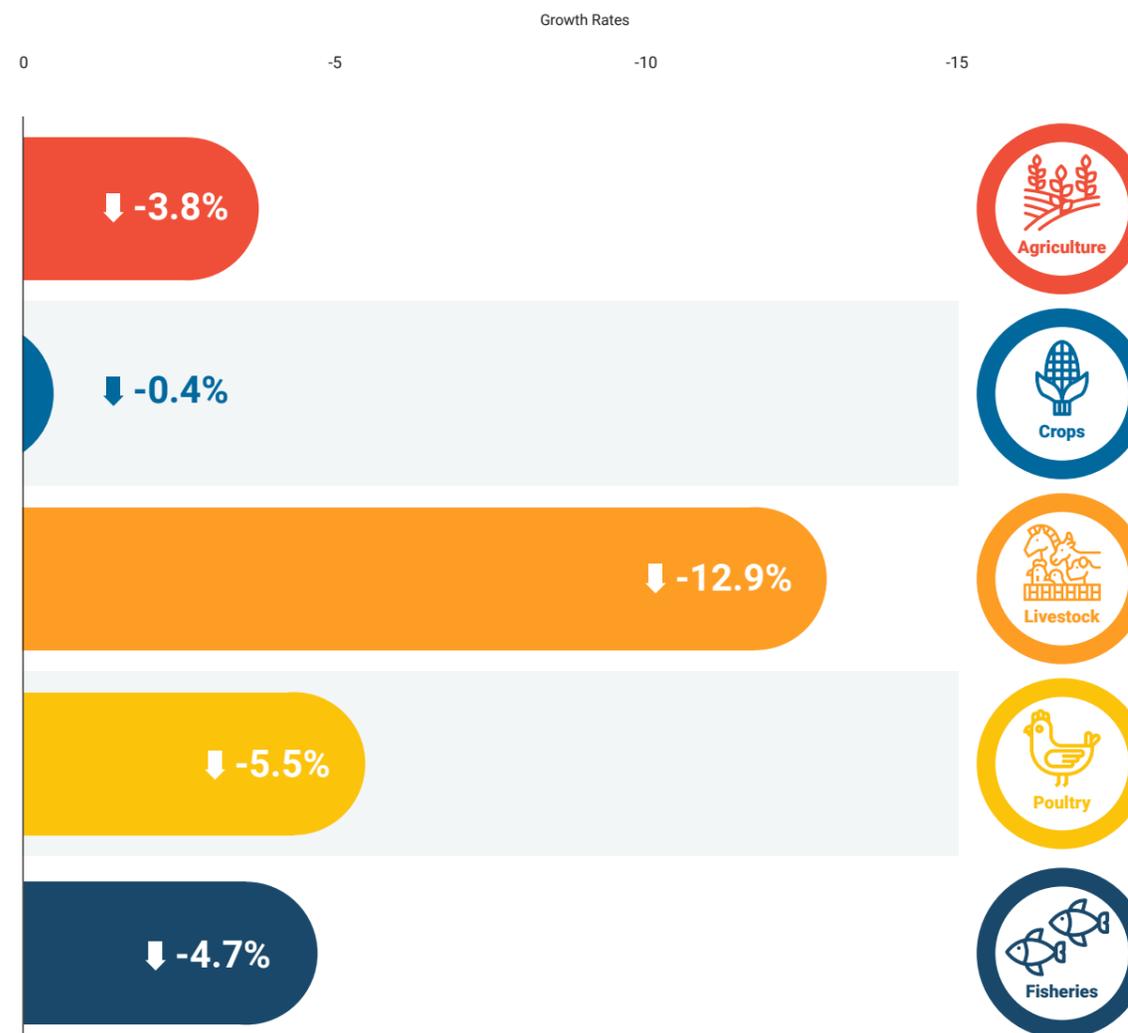
Figure II Philippine agriculture performance from 2019 to 2020



Source: PSA to Philippine Statistics Authority (PSA) Online Database

⁸ Philippine Statistics Authority. *Performance of Philippine Agriculture (2021)*. Available at <https://psa.gov.ph/content/agricultural-production-decreased-fourth-quarter-2020> (accessed 12 March 2021).

Figure III Value of production in Philippines Agriculture and Fisheries Q4 2020 at constant 2018 prices



Source: PSA Q4 2020 Value of Production as of January 2021

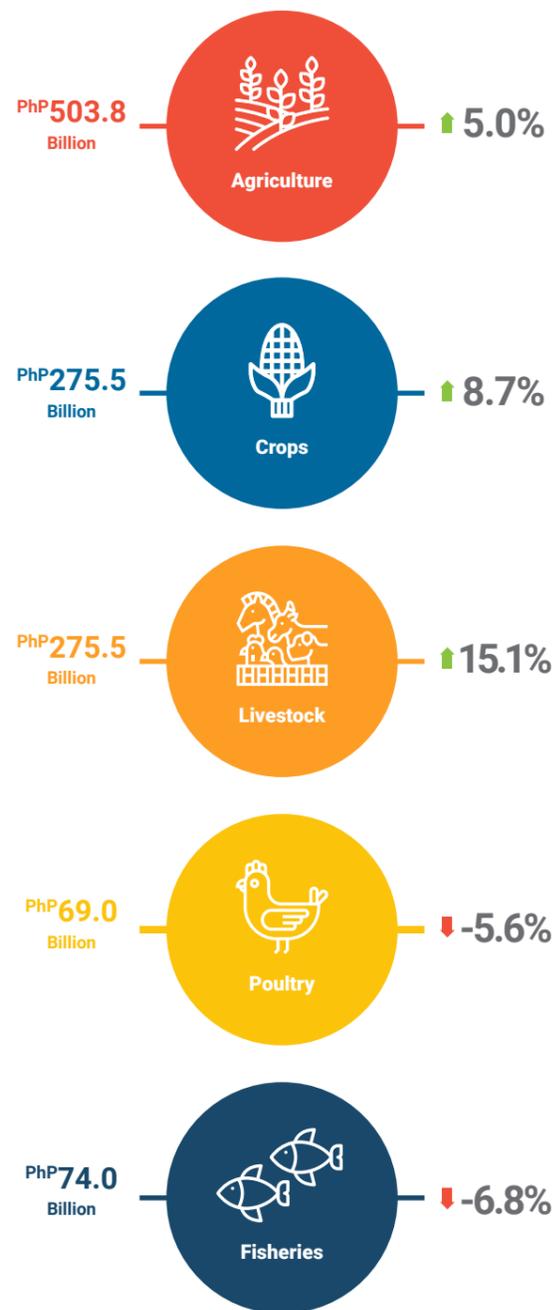
Vegetable value chain

- There was an oversupply issue because of the blockage of supply from the producing regions as movement restrictions were enforced during community quarantines. The oversupply issue worsened even when the lockdowns were eased in Metro Manila in June 2020 since the demand for food products plunged as the food service/

industrial industry, hotels and restaurant partially shut down due to movement restrictions and stay-at-home orders.

- Farmers were unprepared, having nowhere to market their next harvests and experiencing serious income losses. Every year, January-June is the productive harvest period for crop farmers

Figure IV Value of production in Philippine agriculture and fisheries, Q4 2020 at current price levels and growth rates



Source: PSA Q4 2020 Value of Production as of January 2021

because of favorable growing climate and less typhoon occurrences during these months. Farmers tend to grow a single vegetable variety at the same time, usually one that brings higher cash returns serving a special market segment and a limited purpose. This results in saturation of the market with excess supply that is unusable for other purposes. The shortage and glut in vegetable supply is seen as arising from the lack of data to guide the production intentions and the low consumption of Filipinos of high-value crops such as highland vegetables. Poor practices particularly on vegetable commodity handling, such how they are packed, transported and sold to different market segments, have led to higher losses. Packaging of leafy vegetables alone resulted in 30 per cent wastage.

- In the long term, problems in the vegetable production areas lie in the lack of supply-demand data that will guide farmers, connect them to market destinations and unify efforts across value chain actors to make sure that enough of the right food is produced.

Rice value chain

- In the short term, there is no reason to expect rice supply problems with the reported gains in paddy rice output, and rice as one of the shelf-stable staple foods. Overall, farmers produced 626,710 tons more in 2020 than in 2019. Rice retailer informants have experienced increased demand from new markets coming from different groups buying rice for public food relief programmes. The transport of rice coming from warehouses to distribution points were slightly hampered during ECQs but were soon resolved with the issuance of food passes. The price of rice was stable during the early months of the pandemic, as it was covered by a price freeze and the enforcement of suggested retail price scheme both for local and imported rice, implemented by the Department of Agriculture.

- At the farm production level, farmers experienced initial difficulty in selling their harvest (paddy rice) due to rural-urban bottlenecks. Limited movements of traders led to increased price differences between producers and consumers, decreased income and cash flows, and hampered business operations in the local rice value chain. Enforcement of the ECQ in March coincided with the harvest season but labour and farm activities were only slightly affected as most small farms relied on family labour and workers within their localities.

- Likewise, after the passage of the Rice Tariffication Law, rice prices have been decreasing since the second quarter of 2019, with the surge of cheap rice imports. Filipino consumers including rice farmers themselves benefitted from lower and more stable rice prices. However, the surge in imports hit farmers with a significant drop in farmgate prices, further hurting farm income. The pandemic-induced changes in global rice trades, such as decisions limiting the flow of rice within and between countries, the global export bans and other trade restrictions, imply the need to focus on boosting productivity

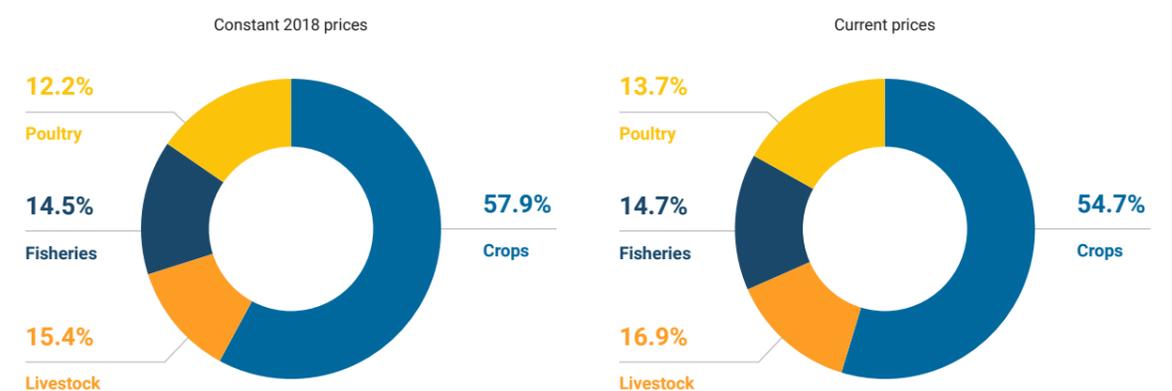
and competitiveness in the rice sector. In the long term, any shock on production and global rice trade could trigger a price crisis.

Livestock and poultry value chain

- The ASF outbreak which the pork industry is facing outweighs the possible impacts of the COVID-19 crisis as agency efforts are largely channeled on ASF eradication. Industry informants are now projecting a weaker demand in contrast to the initially positive growth forecasts. Due to ECQ enforcement across demand centers, the consumption of pork and chicken meat has dropped by about 20 per cent to 30 per cent, although chicken meat consumption is projected to recover as restrictions were eased for dine-in food establishments towards the end of 2020.

- While demand for meat was further slashed, backyard producers struggled to look for alternative buyers as the capacity of slaughterhouses was reduced when Luzon was put under ECQ, preventing some of their workers from turning up due to limited transportation. Many farms were put under quarantine as

Figure V Percent distribution of value of production



Source: PSA Q4 2020 Value of Production as of January 2021

some workers contracted COVID-19, limiting livestock buyers' entry to the farms. Direct buyers or livestock haulers play a crucial role in collecting marketable hogs or chickens from one community to another for either direct selling to the wet markets or channeling to the slaughterhouses.

- The movement restrictions had a direct impact on the transport of marketable animals and deliveries of feeds and veterinary materials to farms. Serious delays on travels expose the animals to heavy stress during transport to the slaughterhouses and markets, affecting meat quality and carcass recoveries. Deliveries of inputs to the farms such as feeds and veterinary inputs were also hampered as many third-party transport providers for agri-inputs servicing routes to different provinces were restricted and completely disallowed without the "food lane pass" on the trucks and vehicles. The same was true for delivery drivers and helpers or pahinante without an exemption pass from the COVID-19 Inter-Agency Task Force for the Management of Emerging Infectious Diseases (IATF). Moreover, the crisis has caused serious shipment and logistical congestions in global trade routes, driving shipment cost of imported inputs to an all-time high.

- In the long term, the impacts of the pandemic indirectly hindered ASF recovery, and ultimately the growth performance of the livestock and poultry sector. According to the Bureau of Animal Industry (BAI), operations of their field-based staff were limited to postponement of physical farm evaluations and inspections, and output of the ongoing livestock development programmes were delayed as focus was highly directed to ASF recovery. There was an observed reduction in

the number of smallholder livestock and poultry raisers, and of feed establishments who renew their licenses to operate in 2021. Further, meat prices continued to rise as supply continued to decrease despite the government's cap on pork and chicken meat prices and a 150 per cent surge in pork import volume. Higher meat prices crowd animal protein out of the food budget, pushing a large segment of the population into food and nutrition insecurity.

Local dairy value chain

- Despite the COVID-19 crisis, the country's dairy sector posted a value increase of 18 per cent to PhP1.207 billion in 2020 from PhP1.023 billion in 2019. Noted also were the decreasing imports (1.13 per cent) because of dampened consumer demand due to pandemic-induced economic slowdown, and declining global exports of milk and dairy products. While local dairy production continues to increase annually, it barely covers 1 per cent of the total supply of the liquid milk equivalent, accounting for about 30 per cent of liquid milk supply. Metro Manila remains the major market for fresh milk, making up almost half of the demand.

- In the case of smallholder dairy buffalo (carabao) farmers, which accounts for 35 per cent of local milk production, the impacts of the COVID-19 pandemic were spread across the local value chain. Dairying, like fishing and vegetable farming, is most susceptible to disruptions, as it is labour-intensive and involves perishable supply chains. A survey by the Philippine Carabao Center indicated that disruptions in normal activities were felt mostly by milk processors (72 per cent) and distributors (65 per cent) during the first six months of community quarantine.⁹ Reduction or



Fish market, Samar Sea, Philippines. Fishing remains a major source of livelihood in coastal communities. Photo © FAO/Petri Suuronen

discontinuity in dairy operations was experienced by most village-based artificial insemination technicians (72 per cent), while most farmers (83 per cent) expressed difficulty in accessing inputs such as feeds and veterinary services. Prices of milk and milk products were reported as stable. A notable volume of spoiled (25 liters) and unsold (174 liters) milk per week was reported among farmers and processors.

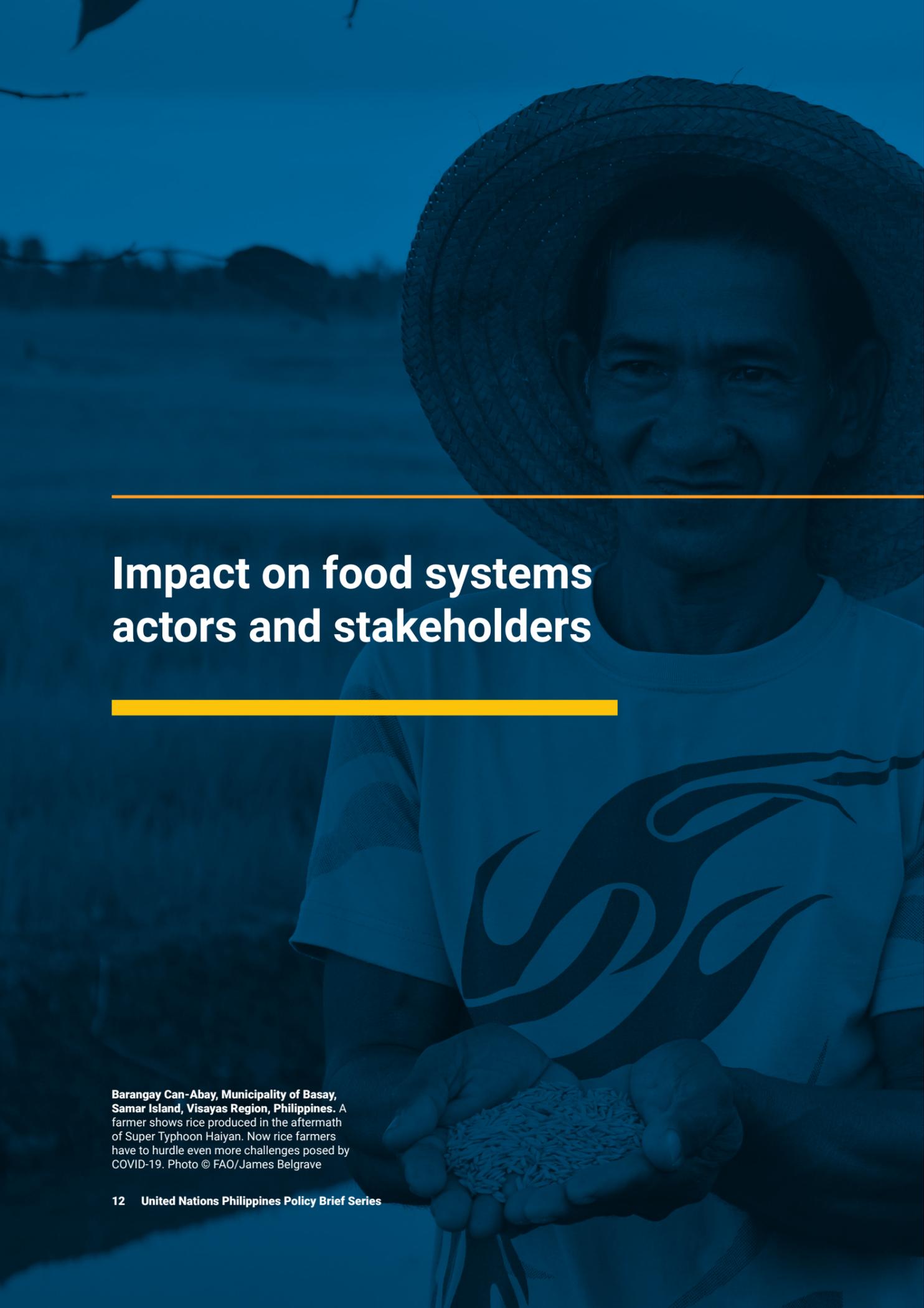
Fisheries value chain

- The most immediate impact felt by the fisheries sector was the disruption in the buyer-seller link, with chain-of-market disruptions translating to income losses among value chain players, particularly fisherfolk and aquaculture farmers. Transport providers charged a premium price for cost of delays and limited availability of transportation. Reduction in market accessibility has led to adverse situations that extended from production to distribution as restricted by transport down to the retail and open wet fish markets. There were also negative impacts on the availability of fry and fingerlings as air travel was

suspended, which resulted in a temporary rise in the cost of fingerlings. However, other inputs such as feeds supply were manageable as most of the feed mills in nearby regions remained accessible.

- The change in demand for fish and the weaker demand from institutional markets created substantial market changes that affected both aquaculture and capture fisheries. The closure of restaurants, fast-food chains and other food establishments resulted in surpluses of fish products, particularly high-value fish species from captive fisheries. In Metro Manila, the market was sustained because of online purchases, delivery systems and mobile markets, but the market reach was limited to middle- and higher-income households. Selling prices of capture fisheries and aquaculture production were also affected. While the prices of fish for exports decreased since there were no exports, as noted for prawns grown by large-scale fish-exporting farmers, the selling prices of the most-consumed farmed fish, tilapia and milkfish, were stable due to continuing demand from municipalities and local markets.

⁹ Philippine Carabao Center. *Impact Assessment of COVID-19 on Carapreneurs' Livelihood and Food Security* (2020). A PCC final result presentation, April 2021.



Impact on food systems actors and stakeholders

Barangay Can-Abay, Municipality of Basay, Samar Island, Visayas Region, Philippines. A farmer shows rice produced in the aftermath of Super Typhoon Haiyan. Now rice farmers have to hurdle even more challenges posed by COVID-19. Photo © FAO/James Belgrave

Smaller agrifood producer

The most affected actors are the smallholder producers, with the extent of impacts varying among subsectors. The crisis has weakened farmers' economic and social capacity to participate in the market due to poor and inequitable access to information and communication technology (ICT). Farmers were left behind in the increasing e-commerce and digital transformations. This compounded the difficulties experienced by the sector as a consequence of cheaper imported rice in the market and the looming impacts of increasing labour, transport and input costs.

Informal markets

Mobile operations constitute informal markets and play a central role in local food systems, making use of streets and open markets to both feed urban populations and generate accessible means of livelihoods for millions of people. Informal players across food systems are particularly vulnerable because majority lack social protection and livelihood support. The regional trade and city policy towards a supermarket mode of food provisioning rather than a local market-based distribution system is driving the informal food vendors to be detached from the food chains. Without addressing this trend, more livelihoods may be lost and many urban consumers will increasingly be deprived of fresh and cheaper food sources.

Low-income urban consumers

Although the government's Social Amelioration Program provided 20 million households nationwide with a second tranche of cash aid, it is evidently unable to address the basic needs of families in an extended crisis. Low-income consumers' nutritional food requirements are compromised as many have cut their food budgets. Hunger incidence is increasing, and as many informal settlers are relying on food aids to survive, the schedule for distribution of food relief packs has become erratic and less frequent over time.

Women in agrifood systems

In terms of labour, women largely comprise the downstream food commodity chains segments, with 74.8 per cent in services, retail and wholesale, while 15.4 per cent are in upstream food commodity chains or production, and 9.8 per cent are in processing. These statistics underpin the recognized relevance of women in food systems, which does not exempt them from facing difficulties in absorbing COVID-19 social and economic shocks. On top of this, women carry the burden of ensuring the nutrition security of their households, as most often they are responsible for food purchasing, preparation and looking after the family's wellbeing.

Special consumer segment: Halal food products

The food needs of Muslim consumers in Metro Manila are overlooked especially in crisis situations. There are few Halal restaurants in Metro Manila, not counting the local eateries in the Muslim districts. With the increased difficulty in continuing regulatory inspections for validating and certifying Halal products, including chicken meat, Muslim households have increasingly resorted to buying live chickens and slaughtering them at home. Some have also reported personally easing strict compliance with Halal consumption at the height of the lockdowns. The prices of Halal products were affected as the meat imports for the raw materials became irregular.

Farmers were left behind in the increasing e-commerce and digital transformations.

Emerging trends and adaptive practices

Seeds of recovery. The agriculture sector strives to recover from the impacts of the COVID-19 pandemic, as it did in 2013, following the disaster caused by Super Typhoon Haiyan. Farmers survived with the help of the international community, the Philippines' Department of Agriculture and FAO. Photo © FAO/James Belgrave

Government response actions and programmes

- The COVID-19 Food Resiliency Task Force was created to ensure the availability, affordability, accessibility and safety of food supply in Metro Manila and other parts of the country. The measures embedded to food resiliency, spearheaded by the Department of Agriculture (DA), have contributed towards mitigating disruptions in the supply chain, monitoring prices of basic goods, ensuring sufficiency of food supply throughout the islands, and unhampered mobility of farmers and agricultural workers.
- Continued flow of agriculture and fisheries products under the Food Resiliency Protocol was assured, allowing vehicles carrying food commodities, agriculture and fishery products, as well as farm inputs, to pass quarantine checkpoints. As a general rule, all farmers and fisherfolk, both from the municipal and commercial sectors, are regarded as economic frontliners, exempting them from movement restrictions.
- The issuance of a food pass through quarantine checkpoints is a privilege given to suppliers and truckers that ply the roads of Metro Manila and other regions during the community quarantine to ensure unhampered food supply to affected areas. The Department of Agriculture certifies suppliers and truckers for the food lane privilege, allowing preferential incentives such as, but not limited to, truck ban exemption.
- Measures for overall communications and monitoring of the task force was established through the Task Force Food Hotline, with a menu of services for food lane, food supply, rice concerns, fish concerns and livestock concerns. Another approved IATF measure was the reactivation of the Local Price Coordination Council to strengthen food price monitoring and enforcement.
- There has been action to improve access to finance through the Expanded SURE Aid and Recovery Project. The Department of Trade and Industry (DTI) offers working capital loans to agri-fishery micro- and small enterprises and emergency assistance to marginalized small farmers and fishers to continue operations amid the enhanced community quarantine. The financing programme was designed in support of the Department of Agriculture's *Ahon Lahat, Pagkaing Sapat Kontra COVID-19* or Plant, Plant, Plant programme, which aims to increase farm productivity and ensure food sufficiency during the COVID-19 emergency situation.
- To increase access to market, the pilot Online National Food Fair in <https://shopee.ph> and the Shopee mobile app by DTI agencies and Shopee featured—micro-, small, and medium-sized enterprises (MSMEs) selling healthy snacks, vegetarian and gourmet food, processed food products and various local delicacies.

As a general rule, all farmers and fisherfolk, both from the municipal and commercial sectors, are regarded as economic frontliners, exempting them from movement restrictions.

Mobile food markets

- Connecting farmers directly to market, a project initiative of the Department of Agriculture through *Kadiwa ni Ani at Kita*, *Kadiwa*, loosely translated as “one idea, one thought,” aims to boost small farmers’ and fishers’ income through direct product selling to end-users and increased institutional market linkages. It operates in three modes: *Kadiwa Retail* or *Direct Selling* which establishes physical retail stores to accommodate farmers’ produce for sale to customers especially in population-dense areas; *Kadiwa on Wheels* which brings agri-fishery products to barangays and villages through rolling stores in vehicles; and *e-Kadiwa* or the digital marketing platform that allows customers to order products online. Local government units (LGUs) in Metro Manila have also been devising their versions of mobile food markets to reduce movements of people to purchase food.

Urban agriculture across metropolitan cities

The COVID-19 crisis has highlighted how urban agriculture rises to serve urban populations during crises. Increasingly, local governments are publicly embracing urban agriculture as a tool to bring agriculture to urban dwellers and promote the importance of growing their own food or having local food production. Many new forms and innovations of urban farming have emerged which can inform greening initiatives, community food security, outdoor health interventions, and other social, environmental and economic benefits in the new normal.

- Urban farming can contribute to the recovery potential in the food sector in Metro Manila upon transition to the new normal. In Quezon City, most residents were empowered to use small spaces to produce food. Growing leafy vegetables provided food and income to some households within a short period.
- To enhance the Quezon City government’s campaign to strengthen food security and urban agriculture, City Ordinance No. SP-2972 S-2020



was approved in October 2020, exempting idle lands from Idle Land Tax if used for urban agriculture for a minimum period of three years.

- In Pasig City, an Ordinance No. 01, approved on 28 January 2021, which develops, promotes and institutionalizes an integrated urban agriculture in the city to address food security, health, environment concerns and livelihood opportunities.
- Urban hydroponic farming is becoming popular among millennials and farming hobbyists (e.g. NXTLVL Farms, Urban Greens, other community-based and private-led urban farms) who know the market but lack the open space needed to grow crops. Hydroponics-produced greens in the city decreased food miles with consistent and better quality. These are sold at a premium price in modern food supply chains such as high-end

supermarkets and restaurants, and consumer groups that prefer healthy foods. The higher adoption rate across the country for hydroponics is in part coping with the crisis towards food and income security to provide year-round a wide variety of fresh vegetables.

Digital food environment

- The COVID-19 crisis has opened a window to the rapid development of digital technologies and networks that will accelerate food system transformation by guaranteeing safe access to food when commercial food establishments are closed and access to food retail is controlled.
- Initially, digital innovations promoted efficiencies mostly on the downstream points (consumer and retail level) along the value

chain. Evidence of digital innovations originating on-farm, particularly to access markets, was unnoticeable. There was also no observed spillover effect of market digitalization at the farm level, which would provide direct interaction between farmers and the end market.

- Consumers’ increased access to the internet, smartphones and mobile banking systems resulted in strong engagement in buying foods online. There was also an influx of fresh agrifood products, from fruits and vegetables to frozen meat and seafood, purchased through free social media apps such as Facebook. This propelled food chains to shift towards online portals to enhance sales, offering better food selection, convenience and safety, and creating a digital food environment and experience during community quarantines. The online food market has had a huge impact on food product differentiation: from selling a variety of food preparations and cuisines to buying fresh produce and even changing consumer food preferences to healthier items.

- As the pandemic unfolds, digital platforms have increased the number of markets, leading to better outcomes mainly at the end of the value chain as the platforms catered to urban dwellers who can afford to buy food online. However, these digital solutions do not solve the rural–urban disconnect or ease the supply chain breakdowns (e.g. for high-value crops). They only provide food retailers a venue to facilitate the flow of goods across quarantined urban populations. It is not clear whether these digital solutions and online market or food channels would scale up and embed the process in entire food systems considering the limited network reach, poor access to ICT at the upstream level, and farmers agencies weakened by the pandemic.

Social innovations through community pantries

- The emergence of community pantries, which started on Maginhawa Street, Quezon City, is a manifestation of the population's perception of the inability of government support to keep pace with the growing needs in Metro Manila. Food as the main component of relief operations happens all the time especially during disasters but responding to the need for food has required a stronger cooperation among locals. A community-based campaign to ease hunger is self-regulating, which means anyone who needed food could get from the available food products in the pantries, and anyone who had spare food could give.
- The rise of community pantries has led to the recognition of income status as a social determinant influencing food security. People scrambling for free food reflects the impacts of the COVID-19 crisis on vulnerable groups, including people with low incomes, the elderly, migrant workers and those displaced by increasing joblessness in Metro Manila.

- Community pantries may be temporary as they were solely intended as an emergency food service and not as a long-term strategy to manage chronic food insecurity. However, the simple rule in organizing of the community pantries clearly includes food access as a lens to the socioeconomic issues induced by the pandemic. Like other innovations, the design of community pantries, which centers on the spirit of collaboration and understanding for those in need, can be used as a criterion for long-term strategies to address the systemic problem of hunger and food insecurity, and the need for food systems transformation.

Exploring alternative protein sources as meat prices rise

- The prices of livestock products, especially meat, have soared since the fourth quarter of 2020 despite the government's efforts to put a cap on prices. Livestock raisers who lost their livelihoods due to ASF have either ventured into poultry, diversified with high-value crop farming, or are exploring other livestock resources that have been undervalued yet remain a promising resource as they offer a niche market. BAI informants have mentioned the increasing efforts of private groups and animal industry professionals to develop rabbit production as a source of meat and alternative livelihood for farmers. There is also increased interest in the development of native animals (chickens) and the production of small ruminants (meat goats) by infusing improved animal breeds through the DA-BAI animal breeding stocks importation. Meanwhile, the Quezon City local government is supporting backyard farmers affected by ASF by converting empty pig stalls into urban aquaculture, specifically for the production of freshwater fish such as catfish and tilapia.



Ifugao Rice Terraces, Philippines. Ifugao terraces have shaped a striking landscape in the mountains between 800 and 1,500 meters. Indeed, they were previously forested areas while others are presumably grasslands. It is however, the availability of water that dictated the building of the Ifugao terraces and allowed them to create this system. Photo © FAO/Lena Gubler

Issues and gaps in food systems development

Stop soil erosion, save our future. Bureau of Soils and Water Management, Philippines. Photo © Djolly Ma. Dinamling

An assessment of the COVID-19 crisis impacts and emerging adaptive practices, as experienced in Metro Manila, revealed evidence and gaps to consider in designing interventions and approaching food systems transformation.

Strategic gaps in preparedness, response and recovery strategies. Gaps in addressing disruptions to food supply bottlenecks were seen in the lack of transparent routes in the food supply and distribution systems and in the inadequate logistical directions to link rural food producers with urban demand centers. The drastic enforcement of containment measures had no parallel strategic preparedness measure for a whole-of-food value chain operation guidance. While the issuance of food lane passes to suppliers and truckers of agri-fisheries products has facilitated the continued flow of food commodities, many informal small players in the supply chain have been excluded because they lacked the capacity to comply with the documentation requirements for food lane accreditation. Informal food system players at the downstream level such as family-run retailers or food vendors have a critical role to play in food retail and distribution across Metro Manila; thus, their inclusion or participation in preparedness, response, and recovery strategies is necessary.

Information gaps particularly on market dynamics within food system actors and stakeholders. This is evidenced by the millions of losses incurred from farmers' unsold produce, retailers' closed businesses, and urban consumers' stockpiling behavior and lack of awareness of how far food travels to get to their tables. The crisis also revealed the poor and ineffective ICT systems that prevents access to farmers at the right time and location. The information blockage from farm-to-table pathways

made supply and demand erratic and more complex. In addition to the climate and weather behaviours that have been the focus of many interventions, a felt need of farmers is the timely availability of information on technology and market opportunities so they could move beyond the COVID-19-induced disruptions. Changes in marketing trends and dynamics, particularly on market demand, should be cascaded to farmers to avoid production losses and trade-offs, and promote synergies in their farming decisions. Moreover, there is a pronounced inequity in ICTs which are highly concentrated in urban areas. Information and communication support and services appear as a luxury rather than a need to overcome information gaps which impact rural farmers, fisherfolk and women.

Long-standing institutional gaps. The COVID-19-induced supply chain disruptions have brought up the frequently overlooked interconnectivity of upstream, mid-stream and downstream levels between formal and informal institutions in a food system. The transfer of responsibility for the development and delivery of services to the agriculture and fisheries sector from the central to the local governments came with a transfer of resources. This has widened unintended gaps in institutionalizing accountability and participation of food systems players. Further, targeted social protection and safety nets for food systems actors have been limited and opportunistic rather than systematic.

Implementation gaps on urban agriculture programmes. Community gardening in Metro Manila has existed years before the pandemic but sustainability was marked by a lack of volume and diversity of produce, as well as agricultural innovations to expand and optimize urban space. Appropriate urban gardening technological interventions integrated in long-standing urban gardening programmes, and consistent extension activities to scale up good practices could have eased the supply bottleneck caused by the dependence of urban regions on specific food

distribution points. Farming innovation and high technology are a requisite for food and nutrition security. Food policies in urban regions are rarely designed in connection with other policies such as rural development and with different levels of actions (coordinated actions and collaborations among various levels of governance); thus, there is a lack of comprehensive, interdisciplinary, inter-institutional and multi-stakeholders' perspectives.

Knowledge gaps on magnitude of Food Loss and Waste (FLW) occurring along the value chains.

The COVID-19 crisis has hampered the effective management of the food supply chain, causing unforeseen pre- and post-harvest losses to consumer waste for highly perishable agrifood commodities such as high-value vegetables and fishery products. There was less attention on finding immediate solutions to reduce FLW along the production and supply chains despite reports of farmers dumping their produce, non-operating processing centers recovering wasted food, and urban consumers stockpiling. In Metro Manila, FLW is the blind spot in finding solutions to hunger. Even before the pandemic, living in poverty meant looking for food among garbage while restaurants dumped their unsold produce for the day and consumers stockpile food without a consumption or meal plan. With the growing disparity in food access, FLW needs to be targeted in policy and programme designs to reduce income losses of farmers and promote food access.

Food governance accountability gaps. The government recognizes the problem of hunger and malnutrition in the country and has formed the Inter-Agency Task Force on Zero Hunger. The task force formulated the National Food Policy, which details the efficient use of government resources to end hunger, achieve food security, improve nutrition and attain sustainable agriculture. However, accountability for ending hunger and malnutrition is too spread out to put into practice and there is a lack prioritization of solutions. For example, LGUs with worsening hunger indicators should take action

and invest in expanded food security and nutrition programmes instead of responding with standalone feeding programmes for specific population groups. Although the pandemic has recalibrated the Zero Hunger goal by 2030 to at least bring back the hunger incidence to pre-pandemic level, the national government should also align sectoral goals for increased accountability in solving worsening hunger and malnutrition.

Capability gaps on food provisioning. The lack of capacity for adaptation and change in the food supply chain highlights the relatively weak role of the farmer in food systems, despite the farmer being the provider of raw agricultural product. For instance, emergency food provision programmes need a more focused approach in managing the worsening problem of hunger, and should target economic relief based on economic vulnerability indices. Low-income households face a higher risk of food insecurity during the COVID-19 pandemic; thus, food provisioning strategies must be more frequent and more diverse as food insecurity levels increase especially among families relying on food assistance programmes. It is this lack of clear guidance on emergency food aid that inspired ordinary citizens to set up community pantries to feed those in need.

Financial and resources gaps. COVID-19 has put immense financial pressure on the government due to economic shrinkage and the reallocation of resources towards emergency health response and social assistance programmes. The resources needed to address the economic impacts of the pandemic on the agrifood and fisheries subsectors and to protect rural economies by guaranteeing the economic sustainability of agricultural enterprises were not clearly earmarked. There has been too much focus on commodity-specific and short-term emergency measures. The inequitable allocation of resources aimed at improving the production of susceptible agrifood commodity systems will harm the potential for resilient transformation in post-pandemic recovery.

Policy Recommendations

The scale of the crisis has underscored the need for current food systems to transform in order to thrive, withstand and recover from potentially worse future disasters and emergencies.

The transformation should be purposive and strategically informed by systemic risks, such as those discussed in this research, and risks on primary production, food demand, food supply and distribution, public policy, and institutions. Interventions addressing risks and challenges should also leverage the emerging autonomous and assisted adaptive practices and innovations that offer lessons on effective long-term strategies.

Fostering an enabling legal and policy environment for food systems transformation

- **Upholding the rights of and support services for smallholder agrifood producers.** In the midst of crisis, smallholder farmers and fisherfolk have shown how essential they are to the economic stability of the country and the food security of the population, including those in urban centers. The crisis has also highlighted their vulnerability to widescale market-related and logistical disruptions, and their lack of adaptive capacities due to limited agencies and prevailing social inequities. There is an urgent need to uphold the rights of smallholder farmers and fisherfolk, as enshrined in the Magna Carta of Small Farmers (Republic Act 7607). It is also necessary to secure



Loida Lagan, fish vendor from Palawan, Philippines. "We learned how to dry fish and squid more efficiently by minimizing spoilage and proper cleaning. We are optimistic that we can have better incomes. We've also learned how not to be too dependent on our spouses, that women can help, and we've become more confident in doing that." Photo © FAO/Rommel Cabrera

the equitable benefits and opportunities intended for farmers and fisherfolk by agricultural and rural development policies and plans supporting their socioeconomic endeavors. The pandemic emergency highlighted the need for social security and safety nets to protect smallholder agrifood producers from personal and social disasters; a more systematic fulfilment of their right to receive vital information on market

demand and prices; access to financial support services like credit; and access to technologies. More than ever, securing land and water tenure and rights are needed to ease the compounding burdens on their role as primary producers.

- **Creating shorter food value chains and dispersed agrifood distribution systems.** Restricted mobility during the pandemic has

magnified just how distant and far-removed urban consumers are from sources of food. The disruptive effects COVID-19 on the complex web of actors connecting farm to table is further shaken by a sudden change in the demand mix, which exposes the lack of transparency routes and the unorganized food supply chains as experienced in Metro Manila. For example, disruptions in the transport of highland

vegetables to urban demand centers disconnect supply and demand, creating surpluses for producers and shortages for consumers. For certain products, like high-value catch fisheries, demand has decreased, leading to a temporary oversupply. Food value chains must be shortened and localized to increase market flexibility. Food distribution systems must be dispersed so that producers can reach their markets more easily and consumers can purchase food items more quickly and safely, especially when movements of persons and goods are restricted. Open and diversified markets are essential to the smooth distribution of food along supply chains and the assurance that it can move to where it is needed. This reduces food loss in the system and increases access and consumption of fresh, healthy and diverse foods. However, this also requires appropriate governance and long-term investments for the informal actors and economies such as mobile markets, street vendors and local eateries which have been catering to local populations during the pandemic. There should also be support for stricter monitoring and regulation of community retail, wholesale wet markets and processing clusters, and redesign for improved health practices, so that they maintain essential operations during the crisis and remain competitive when it passes.

- **Building a common understanding of the roles of the national and local governments in agricultural development and food governance.** The pandemic has put a spotlight on the crucial role of the agriculture sector during a crisis but agricultural policies have been unsuccessful in sparking a dynamic development as the impacts of the COVID-19 crisis are felt. The Department of Agriculture has calibrated its approach and “new thinking” is underway, preparing the scene for more localized action. As the national government steers, the LGUs are best suited for collaborative food governance that will enable local value addition and local trade facilitation. The crisis has showcased the abilities of LGUs not only in mobilizing rapid response but also in

leading innovations that are fit for purpose. While the development of agriculture and fisheries is already within their mandates, LGUs can further promote and support more diverse production systems to include locally developed and adapted crop and animal varieties. They can also develop input methods to boost local food production which is essential for shorter food supply chains. However, agriculture is not the concern of the Department of Agriculture and LGU alone. All food systems actors, including development partners, private sectors and consumers have valuable roles to play in transforming local food systems beyond COVID-19.

- **Developing the urban food space.** The rising adoption of urban gardens demonstrates the ability of the urban populations to grow their own foods and the potential for augmented food supplies for families, whether in normal and crisis situations. Households themselves are at the forefront of this emerging trend but LGUs play an important role in optimizing community spaces for urban farming, as well as boosting the volumes and diversity of produce. In addition to ensuring that urban agriculture is factored into the spatial planning of urban areas, public investments should be directed towards game-changing solutions to the issue of the urban food space. This should involve the participation of urban populations, private sector partners, and informal segments of the food system in order to be responsive to the food and nutrition needs of marginalized sectors.

- **Supporting the National Food Security Strategy and Plan with urgent consideration of climate change impacts and protracted crises.** The ongoing development of the National Food Policy and the National Food Security Strategy and Plan is important in ensuring the availability, stability and affordability of food. It will also secure food accessibility and safety, along with nutrition adequacy. The Department of Agriculture has undertaken a National Food Consumption Quantification Study to determine

the volume of food needed in the future to support the growing population. A dynamic system for monitoring has been developed to feed into food production allocation strategies. It is crucial for these policy actions to be able to anticipate worst-case scenarios of shocks and threats to food systems. The impacts of climate change are already being felt and projected impacts are even more devastating and are anticipated to compound the long-standing structural problems faced by the agriculture sector. Strategic planning must place climate change consideration at the center of long-term directions for food and nutrition security.

Addressing institutional and operational challenges for crisis mitigation and preparedness

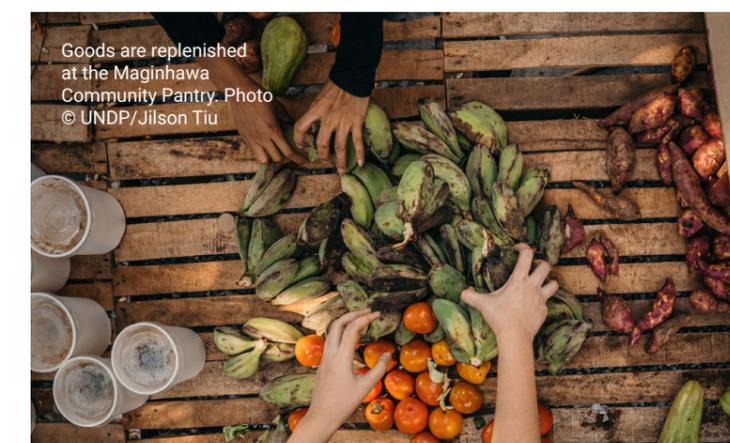
- **Multi-hazard and interoperable monitoring and early warning systems.** The ability to anticipate the onslaught of hazards in agriculture and shocks to the food system has become more urgent than ever. The Department of Agriculture, through collaborations with the Department of Science and Technology, has been ramping up its capabilities in monitoring and early warning systems for agro-meteorological hazards such as drought and typhoons. There is great potential to expand systems for other emergent natural and human-caused hazards especially for pest and disease management in crops and livestock. The challenge is to increase these multi-hazard capacities and make them interoperable with related monitoring systems such as those for public health, nutrition and even market information. These early warning systems must stand with decision-support and anticipatory action protocols to ensure timely and speedy mitigation actions and response to threats and shocks across the food system.

- **Cohesive intra-governmental mechanisms to prepare for food systems disruptions.** After an initial period of confusion, supply chain disruptions were addressed, partly with the help

of the response measures of the COVID-19 Food Resiliency Task Force. The food pass strategy and the *Kadiwa* programme were instrumental for Metro Manila. These interventions involved the cooperation of government agencies at different levels and coordination with private sector actors—a prime example of the whole-of-society approach to stave off hunger during crisis. The lesson from this is that intra-governmental mechanisms have to be prepared well in advance to anticipate the possible magnitude of disruptions. This entails aligning directives between national and local authorities; simplifying inter-agency bureaucratic arrangements; and putting in place protocols (such as transport routes, specialized lanes) for crisis scenarios during the normal period and ensure that interventions can be deployed cohesively. As in the case of the food pass, these requirements should be arranged with food systems actors at various segments well before the onset of the emergency.

Improving technical capacities of food systems actors

- **Information and feedback systems.** The impact pathways experienced by food systems actors pointed to a lack of information that could have allowed them to cope with and adapt to the impacts. There is an urgent need for a comprehensive, accessible and user-friendly





A woman takes vegetables from the community pantry to cook for her household. Everyday, hundreds of Filipinos line up to get what they need and give what they can to survive the economic shock caused by the pandemic. Photo © UNDP/Jilson Tiu

agricultural market information system that will serve smallholder farmers and fishers in production planning and marketing, and MSMEs in the food production and distribution industry. Such system should be designed to receive feedback from these actors in a timely and efficient manner.

- **Reforms towards more effective food supply chain management.** The hampered movement of agricultural inputs and commodities which led to short-term disruptions show the general disorganization of food supply chains, with bottlenecks in farm labour, processing, transport and logistics. This is a whole area of intervention that will require more intensive cooperation between the public and private sectors to organize more efficient but adaptable logistics and transportation, storage and distribution mechanisms, among others. Reforms and capacity-building should be aimed at transitioning into shorter food supply chains and dispersed agrifood distribution systems. They should also consider the shift in food demands especially for urban centers like Metro Manila.

- **Inclusive capacity-building for digital and technological innovations.** Farm digitization and

e-commerce are defining the transformation of food systems especially in food provisioning in urban centers. However, smallholder farmers and fisherfolk at the helm of primary production continue to be left out in the digitalization of production and marketing processes. This is also true for small players and informal actors in the food supply chain. Capacity-building for these approaches must allow the inclusive participation of smallholders and informal actors, with consideration of skills and access to technologies. The digital divide must be bridged to ensure the sustainability of the digital revolution. Government may leverage the clustering approaches and the move towards locally led extension support to provide communal access and shared technological resources as needed by the farming and fishing communities.

- **Dealing with food loss and waste.** The COVID-19 crisis has shown how the transport and logistical disruptions and the lack of information in the shifting market dynamics contributed to massive food losses from the oversupply of highly perishable agricultural commodities, especially high-value vegetables and fishery products. This meant income loss for farmers and fisherfolk and reduced availability of produce

for consumers. The precarity of food availability further underlined the importance of avoiding food waste in households. Transforming food systems must entail more attention and targeted approaches to mitigating food loss and waste at various segments of the chain.

Innovations in crises response

- **Social protection and safety nets for food systems actors.** While the cash and food subsidy programmes for farmers and fisherfolk, wage subsidy programmes from labour agencies, and Social Amelioration Program for the general population are necessary interventions, the protracted crisis has rendered these responses to be insufficient, and distribution was met with many challenges. Still, these conditional and unconditional cash transfers and subsidies have become a source of demand boost for the economy and served as a lifeline against hunger especially for the smallholder food producers and the urban poor. Social protection

programmes—including credit, insurance and other financial support services—must be redesigned to be progressively shock-responsive and properly connected to decision-support and anticipatory action protocols across government. As in the current crisis, the speed of delivery to beneficiaries is critical and this is heavily influenced by data-driven approaches. For instance, the improvement of the roll-out of the programmes targeting the production segment of the food systems is the improvement of the Farmers and Fisherfolk Registry Systems and Databases. New schemes and programmes should also be developed to reach other food systems actors that are underserved.

- **Private sector as a partner in sustainable delivery mechanisms for aid and food system innovations.** Big changes can be done in the delivery mechanisms for aid in a much shorter time as long as the incentives and will are there. Evidence suggests that most of food systems innovations that emerged in the value chains



A nun gives breads for the Maginhawa Community Pantry, which has received donations in cash and in kind from across the country and even abroad. The concept of the community pantry is for people to look out for one another in the face of a crisis. Photo © UNDP/Jilson Tiu



Livelihood recovery support in Cotabato Province, Mindanao, Philippines. A farmer at Sitio Bulacayon in Pigkawayan Municipality walks next to a water buffalo (or carabao) she received through FAO. The primary objective of this New Zealand-funded FAO project is to contribute to the attainment of sustainable peace and development in the province by supporting the government in the restoration and building the resilience of agriculture- and fisheries-based livelihoods affected by conflict, drought and flooding. Photo © FAO

Agri-entrepreneurs need an enabling environment provided by the government to develop context-based solutions in response to the changing food market needs.

are private sector-led. For example, the digital transformation in the downstream sides of food supply chains (e-commerce) are driven by private main players scaling up technological outcomes to products and services aiming to increase efficiency; and innovations in urban farming practices for increased resilience of agrifood systems. Agri-entrepreneurs need an enabling environment provided by the government to develop context-based solutions in response to the changing food market needs. Banks and local financial institutions, including money courier and transfer facilities, both physical and virtual, have provided much needed service in the distribution of aid under the social protection schemes of the government, as well as in facilitating personal acts of charity among citizens. This highlights the wide potential for the private sector to have

a more formalized and prominent role as a provider of sustainable, extensive and efficient delivery mechanisms for aid to reach various segments of the population faster.

Seizing the benefits of gender-responsive interventions

- **Strategies and mitigation measures need to specifically target women's jobs and income generation potential to prevent declines in their economic activities and to address specific vulnerabilities.** Some gender-specific implications of the pandemic, which cut across food systems, manifest in women's economic role in the food value chains. This includes their integral participation in agricultural labour and informal food enterprises and markets. Transforming

beyond COVID-19 requires intentional inclusion of gender expertise and analysis, and ensures meaningful participation of women in designing long-term response measures affecting rural farming livelihoods, agriculture and food security. Short-term COVID-19 crisis responses need systematic integration of highly vulnerable women, particularly women who are heads of households, and who disproportionately work in informal food enterprises with little or no income security. This can be done by targeting special assistance funds and social protections. Further, increased coordination with LGUs and concerned governmental institutions is needed for collection and use of sex-disaggregated data on all impact dimensions of the pandemic in moving towards gender-responsive transformations from the crisis in all affected sectors.

Paying attention to the needs of special consumer segments and vulnerable groups

- **Inclusion and responsiveness to diversity.** Transformations in the food systems, including preparing for emergencies, should take into consideration of the ethno-cultural and religious diversity of populations and their food needs. This study highlighted the challenges faced by the Halal food production system and Muslim consumers in Metro Manila. Continuity of services and specialized aid for this consumer segment must also be prioritized in the different government programmes. Moreover, the status impacts on forcibly displaced populations such as refugees, asylum seekers, stateless persons and internally displaced persons. Their food security and nutrition needs should be investigated to ensure their inclusion.

Areas for United Nations Support

This research offers strategic insights for the United Nations agencies in the Philippines to mobilize support for the programmes, in collaboration with government and civil society partners, to bridge the gaps and facilitate the holistic transformation of food systems.

It avails of the immediate opportunities in the context of aiding recovery from the immediate impacts of the COVID-19 pandemic and working systematically towards long-term and sustainable food systems transformation and overall food and nutrition security.

The Socioeconomic and Peacebuilding Framework (SEPF) 2020-2023 puts people at the center. Although the current crisis has affected everyone, the poorest segments of the population, vulnerable and at-risk groups, smallholder farmers and fisherfolk, informal workers and enterprises, women and children, and ethno-cultural minorities, have suffered disproportionately. These segments of society are to be prioritized, while leveraging the potentials of these same groups to contribute and catalyze the transformations. In relation to agriculture and food systems, the SEPF pillars provide the priority focus areas: (i) food and nutrition security; (ii) shoring social protection systems; (iii) provision of support across the value chain segment to improve resilience of MSMEs and the informal economy; and (iv) leveraging untapped potential for agriculture-based

inclusive growth and sustainable agrifood systems. In line with these, the UN in the Philippines is initially exploring the following joint programme areas in support of the recommendations arising from this joint research.

- **Harnessing leadership and boosting accountability in food systems governance**

The United Nations stands ready to continue assisting the Philippine government in the policy- and institutional-level interventions to foster an enabling environment to improve governance of food systems, through the development of coherent, coordinated, multi-sectoral policies, laws, programmes and investment plans. The United Nations will support the national government as it leads the reforms in the agriculture and food sectors, and operationalizes, among others, the National Food Policy and the Philippine Plan of Action for Nutrition. It also envisions to support local governments and local food system actors to contribute to food systems transformation through technical assistance and capacity-building. This should harness their leadership and boost their accountability as they take on more prominent roles in agricultural development and food systems governance. It will increasingly explore local level technical assistance to improve extension work on critical urban food production aspects, such as food waste management, good agricultural production practices, nutrition education, and community procurement planning and monitoring, among others. It will ramp up support to address related challenges such as rural-urban food provision, diversification of diets especially for the urban poor, land-use planning, climate change adaptation planning, managing food waste and loss, as well as emerging issues such as increasing air pollution, water quality and their impacts on urban food quality.

In the immediate term, as a continuing response to the COVID-19 crisis, the United Nations will work with the government and civil society to increase efficiency in the various segments of the agrifood

supply chain and to put in place appropriate emergency protocols to mitigate further disruptions as experienced. The United Nations will support local actions to amplify impact and make social innovations and community efforts like the food pantries be better organized and more effective, while continuing to safeguard the health and safety of all.

- **Facilitating technological change and innovations to green and accelerate food systems**

With the prominence of digital and technological innovations across the food chain, not only as an adaptive measure for the current crisis but as long-term strategy, the United Nations will endeavor to facilitate the development and transfer of low carbon and green technologies, as well as support the capacity-building of the various food systems actors so they can meaningfully adopt and participate. It will assist the government in improving its digital databases and information networks for the agriculture and food sectors to make them more useful in the roll-out of programmes during normal and crises periods. The United Nations will also explore its role in working with the private sector to strengthen data-driven transformation of the food system.

- **Improving crisis monitoring systems, mobilizing anticipatory action and supporting effective modalities for emergency aid**

With the United Nations system's extensive experience in the development of crisis monitoring and early warning systems for disaster risk reduction and humanitarian response, it is in the best position to support improvements and expansion of these systems to include emergent natural, climate change-induced and human-caused hazards in agriculture and shocks to the food system. Along with these, the United Nations intends to support the deployment of anticipatory actions to reduce socioeconomic vulnerabilities and to prepare crisis response measures. Critical to this programme area are interventions towards strengthening social protection systems and ensuring the inclusion of the sectors usually left behind, such as smallholder farmers and fishers, informal agrifood enterprises and ethno-cultural minority populations. The United Nations will also continue to explore, test and scale out the use of in-kind and cash transfers as modalities in emergency aid and as a mechanism to mitigate hunger and boost the resilience of households.



With support from its partners, FAO delivered rice seed packages, fertilizers and farming tools to thousands of farmers affected by Super Typhoon Haiyan in 2013. Photo ©FAO/James Belgrave

The WFP implemented SCOPE in the Bangsamoro Region in Muslim Mindanao (BARMM) during the height of the COVID-19 pandemic to support the registration of beneficiaries entitled to financial assistance from the government. Photo courtesy of the Ministry of Social Services and Development–BARMM Photo © FAO



- **Gender-responsive and nutrition-sensitive agriculture and food programmes**

In both recovery and long-term efforts, the United Nations will work with partners to develop and improve agriculture and food programmes that are intentional in their contribution to women's empowerment and gender equality in food systems and that deliver country-defined nutrition outcomes. The United Nations will likewise work towards the adoption of a community-based participatory nutrition-sensitive food systems approach, which will include, among others, the adoption of evidence-based interventions; capacity building of institutions on the holistic and integrated approach of addressing malnutrition; and intensive knowledge and skills development on nutrition programming. The interventions will seek to enhance the quality of households' diet and nutrition, and improve their sources of income, as well as integrate nutrition objectives in relevant government programmes.

- **Support in the adoption of United Nations-led voluntary guidelines**

The United Nations offers to countries evidence-based guidance through various voluntary guidelines that may serve as concrete tools for governments, civil society, private sectors, and financial and support institutions to create policies and develop interventions that will holistically address challenges and catalyze reforms in agriculture, fisheries, and forestry within the context of food and nutrition security. The United Nations is supportive of actions towards the adoption of the (i) Voluntary Guidelines on Food Systems and Nutrition; (ii) Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security; and (iii) Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries.

References

Food and Agriculture Organization of the United Nations. *Rapid Assessment of the Impact of COVID-19 on Food Supply Chains in the Philippines* (2021). Available at <http://www.fao.org/documents/card/en/c/cb2622en/>.

International Labour Organization. *COVID-19 Labour Market Impact in the Philippines: Assessment and National Policy Responses* (2020). Available at https://www.ilo.org/manila/publications/WCMS_762209/lang-en/index.htm.

Philippine Carabao Center. *Impact Assessment of COVID-19 on Carapreneurs' Livelihood and Food Security* (2020). A PCC final result presentation, April 2021.

Philippines, Department of Health. *COVID-19 Tracker. Updates on Novel Coronavirus Disease (COVID-19) Nationwide Cases* (2021). Available at <https://doh.gov.ph/2019-nCoV>. (accessed 3 March 2021).

Philippines, National Economic and Development Authority-Inter-Agency Task Force Technical Working Group for Anticipatory and Forward Planning. "We recover as one' report details road to new normal," (29 May 2020). Available at <http://www.neda.gov.ph/wp-content/uploads/2020/05/We-Recover-As-One.pdf>

Philippine Statistics Authority. *OpenSTAT, Demographic and Social Statistics* (2021). Available at <https://openstat.psa.gov.ph> (accessed 5 March 2021)

Philippine Statistics Authority. *Performance of Philippine Agriculture* (2021). Available at <https://psa.gov.ph/content/agricultural-production-decreased-fourth-quarter-2020> (accessed 12 March 2021).

United Nations Development Programme. "COVID PULSE PH: Urban Poverty in the Time of the Pandemic" (2020). Available at <https://www.ph.undp.org/content/philippines/en/home/library/poverty/covid-pulse-ph--urban-poverty-in-the-time-of-the-pandemic.html>.

World Bank. "Population Estimates and Projections" (2021). Available at <https://datacatalog.worldbank.org/dataset/population-estimates-and-projections>.(accessed on 1 March 2021).



United Nations Philippines

United Nations Philippines UN House Manila | 15/F Rockwell Business Center Sheridan
North Tower corner of United and Sheridan Streets, Mandaluyong City

T+ 632 7902 9901 | unic.manila@unic.org

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