



# Ensuring Local Food Security through the Establishment of Food Hubs in the Philippines<sup>1</sup>

## Context

With the liberalization of economies, people have become dependent on global supply chains for their food needs. Through the establishment of groceries, food hypermarkets and restaurants, accessing food has been made convenient and, to a certain extent, affordable. Similarly, food production has been shaped by global demands and taken on by agri-business corporations.

Though this situation poses some problems to local food producers and may have negative impact on health and nutrition, such phenomenon has been well accepted especially by those residing in urban centers. Unfortunately, this does not augur well with small farmer producers who have been sidelined in the food value chain. They have been pushed to the uplands and marginal areas with limited access to land and basic services. This resulted to high rates of poverty and malnutrition among rural households.

Moreover, hunger and malnourishment all over the world are rising. According to the United Nations (UN)<sup>2</sup>, prior to the pandemic, more than 820 million people were already identified as chronically food insecure, especially the vulnerable groups. Similarly, the Food and Agriculture Organization (FAO) estimates that the number of undernourished increased from 624 million people in 2014 to 688 million in 2019 (World Bank, 2020)<sup>3</sup>.

Provisionally, this precariousness of the global food systems has been unmasked by the COVID-19 pandemic. The travel restrictions, limited contact, and prohibition of gatherings in public places have disrupted the food supply chains resulting in inadequate food supply to consumers and surplus products that cannot be marketed by the producers. This resulted to hunger in urban communities and rotten products on the farmers' fields.

The COVID-19 pandemic also triggered a global economic recession resulting in a dramatic loss of livelihoods and income on a global scale and had a major impact on food security and nutrition, especially those vulnerable sectors of the populations. Currently 47 million children under five years of age fall within the wasting category, seriously underweight for their age. Ironically, many of these vulnerable sectors are involved in food production.

In the Philippines, hunger is also increasing. The pandemic has impacted most of the vulnerable poor. The Social Weather Station (SWS) survey on 17-20 September 2020, reported a record-high of 30.7 percent of families (or 7.6 million households) experiencing involuntary hunger –

hunger due to lack of food – at least once in the past three months.<sup>4</sup> The SWS survey on 5 October 2020, reported an adult joblessness rate of 39 percent in September that was hardly any relief from the 45 percent in July. All-time record numbers of our people are going hungry because of joblessness.

In Mindanao, the hunger situation rose from 24.2 percent (estimated at 1.4 million families) in July 2020 to a new record-high 37.5 percent (estimated 2.1 million families) in September 2020 (SWS, 2020).<sup>5</sup> This surpassed the previous record of 33.7 percent in December 2008.

This poses a potential high risk to global food security and nutrition as the impact of pandemic is unprecedented with the situation changing rapidly of unknown circumstances. The Committee on World Food Security (CFS) says that “the worsening of the food security situation can also have negative impacts on the progression of the pandemic by weakening the immune systems. In any scenario, the most affected will be the poorest and the most vulnerable segments of the population (including the displaced)”.<sup>6</sup>

Several countries have implemented their own local lockdowns as a precautionary measure and prevention of the spread of the virus. These policies are mandated and implemented by governments and intergovernmental organizations. However, it only amplifies the effect of the pandemic especially to the food insecure particularly those in developing countries. The import and export of products have been halted and the demand and supply chain disrupted resulting to job losses, hunger and food insecurity.

With the pandemic projected to stay on for years, the impact can be enduring and enormous. It threatens the livelihood of smallholder farmers and indigenous communities to the extent of even losing access and control over their productive resources. With rotten products and no income, they become susceptible to unfair lending practices and unscrupulous marketing arrangements with a big risk of losing their lands.

The immediate response is to secure the food needs of the family by growing vegetables in the backyard. Unfortunately, at the household level, stability of supply is not assured, and diversity of food is limited. Government agencies and civil society organizations recommend ensuring local food sufficiency in securing food security at this time of pandemic. This can be realized through the establishment of community food hubs where small food producers and urban poor consumers are connected and engaged.

<sup>4</sup> Social Weather Stations (2020), SWS 17-20 September 2020 National Mobile Phone Survey – Report No. 2: Hunger at new record-high 30.7% of families. <http://www.sws.org.ph/swsmain/articldisppage/?artcsyscode=ART-20200927135430>

<sup>5</sup> Social Weather Stations (2020), SWS 17-20 September 2020 National Mobile Phone Survey – Report No. 2: Hunger at new record-high 30.7% of families. <http://www.sws.org.ph/swsmain/articldisppage/?artcsyscode=ART-20200927135430>

<sup>6</sup> Committee on World Food Security (2020), Impact of COVID-19 on Food Security and Nutrition (FSN), Draft Issue Paper by the High-Level Panel of Experts on Food Security and Nutrition (HLPE). [www.fao.org/cfs/cfs-hlpe](http://www.fao.org/cfs/cfs-hlpe)

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<sup>2</sup> Guterres, A. (2020), Launch of Policy Brief on Food Security. <https://www.un.org/en/coronavirus/we-need-act-now-avoid-worst-impacts-our-efforts-control-pandemic>

<sup>3</sup> Preneuf de, F. (2021), Food Security and COVID-19, <https://www.worldbank.org/en/topic/agriculture/brief/food-security-and-covid-19>

## What are food hubs?

Food hubs are local entities being used to facilitate a closer connection between producers and consumers (Matson, et al., 2013). Through the food hubs, engaging and connecting the producers and consumers not only satisfy the supply and demand in the global food chain, but also ensure local food security and nutrition. Additionally, food hubs can be perceived as a logistical vehicle that facilitates a local food supply chain.

A food hub, as described by the US Department of Agriculture (USDA), is “a business or organization that actively manages the aggregation, distribution and marketing of source-identified food products, primarily from local and regional producers to strengthen their ability to satisfy wholesale, retail, and institutional demand”. It also emphasized that food hubs can create new market opportunities for rural food producers as it allows them to market their production locally (USDA, 2013).

This is highly relevant for small rural producers that have been relegated to production activities without so much appreciating the connection with the consumers. According to Shepherd (2007), “There is now an increasing understanding that production support activities must be linked to market demand and that production activities must be looked at within the context of the whole supply chain and the linkages, or business relations, within that chain”.

Agriculture should not be viewed only a source of income for rural farmers but equally important as a source of food commodities. Farmers play an important role in providing the food demand of the consumers in the urban areas. Though this role has been diminished with people becoming dependent on the global food supply chains, the pandemic has brought us back to this essential reality.

Linking producers and consumers is thus an innovative and organized arrangement to bridge the gap in upholding local food security during this time of the COVID-19 pandemic. During the pandemic, there was an opportunity to conceptually develop a food hub connecting the vegetable producers in Bukidnon and the urban consumers in Cagayan de Oro. In consultation with the potential stakeholders, it was proposed that the food hub be an online and physical platform connecting producers and consumers. Three major services will be provided: 1) product and market information; 2) sorting, repackaging, processing, and storage; and, 3) delivery and logistics. These services will shorten the food distance, minimize cost, and preserve the nutritive value of the products. Moreover, the connection to be sustained would have to consider engaging local government units, assessing the policy environment and long-term impact on communities.

Takeaway from this initiative in the new normal is that consumers are most likely to support it. Rather than converging in the market and risking the transmission of the virus, the consumers are willing to support the buying and selling of products at the community level, which brings the producers and consumers closely collaborating.

## Piloting food hub in Cagayan de Oro City and the Province of Bukidnon, Philippines

This predicament of disjointed producers and consumers is highlighted in Northern Mindanao. With the favorable climate and rich natural resources, food production is highly suitable that farmers even export vegetable to other regions in the country. And yet, they are one of the poorest sectors of society. Similarly, malnutrition in the urban centers is relatively high. This quandary has been highlighted and intensified by the pandemic with travel restrictions, limited contact, and prohibition of gatherings in public places resulting to rotten products in farmers' fields and hunger in urban areas.

Various stakeholders recognized this problem and introduced “food hub” initiatives. Below are some of these initiatives.

- In Cagayan de Oro, the Agricultural Productivity Office of the City Government spearheaded the Kadiwa on Wheels Program in collaboration with the Department of Agriculture – Regional Field Office 10. The program is a mobile market aimed at bringing local farm produce closer to Cagayan de Oro residents during community quarantine period. With travel restrictions, basic food supplies are brought to the community instead of people going and converging in the market.
- In Misamis Oriental, the Provincial Local Government Unit (LGU) is promoting a fairer and equitable value chain by enhancing productivity, creating employment and livelihood opportunities through market driven agriculture systems, infrastructures, and value adding.
- Similarly, CSOs recognize the importance of building a fair food system. The First Community Cooperative (FICCO) early on established a Rice Processing Center with the aim of establishing a value chain that will benefit both farmers and consumers.

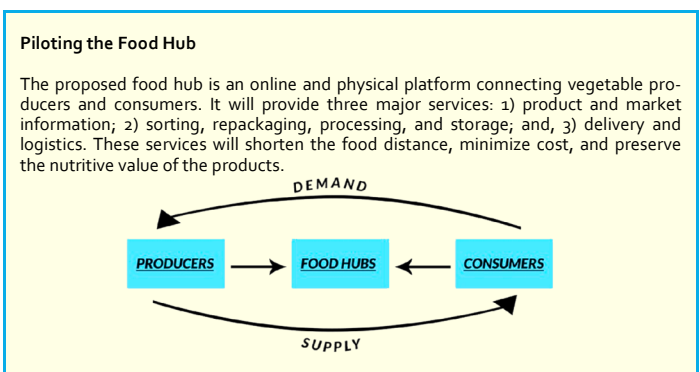
Along this objective, Xavier Science Foundation, Inc. (XSF) through the project jointly implemented with the Asian NGO Coalition for Agrarian Reform and Rural Development (ANGOC) and supported by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), conducted a feasibility study on piloting a food hub for vegetables in Cagayan de Oro where other communities can learn, adopt and set up their own hubs. The initiative is intended to determine the components in establishing a food hub, foresee the different challenges in its operation and solicit support from relevant stakeholders. The targeted small farmer producers are the indigenous peoples in Bukidnon who are partners of XSF and ANGOC in an initiative supported by the Global Land Tool Network (GLTN) to strengthen their tenurial security towards enhancing their food security.

In the conduct of the feasibility study, key stakeholders were identified, logistical and operational details established, the need for an IT-based platform on the food supply chain recognized and operational logistics cleared up.

The feasibility study showed the huge difference in farm gate prices and the retail selling prices of vegetable products. The difference ranges from 43 to 300 percent. Such disparity indicates a big potential income for producers and consumers to run a food hub.

Similarly, challenges and recommendations such as adoption of sustainable farming practices, close coordination with relevant government agencies and local authorities, weekly delivery schedules and compliance with health and safety protocols were noted.

It is expected that with the established linkages between food producers and consumers, the food supply chain becomes more efficient as production is anchored on consumers' demand, delivery of products targeted, and wastage minimized. As a result, prices become affordable and food supply assured. All these findings were presented in a stakeholders' consultation which were acknowledged and received well by potential partners. Overall, the general concept of establishing food hubs was welcomed (see box).



### Products and Market Information: An IT Platform

The Food Hub will gather, match, and disseminate information on the food demand of the consumers and the product supply of the producers. It will be an online platform that instantly gives the consumers and other buyers access to information on the availability, accessibility and affordability of food supply from rural farmers. Through the IT platform, information from the producers can be centrally administered to manage the food supply and demand. This platform will be utilizing an application similar to Food Panda or Grab Food functions. Though there are other technical considerations, it will generally cater to the orders of the consumers through fill-in forms and the add-to-cart scheme.

### Sorting, Repacking, Processing, and Storage

As soon as supply arrives at the food hub from the farms, these products must be washed, sorted, weighed, and repacked according to the customers' orders. To preserve the freshness of farm products, timing is essential. Sorting and processing should be accomplished in a short period of time. To accomplish these tasks efficiently, the Food Hub should have enough space, equipment, and trained staff.

One important consideration in repacking is the shelf life. Thus, the principle of First In, First Out (FIFO) should be observed, that is, whichever comes first should also be sold or marketed first. This will ensure that the products are fresh and up to date.

Also, there is always the possibility of an oversupply of goods or products that may not be sold fresh. Correspondingly, some consumers may prefer processed products such as chili powder or turmeric that may be stored longer. Processing is therefore an important service that the Food Hub can provide. This will not only avoid or lessen food wastes and store products longer but can also be an added value to the product.

Storage of food products is another essential service that the Food Hub can provide. Not all products will be delivered on the same day that they will be received. Moreover, there are products that may require processing and thus, storage facilities are needed.

### Delivery and Logistics

Logistics of the products from farm to food hub to consumers works as a linear process just like how producers transport their products from farm to market. From the farm, animals are used to carry the sacks of vegetables and load it to the truck that will bring the vegetables directly to the storage facility. From there, consumers can utilize the online platform to check out the products available in the food hub and utilize the delivery services. The products can then be delivered to consumers in a more efficient and convenient way possible.

## Policy Implications on Food Security, Nutrition (FSN) and Tenure Security

Food security as defined by governments and civil society organizations attending the World Food Summit in 1996 emphasizes accessibility, availability, affordability, suitability and stability of food supply at all times. With the ease in transport and the removal of trade barriers, countries have relied on food importation to satisfy their food needs despite its negative impact on local food producers. With corporate control of the global supply chain, smallholder farmers, especially upland farmers and indigenous communities, have lost access to their lands and control over their ancestral domains.

In the study areas, the COVID-19 pandemic, however, has unveiled the precariousness of relying heavily on the global food system. With all the limitations in transport and the increasing demand for healthy and nutritious food, ensuring local food sufficiency is now an emerging policy option for governments in ensuring food security and nutrition for all. This also implies the redirection from industrial agriculture to a more sustainable agroecological local food production. With this new focus and direction, local and indigenous food producers will play significant roles in ensuring food security and nutrition in their communities while strengthening community's immune system against COVID-19 and other similar pandemics.

The local government recognized these challenges and introduced some initiatives such as the Kadiwa on Wheels Program as previously explained.

While this program served well some of these communities and provided an avenue for producers to dispose their products during the pandemic, the Kadiwa on Wheels Program has some inherent gaps. For one, the food products brought to the mobile market did not correspond to the needs of the consumers resulting to unsold products. The lack of market information was also a major concern. Had the consumers and producers

been well-connected, food products could have been projected and determined in advance reducing wastes and enhancing price acceptability.

The Food Hub, on the other hand, is focused more on connecting the producers and the consumers to have more control over the value chain. It also encourages the participation of other relevant stakeholders including the value chain players, resource partners, LGUs, and the academe. It also offers storage facilities for unsold products and deliveries for convenience.

Along this policy direction, the following policy actions may be pursued.

*Promote a Food Hub Movement for Ensuring Food and Nutrition Security and Strengthening Tenure Security under the pandemic situation towards transitioning to the new normal*

With the pandemic revealing the frailty of the global food systems, it is recommended to promote the establishments of food hubs especially in a given food landscape to ensure local food security and support the livelihood of small producers.

The establishment of food hubs is expected to pave the way for farmers to have a greater influence in the market processes and for the consumers and other stakeholders in the food system to buy more quality food at reasonable prices. These hubs will ensure fairer food value chain that will benefit not just the producers but the consumers and other stakeholders as well.

As the food system is inherently linked to healthy living, children's welfare and environmental conservation, it is recommended to explore the connections with these groups in starting a movement towards establishing food hubs in Northern Mindanao. Moreover, efforts must be made to involve the youth as these issues will continue on and may even intensify in the future. They should be emboldened to address these challenges and take on leadership roles in tackling these concerns.

### Advocate Food Hubs with LGUs

While CSOs working with farmers could be the initial focus of interest, food hubs may be advocated among local LGUs and cooperatives. In the webinar on *Fair Food Systems: Voices of Youth*, the speakers from the Provincial LGU of Misamis Oriental and FICCO provided encouraging examples that can go a long way in instituting a fairer and equitable food systems. As these models can be initiated by LGUs and established mechanisms, such will require huge investments though. For instance, the PICCO model invested P113 million for its rice processing center.

LGUs can play an important role in the institutionalization of processes such as promulgating health protocols, upholding food and nutrition standards, promoting diversified food production systems as practiced by indigenous communities and reinforcing good waste management practices. These processes can go a long way in moving towards a fairer local food system, ecologically resilient agriculture and strengthened people's immune systems. They would also play a significant role in highlighting the critical role of local food producers in ensuring local food security and in ensuring the nutritional status of the poor and marginalized communities.

### Strengthen Linkages between FSN and Tenure Security

Trees, land, air and water are resources that are intrinsically connected into the lives of rural households and indigenous communities. These resources provide them food, sustainable livelihoods, dwelling homes, and even sacred places.

With the global food systems dominating governments' policies, this interconnectedness has been lost. It took a pandemic for people to realize this reality. The move towards ensuring local food security should recognize these relationships and be instituted in government's policies and programs.

According to Altieri,<sup>7</sup> “for years agroecologists have warned that industrial agriculture became too narrow ecologically, highly dependent on outside inputs, and extremely vulnerable to insect pests, diseases, climate change and now as demonstrated by the COVID-19 pandemic, prone to a complete shut down by unforeseen crisis”.

Local food security is better achieved by local communities where they have control over the resources especially land, the food that they plant or animals raised, the storage facilities and in instituting local distribution practices for inclusive consumption. They seem ideal but these were the practices of indigenous communities not too long ago. With the pandemic, some of these communities are reinstating these practices.

The importance of this redirection towards agroecology cannot be over-emphasized. Altieri regards it as the “key for the food sovereignty of most communities, as small farmers who control only 30 percent of the global arable land, produce between 50 and 70 percent of the food consumed in most countries”.<sup>8</sup>

## Moving Forward

Global shifts such as climate change and COVID-19 provide opportunities to address structural challenges. Climate change, for example, affects food production directly through changes in agroecological conditions and indirectly by affecting growth and distribution of incomes, and thus demand for agricultural produce. (Schmidhuber and Tubiello, 2007).

The health crisis highlighted how human, animal and ecological health are closely linked. Industrial agriculture and the global food supply chain with its focus on large-scale monocultures and unmindful of ecological balances have become susceptible to viruses and infectious diseases. Agroecology reveals that the way we practice agriculture can provide opportunities for improving environmental and human health, but if done wrongly, agriculture can cause major risks to health. A transition to more socially just, ecologically-resilient, localized food systems is urgently needed (Altieri and Nicholls, 2020).

While there was an initial acquiescence, people are slowly realizing that the global food supply chain is so fragile and unsustainable. The exclusion and marginalization of rural communities having no rights to their lands and ancestral domains have exposed social inequities expressed in hunger and malnutrition especially among children.

With the food hubs, initially as a response to ease hunger at the time of pandemic, there is now a greater concurrence that food security and nutrition is better assured at the community level where local stakeholders are cooperating. This will require, however, changes in policies in managing resources, recognition of local food producers and establishing fair food supply chains.

With the availability of land resources and the presence of food producers in the country, local food security is easily attainable with positive impacts on resource conservation and attaining more inclusive development. This is achievable in Northern Mindanao, an agricultural region, with more than enough land to feed its people. By establishing local food hubs being managed and operated by communities themselves, food security will be better attained. Financial, social and environmental risks are inevitable, but these can be addressed and attended to with well-formulated sustainability plans of the food hubs operations. ■

<sup>7</sup> Altieri, M., & Nicholls, C. (2020). Agroecology and the emergence of a post COVID-19 agriculture. *Agriculture and Human Values* (2020) 37:525-526. <https://doi.org/10.1007/s10460-020-10043-7>  
<sup>8</sup> Altieri, M., & Nicholls, C. (2020). Agroecology and the emergence of a post COVID-19 agriculture. *Agriculture and Human Values* (2020) 37:525-526. <https://doi.org/10.1007/s10460-020-10043-7>

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