

Resilient Japanese Local Food Systems Thrive during COVID-19: Ten Groups, Ten Outcomes (十人十色 jyu-nin-to-iro)

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Abstract: This paper examines responses to the COVID-19 pandemic from farmers in Japan. Because COVID-19 was most prevalent in Japanese urban centers and especially the Tokyo metropolitan area, farmers in rural communities in Kansai expressed less concern over infection compared to Kanto-area farmers who were more concerned with risk of infection. While some farmers expressed concern over economic losses from the closure of restaurants and schools, many interviewees had pre-established diverse market channels and thus could pivot their distribution streams during the pandemic. Farmers diverted produce typically for restaurants towards direct sales such as *chokubaijyos* (direct sales markets) or engaged in online platforms. Because of a lack of single stream distribution infrastructure set up for organic farmers as compared to conventional farmers, many of the interviewees already have robust distribution networks and tend to hold strong community ties with consumers and buyers in their region. We argue that the activities of these farmers demonstrate the resilience of local-scale food systems in Japan, because these networks help maintain food security and community relationships during times of crisis.

Key words: COVID-19, vulnerable populations, organic farmers, alternative food systems, resilience



Figure 1: Promotional Campaign

Introduction

In late April 2020, several weeks after the first case of COVID-19 was reported in Japan, the Ministry of Agriculture, Forestry, and Fisheries (MAFF) [released a short video](#) encouraging the Japanese public to purchase more milk after schools closed and dairy farmers lost their primary market. Around the same time, the national government promoted “beef tickets” to help boost high-end wagyu beef by covering the cost of high-end domestic beef, an item typically purchased by tourists who had all but disappeared since the pandemic closed borders. These two episodes highlight the vulnerability of agriculture that is tied to single stream distribution which could lead to the dumping of milk or the slaughter of livestock. In contrast, this paper addresses how various small-scale farmers are impacted by the COVID-19 pandemic and highlights the differences between farmers with single-stream distribution networks and farmers with a diverse network proving the necessity of

resilient local food systems during times of crisis.

The COVID-19 pandemic has disrupted nearly every industry connected to our globalized food system. In Japan, it has placed pressure on the already vulnerable agriculture sector that suffers from a declining and aging farming population and low food security since Japan imports over 60% of its food (based on calories). In response, the national government has promoted agricultural policies centered on “the consolidation of farmland in the hands of fewer, larger, and presumably more efficient farms.” (Jentsch 2017). However, such government policies can expose Japanese agriculture to vulnerabilities present in industrial agriculture. Examples can be seen in news from America where farmers were seen [destroying fresh vegetables in the field](#), dairy farmers [pouring milk down the drain](#), and [meatpackers working in rural factories in tight quarters](#) testing positive for COVID-19.

The majority of farms in Japan are small to medium-sized, averaging 2.5 hectares with few (if any) hired workers (Carolan 2016). Many farmers in Japan have long upheld a strong sense of autonomy in their respective agricultural regions and often do not adopt large-scale land-use practices of industrial agriculture, with the exception of Hokkaido. While most farmers distribute their agricultural products through their respective region’s agricultural cooperative (JA), there are also new entry small-scale farmers, especially those who practice alternative agriculture who distribute to a variety of networks such as consumer cooperatives (*seikyo*), restaurants, and direct consumer purchasing. However, in recent years there has been stagnation and decline of such collective-direct purchasing due to changes in modern life such as the increase of working mothers and the necessity of dual income streams (Hatano 2008). Such decline negatively impacted the ability of small-scale farmers to maintain financial stability long

before this pandemic.

Since the COVID-19 pandemic, farmers with single-stream distribution channels have faced difficulties as school and restaurants closed since early March 2020. However, small-scale farmers with diverse distribution networks are proving resilient. As one Chiba farmer explained, “after [the city] closed the schools, I shifted my carrot produce to the local supermarket, so I was still able to sell them.” Farmers participating in creating local food systems emphasizes the importance of strong networks over highly efficient global food chains.

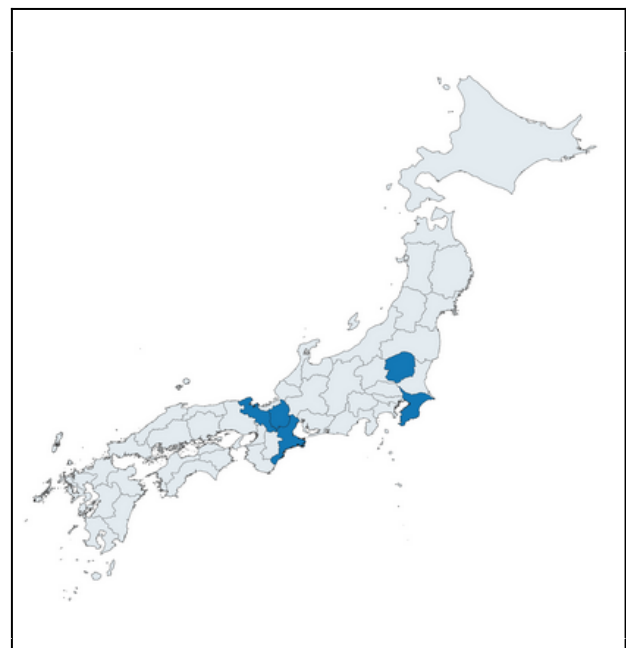


Figure 2: Farmers were interviewed in the prefectures marked here, from right to left Chiba, Tochigi, Mie, Shiga, and Kyoto. Map produced with ArcGIS.

This article is based on interviews with local farmers in Chiba, Tochigi, Mie, Shiga, and Kyoto Prefectures. The farmers we have interviewed operate small farms with few hired staff, and each farmer has creatively pursued solutions to challenges posed by COVID-19 to meet their individual circumstances. Our

analysis is based on their thoughts and actions in relation to the pandemic, and because each region's farmers take different approaches based on their local context, we highlight the diversity of their responses. Because of the idiosyncratic nature of particular regions and farming structures, the situation varies in each prefecture and locality.

Safety in Eating, Danger in Meeting

Farmers in the Tokyo metropolitan area, where COVID-19 exposure has been most severe, perceived great risk in continuing farming and marketing. While many vegetable farmers have been able to protect their livelihood by taking advantage of diverse paths to market sales, some farmers have expressed serious concerns over their business and their own personal health, related to the possibility of infection. Not all farmers express this concern: whereas Kanto farmers were very concerned about the risk of infection likely due to the immediate proximity of high case numbers in Tokyo, farmers in the Kansai area expressed much less concern as most reside in rural areas with low population density.

One of the primary concerns of Kanto-area farmers we spoke to was that information about the spread of the virus was incomplete, and they found it difficult to gauge the practical risk of contracting the virus. These farmers did not know anyone who was sick, but they were aware of infections in neighboring areas. One farmer in Chiba referenced news stories in their locality of recent infections and remarked that they could be next. Another producer in Tochigi described the changing situation at his local hospital. "They announced that our hospital will handle cases of COVID-19 from Tokyo, because their hospitals are overwhelmed. It's only a matter of time before a case spreads to the community here."

Infection amongst the Japanese farming population is a great concern in part due to demographics: sixty three percent of farmers in Japan are over the age of 65 (SBJ 2017: Table 8-5). One elderly Chiba farmer with whom we have a long-established relationship once described the benefits from farming: "since I've retired, I spend more time in the field, and it's been a real benefit to my health. [...] I have a heart condition, but this work helps keep me healthy." Once COVID-19 appeared in his local news, he mentioned his heart as a serious concern and doubted whether he would survive if he fell ill.

Younger farmers focused more on the economic concerns of infection. This period is important for preparing fields and crops for summer. One Chiba farmer makes a significant part of his sales through corn, sold in late summer. Were he to fall sick to COVID-19 now, he would lose, at a minimum, two weeks of work, and his family, who assists on the farm, would also have to quarantine, jeopardizing his summer production. There are also farmers who have experienced little hardship. In fact, one farmer in Shiga Prefecture mentioned feeling somewhat out of place with the rest of society who are dealing with working from home orders because daily life on the farm has not changed. Day to day activity remains busy and some have appreciated the volunteer labor coming from families who have young children who can come and spend time outside helping the planting of next year's rice crop and summer crops. Another organic farmer in Mie Prefecture wondered how urban people were managing. "I've lived on this earth for 85 years and have had to deal with so many crises as a farmer, I'm unfazed by what's going on with the novel coronavirus."

Additionally, farmers in the Kanto region compared the experience under COVID-19 favorably to experiences from the March 2011 nuclear disaster. In 2011, radioactivity spread from the Fukushima-1 reactor to other parts of

the country, including Chiba, leaving many farmers unsure if they could safely sell their products without endangering their customers. With COVID-19, there is no concern for spreading the illness through food. One farmer described it this way: “After 3/11, we had to test our land for radiation and prove that we weren’t selling dangerous produce. It was very, very hard for us then. This time, the situation is completely different.”

Because these farmers had no direct interaction with infected individuals, however, there was little they had to change. One farmer adjusted his delivery schedule so that he arrived at local supermarkets at the least busy times, while another ceased delivery to his local Japan Agriculture Cooperative (JA). These farmers also commended the local supermarket distribution centers, which had already established rigorous social distancing and disinfecting policies. The possibility of infection remains, however, many of these farmers struggle with uncertainty about their safety.

Protecting Farmers’ Livelihoods Through Direct Sales

Many farmers, especially younger farmers who practice organic farming, have not been heavily impacted in this crisis because of their previous work in creatively establishing their markets. Because they do not rely on distribution networks set up by JA, many young farmers set up niche markets such as online sales, *chokubaijyos* (direct sales markets), community supported agriculture (CSA) schemes, and direct restaurant sales. These farmers seek to avoid depending on the market by creating diversity and multifunctionality in their income streams (McGreevey et al. 2018; Hisano et al. 2016).

The diversification of distribution streams

lowers the risk of agricultural crop loss.

For instance, we have spoken with farmers who have seen an increase in their sales at *chokubaijyos* as more people are cooking at home. One consumer mentioned that much of the produce was sold out by noon so that it was necessary to make it to the markets in the early morning. Seasonality can also explain the increased demand for agricultural products at these direct markets. March and April are often known as a transition period for many small-scale farmers who are busy preparing for the busy summer season.



Figure 3: A type of direct sales stand called *mujinhanbai* in Chiba Prefecture with local consumer. The stand is unstaffed, so customers place their payment into a small box, and the farmer trusts his customers to pay appropriately. Photographed in 2020 by the authors.

Many *chokubaijyos* serve as focal points for local community organization and action (Yokoyama et al 2009). While *chokubaijyos* have different ownership structures, it is a

relatively simple process whereby any farmer or kitchen gardener can typically sell their agricultural products dependent on membership structures. These *chokubaijyos* are often set up to provide additional income streams for local farmers and to help promote rural revitalization and share information about a region to visitors. If a small-scale farmer was selling to a restaurant, many could pivot their sales to a nearby direct market dependent on the quantity of produce. In Japan, there are roughly 23,590 *chokubaijyos*. Disruption from COVID-19 has emphasized the strength of those local community connections.

While farmers mention the loss of sales from restaurants, the connections with these restaurateurs have proven valuable in redirecting some of the lost sales to other streams. One farmer in Chiba was approached by a now-closed restaurant to provide ingredients for bento boxes destined for Kanto-area hospital workers, organized through a sponsoring company. The restaurateur receives income through the corporate sponsor, and the farmer's produce is used to feed frontline workers. This farmer, and others, also all mentioned selling vegetables to restaurateur clients as individual sales for their families.

In addition, several e-commerce platforms have emerged and established themselves as another viable food supply chain. These platforms connect farmers directly with consumers by serving as the intermediary distributor. E-commerce companies provide the technology and customer care and support in delivering vegetables and agricultural products directly to one's residence. These various platforms have witnessed an increase in demand with sustained quarantining. For instance, *Tabechoku, an online vegetable selling platform*, has experienced a tripling in sales in the Kanto region.

While there has been an increase in online platform users, other smaller businesses and

collective distribution networks have not seen similar success. For instance, in Mie Prefecture there is a local aggregator/distributor that builds partnerships between organic farmers in Iga city and various buyers. While their business has seen a 25% decrease in sales to restaurants and eateries, the producers they work with have not been heavily impacted as they have a diverse network of buyers.

Instead of a strong agriculture, why not a more resilient one?

While online social platforms and market stands provide economic support, being in community with local growers and eaters provides mutual strength and resilience needed to help one another during times of crisis. Strong local food networks built on the foundation of social trust and communication can prove their resilience in times of crises.

In the Kyoto-Tanabe region, a small group of mothers, consumers, and farmers has been organizing ways to transition school lunches towards organic sourcing. During this crisis, they are currently thinking about other ways to connect children to farmers. As a result, they held a virtual event for parents and their children for *oyatsu-zukuri* (making snacks). The event was held at one of the members' strawberry greenhouses where they live streamed the harvesting process and then step by step instructions to make their own strawberry *dango* (sweet rice balls) and parfait. This kind of collective creativity is possible during a time of crisis because of the pre-existing social connectedness they have built. It highlights the power and resilience of the community.

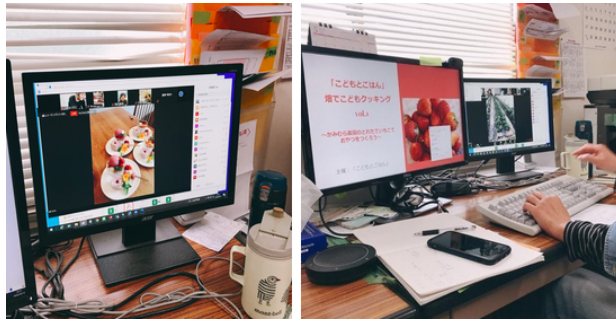


Figure 4: Online marketing to reach more consumers directly

For farmers who have direct connection with consumers, the Community Supported Agriculture (CSA) model is designed as a cooperative labor structure that can provide economic resilience in times of crisis. However, cultivating such resilience requires strengthening assets that already exist within communities. One restaurateur in Tochigi expressed this sentiment from the perspective of a consumer: “we had to close the restaurant and can only sell online. We now order very little from our farmers. [...] We still order food for use at home, to support our suppliers.” Relationships between producer and consumer that promote social trust and collective care can build community resilience and ensure that local food supply chains remain resilient, protecting both grower and eater. These types of direct relationships enable strong social connectedness that not only can weather crises such as COVID-19, but also advance the collective wellbeing of communities both in rural and urban areas. COVID-19 may help to catalyze change in which more people will pay closer attention to the source and quality of their food and see how supporting local food systems has far reaching benefits.

New Hope for small-scale sustainable farmers

Today, Japanese food is not Japanese anymore. As the self-sufficiency ratio declines and the average age of farmers increases, the Japanese government has been looking for solutions to preserve agriculture by incentivizing private entities to purchase agricultural land and **prioritizing efficiency and large-scale production**. This follows many OECD countries models which witnessed devastation in their food supply distribution models in the wake of COVID-19 where **workers in the food supply chain have become epicenters for COVID-19**. With Japan’s push for increasing foreign labor in the agriculture sector and its **numerous well-documented labor abuse issues related to the technical trainee visa program**, there is concern that similar problems could arise if another crisis occurs.

Many small-scale farmers in Japan faced difficulties sustaining their livelihoods before the COVID-19 crisis occurred. However, this pandemic also opens the opportunity to reclaim and restore the benefits that stem from local food systems and continue encouraging the momentum of small-scale sustainable farmers. Japanese agriculture has a strong capacity to support small and medium sized farmers which opens up potential for supporting new and beginning farmers in accessing a diversity of distribution networks in order to mitigate risk, and reduce both farmers’ and consumers’ vulnerabilities in the globalized food market. Rather than focusing on large-scale farming with an emphasis on productivity and efficiency, MAFF can continue to expand on its policy to support organic agriculture.

While many yearn to return to their previous life, there is also opportunity to create a new normal. In the wake of COVID there is increasing recognition of the importance of sustainable diversified farmers whose creativity and diversification illustrate resilience in times of crisis. As many of these new farmers have shown the importance of reducing dependency on large corporate markets, we are reminded of

the value and security that localized food systems can provide. Although Japan is known for its “just in time” production and emphasis on high efficiency, in times of a pandemic the importance of diversity and resilience becomes clear. In contrast to large-scale farming operations with single stream distribution channels, small-scale farmers with the capacity to create flexible responses are adept at responding to disasters, such as the current COVID-19 crisis.

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Please also read our previous special **Pandemic Asia** on the impacts of COVID-19 in the larger Asia-Pacific region, edited by Jeff Kingston, delivered in [Part 1](#) and [2](#).

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経済地理学年報

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