

Responses to the Covid-19 Impact on Maharashtra's Food Supply Chains

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As difficult as it is for us to fathom, there is nothing 'novel' about SARS-CoV-2 virus, not even its genetic sequence, 97% of which is identical to SARS-CoV-1, a virus from the early 2000s (Zhang and Homes 2020, 224). Humans have been fighting pandemics for nearly 2,000 years, since the Antonine Plague.

The practice of quarantine, from the Italian quaranta giorni (forty days) began in the 14th century during the Black Death (or bubonic plague) as ships anchored for 40 days before entering Italian ports. The 1918 influenza saw new measures, such as "closing schools, shops, and restaurants; placing restrictions on transportation; mandating social distancing, and banning public gatherings." (Strochlic 2020). The bubonic plague was more deadly than SARS-CoV-2, killing 200 million, and the 1918 flu was more contagious, infecting a quarter of the world's population (World Economic Forum 2020).

However, the real novelty of Covid-19, the disease caused by SARS-CoV-2, is in the defensive measure implemented on a near-global scale – the 'lockdown'. Never before have countries shut their borders and whole societies closed in unison, for such an extended duration. The World Health Organization aptly termed this "the first pandemic in history that could be controlled" (World Health Organization 2020).

Maharashtra, with a population the size of Japan, has faced its fair share of

epidemics, from chikungunya to the bubonic plague, which originated in Bir district in 1994, and the state accounted for 70% of national cases (US Centers for Disease Control and Prevention, 1994). But even Maharashtra, like most other places in the world, has no prior experience of total lockdowns.

Practically all sectors of society have been adversely impacted by the lockdown, but two still receive the highest levels of priority: healthcare and food supply. Covid-19 has managed to strip society to its essentials. This paper analyzes the socio-economic impact of the lockdown on Maharashtra's food supply chains by mapping the immediate impact and the response by three actors: the government, the private sector, and non-governmental organizations (NGOs).

The Immediate Impact

No one in India could have anticipated a national lockdown lasting six weeks. There was no time to prepare since the announcement came hours before going into effect on 25 March 2020. It had far-reaching consequences, among other things, on food supply chains, considered an 'Essential Service.' The agriculture sector in Maharashtra is more than just that: it is the largest employer, accounting for 51% of the state's labour force (Labour Bureau, Government of India 2014).

Following the lockdown, only 40% of the country's main agricultural markets remained functional in March 2020 (Press Information Bureau of India 2020). This resulted in an increase in prices, distress sales, and complete wastages of agricultural products. The price of pulses, which Maharashtra imports from Gujarat, rose by ₹20 per kilogram (Pandey 2020). Due to the closure of fishing harbours and lack of facilities to stock and transport cargo, the fisherfolk of Maharashtra were forced to dump one lakh tonnes of their catch back into the sea (Kumar 2020). Sopan Kanchan, president of the Grape Growers Association of India, remarked that "of the 3 lakh acres under grape cultivation in the state, the grapes on one lakh acres faced losses" (Kakodkar 2020). More than one-third of the state's sugar mills have stopped crushing and cutting cane, that has dealt a severe blow to 2.5 crore people in Maharashtra who depend on sugarcane to earn

their livelihood (Bureau 2020). Lasangaon market, which supplies the majority of India's onions, was temporarily shut down as some workers tested positive for Covid-19. Lasangaon eventually recovered, and now supplies 300 trucks of onions daily to other states (Press Information Bureau of India 2020).

Assurances from Maharashtra's Food and Civil Supplies Minister Chhagan Bhujbal, that the state has "enough stocks to last for six months" (PTI 2020) did little to assuage people's fears. This disruption in food supply chains had another unintended but inevitable consequence: millions of poor people in Maharashtra, who work in the informal economy depending on daily wages and migrant labour, were left with little or no money to buy food.

This socio-economic fallout called for a proactive response by government, civil society and the private sector. In Maharashtra's case, all three seem to have delivered, albeit in different degrees.

1. **Governmental response:** The numerous arms of the Government of Maharashtra were all initially caught off-guard by the monumental changes that resulted from the lockdown. Although most organizations in the food supply-chain were allowed to operate, they still had to ensure no one was infected with Covid-19.
- a. **Social impact:** The lockdown had a discernable impact on the poor and destitute that depend on government support. The 1,08,005 Anganwadis in Maharashtra, which combat child hunger and malnutrition, temporarily halted activities to comply with social distancing norms. Some workers even tested positive for Covid-19. Depending on the district and zone, Anganwadis were instructed to either continue delivery of cooked meals, or provide basic provisions, or instead deposit money directly into beneficiaries' bank accounts (ST Correspondent 2020). Since 80% of Maharashtra's Anganwadis are in rural and tribal areas (Planning Department, Government of Maharashtra 2017), this disruption affected 87 lakh people that depend on their services. The state government also re-wired the public distribution system (PDS) to avoid panic buying and stockpiling and increased the plate count of daily meal schemes like Shiv Bhojan from 36,000 to 1,00,000 and

reduced the cost per meal from Rs. 10 to Rs. 5 (Government of Maharashtra 2020).

- b. State-Centre collaboration and improvisation:** It became imperative for the state government to work more closely with the Centre to ensure food security for Maharashtra. The state sought an additional 1.5 lakh metric tonnes of food grain from the Centre and enforced social distancing in all distribution points (Press Information Bureau of India 2020). The lockdown also called for quick improvisations. Maharashtra was left with 10 lakh liters of surplus milk per day, and the state government plans to “purchase the surplus stock and convert it into milk powder” (Jha 2020).
- 2. NGOs and civil society response:** About 100 million people in India don't have access to the Public Distribution System (PDS). In Maharashtra, this number is estimated at 6.6 million (Agarwal 2020). India's NGOs and civil society have attempted to fill this gap, to reach those who don't possess ration cards, bank accounts and often stay in villages with little connectivity. Rural organizations like the Mahila Kisan Adhikar Manch, which works to uphold women farmers' rights, have tried to get food supplies to the “10 lakh widows and single women farm workers in rural Maharashtra, living in abject poverty with no access to government schemes” (Goyal 2020). It remains difficult to fill this gap, but NGOs are more well-connected in urban centers, and their positive intervention has been palpable during this crisis. A cursory study of NGOs in Maharashtra highlights their vast impact, providing daily cooked meals and ration kits to millions in the state. One such initiative, 'Feeding from Far', provides two daily meals to 10,000 people in Govandi, Mumbai, and chose to take a decentralized approach, as founder Paritosh Pant informed the author in a telephonic interview on April 26, 2020. 'Feeding from Far' crowdsourced their funding and selected volunteers from the local community to cook fresh meals in their community kitchen. This gave the community a sense of dignity, in being able to fend for themselves with only a little support from outside.

Through such measures, NGOs have managed to fill the gaps in food supply, especially in urban areas like Mumbai and Pune where government

resources are stretched and overwhelmed by the health crisis. They have proven their ability to step up during the crisis and play a secondary, supportive role to the government. The Maharashtra government can also provide certain incentives to NGOs, by providing subsidized grains and food-stock, to increase their scale of support over the next two months. The list of select civil society organizations that have stepped in to provide food to those below the safety net are as follows:

Name	District/City	Method of support	No. of people impacted / no. of meals
Habitat for Humanity	Raigad, Mumbai, Pune Nashik, Thane, Palghar	Hygiene kits and essential kits	79,417 people
Youth for Unity and Voluntary Action (YUVA)	Mumbai, Virar, Navi Mumbai and Panvel	A week's ration package/daily cooked meals	55,600 people / 4.5 lakh meals
Annamrita Foundation	Mumbai, Pune, Nagpur, Aurangabad, Wada & Jalna	Daily cooked meals	29 lakh meals
Praja Foundation	Mumbai	Food ration kits / Daily cooked meals	4,02,225 people / 1,12,62,300 meals
KhaanaChahiye/Project Mumbai	Mumbai	Daily cooked meals	75,000 meals per day
Ratna Nidhi	Mumbai	Daily cooked meals	7,500 meals per day
Akshaya Patra Foundation	Maharashtra	Food ration kits / Daily cooked meals	16,220 kits/ 1,82,014 meals
Zomato Feeding India	Nashik, Mumbai, Navi Mumbai, Karjat, Pune, Kolhapur	Food ration kits	94,736 kits
Feeding From Far	Govandi, Mumbai	Daily cooked meals	2,33,471 meals

- 3. Private sector response:** Even Maharashtra's vibrant private sector was taken aback by the total lockdown. In the first week, there remained much confusion on which, where and when companies were allowed to operate. Some factories and warehouses of processed food companies were in designated 'hotspots' and faced many difficulties. A lot of migrant labour returned to their villages. Commercial transport was difficult to access. In most cases, the cost of transport and shipping was higher than the cost of the produce. Companies with an online presence were impacted less, while those with only retail presence bore the brunt of the restrictions. To minimize the damage, the private sector began innovating.

- a. Collaborations** became the new normal. Britannia, a packaged-food company, partnered with Dunzo, an e-commerce delivery platform. Marico, another food company, partnered with online platforms Zomato and Swiggy. These collaborations saw a marriage of retail and e-commerce brands; it is a win-win situation. Additionally, private companies like BigBasket and Zomato have begun collaborating with NGOs to provide daily meals and food supplies to the urban poor. These collaborations are likely to last in some way even after Covid and can create valuable partnerships between the private sector and NGOs.
- b. Value chains** are contracting. Wholesalers now often work directly with retailers, cutting out the distributors who previously connected them. In order to ensure the last-mile delivery, companies like BigBasket partnered with Uber, the ride-hailing app. Uber drivers go to BigBasket warehouses to collect bulk orders and transport them to the final customer, most often to an apartment building or society. As shortages persist, local kirana stores have begun working with delivery platforms to combine their stock. This contraction of food supply chains has made processes quicker, more efficient and cost-effective.

Besides these temporary innovations, some of which are likely to last post-Covid, the private sector's responses have not measured up to their potential to play a conciliatory role in stemming the tide of this crisis. Most companies have been hamstrung by the lack of revenue and even more so by the lack of available personnel. Warehouses of food companies, such as BigBasket, operated at only half their normal capacity during the months of April and May, as Aashutosh Taparia of BigBasket confirmed to the author in a telephone interview on May 1, 2020. As a result, the local kirana stores have regained their earlier prominence, as they became the first point-of-contact for most residents that preferred walking to the closest kirana store instead of walking kilometers in the sweltering heat to a supermarket.

Conclusion

Despite all our best efforts, the 20 nanometer SARS-CoV-2 virus has humbled us. It has brought most countries to their knees; India and Maharashtra are no exception. In Maharashtra, Covid has re-ordered food supply chains, just as it has in many other parts of the world. The government, NGOs and private sector have worked together to help ensure adequate food supply for all, but it remains to be seen if these new collaborations will last post-lockdown. Despite being home to more than 1,65,000 cases, the highest of any state in the country, government action has been relatively measured and proactive in most of Maharashtra. However, the sheer scale and speed of the virus's spread in the urban megapolis of Mumbai has been devastating to the city's residents. Government and private hospitals are overburdened, even after converting stadiums, planetariums, nature parks, auditoriums and racecourses into quarantine centers.

After announcing the easing of social distancing restrictions beginning June 1 as part of the 'Mission Begin Again' (CMO Maharashtra 2020) most food supply chains that were earlier limited by the lockdown are now back up and running. Even if the state implements strict phase-wise and area-wise restrictions on social activities, the healthcare system could still get completely overwhelmed. This could yet again leave an immediate and adverse impact on food supply chains in the state. Maharashtra thus needs to tread with caution and closely monitor the rise in cases as the lockdown is lifted.

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