Impact of the Pandemic on Livelihood and Food Security: An Empirical Analysis of the PDS in Delhi

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Abstract
The sheer extent of the Covid-19 pandemic and its crippling effect on the entire economy gave cold creeps. Suddenly the fragile, one-of-a-kind arrangement through which the daily wagers and the migrant workers were surviving broke down with the imposition of the lockdown, and we had a novel disaster on our hands. In such a hanging-by-thread situation, the adversely affected poor had to rely on the government machinery for sustenance. We attempt to undertake a first-hand evidence-based study of the implementation of the Public Distribution System in Delhi while examining the impact of the pandemic on livelihood and food security. Some policy gaps that we have identified include inconsistency with the quantity and quality of rations received and promised, exclusion and ultimately access to food. Based on the empirical examination of the specific problems faced by the poor on the ground, we recommend policy solutions corresponding to those specific problems which include utilising modern and emerging technologies, creating new cadre for monitoring and upwardly revising the allocation.

Keywords
Covid-19 pandemic, India, Public Distribution System, Food Security

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Introduction

India has witnessed moments of extreme crises: natural calamities such as floods and droughts, earthquakes and landslides, security threats (both external as well as internal), deadly diseases, communal riots and so on. However, the COVID-19 was unforeseen and unprecedented in more ways than one. It not only caught the federal government off guard, but the sheer extent of the disease and its effect on the entire economy gave cold creeps to even the most optimistic of observers. The pandemic brought to fore the most vulnerable side of India’s political economy which was hitherto hidden under the cover of rising numbers of GDP growth and per capita income. The events that unfolded as a result of the spread of the pandemic were nothing less than a spectacle: millions stranded with transportation at a halt, the alarmed crowd rushing for food and essentials, curfews imposed, lacs of migrants walking hundreds of miles back home, and so on. India’s first response to the pandemic came with the imposition of the world’s largest coronavirus lockdown, when the Prime Minister of India, on 24 March 2020, instructed 1.3 billion Indians to stay home (Singh et al., 2020). This lockdown, initially set for 21 days followed by multiple extensions and conditional relaxations, meant a halt to the livelihoods of almost 90% of India’s workforce which falls under the informal sector. The International Labour Organization (ILO) projected that 400 million of these informal workers were at risk of falling deeper into poverty during the pandemic crisis (ILO, 2020). Though India’s first response to the pandemic through a total lockdown was swift, it was not only about controlling the spread of the disease but also about ensuring livelihood and food security to the large informal workforce devoid of any social security net. Lauding India’s immediate response to the pandemic, the World Economic Forum Chief also stressed the significance of protecting the life and livelihood of the poor and informal workers to avoid a humanitarian crisis (The Hindu, 2020, October 25). ‘Humanitarian crisis’ is what we struggled with, because suddenly the fragile, one-of-a-kind arrangement through which the daily wagers and the migrant workers were surviving broke down with the imposition of the lockdown and we had a novel disaster on our hands. The Covid-19 itself did frighten, but the plight of these workers in the unorganised sector and other economically vulnerable groups evoked murkier nightmares. Many scholars drew attention to the pandemic crisis as the point of time to save the lives of those who lost their livelihood through food assistance and employment assurance or livelihood recovery (Ghosh, 2020; Ray & Subramanian, 2020; Lahoti et al., 2020; Stranded Workers Action Network [SWAN], 2020). The lockdown induced supply chain disruptions and food inflation reflected the proximity between life and death of the poor: ‘I hope the prices come down soon; else there is only one way for poor people like us: we will die’ (Inani, 2021). In such a hanging-by-thread situation, the adversely affected poor had to, in some instances, entirely rely on state government machinery for sustenance. In this context, we aim to especially examine public policy response to food security keeping in mind the overall gravity of the problems that the poor had to face during the crisis.

The significance of this study lies in analysing first-hand evidence based on a study of the implementation of a food security programme in India—the Public
Distribution System (PDS). The PDS emerged as a strong bulwark against hunger and deprivation during the lockdown when sources of income had completely dried up. PDS was at the centre of government’s response to the impending food security crises as many of the government’s initiatives focussed on strengthening the PDS. The PDS operates under the existing National Food Security Act, 2013 aiming to provide highly subsidised food grains to 67% of the Indian population. An eligible person is entitled to 5 kg of foodgrains per month consisting of wheat and rice at the rate of ₹2 and ₹3, respectively. Due to the pandemic, the Government of India announced an additional 5 kg of free foodgrains making the total food entitlement 10 kg per person per month (Press Information Bureau, 2020). At the state level, where the primary inquiry was conducted, the Delhi government announced a total of 7.5 kg foodgrains per person per month (The Hindu, 2020, March 27). Also, the government announced special kits such as one litre of refined oil, a pair of soap, and a packet each of salt, sugar, chilli powder, and channa (gram) or chhole (chickpea) (Government of Delhi, 2020).

Our approach is to understand the distress of the poor in the context of the pandemic and to proceed with suitable policy recommendations. To this end, we ask: What is the impact of the pandemic on livelihood and food security? To what extent does the PDS solve the problems of the poor in the time of the pandemic? We primarily examine the working, impediments and unaddressed problems of the PDS in times of the pandemic in providing relief to the poor. Based on the existing framework of the PDS and the pandemic-induced policy response, we observe people’s awareness about the policy, people’s participation, access to food, problems in access and the impact of the PDS in lessening the adversity of the poor during the crisis. Bearing in mind the impact of the pandemic on livelihood, food access and life itself, we propose policy solutions to strengthen the existing PDS to address immediate problems as well as unforeseen future crises.

**Research Method**

We based our study on telephonic interviews considering the social distancing norms in place to prevent the spread of the COVID-19 pandemic. The interviews were conducted in June 2020 at the peak of the nationwide lockdown in India, and the households were chosen from the PDS beneficiaries that we came into contact with from our previous study. We began with the target of forty households. For these households to be representative of the different regions, we chose four districts in Delhi with the maximum number of PDS households followed by selecting the most populated circle from each district; these were the Karawal Circle (Northeast), Kirari Circle (Northwest), Vikaspuri Circle (West) and Matiala Circle (Southwest). Each circle had on an average 40,000 households. The households’ names with household addresses were taken from a list provided on the website of the National Food Security, Delhi. It is not so displayed currently. We adopted Systematic Random Sampling to select interviewee households from the aforesaid PDS beneficiary households to make the survey evenly representative. To determine exactly which forty households would be interviewed, we selected ten
households from each of the four district-Circles employing the following method. Supposing that the total number of beneficiaries in a Circle is 1,000, we divided it by ten which gave us 100. Accordingly, we kept our target households as the 100th, 200th, 300th and so on. We adopted this way to make an unbiased selection from the entire list of beneficiaries. In the event of a particular beneficiary being unavailable due to any reason, the beneficiary preceding that of the first selection was considered, that is, the 99th, in case 100th was not available, the 199th if 200th was absent and so on. This method seeks to find the nearest possible alternative to the chosen beneficiary in case it being unavailable. In our previous study, we had traced the addresses of the households, carried out the survey and requested phone numbers with their consent for follow-up. This time around, from the forty households, contacted, eighteen of them responded and voluntarily agreed to participate in the survey. These eighteen households had 102 individuals within them. Out of these eighteen households, six were from the Scheduled Castes (SC) community, five from the General category, three from the Muslim community, two from Other Backward Classes/Castes (OBC-Hindu), and the other two from the OBC (Muslim). Most of the respondents who spoke on behalf of their households were females, fourteen out of eighteen to be exact. The household head in the ration card was always the senior-most member of the family. The duration of the interviews on average was thirty minutes.

Pandemic and its impact on Livelihood and Food Security

Due to the lockdown, all the respondents reported a loss of livelihood or discharge from work by the employer. Fourteen out of the eighteen respondents were casual labourers, of which seven could not even find a single day of work throughout the lockdown. The self-employed too were severely affected. For example, Phoolwati’s family that sells milk by rearing buffaloes could not attract a single buyer who could pay in cash but credit on deferred payment. Such cases prevailed among many self-employed households and having exhausted their savings from the pandemic-induced macroeconomic shock. One of the respondents, Priyank, asserted that the government should assure employment and financial allowance to labourers—‘the pillar of the economy’; he opined that the government could have established manufacturing units in rural areas to address the shortage of basic sanitation and medical types of equipment while providing employment avenues.

It is imperative to understand the share of food expenditure in poor households to understand the pandemic impact on food access or food security. As per the latest available National Sample Survey Office (NSSO) data, on an average, the household food expenditure is 43% and 53% in urban and rural India, respectively (NSSO, 2011, pp. A-792). From a comparative viewpoint, French households spent only 13.2% on food and non-alcoholic beverages in 2017 (Eurostat, 2018). It reflects the disparity in the economic impact on food access as these figures prove Engel’s law—the poorer the households, the higher the total expenditures on food. The economic shock of the pandemic could impact both France and India, but Indian households faced a much severe
impact on access to food. Before the pandemic, households used their small sources of income to supplement the food received from the PDS. With these income sources coming to a halt, food insecurity loomed largely.

With or without a pandemic, it is impossible to fulfil sanitation norms or food security without the availability of water. The respondents pointed to the acute water crisis across different regions in Delhi. The worst affected were the households residing in Kirari, Northwest district, and Karawal, Northeast district. Ever since the lockdown, the water supply was inadequate with just a half an hour supply per day. With the further extensions of lockdown, this minimal service too stopped. Dhapar, a daily wage labourer from Kirari said, ‘Ration se jyada, paani kee samasya hai, pani ke bina jiyenge kaise’? [More than the ration, water is the main problem here: how will we survive without adequate water?]. The respondents expressed that it is unreasonable to expect them to follow sanitation norms without adequate water, which could also explain the rise of Covid-19 cases in Delhi. This case of water woes in Delhi, especially in Northwest and Northeast, calls for immediate intervention.

Policy Gaps: Quantity, Quality, and Exclusion

Most of the respondents were aware of the food entitlements including additional allocation due to the pandemic crisis under the PDS. One of the policy setbacks lies with the inconsistency in the quantity and quality of food delivery received, against the actual entitlement. For example, out of eighteen households, eight received 10 kg per person, another eight received 8 kg per person, one household received 5 kg per person, and another household received only 4 kg per person. Sumitra’s family, which lives in Kirari, received only 5 kg per person. Gitanjali Devi and Vidhyawati’s families, residents in Karawal, received 8 kg per person per month. The distribution of special kits too was inconsistent; in June 2020, half of the household respondents received it only once in the last two months and the other half received it twice. The majority of the respondents reported irregular quality of foodgrains mostly wheat. Sudarshana Devi said, ‘Gehu zyada kharab hai, roti kaari dikhti hai aur swaad achha nahi hota’ [The wheat quality is bad; roti made from the wheat looks black and taste is not good either]. Rachna Devi’s son added that sometimes they find many thorns in the wheat.

The exclusion of eligible household members from the PDS can be said to be a major setback in the policy. This is a serious problem because it minimises household’s food consumption. Only 78 out of 102 individuals from 18 households were registered in their respective family’s ration cards. For instance, only five out of eight members of Naina Singh’s family were listed in the ration card. Sugandha Devi, the sole intermittent labourer in the family of five, had only three members registered on the card. Many recounted the exclusion of their household members. The respondents expressed their helplessness to register the excluded members. They pointed to bureaucratic hurdles in updating ration cards. Usually, the Fair Price Shop (FPS) dealers or the ration office decline or defer the registration of new members. Eventually, the poor lose hope and cope with lesser food supply.
In an exceptional case, Shalini Devi’s husband received his two monthly shares of ration using his Aadhaar card; he had tried registering his name a ‘hundred times’ but proved futile. Nonetheless, exceptional cases wherein Aadhaar could be used to provide foodgrains would be sparse since not all household members possessed one. For example, only three out of five in one family and another, only five out of eight had Aadhaar cards.

A lockdown is surmised on certain behavioural norms such as physical or social distancing. However, the respondents reported long queues and crowd rush at the FPS. Geetanjali Devi, a widow, while forbidding her three children to go to the FPS for the sake of safety, would go herself and risk collecting ration among the crowd. Such a case reflects an indispensable need for basic food where an individual is ready to risk contracting a deadly disease in order to get food. Shahana Khatoon also referred to health risks due to this problem and suggested doorstep delivery of food grains. The respondents admitted the benefit from the policy response of doubling the ration entitlement under the PDS during the pandemic. However, given the existing problem of exclusion of members resulting in lesser food consumption in the households, the respondents stressed upon an increase in the food allocation. All the households interviewed had some members missing from the list of ration card beneficiaries. Therefore, the most sharply expressed responses were about the quantity of the food allocation under the PDS. Shocked, amused and angered that the current allocation would not fulfil their basic monthly requirement, ‘Majak kyun kar rahe ho sahab?’ [Why are you joking sir?], said Najma Khatoon; ‘Aap hi sochiye, itna kam ration poora mahina kaise chalega?’ [Please think on your own how can such a meagre quantity of ration suffice for the whole month], said Mahesh from a family of six that engages in physical labour all day and consumes about 75 kg per month whereas they received only 8 kg per person from the PDS. On an average, households’ food consumption from the PDS lasts between twelve to fifteen days. From a policy perspective, the PDS is one of many strategies to counter food insecurity, hunger or poverty in India. Moreover, with the existing inefficiencies in the PDS, no other source of income during the pandemic, the households resorted to informal borrowing to survive for the remaining days after having consumed the food from PDS for a maximum of 15 days. Access to bank credit was not possible at that time. With regard to the distribution of special kits in the time of the pandemic, the respondents approved such a move and preferred such frequent distribution of diversified items which fulfil basic needs. Overall, the doubling of ration and special kits could serve as a temporary relief to the poor amidst the wretchedness of the pandemic crisis. The gloomy state of destitution brought about by the pandemic indisputably calls for fitting policy solutions.

Conclusion and Recommendations

To address the unequal or uneven distribution at the delivery point while aiming to reduce leakages and enhance transparency, we recommend utilising the new blockchain technology. The PDS supply chain, from procurement to transportation
to storage and further distribution, is prone to manipulation leading to leakages, pilferages, and eventually unequal distribution at the last mile delivery point. This supply chain could be integrated, for tracking and recording, to the blockchain using the distributed ledger technology (Rauchs et al., 2018). Similarly, adopting technologies such as artificial intelligence, machine learning, and the internet of things could address the inconsistent distribution of quality foodgrains. Some have already demonstrated testing and monitoring of the quality of water using machine learning (Ashwini et al., 2019). Machine learning alongside sensor technology measures, records and alerts users of the pH, colour and turbidity of water. Likewise, efforts are on to using machine vision systems to monitor and evaluate grain quality (Vithu & Moses, 2016).

In Delhi Rozi Roti Adhikar Abhiyan v. Union of India and Ors, W.P. (C) 2161/2017, the Delhi High Court sought timely redress with problems in the food distribution. The judgement, by a Bench including Justice Hima Kohli and Justice Subramonium Prasad, on 28 May 2020 directed the districts Sub-Divisional Magistrates to test out and ensure proper implementation of the FPS in their jurisdiction. To this, we suggest a different cadre of government employees called ‘Ration Inspectors’ whose primary duty would be to ensure food delivery to the beneficiaries. The Ministry of Consumer Affairs, Food, and Public Distribution only needs to come out with a notification to this effect and legislation can take place later. The current provision of periodic inspection by Food Supply officers and Special Commissioners remains inadequate and ineffective. Ration inspectors would be stationed permanently at the FPSs to ensure smooth delivery of ration to rightful claimants without any discrepancies or leakages. If they were to be found involved in corruption, we suggest summary proceedings under the current lokpal framework to hold them accountable. Complaints against them could be reported by any public member to the State Lokayukta to hold them to account and bring them to justice, in a time-bound manner, say one month. This will only need minor amendments in the Delhi Lokayukta and Uplokayukta Act, 1995.

For a swift policy response to the pandemic crisis, Abhijeet Banerjee, Amartya Sen and Raghuram Rajan recommended issuing a temporary ration card for six months to everyone in need, with the supporting statement, ‘The cost of missing many of those who are in dire need vastly exceeds the social cost of letting in some who could perhaps do without it’ (Sen et al., 2020). The Delhi government, through its website, carried out a similar intervention for a provisional e-coupon system with an Aadhaar card as a verifying identity to avail food provision. A much stable solution to attaining food security would be a universal distribution with voluntary exclusion by those who could do without it. Many have argued for universal food security legislation as targeting leads to exclusion of beneficiaries (Swaminathan, 2000; Himanshu & Sen, 2011; Ghosh, 2010). Recently, former Union Environment Minister Jairam Ramesh petitioned for universal food distribution in the Supreme Court positioning that many without ration cards are excluded from the PDS even when the government announced the doubling of ration in the pandemic (Nair, 2020). The Supreme Court, however, directed the petitioner to first make a representation to the government. It is interesting to note that in a 2016 judgment in Swaraj Abhiyan v.
Union of India, Writ Petition (c) No. 857, 2015, the Supreme Court directed all states affected by drought to provide 5 kg of foodgrains per person per month, irrespective of possession of a ration card, to each one in need. The pandemic times called for such kind of intervention on two grounds: lakhs of migrants do not possess ration cards and many more lakhs never applied or indeed applied but failed to obtain one.

In 2018, the Aam Aadmi Party government in Delhi proposed for home delivery of food grains; the purpose has been stated, as of 6 March, to weed out corruption and leakages in the PDS. In the intervening time, the Central government projected a conflicting stand because even though it yielded to the idea, the Lieutenant Governor (LG) of Delhi disapproved of the proposal. The Supreme Court abridged this discrepancy between the Central and the state government, referring to Article 239AA clause 3 of the Constitution—within the legislative competence of the State Legislature, that is, every matter except Police, Public Order and Land, the LG has to act on ‘aid and the advice’ of the elected government, as observed in the Govt of NCT of Delhi v. Union of India, Civil Appeal no 2357, 2017. Nonetheless, the Delhi government is yet to implement it. To prevent crowding and spreading of disease, doorstep delivery of foodgrains is ideal during the lockdown. However, considering the enormous logistical hurdles involved, we suggest, in addition to the above, diversification of the food delivery points by using public spaces such as sports stadia, public parks and post offices.

In the context of the pandemic, for the struggling millions, livelihood support is the need of the hour. The crisis calls for urgent food distribution and cash transfers in terms of enlarged convergence and size (Mander et al., 2020). Under the Pradhan Mantri Garib Kalyan Yojana, a cash transfer of ₹500 was provided for every below-poverty-line family, but the amount is grossly inadequate. The existing Jan Dhan Accounts could be utilised for cash transfers, one-time or instalments, in times of crisis such as this. Others suggested cash for work programmes by creating temporary jobs related to food distribution and sanitisation of public places (Reardon et al., 2020). In essence, an infectious respiratory disease, Covid-19, has drawn attention to the significance of a proactive and comprehensive food security policy guaranteeing timely delivery of adequate quality and quantity of food (and water). The post-pandemic policy strategy should be directed towards strengthening the existing PDS and other levers of food security while preparing to manage any unforeseen future crisis.

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