

# Efficacy of India's food security response during COVID-19

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As part of its response to the COVID-19 outbreak, the Government of India (GoI) announced a range of programs under the *Pradhan Mantri Garib Kalyan Yojana* (PMGKY). The government provided free food grains for more than 800 million beneficiaries of the *National Food Security Act* (NFSA),<sup>1</sup> 2013 under the *Pradhan Mantri Garib Kalyan Anna Yojana* (PM-GKAY).

PM-GKAY targeted the bottom 67% of the population identified under NFSA. However, a new section of poor and migrant workers<sup>2</sup> who lost their livelihoods due to the lockdown remained out of the ambit of NFSA and, possibly, other safety net programs. To address this segment, the government launched the *Atma Nirbhar Bharat package*. Together, these two initiatives made the food security coverage almost universal for the vulnerable population. *Annex 1* provides the details of these programs. We discuss key lessons learned and findings on the performance of India's Public Distribution System (PDS) below.

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*Gaon mein aisi loot maar ho rahi thi, 50 rupay ki cheez 100 mein mil rahi thi. Sarkaar se jo muft chawal mila to kam se kam usse do waqt parivaar ka pet to bhar paaye hain.*

(With inflation rampant in villages, shopkeepers sold goods at exorbitant prices. The free rice provided by the government helped my family eat two meals a day.)

- Vasubai Patel,  
a PDS beneficiary from Gujarat

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## 1

### The importance of in-kind benefits

**In-kind support during COVID-19 helped many households survive the lockdown when the pandemic disrupted markets and profiteering and inflation peaked. India's well-established and extensive PDS network made it possible to deliver benefits to vulnerable households successfully. Beneficiaries received food grains more effectively than cash benefits, which underlines the importance of having a balanced mix of cash and in-kind benefits. It also highlights the need to strengthen these systems and make them more beneficiary-centric.**

<sup>1</sup> Under NFSA, Rice, Wheat and Coarse Grains are distributed to entitled households at the subsidized price of USD 0.04, 0.02 and 0.01 (INR 3, 2 and 1) respectively.

<sup>2</sup> As data on the actual number of migrants or stranded migrants and needy families does not exist, a liberal figure of 80 million (10% of the total 800 million beneficiaries under NFSA) was estimated for the purpose of allocating food grains. States were given autonomy to decide who qualified as a migrant or stranded migrant.

The efficiency of delivery under PDS outperformed many leading cash transfer support programs announced under PMGKY during the lockdown, as illustrated in Table 1. This was despite the in-kind nature of the program that needed a massive supply chain to function. Households that reported that they did not receive food support in both rounds mentioned the unavailability of stock at fair price shops (FPSs) as the primary reason.

Reforms, such as portability under PDS, also made the system more beneficiary-centric and responsive. The portability of ration cards under the “One Nation One Ration Card (ONORC)” initiative facilitates the divisibility of entitlements and helps migrant beneficiaries access their entitlements despite migrating to a different village, town, or state. Realizing the potential and importance of ONORC during the crisis, the Gol accelerated its implementation<sup>3</sup> and made it an integral part of the AtmaNirbhar Bharat Abhiyaan.

**Table 1: Delivery of benefits under different support programs announced as part of PMGKY, as reported by respondents during the two rounds of the study**

| Type of support | Program                                    | % of households that reported receiving benefits (May, 2020) | % of households that reported receiving benefits (September, 2020) |
|-----------------|--|--|--|
| Cash support    | Multiple programs under PMGKY <sup>5</sup> | 57%-84%  | 75%-95%  |
| In-kind support | PDS  | 91%  | 94%  |

## 2 Social assistance systems and their supply chains should be agile and adaptable

**The design of social assistance programs should incorporate flexible delivery systems. The challenges of the COVID-19 crisis amplified this need. While the pandemic tested the resilience of the PDS infrastructure, the system adapted quickly and efficiently to absorb the additional supply of food grains announced under the two new programs. It supported the delivery of food grains when the crisis severely hampered the supply chains of other consumer goods.**

During the lockdown, many states delivered rations to vulnerable sections of society at their doorstep. While governments suspended biometric authentication due to the fear of infection, the distribution of food grains and data reconciliation continued smoothly. Digital transformation and improved monitoring of PDS over the years have ensured that the system functions well during emergencies, even in the absence of last-mile authentication. As soon as the situation improved, governments replaced all temporary systems with standard operating procedures to avoid scope for leakages.

The first round of our study suggests that nearly 6% of respondents received rations at their doorstep in the initial months of lockdown. During the same period, 58% of respondents mentioned receiving food grains without biometric authentication. By the second round of the study, the number of beneficiaries who reported receiving doorstep delivery of rations declined to just 1%. Simultaneously, those who availed rations through biometric authentication increased to 72%.



### PDS distribution during pandemic

- PDS in India relies on the Biometrically Authenticated Physical Uptake (BAPU) model to deliver food grains.
- Many states suspended biometric authentication temporarily to limit the spread of COVID-19 and ensure the safety of beneficiaries.
- The distribution continued through ePoS devices installed at fair price shops to allow data reconciliation, without the requirement for biometric authentication.

<sup>3</sup> Between May and September, 2020, the government added 16 more states and union territories under ONORC. Consequently, the initiative covered nearly 680 million (85%) of the NFSA population in 28 states and union territories during the given period.

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**Food security programs should integrate nutritional security**

The GoI provided free pulses to meet the protein needs of vulnerable households during the crisis. The delivery of pulses was not as smooth as that of food grains during the pandemic—the problems with delivery highlight the importance of backward and forward linkages in delivering in-kind social protection benefits. To switch gears from food security to nutritional security, the government should integrate the delivery of nutritionally diverse commodities, such as pulses and millets, into the PDS supply chain. Other developing countries offer a more diverse food basket under their food assistance programs, such as Indonesia under Kartu Sembako.<sup>4</sup> The GoI should learn from such programs to diversify the PDS food basket in India.

Generally, NFSA beneficiaries do not receive pulses under PDS. The GoI had to create an entire supply chain from scratch to distribute pulses, which delayed distribution. The vast geographical spread of India made the delivery of pulses a mammoth and time-consuming exercise. During Round 1, only 27% of surveyed households reported receiving free pulses. By Round 2, 53% of households reported receiving pulses as the delivery continued to scale up. Most beneficiaries believed that they were entitled to 1 kg of pulses per person rather than per family. This misunderstanding may also have been a reason behind underreporting in the receipt of pulses.

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*Chawal to har mahine mila, lekin daal sirf ek do baar hi mili. Aath logon ke parivaar me ek kilo daal se kya hi hota hai.*

We received rice every month but pulses only once or twice. For a family of eight, 1kg of pulses was far.

- Premlata from adequate Devi,  
 PDS beneficiary from Bihar

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**Social protection programs should incorporate dynamic inclusion systems**

Many NFSA beneficiaries find it challenging to add the name of a family member to the ration card. Under the current system<sup>5</sup>, each state has a fixed quota of the number of NFSA beneficiaries, calculated based on the population in 2011. Hence, the maximum coverage is currently fixed at 813 million beneficiaries—67% of India's population in 2011. The state-wise number of beneficiaries eligible to receive benefits under PDS and the corresponding central allocation of food grains cannot be increased until the publication of the next Population Census<sup>6</sup>. Consequently, the coverage of NFSA has not kept pace with the growth of the population in India in the past nine years.<sup>7</sup>

<sup>4</sup> Under Kartu Sembako, beneficiaries can exchange food coupons at around 80,000 e-Warong shops for rice, eggs, vegetables, fish, chicken, fruits, and other eligible produce.

<sup>5</sup> The TPDS (Control) Order 2015 provides state-wise ceiling on the coverage of the number of NFSA beneficiaries who may receive subsidized food grains under TPDS. The order provides for revision of the coverage ceiling only after the next population census is published.

<sup>6</sup> Clause 3(6), Targeted Public Distribution System (Control) Order, 2015

<sup>7</sup> “Outdated census data deprives over 10 crore of PDS: economists,” The Hindu, 16th April, 2020

With a provision of near real-time quotas, a dynamic system can help update the database in line with the rise in population. When linked to other socioeconomic databases, it can also help remove beneficiaries who graduate from poverty and create space to add more poor beneficiaries. The GoI should explore policy options to create a uniform database for different social assistance programs in the form of “social registries.” These are information systems that support outreach, application, registration, and determination of potential eligibility for one or more social programs.

Findings from the first round of the study indicate that around 23% of households did not have one or more family members added to their ration cards. The top four states with the lowest number of household members listed on the ration card were Bihar (53%), Uttar Pradesh (47%), Assam (37%), and Punjab (32%). Consequently, fewer entitlements reached eligible households. Similarly, during MSC's study in the Nagri district, beneficiaries reported that more than 30% of households had at least one family member whose name was not included in the ration card.

## 5 Governments should experiment with innovative models of delivery

**The government should test new models for the delivery of benefits to reduce dependency on FPS dealers. The World Food Programme (WFP) has piloted such a model—the “GrainATM,” an automated dispensing machine that provides beneficiaries round-the-clock access to their grains of choice, quickly, hygienically, and accurately. It further allows beneficiaries to extract the exact amount of grains they are entitled to without manual interference. The government should continue experimenting with other models, such as providing a choice between cash, food or food coupons. Such options can help improve the nutritional focus of PDS, which primarily provides rice and wheat.**

Dealers reported an increase in the footfall of beneficiaries after the government announced PM-GKAY, as many households that had chosen not to avail their entitlement before the pandemic began to visit fair price shops. The need to follow COVID-19 safety protocols increased the average transaction time to deliver PM-GKAY benefits significantly. Accordingly, FPS dealers had to extend their operating hours. Most dealers reported employing additional resources or engaging their family members to ensure smooth delivery.

The food departments of most states provided safety gear, such as personal protection equipment, sanitizer, and soap, among others, only once. Consequently, FPS dealers had to bear the cost of the required protective gear. The increase in overhead expenses reduced their profitability.

“ I spend USD between 4 to 7 (INR 300 to 500) each month on sanitizer and personal protection equipment. I am yet to receive last month's commission on food grains. My savings have started to dry up. I hope this crisis ends soon. ”

- An FPS dealer from Bhopal, Madhya Pradesh



## Conclusion

The crisis validated the reforms that the Government of India has introduced over the past several years, such as the digitization of PDS as part of its efforts to make the system more transparent, efficient, and adaptive. The preparedness of the system and a focus on beneficiary-centric initiatives enabled the central and state governments to launch and execute measures at scale. However, some lingering issues remain unaddressed despite the government's efforts to digitize and reform safety net programs, including PDS. These include exclusion of beneficiaries, late payments of commission, and lack of diversity in the food basket. The GoI should continue to build and

invest in technology-driven reforms to sustain and further improve the system.

PDS has the largest database of beneficiaries available with the GoI. It identifies and covers the bottom 67% of India's population. Nearly 90% of PDS beneficiaries have linked their ration cards with *Aadhaar*. This has helped eliminate duplicate and "ghost" or fake beneficiaries and validated the authenticity of the database. With the effectiveness it displayed during COVID-19<sup>8</sup> and its comprehensive coverage of beneficiaries, PDS has the potential to become the primary vehicle to deliver benefits under other safety net programs in India.

## About MSC's study

MSC conducted two rounds<sup>9</sup> of demand-side research to gauge the effectiveness of PMGKY and support measures<sup>10</sup> announced by the Indian government using a mixed-method approach. See this link for the research approach in detail. We conducted the first round during the three-month lockdown in May, 2020 and the second after the lockdown<sup>11</sup> in September, 2020. The study's objective was to assess various social protection interventions of the central and state governments during COVID-19 and suggest improvements to the programs.

We designed the research as a panel study with respondents selected using a multi-stage sampling approach from the BPL (below poverty line) database. The study is nationally representative and provides both national and state-level estimates for critical indicators.<sup>12</sup> MSC covered beneficiaries who received benefits from at least one cash transfer program under PMGKY and benefited from the Public Distribution System. The study covered a total sample<sup>13</sup> of 5,081 respondents in both rounds across 18 states and

union territories. Both rounds (the panel) had 4,082 respondents in common.

This note is part of a series of publications from MSC's "Evaluation of the Indian government's response to COVID-19." The complete list of publications is as follows:

- 1 India's gender-responsive policies during COVID-19
- 2 A review of the effectiveness of India's Direct Benefit Transfer (DBT) system during COVID-19: Lessons for India and the world
- 3 Efficacy of India's food security response during COVID-19
- 4 Beyond the barriers of affordability: An analysis of India's cooking fuel support program under the COVID-19 assistance package
- 5 Efficacy of MGNREGA in mitigating the loss in income and unemployment caused by the COVID-19 pandemic

<sup>8</sup> Find the detailed case study on the Government of India's food security response to the COVID-19 pandemic through PDS here.

<sup>9</sup> The first study was conducted in May, 2020 and the second in September, 2020.

<sup>10</sup> The Public Distribution System, Midday Meal program, PM Ujjwala Yojana, National Social Assistance Programme, PM Kisan, PM Jan Dhan Yojana, and Mahatma Gandhi National Rural Employment Act

<sup>11</sup> India remained in lockdown from 24th March, 2020 to 31st May, 2020. The country started to relax restrictions from June, 2020, except those imposed in containment zones.

<sup>12</sup> A sample size of 270 households was estimated for each state with a 95% confidence level and a 6% margin of error. The quantitative data was collected using Computer Aided Telephonic Interviews (CATI) system and MSC staff conducted the qualitative research over the telephone.

<sup>13</sup> In Round 2, some respondents could not participate in interviews while we could not reach others over the phone. This led to the attrition of 999 respondents between rounds 1 and 2. We replaced this missing sample with 999 new respondents with similar profiles to ensure we had the required sample size to provide state- and national level-point estimates.

## Annex 1

### Food security assistance in India

Under NFSA, eligible households are categorized as either Antyodaya Anna Yojana (AAY) households or Priority Households (PHH). AAY households comprise the poorest of the poor while PHH covers the erstwhile Below the Poverty Line (BPL) population and vulnerable sections of the population Above the Poverty Line (APL).

#### Regular entitlement for beneficiaries under NFSA

PHH: 5 kg of food grains per family member per month

AAY: 35 kg of food grains per family per month

#### Entitlement under PM-GKAY (for three months, from April to June, 2020)

5 kg of free food grains per person and 1 kg of free pulses per family to AAY as well as priority households each month

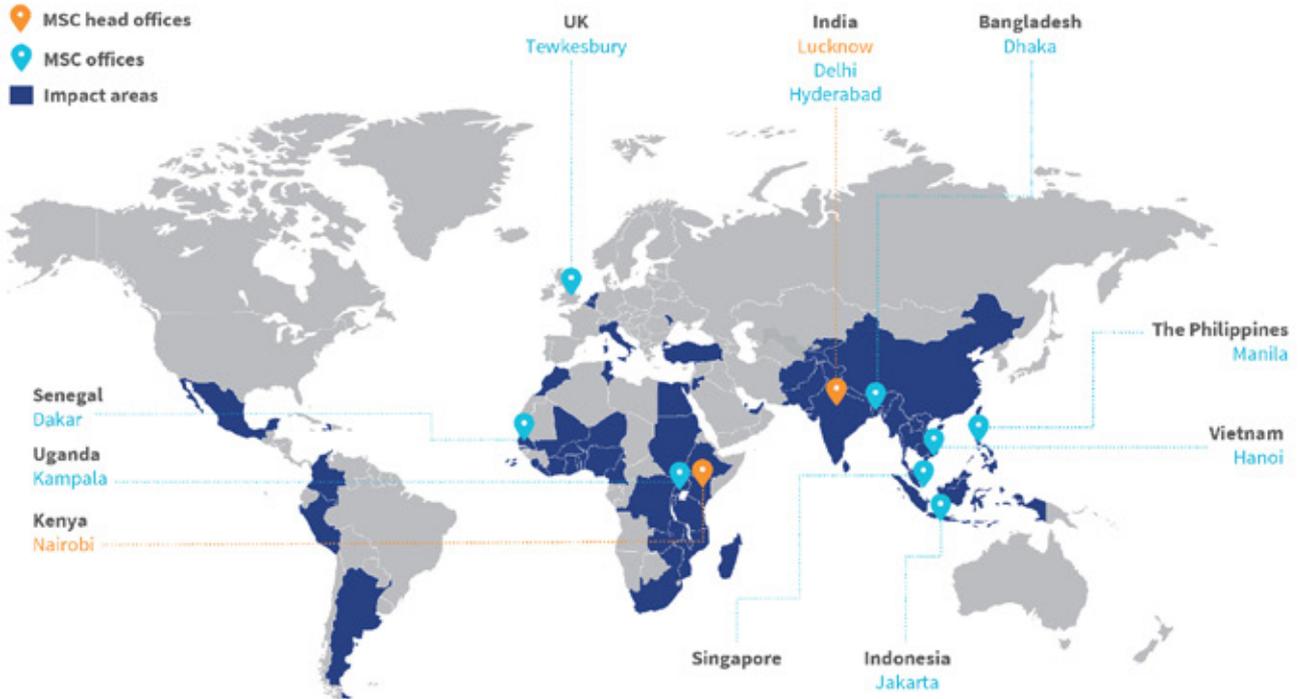
#### Entitlement under Atma Nirbhar Bharat Scheme (for May and June)

5 kg of free food grains per person and 1 kg of free pulses per family to migrant laborers and stranded and needy families

To ensure the beneficiaries receive these entitlements, the central government allotted 33 million metric tons (MMT) of food grains to states to distribute free of cost under PM-GKAY. This was in addition to the 35 MMT of food grains distributed under NFSA at no additional cost to states.

Since the first version of the program was launched in March, 2020, the GoI has extended the PM-GKAY initiative three times. This was much needed given the long and unpredictable nature of the COVID-19 crisis and its consequent economic effect. Phase II extended from July to November, 2020, phase III from May to June 2021, and phase IV from July to November, 2021. However, unlike phases I and II, the government provided only 5kg of food grains and no pulses under phases III and IV.





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