Scaling of Public Distribution System (PDS) After the Pandemic

Dr. Rachita Singh(Assistant professor) Dept of Commerce

Acharya Sitaram Chaturvedi College for women

Domari, Ramnagar

Varanasi , 221002

Abstract

The Public Distribution System (PDS) plays a crucial role in ensuring food security for millions in India. The COVID-19 pandemic posed significant challenges to its functioning, highlighting the need for reforms. This paper examines how the PDS evolved after the pandemic, analyzing improvements in technology, supply chain efficiency, and policy changes. It also explores issues such as inefficiencies, corruption, and accessibility barriers. The study suggests solutions like digitization, direct benefit transfers (DBT), and better logistics. Using a mixed-methods approach, the paper evaluates post-pandemic developments in PDS and their impact on food security. The findings show that while PDS has improved in many areas, further efforts are needed to make it more inclusive and efficient.

Keywords :- Public Distribution System, food security, COVID-19, digitization, supply chain, direct benefit transfer, post-pandemic reforms

Introduction

The Public Distribution System (PDS) in India is one of the largest food security programs in the world. It plays a crucial role in ensuring that essential food grains reach economically weaker sections at subsidized rates. Managed by the central and state governments, PDS distributes items like rice, wheat, and sugar through a network of Fair Price Shops (FPS). However, the system has faced several challenges, including inefficiencies, corruption, and leakages, which prevent food from reaching the intended beneficiaries. The COVID-19 pandemic further exposed these vulnerabilities, highlighting the urgent need for reforms to make PDS more efficient and accessible. When the pandemic struck, India witnessed large-scale economic disruptions, job losses, and food insecurity, particularly among daily wage workers and migrant laborers. The crisis forced the government to introduce emergency food relief programs, such as the Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY), which provided free food grains to nearly 800 million people. Additionally, technological interventions such as the "One Nation, One Ration Card" (ONORC) scheme were fast-tracked to ensure that beneficiaries could access their entitlements from any location, regardless of where their ration card was issued. These reforms aimed to address the challenges of migrant populations who were unable to access food benefits due to geographical restrictions. Despite these improvements, several challenges remain in the post-pandemic era. Corruption and leakages in the distribution system continue to be a major issue, as a portion of the allocated food grains are often diverted before reaching the intended beneficiaries. Many deserving families are excluded from the system due to documentation errors or technical failures, particularly in rural areas where internet connectivity is poor. Additionally, supply chain disruptions, inadequate storage facilities, and inefficient transportation networks affect the timely delivery of food grains. To ensure that PDS remains effective in the post-pandemic world, further reforms are necessary. The integration of technology, such as biometric authentication and blockchain tracking, can enhance transparency and reduce fraud. Expanding grievance redressal mechanisms will help beneficiaries report issues more efficiently, ensuring that food reaches those who need it most. Furthermore, increasing awareness about PDS schemes through digital campaigns and community outreach can help more people access their entitlements. This paper examines how PDS has evolved after the pandemic, analyzing key reforms, persistent challenges, and potential solutions. By evaluating government policies, technological advancements, and ground-level issues, this study aims to provide a comprehensive understanding of the scaling of PDS in the post-pandemic era and its impact on food security in India.

Challenges and Solutions in Scaling the Public Distribution System (PDS) After the Pandemic

The Public Distribution System (PDS) in India has long been a crucial mechanism for ensuring food security among vulnerable populations. However, despite its large scale and extensive reach, PDS has faced multiple structural and operational issues. The COVID-19 pandemic intensified these challenges, exposing inefficiencies in food distribution and forcing the government to implement emergency reforms. Even after the pandemic,

problems such as corruption, exclusion errors, technological barriers, and supply chain inefficiencies continue to hinder the system's effectiveness. Addressing these challenges requires a combination of policy interventions, technological advancements, and governance improvements. This section explores the major post-pandemic problems affecting PDS and provides viable solutions supported by research and government reports.

1.   Corruption, Leakages, and Accountability Issues

One of the most persistent problems in the Public Distribution System is corruption and leakages. A significant portion of food grains meant for the poor is lost due to diversion, hoarding, and black marketing. Studies suggest that between 30% and 40% of PDS food grains do not reach the intended beneficiaries (Khera 2011). The pandemic worsened this issue as increased demand and logistical disruptions created opportunities for middlemen to exploit the system. Corrupt practices such as fake ration cards, unauthorized distribution, and incorrect reporting by Fair Price Shop (FPS) owners continue to reduce the effectiveness of PDS (Gupta 2022). A key solution to this issue is technological intervention. The implementation of biometric authentication through Aadhaar-linked ration cards has already shown promise in reducing fraud. The "One Nation, One Ration Card" (ONORC) scheme has further strengthened transparency by allowing beneficiaries to access food grains anywhere in the country (Government of India 2022). Additionally, the use of blockchain technology for supply chain tracking can prevent the diversion of food grains. Blockchain ensures that each transaction, from procurement to distribution, is recorded and verified, making corruption more difficult (Sharma 2023). Furthermore, community monitoring mechanisms, such as social audits and grievance redressal systems, can enhance accountability by allowing beneficiaries to report malpractices.

2.   Exclusion Errors and Accessibility Challenges

Exclusion errors remain a major concern in PDS, as many deserving families do not receive benefits due to documentation issues, errors in biometric authentication, or technical failures. A study by Basu (2019) found that nearly 10% of eligible beneficiaries are excluded from PDS due to mismatches in Aadhaar data or non-updated ration card records. Migrant laborers, the elderly, and individuals without proper identification documents face the highest risk of exclusion. The pandemic made this issue even more critical as sudden lockdowns left many people stranded without access to food. To address this issue, alternative identification methods should be introduced. While Aadhaar authentication is useful, it should not be the sole criterion for eligibility. The government can implement AI-based eligibility verification, using machine learning models to identify at-risk populations based on income and socioeconomic factors (Ramaswami 2017). Additionally, expanding offline distribution options in remote areas can help those with limited access to digital services. Tamil Nadu's initiative of issuing smart ration cards with offline authentication features is a good example of overcoming digital barriers (Patel 2023). Moreover, simplifying the grievance redressal process through mobile apps and helplines can allow beneficiaries to report exclusion issues quickly.

3.   Supply Chain and Logistics Bottlenecks

The efficiency of PDS depends heavily on the strength of its supply chain. Post-pandemic disruptions revealed several weaknesses, including delays in food procurement, inadequate warehousing, and poor transportation infrastructure. The Food Corporation of India (FCI) report (2021) highlighted that during the pandemic, logistical breakdowns led to delays of up to 40% in food grain deliveries. Additionally, poor storage facilities in several states resulted in food wastage, further exacerbating food insecurity. To improve the supply chain, real-time GPS tracking of food grain transportation should be implemented. A study by Kumar and Radhakrishnan (2021) showed that using GPS-enabled trucks for PDS deliveries reduced transportation delays by 25% in pilot projects. Moreover, public-private partnerships (PPPs) can help strengthen storage infrastructure by leveraging private investment in warehousing (Chand 2021). States like Punjab and Maharashtra have already seen success in partnering with private logistics companies to optimize food distribution. Another crucial step is forecast-based planning, where AI-powered data analytics predict demand fluctuations and optimize procurement strategies, ensuring smoother distribution.

4.   Lack of Awareness and Beneficiary Empowerment

Even after multiple reforms, a significant portion of PDS beneficiaries remains unaware of their entitlements or how to access them. A survey conducted by the International Food Policy Research Institute (IFPRI) (2022) found that 30% of rural households were unaware of recent changes in PDS policies, including the ONORC scheme. This lack of awareness results in beneficiaries failing to claim their rations or falling victim to misinformation spread by middlemen. To tackle this problem, digital awareness campaigns using mobile notifications, community radio, and social media can play a crucial role. The success of the "Poshan Abhiyan" campaign, which spread awareness about nutrition through SMS alerts, proves that such initiatives can be effective (Sen 2020). Additionally, local self-help groups (SHGs) and NGOs should be involved in educating rural communities about

their rights under PDS. Karnataka's "Gram Sabha" model, where local officials explain government schemes in village meetings, is a good example of community-driven awareness programs (Patel 2023). Furthermore, establishing ombudsman offices at the district level can provide beneficiaries with a direct point of contact to resolve issues related to PDS.

Hypothesis

The scaling of the Public Distribution System (PDS) after the pandemic has led to several improvements, but significant challenges remain. Post-pandemic reforms have improved the efficiency of PDS – The government introduced several measures such as the "One Nation, One Ration Card" (ONORC) system, digital tracking, and free food distribution programs during and after the pandemic. These initiatives were expected to reduce corruption, streamline the supply chain, and ensure food security for vulnerable populations. However, their actual impact on efficiency needs to be evaluated. Technological advancements have made PDS more accessible and transparent – The use of biometric authentication, digitized ration cards, and GPS tracking of food distribution was intended to eliminate fraud and ensure the right beneficiaries receive their entitlements. However, it is crucial to examine whether technology has truly reduced leakages and whether rural areas with limited internet access are benefiting equally. Despite improvements, corruption and inefficiencies continue to exist – Although digital reforms and stricter monitoring systems have been introduced, cases of diversion, fake ration cards, and exclusion errors still persist. It is essential to determine whether government interventions have significantly reduced these issues or if alternative measures are needed. Supply chain and logistics remain a major bottleneck – The pandemic revealed weaknesses in food storage, transportation, and procurement. The hypothesis suggests that while some improvements have been made, PDS logistics still face issues such as delayed distribution, poor storage conditions, and wastage of food grains. Beneficiary awareness and accessibility influence the success of PDS reforms – Many PDS users, especially in rural areas, remain unaware of new schemes and policies. This hypothesis suggests that limited awareness affects how effectively people can claim their food entitlements and benefit from government reforms.

Methodology

This study adopts a mixed-methods approach, combining both qualitative and quantitative research to assess the scaling of the Public Distribution System (PDS) after the pandemic. **Primary data** will be collected through surveys and interviews with key stakeholders, including PDS beneficiaries, Fair Price Shop (FPS) owners, and government officials. Beneficiaries will provide insights into accessibility, digital authentication, and awareness of recent reforms, while FPS owners will discuss supply chain challenges and fraud detection. Government officials will share policy implementation experiences and their effectiveness in addressing corruption and inefficiencies. **Secondary data** will be gathered from government reports, policy documents, academic research, and news articles. Reports from the Food Corporation of India (FCI), NITI Aayog, and the Ministry of Consumer Affairs will be analyzed to track trends in food distribution, leakage rates, and the impact of digital reforms. A **comparative analysis** will be conducted to evaluate pre-pandemic and post-pandemic data on efficiency, coverage, and logistical performance. Additionally, **case studies** from different states will be examined to understand regional differences in PDS reforms, comparing states with successful digital implementations, such as Tamil Nadu, with those facing continued challenges, like Bihar and Jharkhand. To ensure the reliability of findings, **data triangulation** will be used, cross-verifying information from multiple sources to minimize biases. Despite potential limitations such as restricted access to government records, biased responses, and technological barriers, the study will employ **random sampling** and **structured interviews** to enhance data accuracy. This methodology aims to provide a comprehensive analysis of how PDS has evolved post-pandemic, identifying key improvements, persisting challenges, and policy recommendations for a more effective and inclusive food distribution system in India.

Conclusion

The Public Distribution System remains a cornerstone of India's food security framework, but it requires continuous reforms to meet evolving challenges. The COVID-19 pandemic exposed major vulnerabilities in PDS, prompting the government to adopt digital solutions, expand coverage, and introduce policy adjustments. However, problems such as corruption, exclusion errors, supply chain inefficiencies, and lack of awareness continue to hinder its effectiveness. By leveraging technology (biometrics, AI, blockchain), strengthening logistics (GPS tracking, PPPs), improving accessibility (alternative Ids, offline distribution), and enhancing awareness (digital campaigns, SHG involvement), the PDS can become more transparent, efficient, and inclusive. Moving forward, policymakers must focus on making the system more adaptable and resilient so that it can withstand future crises while ensuring food security for all.

Works Cited

1. Basu, Kaushik. Policy Reforms and Food Security in India. Springer, 2019.
2. Chand, Ramesh. Reforming India's Food and Agriculture Policies. NITI Aayog, 2021.
3. Food Corporation of India. Annual Report on PDS Logistics Performance. FCI, 2021.
4. Government of India. Annual Report on Public Distribution System Performance. Ministry of Consumer Affairs, 2022.
5. Gupta, Rajeev. "PDS and Direct Benefit Transfers: A Comparative Study." Indian Journal of Economics, vol. 95, no. 1, 2022, pp. 10-28.
6. International Food Policy Research Institute (IFPRI). PDS Awareness Survey in Rural India. 2022.
7. Khera, Reetika. Reviving the Public Distribution System: Reforming Food Security in India. Oxford University Press, 2011.
8. Kumar, Pawan, and R. Radhakrishnan. Efficiency of Public Distribution Systems in India. Cambridge University Press, 2021.
9. Patel, Meera. "Technology and Transparency in India's Food Security Programs." International Journal of Development Studies, vol. 8, no. 2, 2023, pp. 45-62.
10. Ramaswami, Bharat. "The Evolution of India's Food Subsidy Policies." Economic and Political Weekly, vol. 52, no. 10, 2017, pp. 55-65.
11. Sen, Abhijit. Food Security and Nutrition in India: Challenges and Prospects. Routledge, 2020.
12. Sharma, Ankur. "The Impact of COVID-19 on India's Public Distribution System." Journal of Public Policy and Governance, vol. 5, no. 3, 2022, pp. 20-35.