

Rationalising Public Distribution System in India

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Abstract

India runs perhaps the largest Public Distribution System (PDS) in the world, which provides free grains (rice and/or wheat) to almost 813.5 million people. But the Household Consumption Expenditure Survey (HCES) of 2022-23 shows that almost 28 percent of the grains supplied by Food Corporation of India (FCI) and state governments never reaches the intended beneficiaries. This amounts to a financial loss of about Rs. 69,108 crores (equivalent to roughly 20 million metric tons (MMT) of rice and wheat). Such a leaky PDS needs urgent reforms for better outcomes. The resources thus saved can be ploughed back to agriculture and rural areas to achieve not just food security but also nutritional security.

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List of Abbreviations

AAY	Antyodaya Anna Yojana
APL	Above Poverty Line
BMI	Body Mass Index
BPL	Below Poverty Line
CIP	Central Issue Price
CPI	Consumer Price Index
DBT	Direct Benefit Transfer
DFPD	Department of Food and Public Distribution
FCI	Food Corporation of India
FPS	Fair Price Shops
GoI	Government of India
HCES	Household Consumer Expenditure Survey
MMRP	Modified Mixed Recall Period
MMT	Million Metric Tonnes
MPCE	Monthly Per Capita Consumption Expenditure
MRP	Mixed Recall Period
MSP	Minimum Support Price
NDA	National Democratic Alliance
NFHS	National Family Health Survey
NFSA	National Food Security Act
PDS	Public Distribution System
PHH	Priority Households
PMGKAY	Pradhan Mantri Garib Kalyan Anna Yojana
PoS	Point of Sale
TPDS	Targeted Public Distribution System
UP	Uttar Pradesh
URP	Uniform Recall Period

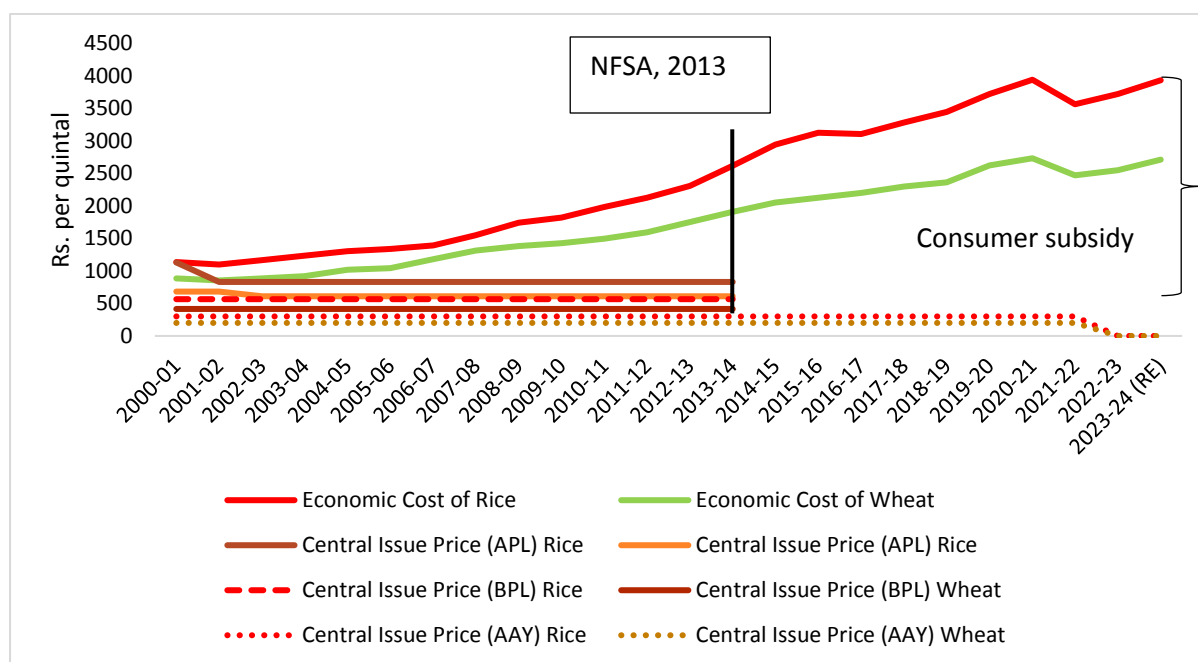
Rationalising Public Distribution System in India

Raya Das, Ranjana Roy, Ashok Gulati

1. Introduction

Public Distribution System (PDS) is an important policy instrument of Government of India (GoI) to provide food security to the vulnerable section of society. PDS has its roots in the Second World War (1939), when it started under the Defence of India rules as food supplies were scarce, and got a fillip in the wake of Bengal famine in 1943. Since then, it has become an integral part of India's food security policy. In terms of its coverage, today, it is perhaps the world's largest food distribution program covering 813.5 million people out of a population of about 1.43 billion in 2024 (Ministry of Consumer Affairs, Food & Public Distribution, Census of India). It has evolved over the years in terms of its size and structure. Accordingly, it also had implications for food subsidy, and thereby on the Union Budget's major programs. Significant changes in the PDS were initiated since 1997, when a universal PDS was converted into a Targeted Public Distribution System (TPDS).

Figure 1: Trends of gap between Central Issue Price and Economic cost of rice and wheat 2000-01 to 2023-24



Source: FCI, DFPD. After 2013, NFSA was implemented and CIP fixed at Rs. 3 per kg for rice and Rs. 2 per kg for wheat followed by free from 2022.

Households were categorised into three groups: (1) the *Antyodaya* households who were the “poorest among poor category” (2) those who were below the poverty line (BPL), and (3) households who were above poverty line (APL). When the TPDS was launched in 1997-98, the Central Issue Price (CIP) for BPL households was set at 50 percent of the Minimum Support

Price (MSP), and for APL households, it was set at 90 percent of MSP. This approach allowed the CIP to adjust in tandem with rising economic cost, thereby creating less strain on the food subsidy bill compared to fixed CIP or free grain distribution. Over years, from 1997 to 2013, some modifications in the scheme took place in terms of quantity of these categories as well as pricing of grains. However, a major change occurred again in 2013 when the UPA government passed the National Food Security Act (2013) that covered 67 percent of India's population (75 percent in rural areas and 50 percent in urban areas, PDS), and the gap between CIP and economic cost widened over the years (**Figure 1**).

While this extensive coverage was positioned as a welfare measure, it has been argued that it served as a populist strategy in the lead-up to the 2014 elections. Under this Act, two main beneficiary categories—Priority Households (PHH) and *Antyodaya Anna Yojana* (AAY) households—are entitled to food grains at significantly subsidized prices. Each member of a Priority Household receives 5 kg of food grains per month, priced at Rs. 3 per kg for rice, Rs. 2 per kg for wheat, and Rs. 1 per kg for coarse grains.

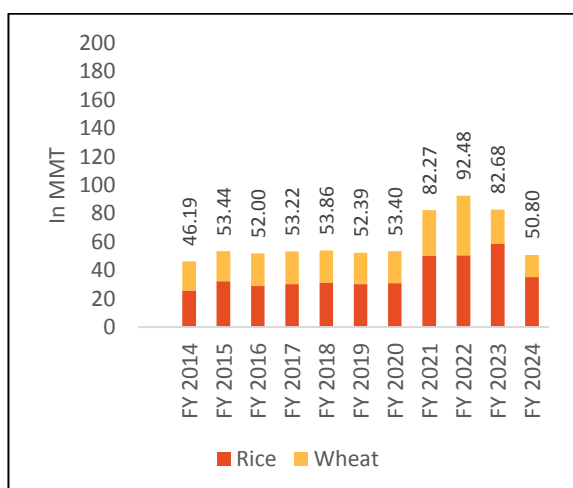
But UPA lost the elections in 2014, and the new government (NDA) led by Prime Minister Narendra Modi set up a High-Level Committee on Re-orienting the Role and Re-Structuring of Food Corporation of India chaired by the former Food Minister Shanta Kumar. The Committee submitted its report in January 2015, and estimated (based on 2011-12 Consumption Expenditure Survey, NSS) that the existing PDS suffers from large leakages, about 46 percent, at all India level and as high as even 70 percent in some north eastern states. It recommended end-to-end digitalization of the system to contain leakages. The Committee also recommended reducing the current 67 percent coverage to 40 percent as the headcount poverty estimated by the erstwhile Planning Commission was about 21 percent in 2011, later revised upwards by the Rangarajan Committee to about 29 percent with some change in definition. The Shanta Kumar Committee also recommended a gradual shift towards cash transfer options rather than grain-centered distribution to improve efficiency, reduce leakages, and encourage diversified diets.

As on November 2024, there are 813.5 million beneficiaries under the NFSA (Ministry of Consumer Affairs, Food & Public Distribution). They get free grains (5kg/person/month) through the PDS across India. This aid is facilitated through a network of 5.45 lakh Fair Price Shops (FPSs). Under PMGKAY, AAY households receive 35 kg of food grains per month, and PHH receive 5 kg per person per month. There are also some other welfare schemes that distribute free or highly subsidised grain, and some states offer more grain on top of what the Centre is giving. The food subsidy schemes comprise 8.3 percent of the total budgeted revenue expenditure of GoI (GoI, 2023) and it has been increasing over the years. The program expanded by providing additional 5 kg of rice/wheat per person per month during the COVID-19 period and made it free from January 2023 onwards for the next five years. The offtake of grain increased with the implementation of the NFSA in 2013, and the figures rose from 53.4 MMT in 2019-20 to 82.68 MMT in 2022-23 (**Figure 2**). The increase in foodgrain offtake post-2020 is due to the PMGKAY, launched in March 2020 in the wake of Covid-19,

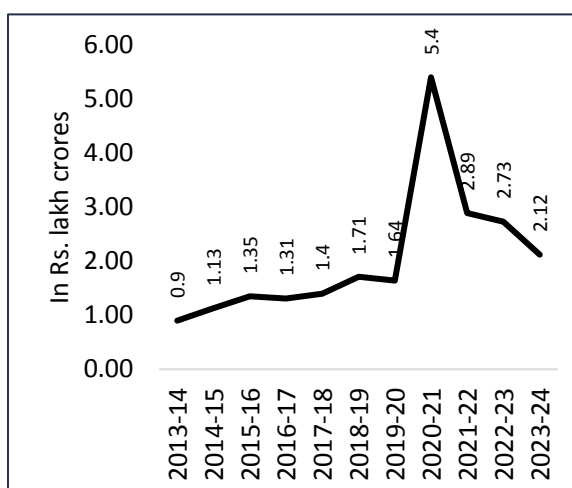
which doubled the monthly distribution for NFSA beneficiaries by providing an extra 5 kg of free grains per person till December 2022. Subsequently, in January 2023, the distribution of grains under PMGKAY was made free. This nexus of large-scale procurement and the free distribution inflated the food subsidy bill to Rs. 2.72 lakh crore in FY 2022-23 (**Figure 3**).

In the NFSA there was an initial provision to revise the issue price after three years¹. However, it has now been over a decade, and instead of adjusting the issue price upward, the policy has made food grains completely free. This appears to be more politically driven than welfare-oriented. As the MSP for food grains continues to increase annually—rising from Rs. 1,350 per quintal in 2013-14 to Rs. 2,275 per quintal in 2023-24 for wheat and from Rs. 1,955 to Rs. 3,432 for rice (converted from paddy) over the same period—the issue price should ideally be linked to the MSP. This adjustment would help keep the food subsidy bill within sustainable limits.

**Figure 2: Offtake of Rice and Wheat
FY11 to FY24**



**Figure 3: Total Food Subsidy
FY11 to FY24**



Source: FCI, Budget document, Ministry of Finance, GoI

2. Estimation of PDS Leakage

PDS leakage is one way of looking at the efficiency of the food grain management system in terms of estimating the proportion of rice and wheat, that has been distributed through offtake, but could not reach the consumers. We do not have annual data for this estimation, however, NSS publishes Household Consumption Expenditure Survey (HCES²) data. As the

¹ “Food grains under NFSA were to be made available at subsidized prices of Rs. 3/2/1 per kg for rice, wheat and coarse grains respectively for an initial period of three years from the date of commencement of the Act (July 13, 2013). Thereafter, prices were to be fixed by the Central Government from time to time, but not exceeding MSP” (NFSA, 2013).

² The National Statistical Office regularly conducts a large-scale household consumer expenditure survey (HCES) gathering data on the consumption of various goods and services. The National Sample Survey Organization has been conducting this survey since 1950. The current round included 8,723 villages, covering 155,014 households in rural regions, and 6,115 blocks, involving 106,732 households in the urban

HCES 2022-23 covers the first household consumption survey after NFSA, 2013, it is important to see the status of leakage of PDS grain. Analysing monthly offtake data from the Food Corporation of India (FCI) from August 2022 to July 2023—including distributions under NFSA, tide-over, non-NFSA state-level allocations, and PMGKAY—and aligning it with the reference period of the HCES, 2022-23, we compared reported offtake with actual household consumption levels. The findings reveal a significant discrepancy: 28 percent of the allocated grains, amounting to approximately 20 MMT of rice and wheat, fail to reach their intended recipients. Without state-offtake adjustment the leakage is 25.3 percent. The reason we have done both these exercises is because the state-level additional offtake data is not directly available for all the states.

Linking the ration card of beneficiaries with Aadhaar for PDS has increased the efficacy of distribution. However, the leakage in the PDS still remains a concern. They have not been fully plugged. While this figure represents a significant improvement from the 46 percent leakage reported in 2011-12 (Shanta Kumar Committee Report, 2015; Gulati and Saini, 2015), it still indicates that a substantial portion of the free/subsidised grains is not reaching the intended beneficiaries. It goes to the credit of the government that they took note of high leakages in the PDS system and made the installation of the Point of Sale (PoS) machines in FPS around 2016. This was part of the broader digitalization efforts under the NFSA to improve transparency and reduce leakage in the PDS. The PoS machines were gradually introduced across various states, with the goal of covering all FPS nationwide. As per 2023 data PoS machines have been installed in approximately 95 percent of the FPS across the country (Ministry of Consumer Affairs, Food & Public Distribution). This extensive coverage has enabled biometric authentication and real-time tracking of transactions, reducing PDS leakage. Despite these advancements, the persistent leakage of 25 to 28 percent indicates the need for better measures to enhance the system's efficacy. It is important to note a caveat: surveys often face issues of underreporting or overreporting, which may affect the accuracy of data on PDS receipts. However, such reporting discrepancies are unlikely to be substantial, as significant inaccuracies would undermine the survey's purpose (sampling error for MPCE is reported to be less than 1 percent, HCES, 2023).

Table 1: PDS leakage in cereals 2022-23

Commodities	TPDS off take in MMT	HCES consumption PDS in MMT	Absolute leakage in MMT	Leakage in percent
Rice	52.4	35.7	16.8	32.0
Wheat	19.0	16.0	2.9	15.5
Rice+ Wheat	71.4	51.7	19.7	28.0

*Source: Unit level data, HCES, 2022-23 Notes: Reference period: August 2022 to July 2023. *State-specific offtakes are added in the total offtakes from state public distribution websites.*

areas. It excluded only a few inaccessible villages in the Andaman & Nicobar Islands. The survey gathered information on consumption of items ranging from food items, consumables and services, and durables.

In absolute quantity, the PDS leakage amounts to 17 MMT for rice and 3 MMT for wheat, while the offtake during the period (August 2022 to July 2023) was 71 MMT³. **This leakage of 20 MMT of rice and wheat translates into a substantial financial burden, costing the exchequer Rs. 69,108 crores (USD 8.42 billion) in 2022-23 considering the economic cost of rice and wheat for that year.**⁴ (Table 1). This significant loss highlights the urgent need for reforms and a shift towards Direct Benefit Transfer (DBT) for better efficiency and accountability in the distribution of food subsidies. By transferring subsidies directly to the beneficiaries' bank accounts, DBT minimizes leakage, reduces administrative costs, and ensures that the intended recipients receive full benefits. This approach enhances transparency and allows beneficiaries to purchase food grains as per their needs. While the Modi government gives high priority to direct benefit transfers, the PDS has yet to see a change from physical quantities through FPS to direct cash transfers to beneficiaries' accounts.

3. PDS Leakage across States

End-to-end computerisation of the PDS program has reduced the leakage as the system is digitized from procurement to distribution at all India level. However, the efficiency of the system varies across states.

Figure 4 shows the PDS leakage in percentage across states based on the methodology described in the previous section for rice and wheat together. The extent of leakage issue varies sharply across states⁵. North-eastern states Arunachal Pradesh, Nagaland followed by Gujarat are the top three states in terms of PDS leakage of grains. One of the reasons of higher leakage particularly in North-eastern states is lack of digitalisation of the distribution system. As per the latest data of 2021, around 60 percent of Aadhaar has been linked with ration card in Arunachal Pradesh, compared to all India level of 92.8 percent (Ministry of Consumer Affairs, Food and Public Distribution GoI).

States like Bihar and West Bengal have achieved significant reductions in PDS leakage over the past decade. In Bihar, leakage dropped sharply from 68.7 percent in 2011-12 to just 19.2 percent in 2022-23. Similarly, West Bengal saw a decrease from 69.4 percent to 9 percent

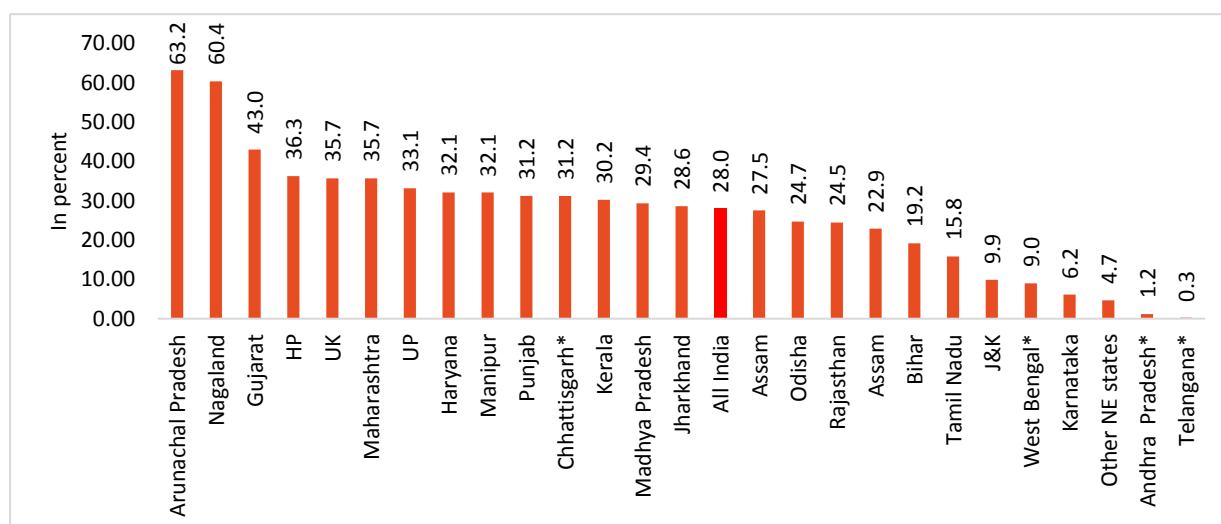
³ In calculating the total offtake under various schemes, welfare programs such as the mid-day meal program, wheat nutrition program, welfare institutions and hostels, and defence provisions were not included, as the HCES data does not capture information on consumption from these sources. Centre-level offtake data is provided by both the Food Corporation of India (FCI) and the Department of Food and Public Distribution (DFPD), though there are minor variations in the figures from these two sources. For this study, we have relied on data from the FCI.

⁴ Economic cost of Rs. 3670 per quintal for rice and Rs. 2590 per quintal for the year 2022-23 have been used to estimate the financial loss. The economic costs are given by FCI, which includes the costs of procuring, storing and distributing.

⁵ To calculate state-level offtake, the total offtake figure for Chhattisgarh (Centre + State) was obtained from the State Economic Survey, 2022-23. For other states (Andhra Pradesh, West Bengal, Telangana), state-level allocations were calculated by multiplying the total number of state beneficiaries by the per-person designated allocation during the reference period.

over the same period (Gulati and Saini, 2015)⁶. On the other hand, in Uttar Pradesh, PDS leakage remains at 33 percent, with the state topping the list in terms of the absolute quantity of grains leaked. Others such as Himachal Pradesh, Uttarakhand, and Maharashtra experience high rates of siphoning, which often involves grains being diverted back to the open market. Despite the implementation of digital tracking systems, leakage persists, highlighting the need for not only improved monitoring but also structural reforms to address PDS corruption.

Figure 4: State-wise Percentage Leakage of Grains from PDS 2022-23



Source: Authors' calculation based on FCI and HCES unit level data, 2022-23. Notes: Reference period: August 2022 to July 2023. *State-specific offtakes are added in the total offtakes from state public distribution websites.

Figure 5 and **6** illustrate the share of states expressed in percent in total rice and wheat leakages across various states. Uttar Pradesh has the highest share in all India rice leakage, accounting for 28.42 percent, followed by Maharashtra at 11.47 percent. Other states such as Madhya Pradesh, Bihar, Gujarat also account for large share of the all-India leakage. These 5 states comprise 64.5 percent share of total rice leakage in 2022-23. It may be interesting to note that in the first ten months of 2019, more than half of the total cases of PDS-related corruption originated from Uttar Pradesh (UP) and Bihar, according to data revealed by Danve Raosaheb Dadarao (Minister of State for Consumer Affairs, Food & Public Distribution) in a reply to a question in the Lok Sabha. Out of 807 cases of corruption related to the PDS in India, 328 were from UP alone.

⁶ The methodologies of the two analyses are not strictly comparable due to differences in the weighting used. The previous paper (Gulati and Saini, 2015) used census and ration card holders' number as weights for the analysis. This study uses population weight from household level data of the NSS 77th round. The previous report also included other welfare schemes, while the current analysis omits these schemes for consistency with the questionnaire. Additionally, the earlier report did not incorporate state offtake data, whereas the present study includes state offtakes.

Figure 5: Share of states in Total Rice PDS leakage

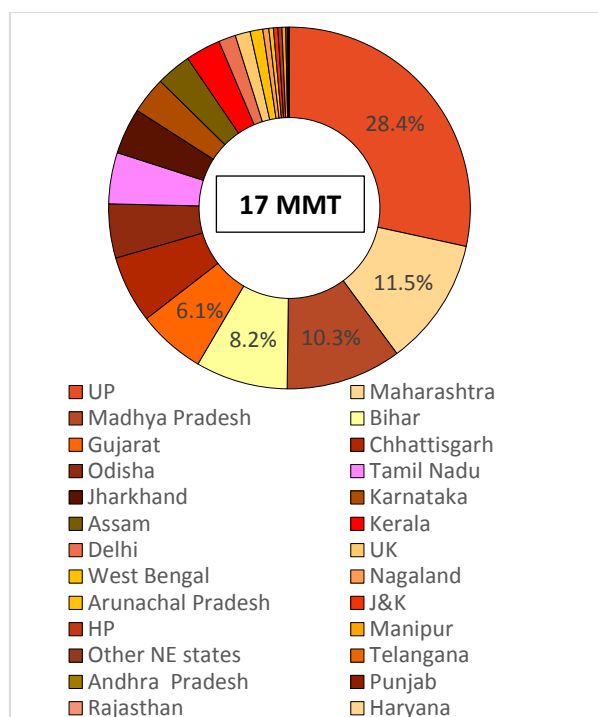
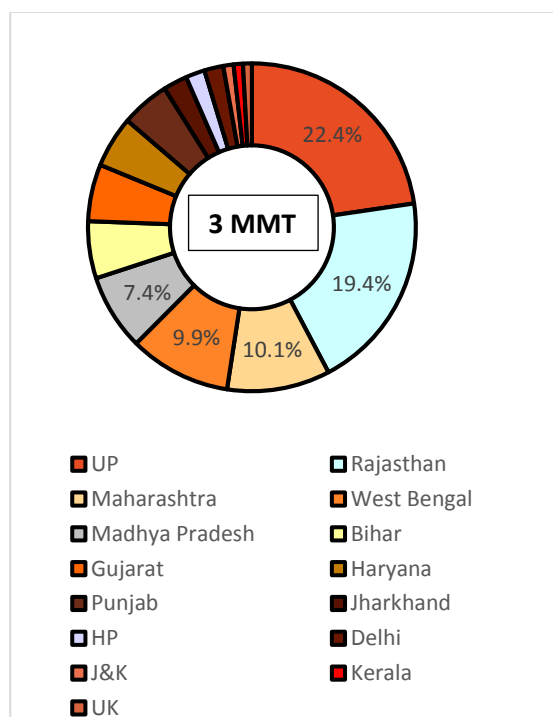


Figure 6: Share of states in Total Wheat PDS leakage



Source: Unit level data, HCES 2022-23

4. Towards Nutrition Security

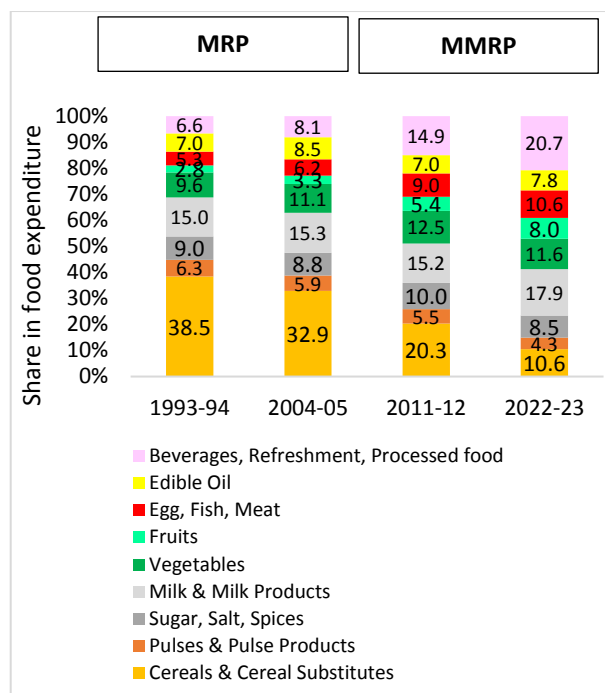
The persistent issue of PDS leakage raises serious concerns about the efficiency of India's grain management system and the resulting financial strain on the exchequer. While the primary goal of the PDS is to ensure food security, it is critical to examine its effectiveness in advancing broader nutritional security.

Reliance on grain distribution alone may not adequately address the diverse dietary needs of the population, especially as nutritional challenges increasingly demand access to a variety of high-value foods, including fruits, vegetables, and protein-rich items. This brings into question whether the current grain-centric approach is the optimal policy choice to improve nutrition or if alternative strategies that encourage diversified food consumption are needed to enhance dietary quality and nutritional outcomes across the population.

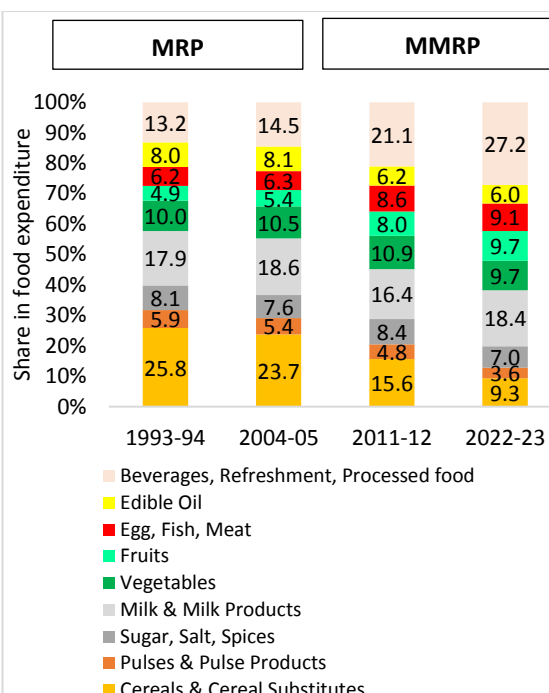
As the HCES data reveals that the share of food expenditure on livestock and fruit has increased, however, the share of spending on pulses and vegetables in the total food expenditure declined from 2011-12 to 2022-23 (Figure 7). This indicates that grain distribution under PDS does not guarantee increase in expenditure on nutritious food. This reflects upon the status of nutrition in the country.

Figure 7: Share of Different Food Items in Total Food Spending in Rural (a) and Urban India (b) (1993-94 to 2022-23)

7. a



7.b



Source: HCES, 2022-23 Note: 1. # Estimated no. of households are derived from various NSS rounds. 2. Regarding the share in MPCE, 1999-00 and 2004-05 are based on Mixed Recall Period (MRP= reference period of “last 365 days” for clothing, footwear, education, medical (institutional) expenses and durable goods and “last 30 days” for rest of the items) and 2011-12 and 2022-23 are based on Modified Mixed Recall Period (MMRP=The estimate of MPCE is based on household consumer expenditure on edible oil, egg, fish and meat, vegetables, fruits, spices, beverages, refreshments, processed food, pan, tobacco and intoxicants recorded for a reference period of “last 7 days”, 30 days for all other food, fuel and light, miscellaneous goods and services including non-institutional medical, rents and taxes, “last 365 days” for clothing, footwear, education, medical (institutional) expenses and durable goods. 3. * The figures of CPI weights are different from the actual expenditure share in MPCE, which are 45.9 percent for food and beverages, 39.1 percent for food, and 6.80 percent for beverages in 2011-12.

Malnutrition remains a pressing challenge in India, highlighting the urgent need to shift from a cereal-centric diet to a more diversified, nutrient-rich food basket that includes animal proteins, vegetables, and fruits. While rice (providing 3,460 kcal and 75 grams of protein per kg) and wheat (3,410 kcal and 121 grams of protein) are cost-effective sources of energy and protein, largely supplied through the PDS and free grain programs but they fall short in providing essential micronutrients.

Currently, 35.5 percent of children under five are stunted, 19.3 percent are wasted, and 32.1 percent are underweight. Additionally, 18.7 percent of women and 16.2 percent of men have low body mass index (BMI), according to the National Family Health Survey (2019-21).

Undernutrition in impoverished communities is often due to deficiencies in critical vitamins and minerals like vitamin A, iron, zinc, and iodine, combined with greater vulnerability to infectious diseases (Caulfield et al, 2006). Addressing these issues requires an urgent shift towards a more varied diet that can better meet the nutritional needs of India's population.

5. Rationalising the PDS system

Reforming the PDS is essential, given its significant fiscal strain and reported annual leakage of approximately Rs 69,000 crore. Reducing such leakage is a major policy concern, alongside re-evaluating the scope of PDS coverage to focus on the bottom 15 percent of the population, while the 15-57 percent income group could be given access to grains at half of the MSP. This targeted approach could alleviate the exchequer's burden while addressing the food security needs.

Key reform areas include improving the accuracy of beneficiary targeting and exploring a transitioning to food stamps or voucher system and direct cash transfer, which could enhance transparency, reduce inefficiencies, and ensure nutrition security.

5.1 Targeting Beneficiaries Effectively

Reform could aim to reduce the excessive coverage of the current PDS, which serves nearly 57 percent of the population today (813.5 million out of a total population of about 1.43 billion), although NFSA, 2013 had provisioned for 67 percent of total population (75 percent rural and 50 percent urban). Recent data from the World Bank (2022) indicates that 12.9 percent of India's population lives on less than \$2.15 per day, marking an extreme level of poverty. In contrast, the NITI Aayog (2024) report highlights substantial progress in poverty alleviation, with 248 million individuals lifted out of poverty over the last nine years.

The Multi-Dimensional Poverty Index (MDPI) also shows a significant reduction, decreasing from 29.17 percent in 2013-14 to 11.28 percent in 2022-23. The 2022-23 HCES reveals a comparable trend, where consumption poverty, measured by the Rangarajan poverty line, fell from 29.5 percent to 8.4 percent. This reduction in poverty suggests potential for targeting the bottom 15 percent of population for free food distribution, while those between 15 to 57 percent of population being covered today in PMGKAY can be offered grains at least at 50 percent of the MSP. Such a CIP method in tandem with MSP can lessen the fiscal burden of food subsidies, allowing for a reallocation of resources to development-focused expenditures. It may be noted that such a system did exist during the Vajpayee government period. It would be only wise to follow that path.

Improving targeting can be achieved through a more dynamic and transparent mechanism. The use of digital technology can facilitate more accurate beneficiary identification. Mobile applications and biometric authentication at FPSs can enhance the system's efficiency and

accountability. These will help reduce inclusion and exclusion errors, ensuring that subsidies reach the intended recipients.

5.2 Direct Benefit transfers for Ration Card Holders

Alternative choice of DBT can also be given to beneficiaries. Transitioning from the current in-kind transfer system to a cash transfer model can address several issues plaguing the PDS. DBTs allow beneficiaries to choose the food items they need, rather than being limited to the standard rationed items. This approach empowers beneficiaries and reduces the administrative burden on the government. Cash transfers can be electronically linked to Aadhaar, ensuring secure and targeted transfers at the beginning of the month. Under DBT, subsidies could be transferred directly into beneficiaries' bank accounts, allowing them to purchase food grains of their choice.

This system bypasses the PDS's complex, multi-tiered distribution network, minimizing leakage and drastically reducing administrative costs. It not only empowers consumers with the flexibility to meet their specific dietary needs but also curbs the scope for intermediaries to siphon off grains intended for those most in need. This approach of cash transfers directly into the accounts of beneficiaries would be resisted by FPS owners for obvious reasons as they are likely to go out of business, and out of diversions of food. How to navigate this changeover would be a test of policy making and how to sell it to the nation.

5.3 Transforming Fair Price Shops into Nutrition Hubs and Food Stamp Approach

At least 10 percent of the existing FPSs can be transformed into nutrition hubs by linking it with the food coupon approach. Food coupons can be distributed directly to the intended beneficiaries (e.g., via mobile-based e-coupons or printed vouchers), ensuring that only those eligible can redeem them. This prevents unauthorized access to subsidized food grains by those who are not entitled to them.

With a system based on verified identification (like Aadhaar in India), coupons can be more accurately issued to low-income families, minimizing the possibility of fake or duplicate beneficiaries who might siphon off grains meant for the needy. With digital food coupons or e-vouchers, each transaction can be tracked, allowing authorities to monitor distribution in real-time. This reduces the chance of ghost transactions, where unscrupulous operators claim to have distributed food grains that were actually diverted to the black market.

Reforming the PDS is essential to ensure the system's sustainability and alignment with India's evolving food security and nutrition goals.

The current leakage and fiscal burden underscore the need for targeted approach. Transitioning to DBT, which offers beneficiaries flexibility and reduces intermediaries, coupled with food stamps and nutritional hubs, would empower consumers, reduce wastage, and better align PDS offerings with nutritional outcomes.

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Annexure

Annexure 1: PDS leakage estimation across states 2022-23

States	TPDS Rice + Wheat in MMT (Adjusting state off-take) (1)	Annual consumption Rice Wheat in MMT (2)	Leakage gap in MMT (1-2)	Leakage in percent (1-2)/1
Arunachal Pradesh	0.11	0.04	0.07	63.2
Nagaland	0.15	0.06	0.09	60.4
Gujarat	2.72	1.55	1.17	43.0
HP	0.56	0.36	0.20	36.3
UK	0.56	0.36	0.20	35.7
Maharashtra	5.40	3.47	1.93	35.7
UP	13.10	8.76	4.34	33.1
Haryana	1.03	0.70	0.33	32.1
Manipur	0.18	0.12	0.06	32.1
Chhattisgarh	3.25	2.23	1.02	31.5
Punjab	1.29	0.89	0.40	31.2
Kerala	1.54	1.07	0.46	30.2
Madhya Pradesh	3.97	2.80	1.17	29.4
Jharkhand	2.20	1.57	0.63	28.6
Odisha	2.82	2.13	0.70	24.7
Rajasthan	4.12	3.11	1.01	24.5
Assam	1.80	1.39	0.41	22.9
Assam	1.80	1.39	0.41	22.8
Bihar	6.30	5.09	1.21	19.2
Tamil Nadu	3.25	2.74	0.52	15.8
J&K	0.66	0.59	0.06	9.9
West Bengal	5.67	5.18	0.49	8.7
Karnataka	2.60	2.44	0.16	6.2
Other NE states	0.56	0.53	0.03	4.7
Andhra Pradesh	2.43	2.41	0.02	1.0
Telangana	1.83	1.82	0.01	0.5

Source: Authors' calculation based on FCI and HCES unit level data, 2022-23

Annexure 2: Economic cost and CIP trends of rice and wheat in India 2000-01 to 2023-24

Year	Economic Cost of Rice Rs. /quintal	Economic Cost of Wheat (Rs./ quintal)	CIP (APL) Rice (Rs./ quintal)	CIP (APL) Wheat (Rs./ quintal)	CIP (BPL) Rice (Rs./ quintal)	CIP (BPL) Wheat (Rs./ quintal)	CIP (AAY) Rice (Rs./ quintal)	CIP (AAY) Wheat (Rs./ quintal)
2000-01	1137	883	1130	682	565	415	300	200
2001-02	1098	853	830	682	565	415	300	200
2002-03	1165	884	830	610	565	415	300	200
2003-04	1236	919	830	610	565	415	300	200
2004-05	1304	1019	830	610	565	415	300	200
2005-06	1340	1042	830	610	565	415	300	200
2006-07	1391	1178	830	610	565	415	300	200
2007-08	1550	1312	830	610	565	415	300	200
2008-09	1741	1381	830	610	565	415	300	200
2009-10	1820	1425	830	610	565	415	300	200
2010-11	1983	1494	830	610	565	415	300	200
2011-12	2123	1595	830	610	565	415	300	200
2012-13	2305	1753	830	610	565	415	300	200
2013-14	2616	1908	830	610	565	415	300	200
2014-15	2944	2051	830	610	565	415	300	200
2015-16	3125	2127	830	610	565	415	300	200
2016-17	3105	2197	--	--	--	--	300	200
2017-18	3280	2298	--	--	--	--	300	200
2018-19	3444	2360	--	--	--	--	300	200
2019-20	3720	2623	--	--	--	--	300	200
2020-21	3939	2732	--	--	--	--	300	200
2021-22	3562	2468	--	--	--	--	300	200
2022-23	3722	2549	--	--	--	--	0	0
2023-24 (RE)	3931	2710	--	--	--	--	0	0

Source: FCI, DFPD, GoI



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