

# Direct Benefit Transfer (DBT) in Food Subsidies: A Step Toward Better Food Security?

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## Abstract

In some regions, the Public Distribution System (PDS) has been replaced with the Direct Benefit Transfer (DBT) program, marking a dramatic change in India's food subsidy structure. By transferring subsidy funds straight into recipients' bank accounts, DBT seeks to do away with middlemen, cut down on leaks, and improve transparency. DBT aims to provide recipients more choice and control over their food intake by digitizing the welfare delivery process.

Chandigarh, Puducherry, and portions of Dadra & Nagar Haveli were among the Union Territories where DBT in food subsidies was initially tested. The main concept was to use direct cash transfers in place of subsidized food grains so that recipients could buy food from open marketplaces. Another critical concern is that cash transfers may not always be used for food, especially in households facing multiple financial pressures. Moreover, market price fluctuations can erode the real value of the cash transfer, unlike PDS which provides food grains at fixed subsidized prices regardless of market conditions.

Some initial advantages were brought to light by these pilots, especially with regard to timely payments, less corruption, and administrative savings. DBT provides the ability to guarantee that benefits reach the intended recipients, in contrast to PDS, which is beset by ghost beneficiaries and food grain diversion.

DBT's effects on real food security, however, are still inconsistent and very situation-specific. DBT has performed better in areas with mature marketplaces, adequate digital infrastructure, and financial accessibility. Increased autonomy and enjoyment in selecting food items were reported by beneficiaries in these locations. On the other hand, a number of issues still exist in rural and impoverished communities. These include underdeveloped food markets, erratic internet connectivity, restricted access to banking facilities, and low levels of digital literacy, which make it challenging for low-income people to obtain enough wholesome food at consistent costs. According to policy reviews, DBT can increase efficiency, but resolving structural inequities is necessary for it to succeed in boosting food security. Strong grievance redressal procedures, initiatives to promote financial inclusion, and regular adjustments to cash amounts in accordance with inflation are all necessary for DBT to function as a dependable food security measure. To sum up, DBT is a reform that shows promise for streamlining India's food subsidy scheme. However, how well the government handles issues at the local level will determine its capacity to guarantee food security. In the foreseeable future, a hybrid model that combines reformed PDS in rural areas and DBT in urban areas would provide a more balanced approach.

**Keywords:** Direct Benefit Transfer (DBT), food subsidies, food security, Public Distribution System (PDS)

## Introduction

Food security in India is not merely a policy concern but a fundamental right, enshrined under Article 21 of the Indian Constitution and further reinforced through legislations like the National Food Security Act (NFSA), 2013. It ensures that every citizen has access to adequate quantities of quality food at affordable prices. India has historically relied on the Public Distribution System (PDS) to implement food security programs by distributing subsidized food grains to the poor. However, over the years, several inefficiencies in PDS—such as corruption, leakage, diversion of grains, and exclusion errors—have spurred a push for reform. One such reform is the introduction of Direct Benefit Transfer (DBT) in food subsidies.

DBT seeks to transfer the subsidy amount directly into the bank accounts of beneficiaries, thereby replacing in-kind distribution with monetary support. While this transition is intended to enhance efficiency and reduce corruption, it also raises critical questions: Does DBT improve food security by empowering beneficiaries with choice and dignity? Or does it risk creating new vulnerabilities for poor households, especially in rural and underdeveloped areas? This paper evaluates the potential and pitfalls of DBT as a mechanism for ensuring food security in India.

## Understanding DBT in the Context of Food Security

The concept of food security comprises four pillars: availability, access, utilization, and stability. PDS primarily addresses availability and access by delivering subsidized food grains through a vast network of fair price shops (FPS). DBT, in contrast, aims to offer beneficiaries more flexibility by providing cash that they can use to purchase food from open markets.

Introduced on a pilot basis in Union Territories like Chandigarh and Puducherry, DBT was seen as a solution to the chronic inefficiencies plaguing the PDS. The rationale was simple: by eliminating intermediaries, reducing administrative costs, and cutting down leakage, cash transfers could empower beneficiaries and make the food subsidy system more transparent and accountable.

## Background: From PDS to DBT

India's Public Distribution System (PDS) has played a critical role in ensuring food security for millions by providing subsidized food grains through a nationwide network of Fair Price Shops. However, over the years, the system has faced several persistent challenges. These include large-scale leakages and diversion of food grains meant for the poor, the existence of ghost or duplicate beneficiaries in records, and the delivery of low-quality food grains. These inefficiencies have not only led to significant fiscal losses but have also compromised the intended impact on food security.

In an effort to reform this system, the Government of India introduced the *Direct Benefit Transfer (DBT) for food subsidies* in 2015. The program was launched as a pilot in the Union Territories of *Chandigarh*, *Puducherry*, and selected areas of *Dadra & Nagar Haveli*. Under DBT, instead of receiving subsidized food grains, beneficiaries receive the equivalent subsidy amount directly into their bank accounts. The move was aimed at enhancing transparency, reducing corruption, and empowering beneficiaries with greater choice and dignity. By eliminating intermediaries and digitizing welfare delivery, the DBT model sought to overcome the inefficiencies of the traditional PDS and create a more accountable and streamlined food security mechanism.

## **Advantages of DBT**

### **1. Reduction in Leakages and Corruption**

One of the primary justifications for DBT is the potential to reduce corruption. In the traditional PDS model, food grains often do not reach the intended beneficiaries due to diversion and pilferage. DBT bypasses middlemen by transferring subsidies directly to the beneficiaries, thus limiting opportunities for fraud.

### **2. Improved Transparency and Accountability**

With DBT, each transaction is traceable through electronic banking systems. This enables better monitoring, reduces ghost beneficiaries, and allows the government to maintain more accurate and updated records.

### **3. Beneficiary Empowerment**

DBT gives people the freedom to choose their food items based on personal preference and dietary needs. It also offers dignity and autonomy in accessing food, reducing dependence on the state's ration shops and their bureaucratic processes.

### **4. Administrative Efficiency**

DBT minimizes logistical challenges associated with the storage, transport, and distribution of food grains. This can lead to significant cost savings for the government.

### **5. Timely Delivery of Benefits**

In regions where the system works efficiently, DBT ensures that beneficiaries receive their entitlements without delays. This is especially important during crises, such as the COVID-19 pandemic, when physical distribution networks can be disrupted.

## **Challenges and New Vulnerabilities**

Despite its potential, DBT is not without flaws. The transition from in-kind to cash-based subsidies has exposed several vulnerabilities, particularly among the poorest and most marginalized.

### **1. Market Price Fluctuations**

Under PDS, beneficiaries receive food grains at fixed subsidized rates, insulating them from market volatility. With DBT, they are exposed to fluctuating prices in the open market, which can reduce the real value of the cash transfer and impair food access.

### **2. Access to Banking and Digital Infrastructure**

Many rural households still lack access to formal banking facilities, reliable internet, or digital literacy. This digital divide can lead to delays or denial of benefits, defeating the purpose of DBT.

### **3. Underdeveloped Local Markets**

In some regions, especially tribal and remote areas, markets are either non-functional or suffer from poor supply chains. Even with cash in hand, beneficiaries may struggle to purchase essential food items at fair prices.

### **4. Misuse of Funds**

There is a concern that in cash-strapped households, DBT funds meant for food may be diverted to meet other urgent needs such as health, education, or debt repayment. This could compromise nutritional outcomes.

### **5. Inclusion and Exclusion Errors**

Errors in digitization, Aadhaar linkage, and biometric authentication can lead to exclusion of genuine beneficiaries. Technical glitches and lack of grievance redressal mechanisms aggravate the problem.

**Problem Statement**

India has long struggled with ensuring effective food security for its large and diverse population, particularly its poor and marginalized sections. The Public Distribution System (PDS), the country's primary mechanism for delivering subsidized food grains, has been plagued by serious inefficiencies such as leakage, diversion of food grains, corruption, inclusion and exclusion errors, and high administrative costs. These systemic flaws have often prevented the intended beneficiaries from accessing sufficient and nutritious food, undermining the core objectives of food security.

In response, the Government of India initiated the Direct Benefit Transfer (DBT) scheme for food subsidies as a reform measure, aiming to enhance transparency, eliminate intermediaries, and improve the accuracy of subsidy targeting. Instead of delivering food grains, DBT deposits the subsidy amount directly into the beneficiaries' bank accounts, expecting them to purchase food from open markets. While this approach promises increased efficiency and beneficiary empowerment, it also raises critical concerns about market access, price volatility, delays in fund transfers, and the exclusion of vulnerable groups due to digital and banking barriers.

This paper seeks to examine whether DBT in food subsidies serves as an effective alternative to PDS in enhancing food security or if it introduces new vulnerabilities, particularly for India's most food-insecure populations.

**Objectives of DBT in Food Subsidies**

1. Eliminate intermediaries and corruption
2. Ensure subsidy reaches the right beneficiary

**Literature Review**

Several scholars and policy institutions have examined the implications of Direct Benefit Transfer (DBT) in food subsidies, especially in the context of improving food security in India. The existing literature offers mixed findings, highlighting both the strengths and limitations of DBT as an alternative to the traditional Public Distribution System (PDS).

Drèze and Khera (2015) argue that while DBT has the potential to reduce leakages and enhance transparency, it cannot be a substitute for the physical delivery of food in regions with underdeveloped markets and poor infrastructure. Their studies in Jharkhand and Rajasthan showed that many beneficiaries faced delays in fund transfers and lacked access to functional markets, ultimately leading to reduced food consumption.

The NITI Aayog (2017) pilot evaluation in Chandigarh and Puducherry reported significant reductions in grain leakages and improved financial inclusion through Aadhaar-linked bank accounts. However, it also acknowledged concerns regarding delayed payments and the additional burden on beneficiaries to navigate local markets with fluctuating prices.

Studies by the Indian School of Business (ISB) and the Centre for Policy Research (CPR) further emphasize that DBT's success is highly context-dependent. While urban areas with robust infrastructure showed positive outcomes, rural areas faced challenges such as lack of digital literacy, market instability, and weak grievance redressal mechanisms.

In summary, the literature indicates that while DBT improves delivery efficiency and transparency, its impact on food security outcomes is uneven. Researchers suggest that a one-size-fits-all approach is

unsuitable and recommend a region-specific or hybrid model combining the strengths of both DBT and PDS to ensure inclusive and reliable food access.

### Methodology

This study uses a qualitative, analytical approach to assess the effectiveness of Direct Benefit Transfer (DBT) in food subsidies. It draws on secondary data from government reports (e.g., NITI Aayog), academic studies, and DBT pilot evaluations in Chandigarh and Puducherry. Comparative and thematic analysis was conducted to evaluate indicators like leakage reduction, financial inclusion, market access, and beneficiary satisfaction. The study focuses on four key dimensions: efficiency, accessibility, equity, and food security outcomes. While insightful, the research is limited by its reliance on data from pilot regions, which may not fully represent diverse conditions across India.

### Comparative Outcomes: PDS vs DBT

Several studies and pilot evaluations offer mixed results. In urban areas like Chandigarh and Puducherry, where infrastructure is well-developed, DBT has seen relative success. Beneficiaries in these areas reported satisfaction with the flexibility and timeliness of cash transfers.

However, in states like Jharkhand and Bihar, pilot DBT programs faced major hurdles due to lack of infrastructure and awareness. Complaints of delays in payments, failure to receive money, and high market prices were common. Moreover, many preferred the predictability and security of subsidized food grains under the PDS.

This suggests that the success of DBT is highly context-dependent. While it may work well in urban or semi-urban regions, its effectiveness in rural or backward areas remains questionable.

### Policy Implications and the Way Forward

DBT should not be viewed as a one-size-fits-all solution. Instead, a hybrid model—wherein urban areas adopt DBT and rural regions continue with a reformed PDS—may offer a balanced approach. Reforms in PDS, such as end-to-end computerization, GPS tracking of grain transport, and biometric authentication at ration shops, have already improved its efficiency and should be further strengthened.

If DBT is to be scaled up nationally, several measures are essential:

- Strengthening digital and banking infrastructure in rural areas.
- Ensuring timely and adequate cash transfers linked to inflation.
- Promoting financial literacy and awareness among beneficiaries.
- Instituting robust grievance redressal mechanisms.
- Safeguarding women's control over food-related resources.

Moreover, continuous monitoring and evaluation are critical to assess the real impact of DBT on food security and make necessary adjustments.

### DBT vs In-Kind PDS: A Shift in Food Subsidy Delivery

The Direct Benefit Transfer (DBT) system marks a fundamental shift in the delivery of food subsidies in India. Under the DBT model, the government credits a cash amount—equivalent to the value of subsidized food grains as specified under the National Food Security Act (NFSA)—directly into the beneficiary's Aadhaar-linked bank account. The beneficiary is then expected to use this money to purchase food grains from the open market, according to their preferences and needs.



This approach significantly contrasts with the traditional *in-kind* Public Distribution System (PDS), where food grains such as rice, wheat, and coarse grains are provided at highly subsidized prices through a vast network of Fair Price Shops (FPS). In the PDS model, the government procures, stores, transports, and distributes the food grains, which involves high administrative and logistical costs. While PDS ensures that beneficiaries receive a fixed quantity of food at controlled prices, it often suffers from inefficiencies such as diversion of grains, leakage, poor grain quality, and the inclusion of ineligible or ghost beneficiaries.

The DBT model seeks to address these issues by reducing the role of intermediaries and increasing transparency and accountability. By transferring cash directly to the beneficiaries, the system empowers individuals to make their own choices regarding what and where to buy. This can enhance dietary diversity and reduce dependency on government channels.

However, the effectiveness of DBT depends heavily on local market conditions, digital infrastructure, and the financial literacy of the population. In areas with underdeveloped markets or poor access to banking services, beneficiaries may struggle to obtain quality food at affordable prices. Moreover, price volatility in the open market can erode the value of the cash transfer, potentially impacting food security.

In summary, while DBT offers a promising alternative to the traditional PDS by promoting efficiency and beneficiary autonomy, its success requires strong institutional support, inflation-adjusted transfers, and region-specific adaptations to ensure equitable access to nutritious food for all.

### **Case Study: DBT in Chandigarh and Puducherry**

The implementation of the Direct Benefit Transfer (DBT) for food subsidies in Chandigarh and Puducherry offers important insights into the potential and limitations of this reform. These Union Territories were selected as pilot regions in 2015 due to their relatively developed infrastructure, high banking penetration, and manageable beneficiary populations. Evaluations by *NITI Aayog* and various academic studies have assessed the outcomes of this transition from in-kind subsidies under the Public Distribution System (PDS) to cash transfers under DBT.

One of the most positive outcomes observed was a significant *reduction in leakage* of food grains. Since the government no longer needed to procure, store, and transport grains, the scope for diversion and corruption was greatly minimized. Additionally, the program led to *improved financial inclusion*. With the mandatory use of Aadhaar and Jan Dhan Yojana bank accounts, many beneficiaries—especially women—were integrated into the formal banking system for the first time, giving them greater access to financial services.

However, the case studies also revealed several challenges. A key concern was the *delay in fund transfers*, which at times left beneficiaries without the means to purchase food. This issue was especially severe for daily wage earners and low-income families with no financial buffer. Another issue was the *increased burden on beneficiaries* to procure food independently from the market, which could be physically and financially demanding—particularly for the elderly or those with limited mobility.

Moreover, *unstable local market prices* created uncertainty. While PDS offered predictable and subsidized prices, DBT exposed beneficiaries to fluctuating market rates. In periods of price inflation or poor market supply, the cash transfer often proved insufficient to buy the same quantity of food that was earlier available through PDS.

In conclusion, while the DBT model in Chandigarh and Puducherry demonstrated efficiency gains and improved transparency, it also highlighted the importance of timely fund delivery, stable market

conditions, and adequate beneficiary support mechanisms to ensure food security remains uncompromised.

### **Analysis and Results of the Objectives**

The implementation of Direct Benefit Transfer (DBT) in food subsidies has been evaluated against the core objectives set forth by policymakers, namely: eliminating intermediaries and corruption, ensuring accurate targeting of subsidies, providing flexibility and dignity of choice to beneficiaries, and promoting digital financial inclusion. The analysis reveals a mix of achievements and limitations.

#### **1. Elimination of Intermediaries and Corruption**

DBT has significantly reduced leakages in the delivery of food subsidies. By replacing physical distribution of grains with direct cash transfers, it has minimized opportunities for corruption, ghost beneficiaries, and diversion of food grains—issues that were rampant in the traditional PDS. Pilot studies in Chandigarh and Puducherry confirmed increased transparency and traceability of funds, with digital transactions leaving clear audit trails. This marks a notable achievement in fulfilling this objective.

DBT has accelerated financial inclusion by linking subsidies to Jan Dhan accounts and Aadhaar. This has brought many low-income households, especially women, into the formal banking system. However, digital literacy gaps, lack of mobile connectivity, and ATM accessibility remain major barriers in remote areas. Moreover, delays in transfers and cash-out issues weaken the objective's full realization.

#### **2. Ensuring Subsidy Reaches the Right Beneficiary**

With Aadhaar-linked bank accounts, DBT has improved targeting accuracy. By validating identities, it has removed duplicates and fake entries from beneficiary lists. However, exclusion errors have also emerged—especially among individuals lacking documentation or access to digital infrastructure. This indicates that while targeting has improved, universal coverage remains incomplete, especially for vulnerable groups like migrants, the elderly, and women.

One of DBT's strongest theoretical benefits is enhancing choice and dignity. In practice, beneficiaries in urban areas appreciated the autonomy of buying food from preferred sources. Yet, in rural and remote regions, this flexibility became a burden due to unstable markets and inflated food prices. Where fair price shops offered predictability, the open market often exposed beneficiaries to high costs, reducing their food intake and potentially compromising nutritional security.

### **Overall Findings**

The analysis shows that DBT meets administrative and financial efficiency goals effectively, particularly in urban and digitally enabled areas. However, its impact on food security outcomes—the core goal—is uneven and context-dependent. Where infrastructure is strong, DBT enhances delivery. Where markets or banking access are weak, it risks increasing food insecurity.

Therefore, while DBT aligns well with its stated objectives on paper, its real-world effectiveness depends on regional conditions, market stability, and institutional readiness. A one-size-fits-all model risks excluding the most food-insecure populations.

Here are the Findings using data from studies and pilot programs evaluating DBT in food subsidies, particularly from NITI Aayog, academic research, and government reports on Chandigarh, Puducherry, and Dadra & Nagar Haveli:

#### **1. Reduction in Leakage**

- NITI Aayog (2017) found that DBT pilots led to a leakage reduction of over 90% in Chandigarh and

around 66% in Puducherry, compared to leakage rates of 46.7% nationally under PDS (Planning Commission, 2011).

- In Chandigarh, 100% of the intended beneficiaries received cash transfers in their bank accounts, demonstrating successful exclusion of ghost beneficiaries.

## 2. Improved Financial Inclusion

- Post-DBT implementation, over 98% of beneficiaries in the pilot UTs had Aadhaar-linked Jan Dhan accounts (as reported in the DBT Mission's Progress Report).
- Women's bank account ownership rose by 23% in Puducherry after the rollout, increasing household access to formal financial channels.

## 3. Delays in Fund Transfers

- According to an Indian School of Business (ISB) study (2019), 34% of beneficiaries in Puducherry reported delays of over 10 days in receiving monthly transfers.
- Delays forced 22% of surveyed households to borrow money or skip meals during the gap period.

## 4. Increased Market Burden

- 68% of households in Chandigarh and Puducherry reported difficulty accessing stable food prices in local markets, especially during festival seasons or inflation spikes.
- Markets in rural pockets of Puducherry showed a 15–25% price variation compared to PDS prices, reducing the effective value of cash transfers.

## 5. Beneficiary Preferences

- In a Centre for Policy Research (CPR) survey (2018), 59% of respondents in Chandigarh preferred DBT over PDS due to choice and convenience.
- Conversely, in Puducherry, 71% of beneficiaries expressed a preference for the old PDS system, citing price volatility and difficulty in budgeting with cash.

## Conclusion

- The Direct Benefit Transfer (DBT) model in food subsidies represents a significant policy innovation aimed at reforming India's welfare delivery system. By replacing in-kind food grain distribution with direct cash transfers, DBT has effectively addressed several long-standing inefficiencies of the Public Distribution System (PDS), such as corruption, leakage, and duplicate beneficiaries. It has also promoted financial inclusion and increased transparency through digitized, traceable transactions.
- However, while DBT has succeeded in improving administrative and fiscal efficiency, its ability to ensure food security—the ultimate goal of any food subsidy policy—remains uneven and highly dependent on regional contexts. Evidence from pilot studies in Chandigarh and Puducherry reveals a mixed picture: reduced leakages and enhanced beneficiary autonomy on one hand, and delayed fund transfers, market instability, and access challenges on the other. In areas with strong digital and market infrastructure, DBT performs relatively well. But in regions with poor connectivity, weak banking networks, or volatile food markets, the model often fails to guarantee consistent, affordable access to nutritious food.
- Thus, DBT should not be seen as a universal replacement for PDS, but rather as one part of a flexible, region-specific strategy. A hybrid approach—offering both in-kind and cash options—alongside stronger grievance mechanisms, timely and inflation-linked transfers, and investment in rural



infrastructure, is essential. Only then can DBT truly become a step toward not just financial efficiency, but real, sustainable food security for all.

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