

An Empirical Study on Public Distribution System a Tool of Food Security in India

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Abstract

This study was conducted to assess the functioning of the Public Distribution System (PDS) in Bihar—a state in Bihar faced with multiple challenges of poverty, malnutrition, and hunger and known for rampant inefficiencies in the PDS. The results, based on analysis of the National Sample Survey Organization (NSSO) data and the microlevel evidences obtained from the Village Level Studies, indicate a positive turnaround in the functioning of PDS in the state. Apart from a marked improvement in cereal consumption and calorie gains across rural and urban areas, the outreach of PDS expanded with significant enhancement in participation by the weaker sections of the society. In coverage and public expenditure, it is considered to be the most important food security network. However, the food grains supplied by the ration shops are not enough to meet the consumption needs of the poor or are of inferior quality. The average level of consumption of PDS seeds in Bihar is only 1 kg per person per month. The PDS has been criticised for its urban bias and its failure to serve the poorer sections of the population effectively. The targeted PDS is costly and gives rise to much corruption in the process of extricating the poor from those who are less needy.

Keywords: Bihar, Bihar, National Food Security Act 2013, poverty, propensity score matching, Public Distribution System

Introduction

The Bihar food security system was established by the Government of Bihar under the Ministry of Consumer Affairs, Food and Public Distribution to distribute food and non-food items to Bihar's poor at subsidised rates. Major commodities distributed include staple food grains, such as wheat, rice, sugar and essential fuels like kerosene, through a network of fair price shops (also known as ration shops) established in several states across the country. Food Corporation of Bihar, a Government-owned corporation, procures and maintains the **public distribution system** (PDS). Today, Bihar has the largest stock of grain in the world besides China, the government spends Rs. 750 billion (\$10 billion) per year, almost 1 percent of GDP, yet 21% remain undernourished. Distribution of food grains to poor people throughout the country is managed by state governments. As of 2011 there were 505,879 fair price shops (FPS) across Bihar. Under the PDS scheme, each family below the poverty line is eligible for 35 kg of rice or wheat every month, while a household above the poverty line is entitled to 15 kg of foodgrain on a monthly basis. A below poverty line card holder should be given 35 kg of food grain and the card holder above the poverty line should be given 15 kg of food grain as per the norms of PDS. However, there are concerns about the efficiency of the distribution process. In coverage and public expenditure, it is considered to be the most important food security network. However, the food grains supplied by the ration shops are not enough to meet the consumption needs of the poor or are of inferior quality. The average level of consumption of PDS seeds in Bihar is only 1 kg per person per month. The PDS has been criticised for its urban bias and its failure to serve the poorer sections of the population effectively. The targeted PDS is costly and gives rise to much corruption in the process of extricating the poor from those who are less needy.

Historical Background

Food security concerns in India can be traced back to the famous Bengal Famine in 1943 at the time of British colonial rule, during which about 2 million 103 million people perished owing to starvation. Since independence (1947), formore emphasis industrialization agriculture was ignored, hence India had to depend on United States food aid. This exposed India's vulnerabilities to several shocks on the food security front. The partition of the country in 1947 left the country with 82 % of the total population, but 75 % of the cereals produc-tion of undivided India. During the first five year plan, quite justifiable emphasis was given on agricultural sector toensure sustained supply of food for the people. There was import of food from foreign country also. During the secondfive year plan, emphasis was given on industrialization and reliance was put on heavy industries. As a result agriculturalwas relatively neglected and the nation had to face acute food crisis during the mid-1960s.

Food Security in India

While overall global rates of food insecurity have decreased, there remains a large population of people experiencing food insecurity living in sub-Saharan African and South Asia. Countries most affected are typically characterised by high rates of disease and mortality associated with nutritional deficiencies coupled with high rates of poverty . Despite rapid economic growth over the last two decades, many Indians have not benefited from the economic improvement, and continue to experience food insecurity and hunger, a high burden of malnutrition and undernourishment, and increasing obesity ; in 2015, over 190 million people were reported undernourished—the highest in any single country .

The reasons behind food insecurity and hunger in India are complex. Some research indicates that high rates of migration from rural to urban areas may play a role , as evidenced by the concentration of economic gains in urban areas, and the significant changes to the contribution of the agriculture sector to GDP . The adverse effects of climate change are also an emerging contributor to food insecurity, with uneven weather patterns and increasing droughts to blame for uneven growth and production of food stock. The most recent Global Hunger Index (GHI) ranks India at the high end of the 'serious' category, as India continues to perform poorly in addressing hunger and malnutrition; currently one in three Indian children is stunted representing one third of the world's stunted population, and one in five is wasted . Many in India also experiences hidden hunger. Hidden hunger refers to a situation of chronic micronutrient deficiency, where a person might have access to sufficient calories, but lacks adequate micronutrients . Hidden hunger can have lasting effects on health and wellbeing, and is especially problematic for children .

The government of India have adopted a range of policies over the last 60 years in an attempt to strengthen food security . One of the key responses to food insecurity and hunger in India is the distribution of food grains through the government controlled Public Distribution System (PDS) . Established after World War Two with an aim of increasing

domestic agricultural production and improving food security, the PDS has evolved to the largest universal distribution system in the world for the supply of subsidised food grains . Through a partnership between central and state governments, the food-safety net program aims to supplement essential household supplies including wheat, rice, sugar, and kerosene. However, like other solutions to food scarcity, this program is not intended to provide all required household foods, but rather provide goods to supplement purchased or farmed goods . To facilitate the distribution, the Food Corporation of India (FCI) acts a central nodal agency responsible for the procurement of food grains from farmers at a price that is often higher than market price . The individual state governments then procure the food grains at a subsidised price known as the 'central issue price' from the FCI , these goods are then distributed to consumers via fair price or ration shops .

Amendments made to the PDS in June 1992 sought to improve coverage, especially to those living in disadvantaged, remote, or difficult to access areas . The PDS was re-structured again in June 1997, to better target lower socio-economic areas . This Targeted Public Distribution System (TPDS) aimed to provide over seven million tonnes of foods to 60 million households identified as below the poverty line. This was followed by the introduction (in December 2000 and expansion in 2003–2006) of the Antyodaya Anna Yojana (a Hindi term meaning “grain scheme for the downtrodden”) scheme to provide highly subsidised foods to India's poor. The scheme was an attempt to streamline the PDS to more efficiently target the poorest of the poor. This expansion of the PDS also included provision of food and goods to senior citizens and pensioners over 60 years, as well as widows and people affected by disease or infirmity .

These measures to strengthen the PDS received statutory backing through the introduction of the National Food Security Act (NFSA) . Through the adoption of a life cycle approach, the importance of food security was emphasised by the NFSA. Through its implementation, the PDS achieved 75% coverage of the rural population, and around half of the urban population, monetary and nutritional support was mandated to pregnant and lactating women, and through the Integrated Child Development Services and Mid-Day Meal Schemes, children aged 6 months to 14 years were also covered . The NFSA marked an important milestone in that it awarded India's food safety network a legal standing in accordance with the fundamental right to good health and nutritious food . The NSFA also went some way to address the challenges faced by the TPDS in the form of corruption and diversion by enforcing more accountability on stakeholders while improving the transparency of its operation .

While a number of studies have identified the role of the PDS and NFSA in improving the food security of India, at least through the provision of calories , there is some concern relating to issues of miss-targeting, under-coverage, corruption and diversion affecting the implementation and operation of the food safety network in India . Understanding these concerns is challenging, as while a number of non-government organisations and government bodies provide reports on the quantity of food distributed , and the number of people reached through the PDS , there is little analysis or evidence surrounding the broader issues related to food insecurity and the PDS. Furthermore, these reports rarely provide the method for data collection and/or analysis, making further interpretation difficult. This current review seeks to bring together the published literature on the PDS, in

order to investigate the role it plays in addressing food insecurity in India. This review seeks to understand this large and expensive food distribution system and its role in one of the most populist, but inequitable countries. This is the first review of its kind of this program, with the objective of providing a clear overview of current knowledge in this area. By investigating the available peer-reviewed literature, this review seeks to understand the role of the PDS in any attempt to achieve food security in India.

Specifically, there are two main objectives to this review:

1. To investigate the role of the PDS in delivering an efficient food-safety network in India;
2. To investigate the barriers and enablers of the PDS.

India's efforts to achieve food security

Independent India has overcome the problems of famines and mass deaths due to starvation, thanks to the focus given to agriculture, mainly, in the production of cereals. Today, the country produces 104 million tons of rice and 93 million tons of wheat annually, which is more than sufficient to meet the requirements of a widespread Public Distribution System (PDS), distributing cereals at highly subsidised prices. It is not the intention of this paper to go over the details of the Green Revolution and the success in agriculture, which resolved the problem of production. It focuses, rather, on the efforts for the distribution of grains to ensure food security for all, and the problems faced therein. First, a brief summary, of how the PDS came into being and its evolution into a Targeted Public Distribution System (TPDS), culminating recently in the National Food Security Act (NFSA), which confers the right to food on citizens, shall be given. Subsequent sections shall outline the problems faced by the PDS, and the issues which are yet to be resolved. The measures in place in India are as under:

The Public Distribution System, which was initially started as a system to manage food scarcity in the 1940s, has evolved into a system for the distribution of food grains at affordable prices, and is an important part of the government's policy for food management. The main objectives of food management are: the procurement of food grains from the farmers at remunerative prices; the distribution of food grains to the consumers, particularly, the vulnerable sections of society, at affordable prices; and, the maintenance of food buffers for food security and price stability.

The PDS is supplemental in nature, i.e. it is not intended to make available the entire requirement of any commodity distributed to a household. The PDS is operated as a joint responsibility of the state and central governments. The central government, through the Food Corporation of India (FCI), has the responsibility for the procurement, storage, transportation and the bulk allocation of food grains to the state governments.

The Food Corporation of India was setup under the Food Corporation Act 1964, in order to fulfil following objectives of the Food Policy:

1. Effective price support operations for safeguarding the interests of the farmers.
2. Distribution of food grains throughout the country for public distribution system
3. Maintaining satisfactory level of operational and buffer stocks of food grains to ensure National Food Security

The FCI is one of the largest corporations in India, with zonal and regional offices across India. Every year, the Government of India (GoI) declares a Minimum Support Price (MSP) to support the farmers and remove the exploitative middle men. Before each marketing season, the central government also assesses the availability of each crop and fixes targets for the procurement of food grains, at the MSP, through the FCI and the state government agencies. Up to a third of India's wheat output and approximately 15 per cent of the rice produced are purchased. These stocks are then transported to the depots located all across India, in the FCI's 24 regions, for issue to the state governments. The rates for sale are declared by the Government of India, and the food grains are distributed, through the Fair Price Shops (FPSs) of the PDS, to ration card holders by the state governments.

The operational responsibility for intra-state allocations, beneficiary identification and the issue of ration cards and the supervision of the fair price shops lies with the state governments. The commodities distributed under the PDS include rice, wheat and coarse grains. Some states also distribute additional items such as sugar, pulses, edible oils, etc.

The Government of India also supplies a limited amount of food grains, procured through the FCI, for Other Welfare Schemes (OWS) like the Mid-Day Meal (MDM) schemes of schools, the programmes of the Department of Women and Child Development, the SC/ST hostels, for natural calamity victims etc. This is small compared to the amount distributed under the PDS.

The Indian ration card system itself is another example of efforts to establish food security. The card, through which the holders establish their identity, makes them eligible and entitled to buy subsidised food and fuel (liquefied petroleum gas, as well as kerosene, both used as fuel for cooking by the poor) through the PDS. It is an important document and a much sought-after proof of identity, as well as a means to obtain essential food items and fuel. It used to be as important as the Aadhar card is today. It is, in fact, much like a passport to a world of benefits that the government announces for the poor.

Until 1997, the PDS had provided food security to all without any specific targeting of beneficiaries. Consequently, it was widely criticised for its failure to serve the entire population below the poverty line, its urban bias and the lack of transparency and accountability. It was felt that a substantial part of the PDS benefits accrued to the non-poor and it did not have much of an impact on the nutritional status of those in need. As a result, there were calls for fundamental reforms for targeting the PDS to the poor.

In June 1997, the central government launched the Targeted Public Distribution System, with the focus on the poor. States were required to formulate and implement arrangements for the identification of the poor and the delivery of foodgrains to them. Six crore poor families were to be covered under the TPDS and 72 lakh MT (LMT) foodgrains distributed annually. The poor were to be identified by the states based on the methodology given by

Professor D.T. Lakdawala's expert group. Allotment to the states was to be made on the basis of the average offtake for the last decade. The most distinctive feature of the new policy was the division of the entire population into the 'Above Poverty Line' (APL) and the 'Below Poverty Line' (BPL) categories, based on the poverty line defined by the Planning Commission. The maximum income limit for the BPL families was kept at Rs 15,000 per annum. The TPDS also had a dual Central Issue Price (CIP) — one for the BPL families and the other for the APL families. The thrust was to include only the really poor and vulnerable sections of society in the BPL category, and the gram panchayats and the *nagarpalikas* were roped in for beneficiary identification. The total number of the BPL families was raised to 652.03 lakh.

In order to make the TPDS more focused towards the very poor, a separate category, under the *Antyodaya Anna Yojana* (AAY), was launched in December 2000 for one crore families. The AAY identified the poorest of the poor families in the BPL category and provided them with food grains at the highly subsidised rates of Rs 2 per kg for wheat and Rs 3 per kg for rice. The total AAY coverage went up to 2.5 crore families (i.e. 38 per cent of the BPL category) by 2005–2006. The AAY selection guidelines stipulated that the landless agricultural labourers, marginal farmers, rural artisans, craftsmen, those in the informal sector, households headed by widows, terminally ill persons, primitive tribal households, etc., were to be included. All HIV-positive (Human Immunodeficiency Virus) persons in the BPL category were also to be included. Further, a limit was put on the number of AAY families to be identified in each state. The scale of issue was 25 kg per family per month, which was increased to 35 kg per family by 2002.

Under the TPDS, the states were to issue foodgrains at a difference of not more than 50 paise per kg over the CIP. This restriction was later removed and the states were allowed flexibility in fixing the retail prices, except for those under the AAY, where the end retail price for rice was Rs 2 per kg and Rs 3 per kg for wheat.

The allocation of foodgrains, under the TPDS, for the APL, BPL and AAY families was on the basis of the 1993–1994 poverty estimates of the Planning Commission, projected on to the 2000 population estimates of the Registrar General of India, or the number of families identified by the respective state governments, whichever was less. While the allotment of food grains to the BPL and the AAY families is made at the rate of 35 kg per month per family, the allotment to the APL category was made on the basis of stock availability in the central pool and the past offtake. The scale of rationing for the AAY and the BPL families went up from 10 kg per family per month in 1997 to 35 kg per month per family in 2002. This was done in order to enhance food security for the households and to liquidate surplus stocks in the central pool. The APL families were being allocated 15 to 35 kg per family per month depending on the availability of stocks and the past offtake. The beneficiaries could lift their monthly quota or six months ration at one go.

The states were to bear the costs of distribution, the dealer margins and transportation and also do the beneficiary identification. The TPDS Control Order, 2001, empowered the state governments to take action in order to get the food grains to the beneficiaries, identify households, issue ration cards, license fair price shops, decide issue prices, etc.

The TPDS, though an important step in ensuring food security in India, was criticised on several counts — of leakage, mis-targetting and inefficient supply chain management — in the first 10 years of its implementation. The Planning Commission estimated in March 2005 that for every Rs 3.65 spent by the GoI, only one rupee reached BPL households. Studies showed that the system failed to reach the poor in most states, except in the southern states of Andhra Pradesh, Tamil Nadu and Kerala. Nevertheless, it was also found that the TPDS has improved over time. A National Council of Applied Economic Research (NCAER) study, in 2010, reported a high degree of satisfaction among the beneficiaries for the various indicators of the PDS, including, the quality and quantity of the grain supplied. In a nine-state study, Reetika Khera reported in 2011, that 80 per cent of the beneficiaries felt that the TPDS was important to cover their family's needs. An increase in coverage was reported from Tamil Nadu, Odisha, Himachal Pradesh and Chattisgarh. But important changes were on the anvil.

These changes came when the *Rashtriya Khadya Suraksha Adhiniyam*, or the National Food Security Act (NFSA), 2013 (also, the Right to Food Act), was passed by the Parliament of India on September 12, 2013. The Act converts into legal entitlements the schemes such as the Public Distribution System, the Midday Meal Scheme in schools and the Integrated Child Development Services (ICDS). Broadly speaking, it seeks to provide not only food and nutritional security to the beneficiaries, by ensuring access to adequate quantities of quality food at affordable prices, but also a life of dignity.

The salient features of the NFSA are:

1. Covers 75 per cent of the rural population and 50 per cent of the urban population (two-thirds of the total population)
2. Persons belonging to eligible households will be able to receive 5 kg of foodgrains per person per month at Rs 3 per kg for rice, Rs 2 for wheat and Re 1 for coarse grains. The AAY households will continue to get 35 kg per household per month.)
3. Special focus on nutritional support to women and children, with emphasis on pregnant and lactating mothers and children up to 14 years of age.
4. Grievance redressal mechanisms at the district and state levels.

Effectiveness of the PDS

Eight articles specifically examined the effectiveness of the PDS. Each of these studies suggested that the PDS was not working effectively, with large amounts of food not reaching the intended recipients, and significant wastage resulting in high costs for limited benefits. For example, Dhanaraj and Gade estimated that in Tamil Nadu, for every 5.43 kgs of PDS rice distributed by the government, only 1 kg reached those in need; the distribution was less efficient in the case of sugar, where only 1 kg for each 8.21 kgs distributed was consumed by those in need. Kumar, in a large investigation spanning 12 states, found that up to 100% of wheat was diverted in some cases, with diversion and provision of rice and wheat being different across all states. Khera, suggested that households cannot access their full entitlement to goods, and as a result are forced to purchase much of their food from the free market. Conversely, a positive trend was identified in the state of Bihar, where in 1993, 90% of food grains were diverted away

from those in need; by 2001 this figure was down to just 12.5% of diverted food grain. Similar findings were reported by Nair in Kerala. In both states, this was attributed to better transparency and infrastructure.

Food Insecurity in India in a Global Context

India is not alone in seeking a range of measures to combat food insecurity. China, like India has a growing economy and a large population. Despite economic growth in China over recent years, like India, China is home to one of the largest populations of hungry people. While India relies on the PDS to mitigate food insecurity, China has focused significant attention on programs that seek to redistribute wealth, and non-food based social security. China is also experiencing a shift in diet patterns, a shift that is having an impact on agricultural production and on the use of land. Likewise, the food insecurity situation in Brazil is undergoing a transformation in the agricultural sector. Like the populations in China and India, the people of Brazil have an increasingly global diet, forcing a change in agricultural patterns. This transition, however, is being supported by the government, alongside cash transfers and school meal programs as an avenue to address increasing food insecurity, with initial indications suggesting some success. Given the very large populations in need in these countries, there is unlikely to be a single solution that will work within or across countries. What is important going forward, is that complete and comprehensive data are collected to effectively evaluate these programs.

Conclusions

Food security in India is unfavourably affected by several biotic and socio-political situations. The current position may get worse in the future if timely and suitable actions are not executed and planned. The discipline of human population and land for cultivation, climate change, government policies of public distribution and marketing of food grains and lack of a participatory approach all are committing to check down the availability of foods. Also, crop fecundity seems to be very much unsustainable. The situation has to be remedied by all possible means and citizens must be assured of food security.. Finally, results indicate that India has achieved self-sufficiency in grains; it is still lagging at the back in the production of oilseeds and pulses. It is also commented that there has been a meaningful increase in the reproduction of rice, wheat, cereals, fruits, vegetables, and other products. Among the specific charges made to lift the agricultural sector from its present slowdown and stagnation, we comprise decorated increased public investment and a severe review of subsidies provided to farmers. To improve the infrastructure, credit facilities, inputs, land and water management, effective marketing and price policies, the diversification of agriculture, strengthening the improvement strategies for tackling climate change, and the strict regulation of land use and diversion of land for non-agricultural activities.

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