1. CHAPTER

INTRODUCTION

The reforms in Public Distribution System (PDS)\(^1\) have gathered momentum in the last two decades by making it more transparent and leak proof (Das, 2016). The reforms in PDS include the doorstep delivery of food grains, application of end-to-end computerization and so on (GOI, 2015). The PDS has been facing the problems of corruption and leakages. As a measure to curb leakages and to initiate the proposed cash transfer scheme\(^2\), the cash transfer of Food Subsidy Rules, 2015 was declared under National Food Security Act (NFSA), 2013. The plan has been initiated in Pondicherry and Chandigarh (GOI, 2015). The discussions on the reforms in PDS by replacing it with the Cash transfer scheme are also in vogue in India. Meeting the fundamental need for access to food is a significant challenge to the government in the post-economic reform era. Through direct cash, transfer scheme government can assure the entitlements to the identified beneficiaries and can reduce leakages\(^3\). According to Thurow (1974: 193), it is the doctrine of absolute consumer sovereignty that makes cash transfer scheme more important for an economist. In the view of Neo classical economists, the in-kind transfer gives less utility due to lack of fungibility that leads to restricted freedom of choice. Amartya Sen argues that real freedom lies in ensuring right information to the beneficiaries about their choices (Gentilini, 2007). NFSA, 2013 is more important for its change in approach from welfare to rights-based approach which can empower the poor reducing the

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1 PDS was Universal until 1997 in India and all the households were equally entitled to rations during that time (Swaminathan, 2009). But after 1997 there was transition of PDS into Targeted Public Distribution System (Mazumdar and Sharma, 2013). Hereafter the PDS after 1997 in the synopsis will be referred to as TPDS.

2 Under direct cash transfer scheme beneficiaries are credited with subsidy into their bank account in order to enable them to purchase from the market at their choice.

3 Leakages are illegal sale of subsidised food grain to the market (Jha and Ramaswami, 2011).
leakages. The present study specifically seeks to identify the changes in the PDS overtime in the context of the proposition of cash transfer scheme.

In recent years, cash transfer programs have become more popular in many developing countries of the world. By analyzing the positive impacts of the Conditional Cash Transfer Programs of Progressa in Mexico (renamed Opportunidades in 2001) and Bolsa Escola in Brazil, (which merged with other programmes to become Bolsa Familia in 2003) the Policymakers in India have become interested in the feasibility and desirability of Conditional Cash Transfers (CCTs) for reducing the poverty, improving health and increasing school enrolments (Gangopadhyay, Lensink and Yadav).

The second part will give an overview of the historical background for the evolution of PDS and the policies adopted to strengthen PDS during the five-year plans in India.

1.1 Historical Background

The Public Distribution System (PDS), a remnant of the rationing system from the Second World War years, is the present vehicle for delivering food subsidies in India. The PDS at its very inception as an important welfare policy of the government was meant for managing food scarcity and ensuring the affordability of the food grains. The primary objectives of PDS from its origin have been to provide price stability, food security, rationing in times of scarcity and keep a check on the private trade. PDS mainly functions through direct procurement of food grains from farmers through the divisions of the central government which controls the stocking, supply of the food grains to the state governments based on the share of entitlements. The history of PDS in India has been divided into four phases. The expansion characterizes the first phase to other cities, and PDS was also dependent on imported food grains (From the origin to 1960). The second phase was characterized by setting up of Agricultural Prices Commission and the Food Corporation of India (1960 to 1978). The third phase was marked by large-scale expansion with domestic procurement and stocks (1978 to 1991), during the
fourth phase there was a transition from universal PDS to Targeted Public Distribution System (TPDS)\(^4\) (1991 to present) (Swaminathan, 2009).

Various PDS policies have been dealt within the successive five year plans in India.

**Table 1. Evolution of PDS policies through Five Year Plans in India**

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Source: Five Year plans, Planning Commission

The situation of the Indian economy during the First Five Year Plan (1951-56) had brought out the vulnerability of the economy on account of the inadequate production of foodgrains in the country. Hence the focus of this plan was to meet the requirements of urban and highly food deficit areas (Government of India (GOI), 1951-56). The relative shortage of foodgrains

\(^4\) The basis of TPDS lies in the demarcation of beneficiaries into below poverty line (BPL), above poverty line (APL) and the poorest of the poor (Antyodaya Anna Yojana or AAY) and distributing the food grains to them at subsidised prices (Mazumdar and Sharma, 2013).
was the main reason responsible for price rise during the beginning stages of the Second Plan. An evaluation of the Second Five Year Plan (1956-61) period shows that given a high level of investment, maintaining the stability of prices depends on the extent of agricultural production (GOI, 1956-60). The third five-year plan (1961-66) focused on storage facilities (GOI, 1961-66). The focus of the Fourth five-year plan (1969-74) was to maintain stability in consumer and producer prices and strengthen the buffer stock of food grains (GOI, 1969-74).

During the plan period of sixth Five Year Plan (1980-85) the Essential Supplies Programme was introduced in 1982 as the 17th point of the New 20 Point Programme, and it was aimed at expanding the PDS through more Fair Price Shops (FPSs) (GOI, 1980-85). The Seventh five-year plan (1985-90) contemplated for the extension of PDS with the expansion of FPSs in remote areas (GOI, 1985). The Eighth Five Year Plan (1990-95) envisaged that the PDS in India being extensive, there is room for far-reaching reforms in it. It coincides to expanding the PDS coverage and ensuring access to the needy, especially in rural areas, involving local democratic institutions including cooperatives and voluntary organizations, reducing the costs and minimizing leakages (GOI, 1991). During the Ninth Five Year Plan (1997-02) emphasis was laid on developing food production by linking it with poverty alleviation and employment guarantee programmes, PDS became more targeted towards deficit areas. To make it more transparent and accountable to reduce leakages some steps were taken viz. The allocation of foodgrains to state governments for identification of eligible households, incorporation of Panchayats for the identification of the same, formation of vigilance committees, a mechanism for monitoring and evaluating the PDS (GOI, 1997-2002).

Tenth Five year Plan (1997-2002) stressed for restructuring the PDS and the need to introduce reforms like smart cards, food credit/debit cards, food stamps and decentralized procurement, for the eradication of hunger and ensure the availability of food to the poor (GOI, 1997-02).

Eleventh Five Year Plan (2007-2012) has identified the major deficiencies of the TPDS including high exclusion & inclusion errors, non-viability of Fair Price shops, difficulty in visualising the price stabilization goal and leakages. The steps taken to strengthen the TPDS during this period were Citizen’s charter (1997) and PDS (control) order, 2001. In addition to
it, a number of plan schemes like construction of godowns, the integrated information system for foodgrain management, strengthening of PDS through food credit cards/computerization of PDS and village Grain Bank Scheme were also initiated. Further innovations introduced include the introduction of food stamps, multi-application smart cards and web-enabled systems (GOI, 2008). The Twelfth Five Year Plan (2012-17) emphasized the role of Innovative programmes and policies at the Centre as well as in the States. It is for Information and Communication Technologies (ICT) to permeate in the country and help India to achieve its objective of more inclusive and faster growth. The expansion of Aadhaar numbers through the Unique Identification Authority of India (UIDAI), and the associated opening of bank accounts, which allows the possibility of transferring benefits to the beneficiaries through bank accounts were also part of this goal (GOI, 2013).

In India, the change from shortage to ‘surpluses’ denotes the end of an important phase reflecting the crossing by the country of the Malthusian hurdle of widening gap between the food distribution and the requirements of a growing population. The policies that aided the country in overcoming this hurdle would need significant reforms for the upcoming phase by moving forward from 'surpluses' to the genuine adequacy of food. The main lesson to learn is that the situation is now comfortable enough to allow markets to take over the functions which the government performs at a higher cost and with much less effectiveness (1995, Rao).

The case for replacing subsidies with Cash Transfers has gained ground in India. Most notably, in the mid-2000s National Rural Employment Guarantee Act (NREGA) replaced a plethora of earlier work-for-food schemes with cash for work, the Government of India has now announced that subsidies for fertilizer and kerosene will be substituted by cash transfers (Kapur, 2011). Cash transfers are potentially more effective than food transfers in terms of beneficiary satisfaction, multiplier effects, and cost-effectiveness (Magen et al. 2009).

India’s newly launched NFSA, 2013 has been characterized as the world’s largest and most ambitious food safety net program, and it has adopted the first two elements of the Chattisgarh Tamil Nadu reform strategy. Under this approach, the NFSA expanded the list of targeted households to cover the bottom two-thirds of Indian households and made grain cheaper for
those households. But the actual contribution and cost-effectiveness of the NFSA, 2013 will depend on the extent to which its implementation can overcome the deficiencies of the current public food distribution system (Kishore, Joshi and Hoddinot, 2014).

The following part outlines a theoretical framework to the redistributive aspects of the PDS.

1.2 Theoretical Framework

The theoretical explanation for the food security and poverty has great relevance in the context of a poor developing country where the incidence of poverty is directly related to the availability of food within which the staple food grains constitute three-fifths of the daily energy intake of the population (Patnaik, 2005). Globally, the problems of starvation, hunger, and famine could be better analysed through the concept of entitlement than through the use of the traditional variables of food supply and population size (Sen, 1983).

The importance of the role that should be assigned to the state in relation to the market is perhaps the most crucial issue in development today. In the present scenario, the state ensures the delivery of food grains (Rao, 2006). But the problems of waste and corruption have become rampant. Adam Smith, the advocate of free trade, regarded interference in grain trade by the State as the principal cause of famine (Quoted in Bhatia, 1970). The alternative is to use markets to provide subsidies. In this market model, subsidies constitute monetary or cash transfers unlike the in-kind transfers of the statis\textsuperscript{5} model. However, the controversy today is not so much about ‘statist’ versus ‘market.’ There is a consensus now about the need to redefine the role of the state in relation to the markets. Indeed, it would be necessary to know why the centrally planned economies did exceedingly well for quite some time after they embarked upon planning and began to show weaknesses and infirmities after a particular stage of development. Perhaps, the foremost lesson is that as an economy gets rich and sophisticated, markets have to play a greater role in transmitting signals from the consumers regarding their tastes and preferences. Bureaucracy cannot perform this function. It can only

\textsuperscript{5}In a statis model, the government introduces in mechanisms to procure, store and distribute food to defined target populations at prices below market cost. In some sense, this is a natural intervention (Kotwal and Ramaswami, 2012).
try to impose on consumers goods and services of low quality produced at a high cost (Rao, 2006).

Neoclassical economists are for substituting the general subsidies with targeted subsidies as a strategy for reducing poverty, while the economists of the heterodox approach are for redistributive policy for reducing poverty unlike the policy suggested by the former group (Dini and Lippit, 2009). The targeted subsidy is an outcome of the “Washington Consensus” during the 1980s which proposed the developed to developing nations to focus on the strategy of high trade and budget deficits along the low efficiency and growth (Dini and Lippit, 2009).

Keynesianism influenced the growth models of several capitalist countries powerfully and also the mixed economies. It embarked upon economic planning following their independence after the Second World War. Today, in many of the western economies, particularly in Europe, the public expenditure on economic infrastructure and welfare activities as a proportion to their national income is much higher than that in several of the mixed economies which have taken to economic planning (Rao, 2006). Indeed, many of the so-called western capitalist economies will collapse the moment their governments stop expenditures on the welfare programme. Unlike the former socialist countries, India opted for economic planning within the framework of a mixed economy where the private sector and markets have always had a strong presence. It is true that while adopting planning for economic development and social transformation, India was powerfully subject to the then ruling Keynesian ideas as well as the Soviet experiment where the state played a key role (Rao, 2006).

The food subsidy provision in India consists of the government’s program for providing nutritional support to the poor and maintaining price stability. The Public Distribution System (PDS) is the major food subsidy programs in India. Apart from being a food subsidy program, the PDS provides a minimum support price for farmers.

The food subsidy has two components -one representing the consumer subsidy and the other

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6 The free market ideology of 1980s was an agreement between the IMF, World Bank and U.S Treasury about the “right” policies for developing countries which notified the approaches of Trade and capital market liberalization as the two major elements of this broader policy framework (Stiglitz, 2002, 2006).
relating to the cost of carrying buffer stock. The government of India decides the procurement and issue prices of foodgrains managed by the Food Corporation of India. Often the difference between these two prices is not sufficient to meet the handling cost of the Corporation, and therefore the government reimburses the difference between the economic cost and the issue price to the FCI as consumer subsidy (George, 1996).

PDS has also remained a main instrument to execute the government of India’s economic policy to protect the income-poor. Several factors contributed to an increase in food subsidies between 2006-07 and 2011-12 (Sharma, 2012). The economic cost of food grains to Food Corporation of India (FCI) and minimum support price which is an important component of economic cost is of strategic importance as it has a direct impact on food subsidy. The procurement incidentals include statutory charges and non-statutory charges. Another issue of increasing food subsidies is a steady rise in central issue price of foodgrains during the last decade. Along with this the increasing procurement of food grains and carrying cost of stocks and allocation and off-take of food grains also add to the burden of food subsidies (Sharma, 2012).

The most common feature of distributing food subsidy is the fungibility aspect of subsidy in terms of food. The food subsidy is basically intended to increase the food consumption and improve nutrition (Kotwal and Ramaswamy, 2012).

Milton and Rose Friedman (1980) recommends on removing general subsidies and replacing it with cash subsidies. It is to restructure the social welfare system and get to high economic efficiency: The program has two elements: first, reform the present welfare system by replacing the ragbag of specific programs with a single comprehensive program of income supplements in cash. The replacement is a negative income tax linked to the positive income tax; second, unwind social security while meeting existing commitments and gradually help people to make their arrangements for their retirement” (Dini and Lippit, 2009).

Based on the United Nations Children’s Fund (UNICEF) report entitled “Adjustment with Human Face” (1987) World Bank and International Monetary Fund (IMF) started to argue on necessity of targeting of subsidies and paying cash subsidies to poor to compensate the negative effects of adjustment policies (Dini and Lippit, 2009). Although this revision appears
to be a step forward paying cash subsidies without having other elements of UNICEF package could minimize the positive effects of this program. This review has been in line of Friedman’s approach to restructuring social welfare system: minimizing state intervention in economy, getting to more privatization and liberalization in economy in order to get to more efficiency, paying more attention to controlling inflation by reducing the liquidity and thereby reducing state expenditures including welfare budget and paying cash subsidies as negative tax (Dini and Lippit, 2009).

The interrelationship between food security, poverty and hunger are gaining relevance at the global level (quoted in Gaidhane, 2015). The Malthusian limitation, of food production, receding or lagging behind population numbers, has overcome a scenario of poverty amidst plenty. But still, in larger parts of the globe, it confronts the policymakers and the respective governments, thus making it prime issue of governance to be addressed with alacrity (Dinakar and Ramani, 2007). For long time the debate on hunger and famine has been influenced by food availability approach rooted in Malthus’ thought. It was at the beginning of the 1980s there was a twist in the school of thought from the Malthusian relation between hunger and availability of food to Amartya Sen’s entitlement approach which emphasized on people’s access to food rather than national food availability. It states that the entitlement approach focuses on each person’s entitlements to commodity bundle and considered starvation as the failure to be entitled to a particular commodity. The two factors which form the basis of this approach are the personal entitlements and non-tangible goods (quoted in Burchi and Muro, 2012).

Similarly, a country may be the surplus in food, but the citizens may not have provisions for food security as some may have no purchasing power (quoted in Gaidhane, 2015). The lack of purchasing power is same as the deprivation due to the non-entitlement or the inability to command the food as advocated by Amartya Sen in 1981 (quoted in Gaidhane, 2015). The persistence of poverty amidst the impressive growth shows that the benefits of growth have not reached a large section of the poor and also the poverty measures like poverty line do not directly indicate the nutritional adequacy and food security (Panda and Kumar, 2008). Meeting the fundamental need of access to food is a significant challenge to the government.
in the post-economic reform era. The technological change on the farm front accelerated food production, outpacing population, to the point of self-sufficiency at a macro level, though adequacy at the micro level and on the individual level is elusive yet (Dinakar and Ramani, 2007). PDS as social security programme is essential to link to the Poverty Alleviation Program (Gaidhane, 2015).

The suggested cash transfer scheme is aimed at increasing the effectiveness of government programmes (United Nations Development Program (UNDP), India, 2009)). The proposed cash transfer scheme is not a new initiative in India. There is evidence for the same in the Arthasastra of Kautilya. According to it, there existed a system of taxation payments from the rich to ensure the transfer payments to the poor and there existed Zakat during the middle ages of Islamic rule where the state revenues were used to provide subsidies to the poor and vulnerable sections of the society (Ghosh, 2011). The idea of cash transfer scheme gained relevance with the Economic survey 2010-11 (Ghosh, 2011).

1.3 Regional Variations in Public Distribution System

The regional analysis of disparities in the delivery of PDS is important in evaluating how the PDS has changed over time. The probe into the debate over cash versus in-kind transfers helps to suggest future policy options to reform PDS. There is a lack of literature on these aspects of PDS.

Public distribution of food grains in India has resulted in some redistribution of income, and the primary objectives of these government interventions were to stabilize the availability of food grains, stabilization of prices and to achieve equity in distribution (George, 1984). The PDS performance relies on foodgrains management of the central government and the delivery of subsidized grain by state governments. As a result, regional diversity in PDS performance can be expected (Dutta and Ramaswamy, 2001). Regional differences in the functioning of the PDS have been captured by Dutta and Ramaswamy (2001) by comparing the public distribution of food in Andhra Pradesh and Maharashtra. An overview of the objectives of food policy followed in different Five-Year plans shows that the inter-state PDS disparities do not seem to have reduced even after the objectives of global coverage as
enunciated in the Sixth Plan. One of the reason appears to be the lack of proper infrastructure in some states and hence their incapability to lift their allotted quota by the centre (Geetha and Suryanarayana, 1993). The studies by Suryanarayana (1991) and Ahluwalia (1993) have also looked into the regional variations in the distribution food grains in terms of urban bias, coverage, and leakages in PDS.

1.4 The impact of PDS reforms in India

Many studies have revealed that the poor quality of wheat and rice made available through the FPSs is also a prominent reason behind the non-willingness of beneficiaries to purchase the food grains from the FPSs. Here the purpose of the PDS is always questioned in the Indian context because of the high level of inclusion and exclusion errors during the identification of beneficiaries (Tanksale and Jha, 2015). Although the households have access to PDS in Rajasthan, they don’t withdraw the same. In turn, they purchase it from the market which leads to an issue of ‘under purchase’ (Buying less than the household’s entitlement and buying from the market at a higher price) from PDS. The under purchasing is evaluated based on a ‘dualpricing’ model in a study conducted in Rajasthan on the utilization and impact of PDS (Khera, 2011b).

The PDS reforms in Chattisgarh show that the changes in diet choice in Chattisgarh relative to the border districts that have increased the availability of PDS food grains in the state. The study also found that relative to border districts households in Chattisgarh increased their calorie consumption from pulses and animal-based protein (Krishnamurthy, Pathania, and Tandon, 2015).

High market prices characterize the grain deficit regions of the country than in the grain surplus areas. The universal PDS once existed in the country, where the prices were set below the market prices would reduce the price rise during situations of scarcity by stabilizing the open market prices and discouraging the penetration of black markets. Under the system of targeting, the effect of stabilization on market price is negligible (Chakraborty and Dand, 2005).
The present scheme of ‘food security’ policies of the government is redefined through NFSA, 2013. Under this Act, the coverage of the Indian population is to extend up to 75 percent of the rural population and up to 50 percent of the urban population, by making the coverage of 67 percent at the all-India level (Gulati and Saini, 2014). Technology is increasingly affording better means for the government to improve the economic lives of the poor, particularly technologies that enable the state for better targeting and transfer of financial resources to household and to expand the set of antipoverty tools the government has in its armory (GOI, 2014-15).

There is a clear-cut distinction between food subsidies and cash transfers. Food subsidies in India consist of the mechanism through which the food grains are procured at remunerative prices from farmers and then selling it through PDS at subsidised prices. But the cash transfer scheme emphasis on the ends of the policy by targeting the impact of the cash transfers on the individuals within the household (Pani Narender, 2012). Recent Experience shows that unconditional cash transfer- if targeted well- can increase household consumption and asset ownership and reduce food security issues for the ultra poor (Hausofer and Shapiro, 2013). In September 2013, the government of India took the bold step of enacting the National Food Security Act. The Act will provide poor households with 5 kilograms of food grain per person per month at an affordable price, although the Act is crucial for the poor, it is especially critical for the persistently excluded and the indigenous groups of scheduled castes and scheduled tribes (Kishore, Joshi and Hoddinot, 2014).

**1.5 Pilot studies on PDS versus Cash Transfer scheme in Indiaand across the world**

A review of the implementation of the cash based transfers in Africa Asian and Latin America show that cash transfers contribute to smooth consumption and income, can prevent the sale of household assets, will enable investment in production, assets and it can assist in repayment of loans (ODI,2007).

The experimental evidence from Malawi on the efficiency of conditionality in cash transfer programs for schooling shows that the program led to the decrease in the dropout rate by more than 40 percent within the target group of adolescent girls (Bair et.al, 2010). This gives wider
implications in the African context with improvement in schooling rates reducing the number of early marriages (Bair et al., 2010).

Mexico and Brazil established Conditional Cash Transfers (CCTs) in the late 1990s, but the programs exist in many countries. Programs in Mexico and Ecuador ensure income to 25 percentages and 40 percentages of the country’s populations respectively while Brazil’s Bolsa Familia covers about 46 million people, or 24 percentage of the country (Quoted in Manley, Gitter and Slavchevska, 2013). There has been an interest in the CCT programs during the last ten years. CCTs are programs that transfer cash generally to poor households, on the condition that those households make pre-specified investments in human capital of their children. Most CCT programs transfer money to the mother of the household or the student in some situations. CCTs have been considered as a way of reducing inequality, especially in the unequal countries in Latin America; helping Household to come out of a vicious cycle whereby poverty is transmitted from one generation to another (Fizbein and Schady, 2009). Latin American countries were the first to introduce CCTs, and in recent years, a few Asian countries have also been doing so (e.g., Indonesia, the Philippines) (Mehrotra, 2010).

The price effect for cash versus in-kind was estimated based on the food assistance programme, Programa de Apoyo Alimentario (PAL) in Mexico. It was carried out in villages through a randomized experiment, and they have found that the cash transfer raises the demand for normal goods and, if supply is not perfectly elastic the price of the good must also increase (Cunha et al., 2011). In-kind transfers had a corresponding cash value, so they shift the demand through income effect (Cunha et al., 2011). Bangladesh possesses both food and cash interventions. The results of the study to assess the cost-effectiveness of food versus cash transfers suggest that as income goes up beneficiaries preference for food decreases showing that the poorest households prefer mainly food transfer whereas affluent beneficiaries moreover preferred cash to food (Ahmad et al., 2009).

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7 Conditional Cash Transfer (CCT) schemes give cash directly to poor households if the household/individual fulfill the specific conditions such as minimum attendance of children in schools, and/or attendance at health clinics, participation in immunization and so on (UNDP India, 2009).
Based on the empirical evidence from Ethiopia’s Productive Safety Net Programme (PSNP) food transfers ‘cash plus food’ packages are superior cash transfers as they ensure an increased level of income growth, asset accumulation, and self-reported food security (wheeler and Devereux, 2010).

The experience with cash and food transfers in developing countries of the world has been analyzed using randomized and quasi-experimental evaluations. The findings confirm that costs for cash transfers and vouchers tend to be significantly less compared to in-kind transfers (Gentilini, 2016). An analysis of the impacts of food versus cash transfers on food expenditure shows that countries like Yemen, Sri Lanka, Cambodia, Mexico and Bangladesh the impacts on food consumption are higher for cash than for food (Gentilini, 2016).

An evaluation of the efficiency of food and cash transfer to ensure food security and livelihoods for the ultra poor in Bangladesh revealed that as income increased beneficiary’s preference for food is getting reduced showing that the poorest households choose only food as the transfers. While relatively well-off beneficiaries tend to choose only cash (Ahmad et.al, 2007). The cost effectiveness of cash and in-kind food aids were assessed using an economy wide modeling framework and social accounting matrix in Ethiopia. The study reports a larger possible effect of cash aid on household welfare and the food aid acts as a disincentive to local food production. Cash relief has been justified based on the gains and improvement in welfare (Gelan, 2006).

The above studies of cash versus food transfer experience in other countries of the world show the need for switching over to cash transfers in India realizing the costs and benefits of the same.

Reetika Khera’s research (Khera, 2014) on cash and in-kind transfers of subsidized food in India, using qualitative and quantitative data with empirical investigation support the cash versus in-kind transfers debate in three ways. It analyses primary qualitative and quantitative data from a household, evaluates the context specificity for the country as a whole, and it also analyses beneficiary views for cash and PDS options based on a survey including more than
1200 rural households across nine Indian states (Khera, 2014). A team under K. Muralidharan conducted a pre-pilot study to understand the interest among beneficiaries in receiving Cash Transfers in place of TPDS entitlements based on a baseline survey of 500 households on TPDS in Patna district (300 rural and 200 urban households). A majority of respondents expressed their willingness for taking part in a cash transfer program which ensured an equal amount of subsidy given through TPDS and they cited the low quality of ration shop goods and the under provision of their entitlements as benefits for switching over to cash (Muralidharan et al. 2011). The key proposals of the study were to introduce the requirement for an old and new system to function corresponding to it during the pilot study and to allow for a ‘bottom up’ as opposed to a ‘top-down approach to the welfare policy (Muralidharan et al. 2011).

An analysis of the nutritional status of the poor in the urban parts of Delhi shows that the PDS ensures no measurable impact on the level of nutrient attainment of households. Also, there are no particular patterns of changes in its functioning, the findings of the study show that most APL households prefer cash transfers, while BPL and Antyodaya Anna Yojana (AAY) households are uncertain as to their preferences (Baksy et al. 2013). They also have briefly analysed the in-kind transfer scheme called the TPDS and the recently launched Cash transfer scheme the ‘Dilli Anna Shree Yojana’ (Baksy et al. 2013). Their analysis shows that the cash transfers don’t protect the consumer from inflation. Thus non-affordability of food was a concern among respondents.

The plan to computerize the TPDS databases coupled with the introduction of the Aadhaar/UID and National Population Register (NPR) systems is the right step to move forward (Kumar and Mohanty, 2012). Brazil, Mexico, the Philippines, and even Pakistan have all adopted CCTs, while India is stuck with its inefficient and costly system; it is not too late for India to change (Gulati, 2014). The evidence from the pilot studies by SEWA BHARAT (2012) to evaluate the effect of replacing PDS by cash transfers for Below Poverty Line (BPL) households found that there is no decline in any food item, due to cash transfers. Hence they
have concluded that cash transfers do not adversely affect food security (SEWA BHARAT, 2012). The policy suggestions proposed by the study are worth mentioning.

They suggested that the BPL cardholder must have a choice of food, fuel or cash that the cardholder will be asked at the beginning of the year, if they preferred cash, they would have to open a bank account then their card would be stamped with their choice. Families could alter their decision after a year and revert to rations. All families would keep their BPL-card and hence identity card advantages while this “free choice” method avoids the element of coercion it allows people to choose their fair price shops and keeps the Government more efficient (SEWA BHARAT, 2012).

The evidence from a randomized controlled trial in Delhi assesses whether cash transfers should be conditional upon household agreement with a set of preferences or whether cash transfers should be unconditional (Gangopadhyay, Lensink, and Yadav, 2013). The findings of the study follow that the unconditional cash transfers do not lead to decrease in food security as compared to the CCTs. But a typical criticism against Unconditional transfer in place of an in-kind food subsidy (or a CCT) is that households would spend less on food or more on other things that could lead to a loss in nutrition with harmful long-term effects, especially on children (Gangopadhyay, Lensink, and Yadav, 2013). Their study did not find any evidence for the criticism that CCTs lead to more spending on non-food items and provides an empirical support to the hypothesis that Unconditional cash transfers to the poor will be an important tool to improve food security (Gangopadhyay, Lensink and Yadav, 2013).

A study by the team of planning unit of Indian Statistical Institute, Delhi has shown that the cash transfers to individuals based on Biometric Identification are feasible and will bring large gains to the economically insecure, using 2004-05 NSS data on consumption to illustrate the impact of the programme (Chaudhari and Somanathan, 2011). They have made a comparison of the per capita value of the grain subsidy as a percentage of MPCE that households in each decile of MPCE received in 2004-05. The comparison is in terms of PDS with the percentage of MPCE that households would have got if it would have been transferred to their accounts
in terms of cash by excluding the rich Monthly Per capita Consumer Expenditure (MPCE) deciles. While the methodology proposed by them involves the electronic transfer of funds to the bank account of a person by Universal ID from the Universal Identification Authority of India (Chaudhari and Somanathan, 2011).

A member of Planning Commission has made an analysis, arguing for replacing five subsidy schemes with Cash transfers and has highlighted the three requirements that should be fulfilled for cash transfer scheme to succeed in India (Mehrotra 2010). UNICEF and the Self Employed Women’s Association (SEWA) were in collaboration to conduct a pilot test for cash transfers in rural areas of Madhya Pradesh. For the pilot, an alternate name was coined as the Basic Income transfer, perhaps ‘basic income’ (BI) was the goal to pursue; the Basic income is usually total amount of money regularly paid, to individuals, without conditions, as a rights-based payment (SEWA Bharat, 2014). The main aim of the cash transfer scheme is to ensure money to poor people and thereby give them the freedom of choice since the core aim of any social and economic policies rest on the choices (Ghosh, 2011).

These pilot studies conducted in India suggest that if the requirements like Unique ID for all citizens, access to bank accounts or post office accounts, the database for beneficiaries and identification of BPL households are provided, then the cash transfer scheme can be made viable across the country. But these studies were limited to mainly the North Indian states and regions.

None of the studies have been reported in South Indian states, and the present study will remove this gap by evaluating the viability of cash transfer in the state of Kerala.

Kerala’s experience in public distribution of food has attracted many social scientists, both within and outside India and international organizations such as United Nations (George, 1979). Kerala is the one Indian state where historical changes, widespread participation, and egalitarian policies have rendered public administration qualitatively different from other states of India (quoted in Suryanarayana, 2001). The public is well organized to communicate its felt needs and get them realized; the one such area relates to the public provisioning of
foodgrains at subsidized prices under what is called PDS, which has insulated the economy against famine and starvation (Suryanarayana, 2001). Kerala has achieved high levels of social development which is not only comparable with China but also with some industrialized countries of the west. The development has been realized through a determined public policy with insights for other states of India (Balakrishnan, 2015).

The literature on PDS have also looked into the diversion of PDS foodgrains (Swaminathan and Misra 2001, Planning Commission, 2005; Mane 2006; Swaminathan 2009; Khera 2011a, Maheswari 2011), Consumer food subsidies (Radhakrishna et. al 1997; Suryanarayana 1997; Swaminathan 2008; Sharma 2012) and Targeted versus Universal PDS (Swaminathan and Misra 2001; Mane 2006; Marina 2013). But there is a shortage of studies on the PDS impact on poverty across Monthly Per capita Consumer Expenditure (MPCE)\(^8\) deciles group\(^9\) among the major states of India.

Given the following research gaps, the thrust of the purpose of the present study is to analyse the impact of PDS policy changes and to estimate the impact of PDS on poverty in major states of India by analysing the preferences for PDS and cash transfer scheme in Kerala.

1.6. Research Problem/Question

A brief review of the related literature motivates to probe into some relevant research issues. The following research questions will be addressed to carry out the research process.

What is the impact of PDS rice scheme, which is an important requirement for the NFSA, 2013 across the states that have initiated the PDS reforms in India?

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\(^8\)Monthly Per capita consumption expenditure is the household monthly consumer expenditure divided by the household size which serves as a measure of standard of living for the household (NSSO 68\(^{th}\) round).

\(^9\)The MPCE deciles group refers to the distribution of MPCE for a population under a particular region where the first deciles consists of the level of MPCE below which 10 percent of the population lie, the second deciles refers to the level below which 20 percent of the population lie and so on (NSSO 66\(^{th}\) round).
How does the impact of PDS on rural and urban poverty vary across the MPCE deciles group among the states in India?

Even when the publicly subsidized grain reaches the poor, they depend upon the market to supplement their PDS purchase, and often most of the households rely on a mix of the two. What will be their preference between Cash and food grains? Which do they value the most, the subsidy in terms of PDS or Cash transfer into the bank account?

1.7. Objectives

1. To estimate the impact of PDS policy changes on the price and quantity of purchase of PDS rice.
2. To analyse the impact of PDS on poverty.
3. To evaluate the in-kind transfers of subsidized food through PDS and compare the possibility of replacing it with cash transfers in Kerala.
4. To assess the performance and reforms in PDS through the ration shops in Kerala.

1.8. Data sources and Methodology

The proposed study will be confirmatory and will be using both primary and secondary sources of data. The secondary data will be taken from 50th round on Household Consumer Expenditure, 61st and 68th rounds of National Sample Survey Organisation (NSSO) report on Public Distribution System & other sources of household consumption (1993-94, 2004-05 and 2011-12 respectively), Food grain bulletins and District census reports2011.

The first objective\(^{10}\) is to estimate the impact of the decline in the price of rice to Rs.3/- (or less) in two groups of states (treatment and non-treatment/control group of states) using difference-in-difference method during 2004-05 and 2011-12. The treatment group of states\(^{11}\)in the study is the states which have taken up PDS reforms as a necessary requirement

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\(^{10}\) Method will be given in detail in the corresponding chapters.

\(^{11}\) Among 36 states/UTs only 11 states/UTs reported the identification of household within the stipulated time period of 1 year and these states/ UTs were receiving foodgrains under NFSA during September 2013-March 2014 (CAG report, 2015). They include Bihar, Chandigarh, Chhattisgarh, Delhi, Haryana, Himachal Pradesh, Karnataka,
or preparedness\textsuperscript{12} for NFSA at an early phase and completed the same. This group consists of eight states of Bihar, Chhattisgarh, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Punjab, and Rajasthan. The control group of states in the study consists of states which are yet to complete the PDS reforms, which includes Andhra Pradesh, Assam, Gujarat, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Odisha, Tamil Nadu, U.P and West Bengal.

The impact of PDS on poverty during 2011-12 in the major states\textsuperscript{13} of India is estimated through subsidy or income transfer method. The subsidy can be calculated as $S = Qp(P-M)$, where $S$ is the subsidy through PDS, $Qp$ is the quantity purchased from PDS, $P$ is the PDS price, and $M$ is the market price. PDS and Market prices are estimated from the corresponding NSSO reports by dividing total value by quantity. This subsidy estimated is added to the conventional measure of monthly per capita expenditure (MPCE) given by NSS data and the PDS impact on poverty with subsidy and without subsidy is compared (Dreze and Khera, 2013). The PDS impact on poverty is computed by adding the subsidy income to the actual monthly consumption expenditure of each expenditure class, and the summation of monthly per capita consumption expenditure and subsidy determine the real monthly per capita consumption expenditure which is otherwise the PDS impact on poverty (Thomas J, 2015).

To analyse the feasibility of cash transfer scheme a primary household survey was carried out in Kerala collecting data from households (demand side). To assess the performance and reforms through ration shops in Kerala, a primary survey was carried out among the ration


\textsuperscript{13} The major states consist of the states of India which had a population of 20 million or greater that based on the Census 2001. The States include: Andhra Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal (NSSO).
dealers (supply side). The findings of the primary survey were analysed through Likert scale\textsuperscript{14} and percentage methods.

1.9. Chapter Scheme

Chapter 1: Introduction

At the outset, presents an outline about the evolution of the PDS and the reforms introduced in PDS in India up to the recent period.

Chapter 2: Impact assessment of PDS Reforms in the states of India

This chapter deals with the impact of PDS reforms on the purchase of PDS rice in the treatment and non treatment groups of states which is examined using the difference-in-difference method between 2004-05 and 2011-12.

Chapter 3: The impact of Public Distribution System on Poverty

This chapter analyses the impact of PDS on Poverty across the MPCE deciles group using the implicit income transfer method in 2011-12.

Chapter 4: Socioeconomic Conditions of the Study Area

This chapter focuses on the socioeconomic profile of the sampling area. The socio-economic and demographic profile of the study area in the sampling design has a vital role in choosing between PDS and cash transfer scheme. The sampling area of study consists of Thiruvananthapuram and Malappuram districts in Kerala are the sampling area chosen for the study.

Chapter 5: Assessing the Scope for Cash Transfers in Lieu of Targeted Public Distribution System: Evidence from Kerala

\textsuperscript{14} Likert scale was developed as a tool for measuring the character and personality features through which the qualitative factors can be transformed into quantitative measure for data analysis (Boone N.H and Boone A.D, 2012). In the present study the preference analysis between PDS and cash transfer scheme a five point likert scale is used ranging from strongly disagree to strongly agree with not sure in the middle.
This chapter evaluates the cash transfer scheme as a better alternative to PDS by conducting a primary survey in Kerala by collecting the feedback from the households, assessing the utilization of PDS and making a preference analysis between cash transfer scheme and PDS.

**Chapter 6** Analysis of Cash Transfers in Lieu of Targeted Public Distribution System in Tribal areas of Kerala

This gives emphasis to the utilization of PDS by tribal communities and their preferences towards PDS and cash transfer scheme, given the stark differences of the tribal communities in terms of their poor socioeconomic background and livelihood conditions for survival, unlike the rural and urban regions. The tribal areas of Thiruvananthapuram and Malappuram districts were chosen for the survey.

**Chapter 7**: Reforms and Performance of Fair Price shops in Kerala

This chapter looks into the supply side aspect of the distribution of PDS by taking into account the distribution of food grains through ration shop and the reforms implemented, specifically through initiatives to introduce computerization in ration shops by conducting a primary survey among the ration dealers from whom the surveyed households are purchasing.

**Chapter 8**: Summary and Conclusion

This chapter includes the limitation, further scope of the study and future policy suggestion in the maintenance of an efficient and transparent working of PDS by delivering the benefits to the entitled beneficiaries.