

**FOOD FOR THE POOR: A COMPARATIVE STUDY OF  
THE PUBLIC DISTRIBUTION SYSTEM AND THE CASH  
TRANSFER SCHEME IN DELHI**

**DOCTOR OF PHILOSOPHY**

**Under the supervision of**

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### DECLARATION

I declare that the thesis entitled, **Food for the Poor: A Comparative Study of the Public Distribution System and the Cash Transfer Scheme in Delhi** submitted by me in partial fulfillment of the requirements for the award of the degree of **Doctor of Philosophy** from Jawaharlal Nehru University is my own work. The thesis has not been submitted for any other degree of this University or any other University.



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### CERTIFICATE

We recommend that this dissertation be placed before the examiners for evaluation.



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To Dad

Who Live in Many Hearts

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**O. Grace Ngullie**

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## INTRODUCTION

It is no secret that, despite the government legislating, funding and implementing several welfare schemes for the poor, over a fourth of India's population still suffers acute poverty and deprivation. According to the Tendulkar Committee on Poverty (2009), the poverty ratio in India is 21.9 percent for 2011-2012. In 2014, the Rangarajan expert panel estimated that the poverty ratio in India is 29.5 per cent for 2011-12. A critical part of blame must go to the process of extending welfare benefits to the poor, as public service delivery of these programs frequently suffers from technical flaws and administrative inefficiencies. For instance, India's major in-kind transfer scheme – the Public Distribution System (PDS) – suffers from not just exclusion and inclusion errors but is also infested with leakages, with a substantial chunk of these subsidies going to unintended and ineligible beneficiaries that defeats the very intent of the scheme.

As an alternative service delivery mechanism for welfare schemes meant for the poor, the Delhi Government implemented the Direct Cash Transfer (DCT) known as the Dilli Anashree Yojana (DAY). The government formally launched DAY on 15th of December, 2012 as the first DCT scheme to provide food subsidy to the poor. Through this scheme, it also obtained firsthand experience in Cash Transfer (CT) Pilot Projects. The beneficiaries comprised of those poor households who were left out of the ambit of the PDS. The scheme provisioned a cash entitlement of Rs. 600 to be transferred directly to the bank account of the women heads of households. The exact time of the termination of DAY is not established. Mission Convergence, a state level registered body launched by the Delhi government in 2008 to facilitate delivery of government welfare services to the people, and one of the major implementing agencies of the DAY, reported that the government officially implemented the scheme for a year and terminated it.

The Department of Food, Supplies and Consumer Affairs, Government of National Capital Territory of Delhi has been responsible for the implementation of both PDS and DAY. This research undertakes a comparative study of PDS and CT in Delhi by looking at the difference in delivery mechanisms of two welfare schemes that have a similar objective, i.e. to ensure food security. Another reason that makes

the two schemes comparable is that the targeted beneficiaries of both the welfare schemes stand on a similar socio-economic scale as do the households selected for the survey. The PDS is one of the largest in-kind transfer programmes in India, which aims to ensure food and nutritional security. CT for the purpose of food and nutritional security is relatively a new idea in India. Until now, Self Employed Women's Association (SEWA) led pilot projects have primarily studied the impact of CT for household-level food and nutritional security in Delhi and the impact of basic income transfers in the rural villages of Madhya Pradesh. Prominent CT programmes in India are implemented through pensions for old age citizens, maternity benefits, scholarship for students, Work for Cash popularly known as Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), and recently CT for LPG kerosene also known as Direct Benefit Transfer for LPG (DBTL).

The study reflects on the current complexities of policy choice with regard to the PDS and the CT to provide food and nutritional security. It looks into the necessity of formulating public policy that defines appropriate and effective mechanisms for public service delivery to ensure the provision of basic nutrition to the poor. One of the significant aspects of this study is to evaluate the possible outcome of CT as a dependable solution for ensuring food security. Another important aspect is to draw attention to the implementation of the most popular in-kind transfer program in the country, i.e. PDS, to attain food security. The central idea of the research is to study the progress and shortcomings, if any, of the PDS and DAY schemes, which aim to facilitate households' food and nutritional security. It makes an attempt to understand how both the welfare schemes ensure "rights" and "security" to beneficiaries in an equitable manner. It tries to understand how people exercise their rights in accessing grants, cash or in-kind entitlements, provisioned through PDS and DAY. Since the inputs from beneficiaries form an indispensable part of the research, it reckons that the right amount of grant for the poor can ensure food and nutritional security. The study stands on the premise that access to adequate entitlements, whether cash or in-kind transfers, ensures not only food and nutritional security but also improves a household's access to education, clothing, healthcare, and sanitation care, which determines the general status of a household's wellbeing. Beyond the household status, it tries to understand the relationship between people

and the service delivery institutions such as the Fair Price Shops (FPSs) and the implementing agencies of DAY in matters of distribution of welfare benefits.

It is a well-known fact that the Government designs welfare programs for poverty alleviation. The Government also seeks to evaluate the viability of its schemes against certain parameters viz. economic utilization of resources, improving efficiency, transparency, accountability and lessening corruption. Similarly, the National Committee on DCT 2012 pitched such acknowledgements. The research attempts to assess if a CT scheme like the DAY achieved these objectives of efficiency, transparency, accountability and eliminating corruption. In a broader context, the study points out to why India is looking at CTs and why Latin American countries (LAC) have an impact on India's approach towards poverty alleviation. It studies the motive behind LACs adopting CTs as an important approach in providing social security and in reducing poverty, and seeks to understand the reasons behind LAC success in implementing CT. It draws lessons of CT programmes from the LACs, especially the Bolsa Familia in Brazil and Progres-Oportunidades in Mexico, for applicability in India.

The first chapter is titled 'The State of Food Security in India'. It explains the concepts of hunger, malnutrition, and malnourishment in relation to a person's food intake and its cost implications. It highlights the significance of food and nutritional security along with pointing out the factors that inhibit food security. It examines the major indicators of food security with regard to food productivity, availability and accessibility, and looks at the policy measures that are taken to address food and income poverty. In food productivity, it observes changes in the practices of agricultural food production over a period and the influence of technology on agricultural practices. It views the relation between food productivity, food availability and food poverty and deliberates on some arguments that revolve around these issues and per capita distribution. Further, it delineates some major factors that hamper people's access to food i.e. poverty, unemployment or low wage employment, lack of education and awareness, and landlessness and the general state of inequality in India. In this context, Amartya Sen's Entitlement Theory helps to understand starvation and lack of entitlements for access to food. In the same breath, it examines the importance of the legal, social, economic, and political factors that determine

people's access to food entitlements. It elaborates some policy measures undertaken by the government to address income poverty and access to food in India with the PDS and DCT being two major types of poverty alleviation programmes in India. It further examines one of the major indicators of food security i.e. food utility, and the efficacy of nutrition intervention programmes.

The second chapter is on 'Food Policy in India', which discusses the development of food distribution as India's welfare policy. It examines the role of the welfare state in food allocation and distribution through welfare schemes to the poor and vulnerable groups. In the context of PDS as a major food policy programme in India, it looks at the role of the welfare state in managing food productivity, improving methods of service delivery through entitlements, regulating prices when necessary and ensuring the proper coverage of beneficiaries. It studies the government's market intervention in procurement, storage and buffer stock maintenance, as the storage facility serves as the connecting link between procurement and PDS that seeks to thwart any food crises. It stresses on the pivotal role of the ultimate distribution agency the Fair Price Shop, which ensures the availability and accessibility of food grains to the poor. The strategies of food distribution programme through different periods is studied from 1939 onwards until the current phase, showing how the food distribution policy adopted changes in its targeting approach i.e. a shift from narrow coverage or concentrated area to wider coverage or larger population. It critically looks at how the targeting approach adopted in the era of structural adjustment can have a negative impact on food and nutritional security and weaken the notion of the welfare state in ensuring food security. It highlights the predicaments of targeting since the method of targeting determines the degree of inclusiveness of a public policy. It elucidates on administrative inefficiencies and corruption in PDS, following which an alternative delivery mechanism for food security such as CT is discussed in the next chapter. The factors that contribute towards successful implementation of welfare food subsidy are a significant part of this chapter. It shows examples of those states that proactively adopted means to enhance food distribution system and effectively ensures food and nutritional security to its people.



The third chapter titled ‘Understanding the Implementation of Cash Transfers’ introduces the role of CT as an alternative route to deliver welfare subsidies. It gives space to both for and against in-kind transfers and CT keeping in the mind the objectives of food, nutrition, and poverty related issues. It sheds light on the evolution and strategies of CT programs with examples drawn from around the world. The chapter discusses the major impact of CT in various countries across the world, which implemented CTs with or without conditionality, to meet welfare objectives in areas of health, education, food, nutritional security, and poverty eradication. It also observes the impact of CT in social capital transformations in relation to beneficiaries’ behavior, social relationships and psychosocial wellbeing. It draws attention to the implementation experiences of CT in Brazil, Mexico and other countries where CT programmes are received positively. It deliberates on some of the critical assessments of CT programming. In analysing factors that can become impediments to the successful implementation of CT, it points out certain relevant conditions to ensure their effective workability. It outlines a few examples of CT programmes in India and studies the impact of CT pilot projects for food security in Delhi and the impact of basic income grants in the rural villages of Madhya Pradesh. Towards the end, the chapter makes some important observations regarding the recent initiatives taken by the Indian government regarding CT, how it can be effective in delivering welfare subsidies and how it can be made applicable in the Indian context.

The fourth chapter describes the methodology of the research. It provides a background to the working of PDS and DAY and outlines the research methodology adopted for the study. It explains the rationale behind the comparative study of PDS and DAY i.e. the similarities among the beneficiaries of both the schemes and objectives that would ultimately lead to attaining food security. The research framework signifies the central background of the literature that is used to conduct the field study. In this context, the understanding of poverty and the description of food security at the household level is the fountainhead to conduct households’ survey. It has recorded the monthly income and consumption expenditure – both food and non-food – of the households to measure the status of income poverty and food and nutritional security. It has figured out households consumption of food items and has documented their access to types of food, education, clothing, healthcare, sanitation, electricity, and so forth. It has learned the efficacy of both the welfare programmes to

fulfill households' food security, and has incorporated people's perceptions and choice regarding its services. It has studied the social and economic impact of both the welfare programmes on women's empowerment and has examined the gender dimension in the consumption and expenditure of both food and non-food items, including decision making for food and general finances at the household level. The research design explains the method of selecting District Offices, Circle Offices, and individual beneficiaries for the field study. A questionnaire-based survey, Focus Group Discussions (FGD), interviews with the FPS dealers and program officials of the implementing agencies served as major sources of primary data collection. The questionnaire-based survey covers a sample size of eighty households i.e. forty households each from PDS and DAY. The conduct of eight FGDs provides insightful information about people's behavior and relation with their service providers and perception with regard to their experiences in the welfare programs. There are interviews of both structured and non-structured type with individual respondents such as policy practitioners or program officials and FPS dealers. Interviews with the FPS dealers bring out the issues that these dealers face, including whether discrepancies arise between the responses of the people and the FPS dealers or not. Interviews with program officials help to understand perspectives other than those of the beneficiaries regarding food distribution policy and implementation.

The fifth chapter describes the research findings with the help of data illustration i.e. figures, tables and images. The responses of the beneficiaries of both PDS and DAY are provided in five sections viz. demographic details and segmentation, family income and consumption expenditure on food and non-food, service delivery mechanism and consumer choice, utility of basic amenities, and socio-economic impact. The first section i.e., demographic details and segmentation describes the respondent's age, gender, religion, caste and community, literacy level, household's size, type of households and settlements. The second section presents households' income and expenditure on food and non-food items such as education, medical care, and clothing. It also captures households' consumption of particular food items, which are classified as vegetarian and non-vegetarian, hence showing the diversity of diet. It brings out the actual consumption and ideal requirement of ration in a month for both PDS and DAY households. The section on service delivery mechanisms and consumer choice describes households' preference for CT or PDS

and their feedback on the services. The section on access to basic amenities and public services gives us an idea about the general status of household's wellbeing. The last section i.e. the socio-economic impact, elucidates women's role in decision making at the household level, their level of awareness and participation in social issues and a sense of empowerment achieved through welfare schemes. It also explains the responses of FGD participants and interviews held with the FPS dealers to compare and understand each side's perspectives on service delivery.

The sixth chapter discusses the research findings and also compares these to other relevant case studies. It compares PDS and DAY households' income and consumption expenditure for food and non-food and studies their relation to the Tendulkar committee report and Rangarajan expert panel for national poverty line estimation. It discusses food consumption and diet diversity among the households and the efficacy of PDS and DAY by providing a significant analysis on the estimation of actual dietary intake for individual items such as wheat, rice, pulses and sugar each month and presents the per capita consumption of each item against their ideal requirement. This helps in pointing out the gap between PDS allocation of food grains and households' actual food intake and their ideal food requirement. It draws attention to the significance of increase in subsidies and its impact on education, clothing, healthcare, sanitation and so forth by relating other studies and the current research findings. It analyzes the utility of food and cash subsidy and the coverage of the poor by these welfare schemes. For both PDS and DAY households, the total monthly consumption of wheat, rice, and sugar can be compared to the National Sample Survey Organization (NSSO) data of 2011-12 at an all-India database. For PDS, the consumption share of these food items from FPS is comparable to the NSSO data. The study reflects on the appropriate grant for food and cash entitlement that seeks to ensure food security, proposed by the beneficiaries themselves. Along with comparing households' expenditure on non-food and its direct relation to access to basic amenities and public services, it tries to clarify whether households that receive cash spend the money unnecessarily or improve diet and nutritional status. It further assesses the effectiveness of the service delivery in PDS and DAY and provides people's choice for CT or in-kind transfer based on their experiences and criticism. It studies governance and accountability mechanisms in PDS and DAY and points out significant relationship between the state and its citizens. The section on social and

economic impact discusses the extent of women's role and participation, exercise of rights and entitlements, behavior at home with regard to food and the manner of beneficiaries' relationship with the service providers to study people's wellbeing. Overall, the research has tried to encompass major aspects of food security in the field study through the questionnaires, FGDs and interviews to correlate the research findings with the literature review and general understanding of food security.

# CHAPTER 1

## THE STATE OF FOOD SECURITY IN INDIA

### 1.1 Hunger and Malnutrition

Hunger is a prime issue in Indian society especially when a substantial chunk of the population is poor and vulnerable. ‘Hunger’ or ‘food poverty’ is a state in which a person does not have enough resources to obtain Minimum Recommended Daily Calorie Requirements-MRDCR (Dayal and Gulati 1993, 168). It is synonymous with ‘Undernutrition’, which is intake of an insufficient quantity of food (Lowenberg 1970, 160). Such undernourishment occurs due to less calorie intake than is required to maintain normal body weight and activity. If not undernourished, a person may be malnourished for getting insufficient food nutrients viz. minerals, vitamins, proteins etc. Malnutrition occurs because of inadequate quality of nutrients in the diet of a person. In other words, malnutrition is caused by an imbalanced diet when some nutrients are taken in excess or short of (Khanna et al. 2013). A person is therefore malnourished when the quality of food and calorific value of meals are sub-standard. It hinders the normal growth of a body and makes a person more vulnerable to diseases.

India has the highest number of undernourished individuals, in absolute terms i.e., 212 million, considered as ‘the largest in the world’ (Weisfeld-Adams and Andrzejewski 2008, 3). The National Family Health Survey (NFHS) survey reveals that 53 percent of boys and girls are undernourished and 21 percent of them are severely undernourished (Swaminathan 2000, 29). The Global Hunger Index (GHI) uses Undernourishment, Underweight infants and Infant mortality to expose the situation of hunger nationwide. Based on these indicators, the International Food Policy Research Institute (IFPRI) reported that 21 percent of India’s population is reportedly undernourished, 44 percent of children under the age of five are underweight and 7 percent of these children die before the age of five (Varma *The Times of India*, 15 January 2012). The GHI 2015 has indicated that the situation of hunger in India is ‘serious’ (Grebmer et al. 2015).

Undernutrition and malnutrition mainly affect the poor at large. According to Cornia and Stewart (1993), Undernutrition affects the short-term productivity of labour as well as long-term productivity, causing growth retardation, and also has implications for inter-generational variables such as reproductive efficiency (Swaminathan 2000, 102). Nutrition-deficient individuals are more susceptible to infectious diseases and other health risks than their better-fed peers. Deficiencies in nutrition, of course, also lead to higher mortality rates. Being vulnerable to health risks, undernourished people become unfit for work and are less productive or not productive at all. Such low productivity at work leads to lower pay or no income at all, which reduces their purchasing power and makes them more susceptible to food insecurity. Such a vicious cycle of poverty brings with it chronic hunger, malnutrition, diseases and other health risks. Intergenerational effects emanate from malnourished mothers that affect the health and nutritional status of the children. Deficiencies in nutrition therefore inflict long-term damage to not only an individual but also the society. The problem of malnutrition is contingent on not only food intake but also on access to health care services, especially better services for children and pregnant mothers, as also other hygiene factors. However, there are several factors that hinder the access of the poor to these services. Access is hampered by the dreadful condition of rural roads, absence of public transport, distant health care centre or hospitals and so forth. These intervening factors, furthermore, threaten the state of food security of the poor. In case of India, this causal nexus is a huge welfare cost to be borne especially when food subsidy programmes exclude the poor.

## **1.2 Indicators of Food Poverty and Nutrition**

Poverty indicators especially with regard to food consumption and nutrition intake are analyzed through income poverty, level of food consumption, share of households expenditure on food, calories intake, micronutrients intake and nutritional status (Ibid., 14). According to an Expert Group of the Planning Commission that reviewed the methodology for measurement of poverty, the minimum per capita consumption expenditure for food and non-food items is one of the best approaches to understand poor household (Planning Commission 2014).

Limiting the basis of estimating food consumption based only on income expenditure can disregard other aspects of food poverty. There are regional

differences in food prices and food consumption habits, which need to be kept in mind while undertaking surveys and collecting data. An estimation based on actual consumption of calories seeks to eliminate regional differences in food habits and food prices. Estimation based on calories rather than looking at expenses on food or diet cost corrects the limitation (Dayal and Gulati 1993, 169). However, the NSSO consumption expenditure is the standard method of collecting data on food poverty to determine nutritional status and the state of hunger and poverty in India (Ibid., 169). The NSSO household survey on consumption expenditure estimates average calorie consumption that represents an individual's actual intake of the nutritive value of 160 food items on quinquennial basis i.e. every five years by collecting information for a 30 days reference period in four rounds over the year (Swaminathan 2000, 16).

### **1.3 Objectives and Indicators of Food Security**

Attaining food security has become a vital issue among the policy makers across the world. In 1996, the World Food Summit acknowledged that 'food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life'. Several parameters such as adequate access to food, good health care, water supply and other basic services help to ensure an active and healthy life. If one does not have access to these basic services, a mere access to food would be unproductive. Therefore, food security aims to achieve certain quality of life indicators such as livelihood security to all household members that ascertain both physical and economic access to food and proper diet, safe drinking water, environmental sanitation, primary healthcare and education (Majumdar and Kapila 2006, 196). This definition describes the aspect of food security at the household level.

To attain food security, it is vital to achieve economic growth, provide education, encourage population control programs, achieve lower birth rates and better nutritional security, enhance child's life, sustain natural environment, and exercise democratic means of participation and accountability which can serve as natural solution to the problems of starvation and malnutrition (Ibid.). The idea of food security is also linked to sustainable food production in consonance with environment and trade related concerns that shape our future needs. Sustainable food

production is to produce food in an environmentally and socially just manner. A healthy and sustainable food security system focuses on ‘Environmental Health, Economic Vitality, and Human Health & Social Equity’ (Food Security Network of Newfoundland and Labrador 2014). In this context, environmental health ensures sustainable use of natural resources such as land, water and air in the process of food production and that, its utility is not compromised for the present and future generations. Economic vitality ensures that people who produce food earn a decent living wage for it. Human health and social equity give prior importance to the development of the community including physical and economic access to healthy food in a dignified manner (Ibid.).

In September 2011, experts of the Committee on World Food Security (CFS) Round Table on Hunger Measurement, hosted at FAO headquarters, recommended a set of indicators to measure food security i.e., availability, accessibility, utilization and stability (Food and Agriculture Organisation 2016). To ascertain the objectives of food security, the attainment of physical availability of food, economic and physical access to food, utilization of food, and stability of these three dimensions over time is a prerequisite (Food and Agriculture Organisation 2008). Generally, the three main pillars i.e., its availability, accessibility and utility are measured for food security indicators.

Availability ensures that adequate quantities of food are available on a constant basis. The physical availability of food depends on the level of food production, its stock maintenance and ‘net trade’ (Ibid.). In theory, the physical access to food illustrates the per capita availability of food to a country’s population. It depicts the notional relationship between population growth and food grains production that brings out the supply of food per person. Thereby, the per capita availability of food is determined by estimating the growth rate of food grains production with the growth rate of a country’s population. Low food production generally indicates low per capita availability of food and hence, indicates food insecurity.

Accessibility is to ensure access to sufficient resources and means to attain appropriate food and nutritious diet. Food accessibility assesses both physical and economic access on different parameters. Physical accessibility simply means the



availability of food resources to meet people's needs and demands. The economic access to food is concerned with people's purchasing power to gain access to food. In this scenario, employment and income determine the extent of access to food. Low-income households, facing constraints to obtain access to adequate and healthy food, experience food insecurity.

Food utility is the intake of nutrients and energy requirements that go towards 'good care and feeding practices, food preparation, and diversity of the diet and intra-household distribution of food' (Ibid.). It requires knowledge of basic nutrition and care, quality of food consumption and use of food for good health including safe drinking water and sanitation. Consumers are required to possess knowledge and awareness about diversity of diet to make informed decisions about the choice of food that are available to them.

These three dimensions i.e. availability, accessibility and utility serve as the main indicators to achieve the core objectives of food security and have a multidimensional impact in the evaluation of food distribution programmes. When there is convergence among the three aforementioned factors, food security along with nutritional security is attainable, where the latter is primarily contingent on the third factor, food utilization. The stability of these three main factors such as food availability, food accessibility and food utilization is pivotal to achieve the objectives of food security. Failing to fulfill any of these three dimensions implies food insecurity. There are several interconnected challenges in order to address food security and achieve its objectives. It involves all encompassing issues like education, healthcare, nutrition awareness, employment opportunities, rural infrastructure, strengthening of governance, and so forth.

#### **1.4 Issues of Food Productivity**

Agriculture and its allied activities play an important role in achieving the goals of national food security. Not only is it the main source of livelihood for majority of the rural population, agricultural economy has a great impact on the livelihood of farmers and laborers who form major workforce in the country. State governments have a significant role in the production of food and non-foodgrains since agriculture is a state subject under the Constitution of India. Foodgrains

production is given more priority than ‘non-food grains’ for two reasons; firstly, the former is necessary for sustenance and secondly, the remarkable success of green revolution is attributed to the former (Firdos and Haseen 2012).

Indian agricultural economy witnessed changes with the advent of globalization and liberalization. After independence, there are two major phases in agricultural production of foodgrains. During the first phase – 1947 to 1990 – the Government of India provided protection and support to the farmers by giving highly subsidized agricultural inputs (Ibid.). In 1959, by an analysis carried out by the Ford Foundation on India’s food crisis, international agricultural research inclined towards the use and application of Green Revolution (GR) technology and the use of high yielding varieties (HYVs) (Witcover et al. 2006). Following this, it witnessed an increase in yield per hectare due to affordable means of production methods such as fertilizers. This phase also brought more land under irrigation facilities. The growth and development of food and agricultural output via HYV helped to ward off acute food crisis by the early 1970s (Ibid., 1). This growth in agriculture boosted food supply and it was a relief to the poorer sections of the population (Sinha 2006).

During the second phase, from 1991 till date, the open market economy made the agricultural inputs such as fertilizers, seeds, irrigation facilities and other means of production costly. The effect of costlier agriculture inputs affected mostly the marginal farmers, as they could not afford these inputs and were subsequently left out from the benefits of the New Economy. This period of New Economic Policy (NEP) observed a decline in the growth rate of food grains. The growth rate of foodgrains production for the period 1970-71 to 1990s was 2.80 percent per annum, and the period from 1991-92 to 2008-09 was 1.98 percent per annum (Firdos and Haseen 2012, 2). This disparity is attributed to the price variation of agro products that existed at the domestic and international market before and after the reform period. There was a push in foodgrains production before the reform period since the market price for large part of foodgrains at the international level was higher than domestic level.

The free market, however, did not seem to contribute to the growth rate of food grains production in a positive manner nor benefit the poor farmers. Following the WTO regime that brought liberalization in the global agriculture market, supply of foodgrains was more than the demand. International prices fell, eventually falling

below the domestic market price, which discouraged the farmers to produce more (Ibid.). One positive aspect was that the price rate perked up in the global market and this could cover the costlier inputs and help in the sustenance of agriculture (Ibid.). The advent of globalization in India led to a decline in the growth rate of food grain production. The contribution of agriculture and its allied sectors to GDP showed a decline for the most part. Although there was high growth rate of GDP and per capita income with the opening of economy, there was a considerable decline in the growth rate of the agriculture sector. According to the Central Statistics Office (CSO), its contribution to GDP in 1950-51 was 51.9 percent and it was down to 13.7 percent in 2012-13 (*The Economic Times*, 30 August 2013).

The decline in food grain production mainly affected the growth rate of wheat and rice. The production growth performance considers wheat and rice as one group and pulses and coarse cereals as another group. The production growth rate of rice and wheat fared better in the pre-reform period whereas pulses and coarse cereals recorded a better growth in the post-reform period (Firdos and Haseen 2012). This decline in wheat and rice production rate is attributed to farmers' inability to purchase costly input methods following the reform period. An unfavorable monsoon is considered as another factor that affected wheat and rice production since these require more fertilizers, HYV seeds, and proper irrigation facilities than pulses and coarse cereals. The costlier inputs and unfavorable monsoon cumulatively had less effect on the production of pulses and coarse cereals as it did not require much fertilizer and irrigation facilities (Ibid.). The variability in the production of food grains and non-food grains showed that the pre-green revolution yields were more than during the first phase of the GR, the period up to 1988. Following that, instability was again observed from 1989- 2007 and only recently food grains and total crop production are seen to be more stable when weighed against the pre-GR and the first two decades of the GR period (Ramesh and Raju 2008).

Agricultural production in India today shows a lot of resilience to the situation of emergency and adverse climatic conditions. Modern agricultural practices have helped in creating a resilient agriculture yet these are also considered ecologically destructive leading to depletion of natural resources and hence, food insecurity. Although the GR in Punjab produced cheaper food to address food poverty, the

harmful methods adopted for agricultural food production infected other resources. The GR came with environmental costs as it employed over-irrigation, fertilization, and pesticides that led to negative side effects such as land degradation, salinization, waterlogged soil, ground water depletion, and desertification (Swaminathan 2001). Following GR, the practice of common crop rotation of rice and wheat displaced grains and fodder legumes that naturally improve soil fertility. The withdrawal of such agricultural practices has made the practice of farming unsustainable (Ibid.).

The agricultural practices in the post-green revolution period manifest the unsustainable methods of GR methods for food grains production in the country. A study of food insecurity indicators in rural India suggests that the regions of Punjab and Haryana, the food baskets of India, would possibly be food insecure in another twenty years (Ibid., 952). The GR did not just come with environmental costs but serious health risks too. People's health deteriorated with instances and traces of pesticides discovered in their food and water from where these travel to blood and women's breast milk. This exposure to pesticides in food has been so endemic in some regions that several cases of cancer have been diagnosed, much to the extent that the train that runs from Malwa region to Bikaner Cancer hospital is labeled as 'Cancer Express' (Bourne Jr 2015). In addition, farmers' suicides in Punjab increased, as they could not bear the high costs of fertilizers and pesticides that render them indebted. Studies reported 1400 cases of farmer's suicide in 93 villages between 1998 and 2006 and another study reported 40,000 to 60,000 suicides over that period (Ibid.). Measured along these constraints, Punjab and Haryana are at risk because of unsustainable means of practicing food and agriculture productivity.

The converse point of increased food production linked to matters of food security is that hunger can hit worse in those states that have sufficient food production. Studies proved that a boost in food productivity does not imply a state free of hunger. The level of food production is not directly correlated to the existence or absence of hunger. Some studies have revealed that states that had robust food production, with the onset of green revolution, observed an increase in food poverty. It showed that food availability did not necessarily redress hunger even as increase in food productivity might still not reduce the existential problem of hunger (Dayal and Gulati 1993, 176). In addition, the use of technology to reduce heavy labour seems to

accentuate hunger. Studies show that there is no good causal relationship between hunger and agricultural productivity. The rural poor did not experience the ‘trickledown effect’ from the growth of agriculture (Ibid.). Conversely, those states such as Kerala, Orissa and Andhra Pradesh, which did not have a robust rate of agricultural growth, experienced a decline in hunger. This was due to their food distribution programmes or employment-related policy initiatives. These states experienced decline in hunger with an improved quality of food intake (Ibid.).

### **1.5 Measures to address food productivity**

Environmental health has been a major concern in modern agricultural practices and food security issues. Modern agricultural practices such as increased use of pesticides and other chemicals cause more harm than good as these affect not only agricultural land but also the entire food chain. Such practices lead to grave consequences for human wellbeing and other organisms and environmental health. Besides, there is range of issues with regard to ‘food production, processing, transport and consumption’, which contribute to the problem of global warming (Oosterveer and Sonnenfeld 2012). These issues and challenges question the validity of food policies and practices at both international and national levels, where the sustainability of food production, distribution and consumption rests. These concerns, although, can be allayed through judicious energy use and sensitivity towards climate change and biodiversity.

Land is a fixed asset and the regulation for its usage requires a sustainable strategy. Presently, land under agricultural use i.e. net sown area is 46.1 percent while land under mining, industrial use and urban areas combined is less than 5 percent, and land under forest cover is 22.8 percent (Ministry of Rural Development, Government of India 2013, 6) According to UN estimates, the percentage of Indians living in the urban centres would be 55 percent by the year 2050 (Ibid., 9). These places will become the engines of economic growth in future that will require land to build houses and set up industries. Limited availability of land would require diverting land from agriculture to non-farm use. Land requirement for the National Manufacturing Industrial Zone and Special Economic Zone would rely on agriculture and forested areas. Such expansion of urban centres and industries is inevitable and so is the diversion of some portion of agricultural land. Care should also be taken that ‘prime

farmland' is not diverted for non-farm use considering the need for food security apart from livelihood opportunities that they provide to farming community as spelt out in the National Policy for Farmers 2007 (Ibid.). To strike a balance between agricultural growth and industrialization, it is important that agricultural productivity is increased which is currently half of agricultural productivity in many other countries (Planning Commission 2011, 50).

India has 4 percent of the world's renewable water resources spread unevenly across the country (Ibid., 8). About one-third of cultivated land is under irrigation (Shah 2012, 22). It has been reported that groundwater fulfills 70 percent of the irrigation demand of water and 80 percent of the domestic demand of water (Briscoe and Malik 2006, 8). This has put tremendous pressure on ground water considering the increasing population and industrialization that need huge amounts of water. According to one projection, the per capita availability of water is going to reduce by one-third by 2025 while at the same time water use would double in India (Burton et. al 2011). As a result, it becomes imperative to use water-efficient crops and sustainable techniques of farming.

There is a suggestion for providing financial incentives to the farmers to use water judiciously. Levying a small amount of fee on water use provided through the irrigation system would, it is argued, not only help in optimum utilization of water but also in maintaining the irrigation system (Shah 2012, 32). Another suggestion for improving water conservation is to shift to drip irrigation from flood irrigation. Whereas in flood irrigation, the field is flooded with water and allowed to soak down, drip irrigation allows localized irrigation by allowing water to drip slowly to the roots by a network of pipes. It conserves water in large amounts, as water is more precisely delivered to the roots of the crops. Consequently, owing to reduced leaching, fertilizer usage reduces and thus gives higher yields than those from flood irrigation (Casey 2013). Investment should therefore, strive towards improving irrigation facilities and water management with sustainable strategies to attain sustainable food production.

On the front of agricultural support, farmers need to be well equipped with adequate provisions of resources related to agriculture. Bringing in gender equality in agricultural sector and providing equal access of resources to women are important measures to achieve goals of food and nutritional security. In this regard, studies

suggest three broad policy steps for the national government and international organizations to undertake. These are to raise ‘women’s physical and human capital’, ‘increase women’s ability to generate income’, and ‘protect women’s health and nutritional status’ (Quisumbing et. al 1995, 15-16). These directions would require improving women’s access to resources such as land through fair registration and include women as joint beneficiaries in land reform programmes (Ibid.). Land titles facilitate and encourage women to use agricultural technology and practices and enhance the production capacity (Agarwal 1994). Factors that affect women’s production activities affect children’s health and nutritional status. Likewise, income earned by women facilitates food and nutritional security of households and bring in gender balance in access and intake of food. Research has shown that poor women spend most of their income on household consumption, which has a positive impact on children’s nutritional status (Ibid., 28-29).

Some have suggested that women who do not have physical assets such as land could be imparted training and education including training in agriculture related sciences to encourage and ensure human capital for future generations (Quisumbing et. al 1995). Imparting farm technology can augment their awareness and knowledge of indigenous farming systems, which can also ease and reduce the amount of time spent in traditional production activities such as milling and fetching water (Ibid.). Women are the ones who work hard to fetch water and firewood and yet, they are not given the opportunity to manage these resources. In this context, a study of women’s participation in Community Forestry Groups (CFGs) in Nepal and India has shown that forest resources can be managed sustainably if their participation constitutes about one-third of CFG management (Agarwal 2000: 2001). In the Caravan Magazine dated 17 January 2016, Bina Agarwal has stressed that women’s access to forest resources has the potential to ‘enhance women’s access to healthcare, education and food security and give them greater autonomy and bargaining power’.

### **1.6 Physical availability of food and food security**

In India, the so-called ‘strategy of self sufficiency’ as an approach to national food security, which relies mostly on domestic production, is used for consumption as well for maintaining buffer stocks (9th Five Year Plan, Planning Commission 1997-2002). In 2000-01, food grains production was 196.8 million tonnes; it increased to

218.2 million tonnes in 2009-10, which shows an annual exponential growth rate of 1.15 percent for food grains production during 2001-10. The average annual exponential growth rate in population during 2001-2011 was 1.64 percent (Census of India 2011, 9), which was a shade higher than average annual exponential food grain production during 2001-2010 that stood at 1.15 percent. These figures may indicate a declining per capita availability of food grains in India and hence, a state of food insecurity. Low food production and high population growth means low per capita availability of food, which can lead to food insecurity. In this context, the agriculture sector has to increase its output to feed the rapid expansion of population. According to an assessment made by National Centre for Agricultural Economics and Policy Research (NCAP), the country needs to boost its agricultural production by 1.34 percent annually to 280.6 million tonnes in 2020-2021 to meet the requirements of its growing population. In 2013, the country estimated to have achieved production of over 255 million tonnes (Ministry of Agriculture, Government of India June 3, 2013).

Amartya Sen has observed that starvation is not a result of food availability or unavailability but rather a function of entitlements. It is possible that starvation occurs due to inadequate availability of food although non-availability of food is one of the causes of inadequacy (Sen 1981, 1). There is evidence to show that food availability decline (FAD) had no direct relation with famine or hunger. There was a time when, in most parts of the world, the food supply increased much more swiftly than the growth of human population, and yet, the problem of starvation remained almost the same (Ibid.). Empirical studies claim that some of the worst famines occurred even when the food availability per head did not quite decline. For instance, the Bengal famine in 1943 occurred even when the government had sufficient stock of food grains, and this situation was further induced by the absence of legal entitlements during that period (Ibid.).

There is an assumption that high growth rate of population leads to food insecurity. This theory holds that when population growth surpasses food production, it will affect the stability of food and other resources for everyone thereby causing food insecurity. 18th century economist, Malthus, in his classic *Essay on the Principle of Population* warned that human population, which is on rise decade after decade, would exceed food production leading to a global food shortage (Bourne Jr 2015).



Malthus presented a worrying thesis for India that has largest number of malnourished population. However, there are others who believe that political or logistical means, rather than population growth or food production per se, disrupted the food distribution in times of famine and hunger in history (*Grace Communications Foundation*, New York 2016). Those who hold this view say that the current food production is sufficient for the population. In this context, even with an increase in population for many decades ahead, global hunger can decline. Famines in history such as Irish Potato famine and many Indian famines of late 19<sup>th</sup> century were mainly caused ‘not by lack of food, but by lack of political will to distribute the food to the starving poor’ (Ibid.). Food production did not seem to be the issue since Ireland and India were exporting foodgrains to English colonies during these periods of famine. When Malthus opined that ‘population grows exponentially, while food production grows only arithmetically’, it referred to the rapid increase in population amongst the poor that could deprive food to the rest of the population (Ibid.). It is said that Malthusian theory is incorrectly used to exercise political choice ‘to avoid helping the starving’ (Ibid.).

Nonetheless, a stable population is important to usher in an era of food security as increasing populations put pressure on all resources including agriculture. Gain in population stability will have better impact on country’s physical access to food and improve per capita availability of food. Women in developing countries wish to ‘increase the spacing’ between births and millions wish to not have too many children (The World Game Institute 1998-2001). If these women are empowered to exercise these choices, the growth rate of population in developing countries can decrease by more than 30 percent (ibid.). The long term objective of the National Population Policy 2000 seeks to achieve the objective of stabilizing population by 2045 at a level where balance can be achieved among ‘sustainable economic growth, social development and environment protection’ (Research Reference and Training Division, Ministry of Intelligence and Bureau 2000). Stabilization of population requires educating women, increasing awareness about family planning, providing financial incentives for small families and better healthcare facilities for the mothers and infants. Sustainable ways to increase food production and tackling the country’s population growth can contribute towards achieving better standards in physical access to food.

The physical availability of food in India has a twist of irony with an infamous account of overstocked foodgrains that rot away to waste whereas there are many who still go to bed hungry. Wastage of food is compounded by other problems such as corruption which poses a severe challenge leading to food insecurity and undernutrition. It has been reported that India needs investment of Rs. 55,000 crore in cold storage facilities by 2015-16 at current levels of fruits and vegetables production (Bhosale *The Economic Times*, 28 November 2013). An imminent task is to direct huge investment in infrastructure viz. cold storage chains, refrigerated transportation facilities, better roads and efficient distribution system so as to ensure that food grains stocks do not go to waste before fulfilling the objective of providing food security.

### **1.7 Challenges of food accessibility**

Amartya Sen's Entitlement theory shows that a person craves for food when normally hungry but prolonged hunger or inaccessibility of food leads to starvation. Some people starve because there is not enough food to eat. However, an underlying question Sen poses is: why do some people not have food to eat and why do some have it? The entitlement theory says that starvation occurs because a person lacks the ability to demand adequate food. The capability to have access to food revolves around ownership relations and entitlement relations; ownership relations enable a person to obtain 'alternative bundles of commodities' known as 'exchange entitlement' (EE) or 'exchange entitlement mapping or E-mapping' (Sen 1981, 3). The EE depends on what a person owns or holds i.e.

- (1) Whether he can find an employment and if for how long and at what wage rate
- (2) What he can earn by selling his non-labour assets, and how much it costs him to buy whatever he may wish to buy
- (3) What he can produce with his own labour power and resources (or resource services) he can buy and manage
- (4) The cost of purchasing resources (or resource services) and the value of the products he can sell
- (5) The social security benefits he is entitled to and the taxes, etc, he must pay (Ibid., 4)

Forms of ownership help to obtain a viable bundle of commodities, for instance, adequate food through EE. This entitlement chain legitimizes sets of ownership through trade, production, labour and inheritance. A person earns EE through employment, labour, wages, sale of valuable assets, and purchase of other required resources. This principle holds that a favorable switch from EE should

preferably fulfill the minimum food requirements and avoid starvation (Ibid., 47). Decline in EE due to a rise in prices or a general decline in food availability or food supply induces hunger. When the rich can afford to buy more of the same food supply, this can lead to a rise in prices that in turn affects the EE of the poor sections of the society. The immediate decline in EE is a major concern that can cause starvation. A set of commodity bundles that earns a favorable entitlement can avoid starvation and, if a person is not able to obtain enough bundles of commodities that include food, she suffers from starvation due to lack of entitlement (Ibid., 45). Therefore, the chief reasons for the lack of favorable exchange entitlement are poverty, unemployment, low income, landlessness, inflexible market, lack of education and training that hamper people's economic access to food. Unfavorable returns from these deficiencies lead to severity of food insecurity.

In 1974, the World Food Conference observed that elements of 'food insecurity' and 'famine' relate to structural problems of poverty, as the greater part of the developing world is poor and not in direct relation to food productivity (International Fund for Agricultural Development 2003). The World Bank makes a distinction between 'chronic' and 'transitory' food insecurities. Chronic food insecurity implies a situation of persistent inadequate diets due to the inability of households to acquire food as they cannot produce or buy it. Chronic food insecurity is mostly attributed to poverty. Transitory food insecurity implies a temporary situation when a household's access to adequate food decline for reasons such as unstable food prices, production, and household's income and in times of severity such as famine (Majumdar and Kapila 2006, 194-195).

People living below the poverty line in India are large in absolute numbers. The poor are those who fall below the poverty line or who fall below certain 'consumption norms' (Sen 1981, 9). The poverty line in India gives an account of household income and consumption expenditure that divulge an idea about a person's minimum calories intake. According to NSS data on expenditure, people considered poor due to low incomes were 304.9 million during the period 1987-88 and 320.5 million during the period 1993-94, an increase in number of 15.6 million. Between the period 1993-94 and 1997, this number increased by 28 million. This jump in number of poor people indicates that public policy in India so far had minimal impact on

poverty (Swaminathan 2000, 16). The Tendulkar Poverty Line estimation showed that India had 270 million persons BPL in the year 2011-12 (Planning Commission 2013). The Rangarajan report submitted in August 2014 estimated poverty at 29.5 percent of India's total population i.e. 1.2 billion who lived in India for the year 2011-12. In absolute numbers, it is 363 million. The Rangarajan panel projects that people unable to spend Rs. 32 and Rs. 47 per day in rural and urban areas respectively are considerably poor (Planning Commission 2014). The report attaches significance to government social spending without which the survival of 363 million poor people would have been very difficult.

The poor incomes of several people in India attributes to the fact that an overwhelming population of the workforce are in the informal sector. They constitute 94 percent of the total workforce (*The Times of India*, 26 January 2014). Workers in the informal sectors are lesser paid than their counterparts in formal sector. Low purchasing power of this larger stratum of working population hampers their access to adequate food. Lack of entitlements in the form of employment or reasonable income entices forms of poverty that lead to extreme hunger and starvation deaths. To compound the problem, the unemployment rate has risen from 6.8 percent in 2001 to 9.6 percent in 2011 (S, Rukmini *The Hindu*, 7 November 2015). It is higher among the unlettered than literates are. Consequently, those seeking jobs that are also unlettered are at greater risk of poverty and facing food insecurity.

Apart from employment, education plays an important role in eradicating food insecurity. There are two ways to look at it: firstly, the economic benefits of providing education and, secondly, the social advantages of education. According to the FAO, education is 'acclaimed as one of the most powerful engine[s] for reducing hunger and poverty.' (Food and Agriculture Organisation 2005, 2). It further says that 'lack of education undermines productivity, employability and earning capacity, leading directly to poverty and hunger' (Ibid.). Education can play a remarkable role in increasing farm productivity in rural areas and thus ensuring food security. Moving away from economic aspect of education, we can learn the role of education in bringing about 'social change' (Muro and Burchi 2007, 4). Education opens up a completely new world of information about the nutrient value of various food components, awareness of accessibility to food and their entitlements, and finally

about several diseases which an individual can suffer from because of malnutrition. Children are less likely to be malnourished if parents are educated or at least have a basic education about food. Moreover, an educated girl child can carry the knowledge of food when she becomes a mother and keep her children safe from hunger and malnourishment (Muro and Burchi 2007).

Studies conducted around the world have shown that ‘landlessness is the best predictor of poverty in India – a much predictor than illiteracy or membership of a traditionally “untouchable” caste’ (*The Hindu*, 9 December 2007). Landlessness is a serious problem that restricts people’s access to livelihood and eventually converges with food insecurity. In this backdrop, around 100 million households in India do not own any land, which comes out to be 300 million people of the population (Kishore *Live mint*, 4 May 2015). Hence it is hardly surprising that the Rangarajan Committee on poverty estimated that the number of people living in poverty in India was 363 million in 2011-12 (Planning Commission 2014).

The story of growth in India provokes the question of whether growth at both global and domestic levels translates into distributive justice as envisaged in the country’s own Constitution. A piece of information that shows the irony of growth in India is that while GDP growth rate augmented during 1996 to 2011, the hunger index increased from 22.9 to 23.7 (Saxena 2013, 85). This unequivocally reflects an unequal distribution of growth benefits. The Gini Coefficient based on consumption expenditure, which is a measure of inequality in a country, increased for both rural and urban areas in India during the period 2004-05 to 2011-12 (Jha *Business Standard*, 10 August 2013). The widening gap between the rich and poor, through inequitable distribution of income, poses a substantial challenge for the Government of India in its effort to provide food security to its citizens. In addition, recurring administrative inefficiencies such as improper inclusion and exclusion of beneficiaries, corruption, misappropriation and diversion of food subsidies accentuate the inability of people to access food.

## **1.8 Policy measures to address income poverty and food access**

Starvation and malnutrition stand in close relation to poverty. According to entitlement theory, hunger and starvation can be addressed through economic, social, political and legal means (Sen 1981). It says that the position of individuals and the factors of social, economic, legal, and political features of the society determine Exchange Entitlement (EE). Economic factors such as employment opportunities, low wage rates, or rise in production resources affect the EE (Ibid., 4). Other than economic and market factors, social welfare policies such as unemployment benefits, supplementary income benefits or old age pensions that the state provides to its citizens determine the capacity of EE (Ibid., 6). People's demand or access to food is furthered through 'legal means' and through 'the use of production possibilities, trade opportunities, entitlements vis-a-vis the state, and other methods of acquiring food' (Ibid., 45).

In 1987, FAO observed that poverty reduction should take place along with an adequate level of food production and regular supplies to improve the demand side and ascertain the physical and economic access of the poor to food (Majumdar and Kapila 2006, 194). Distress in view of inefficiency in economic access to food has led to a policy focus on 'incomes, expenditure, markets and prices' so that the objectives of food policy can be achieved (Food and Agriculture Organisation 2008, 1). Empowering the poor by improving their purchasing power is one of the foremost challenges to ensure people's access to food. This is simply because poverty is a major factor that hampers the process of attaining food security. The Government of India implements Poverty Alleviation Programs (PAPs) through four broad categories i.e., Self-Employment Programs, Wage Employment Programs, Direct Cash Transfers (DCT) to the targeted groups, and in-kind transfers in the form of Targeted Public Distribution System (TPDs) (The Planning Commission 2006, Chap. II). The present PAPs are the rechristened designs of older programs. The district administrative agencies such as the District Rural Development Agencies (DRDAs) and Zilla Parishad or District Council play an important role in the implementation of these anti-poverty programmes. Presently, the Panchayati Raj Institutions (PRIs) engage in various developmental works in rural and urban areas to achieve similar objectives.

One of the PAPs in India via the self-employment mode is Aajeevika or National Rural Livelihood Mission (NRLM). The prime objective of the NRLM is poverty reduction in order to achieve the Millennium Development Goals (MDG)-1 i.e. to eradicate extreme poverty and hunger by 2015 (UN Millennium Project 2006). The Mission was launched in 2011 with an agenda to cover seven crore BPL households. Assisted by the World Bank, the NRLM project is one of the largest community-based rural poverty reduction programs in the world (The World Bank 2011). It is the rechristened design of the Centrally Sponsored Scheme and India's national poverty reduction strategy i.e., Swarnajayanti Gram Swaroskar Yojana (SGSY). The project provides livelihood support to the Self Help Groups (SHGs) and federated institutions. It assists poor families by providing income-generating assets via bank credits and subsidies from the government. The NRLM project guarantees an all-inclusive plan with an objective to include the Poorest of the Poor. In the backdrop of unacceptable levels of rural poverty at 42 percent, NRLM seeks to eradicate rural poverty in an inclusive manner (The Planning Commission 2011). Its effective implementation necessitates the concerned DRDA, the line departments of the state government, Banks, NGOs and the PRIs to co-ordinate, support and work together.

Wage payment or employment opportunities such as Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) and other social safety nets complement economic access to food. MGNREGS is a popular example of wage employment in India that provides a minimum of one hundred days unskilled work employment in a financial year to any adult applicant of eighteen years and above under any scheme of the State or Central Government. The scheme makes provisions for employment to every adult member of a household for a minimum of hundred days if that member is willing to do unskilled manual labour. The Act seeks to provide the Right to Work to those who wish it and safeguards against exploitative work (Ministry of Law and Justice, Government of India 2005). Often hailed as the People's Act, its enactment took place after extensive consultations with people's groups.

Direct Cash Transfers (DCT) to the targeted groups mainly involves beneficiaries of BPL, Old Age Pensioners, Women, Children, Students, etc. Examples of DCT to targeted groups include incentivizing pregnant mothers for institutional

deliveries under the Janani Suraksha Yojana (JSY), Indira Gandhi Matritva Sahyog Yojana (IGMSY), and Scholarships for SCs, STs, Minorities and Merit students, Pension Schemes through National Social Assistance Programme (NSAP), etc. JSY is a central government National Maternity Benefit Scheme launched in 2005. It is a Conditional Cash Transfer (CCT) based on incentives and institutional deliveries. IGMSY is also an example of Conditional Maternity Benefit (CMB) scheme. NSAP is India's Social Security programme launched in August 1995. From 2012 onwards, the Government of India has announced DCTs of various welfare schemes to the intended beneficiaries through an Aadhaar based identity and the associated Bank accounts of the recipients.

TPDS is an in-kind transfer of goods and services targeted mainly to poor households. Beneficiaries are entitled to receive items such as foodgrains, kerosene, oil, sugar, etc through the government's welfare measures. Originally, PDS was a Universal Public Distribution System (UPDS) without an object to alleviate poverty. However, in June 1997, states began to identify BPL households and gave them highly subsidized food grains of 10 kg, which rose to 20 kg by April 2000 while some states provided more food grains and additional food items such as oil, sugar and cereals (Yesudian 2007). The government revises the provision for TPDS and its delivery mechanism from time to time. The PDS is a major welfare scheme that seeks to support and provide physical and economic access of food to the people.

### **1.9 Food utility and nutrition intervention programmes**

*“Ham and Eggs eaten by Susie Jones for breakfast are on their way to becoming Susie Jones”* (Lowenberg 1970, 5)<sup>1</sup>

Food satisfies hunger and maintains the growth and energy of the body. Intake of food and nutrition influences a person's health, behaviour and her ability to work and learn things. Choice of food is not just an individual preference but is also influenced by social, cultural and economic factors. A person's lack of awareness or

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<sup>1</sup> This quotation may also relate to the phrase 'You are what you eat' tracing its origination to Anthelme Brillat-Savarin (1826) who wrote "Dis-moi ce que tu manges, je te dirai ce que tu es." meaning 'Tell me what you eat and I will tell you what you are' (see <http://www.phrases.org.uk/meanings/you-are-what-you-eat.html>), Accessed July 20, 2016. This indicates to the fact that eating good and nutritious food makes us healthy and the types of food we eat affect our state of 'mind and health' (Ibid).



interests in food habits affects food consumption, which can fall below her requirement (Sen 1981, 50). Although people may have knowledge about food utility, other factors as aforementioned determine selection of food. This is because an individual's actions are not always guided by her 'reasoning ability' but also by other factors such as home and family, school, religion, culture, status, community, tradition, genetics, medicine, climate, agriculture, technology, science, economics, history, geography (Lowenberg 1970, 26). Social factors such as attitudes and habits affect people's food intake, as some tend to eat more with friends and family than when they eat alone (European Food Information Council 2004). However, this does not necessarily indicate food insecurity per se. Food security in consumption aspect is primarily concerned with the quality and quantity of food intake although several factors influence a person's choice of food.

Food habits and culture can determine food expenditure but it also depends on income and affordability. Negative effects of relative prices and food availability can also lead to a decline in the value exchange of an entitlement and affect a person's food and nutrition intake (Sen 1981, 12). Income poverty is a major factor that has a negative effect on food consumption. On account of financial constraints, low income households are compelled to resort to poor or imbalanced diets that can lead to food insecurity. Poor diet or food insecurity leads to development of chronic diseases at a young age apart from other health risks. This relationship between low economic status and poor health is knitted along several influences i.e. 'gender, age, culture, environment, social and community networks, individual lifestyle factors and health behaviors' (European Food Information Council 2004).

An effective utilization of food relies on food safety, hygiene and manufacturing practices in agricultural production, storage, transportation, and diversity in diet (UNICEF n.d.). Food safety practices are ways to steer clear of the presence of toxins and other adulterants in the food. Contaminated food renders it unfit for consumption and adds to the problem of food insecurity. According to the WHO, polluted water and contaminated food affect nearly 4 billion people globally of which 1.8 million die every year (Ibid.). Ensuring access to safe food provides food security to the people. Safe food brings with it necessary nutrients which provide another component of food security, i.e. nutritional security.

At the level of safe production of food, nutritional goals should go hand in hand with agriculture. At the level of agricultural production, nutrition based food productivity is vital since food security encompasses nutritional security as well. In this regard, horticulture assumes significance with the production of protein rich food items that can improve the per capita availability of food for nutritional security (Economic Survey 2012-13). The emphasis on self-sufficiency in food production should incorporate expansion of food production base and diversify procurement of food commodities. This will serve as a means to diversify people's diet or consumption basket.

At the household level, the size of the family and its standard of living affect their nutritional status. Weak public health system, lack of access to clean water and sanitation also disturbs the status of the household's food and nutritional security. Access to these basic amenities determines the effectiveness of converting food consumption into healthy individuals. Good health care services are effective means to convert food into energy as it prevents wastages caused by sickness and diseases such as diarrhea and dysentery (Seckler 1982). Progress in mother's health and nutrition, education, age, and anti-natal visits determine better nutritional status of children (Radhakrishna 2006). Ignoring these concerns lead to malnutrition. Malnutrition can carry on and create inter generational transmission of poverty and curtailing this problem can prove vital in securing food and nutritional security (Radhakrishna 2005).

In India, the government targets vulnerable groups like women and children for nutrition intervention projects like the Mid Day Meal programme for children and other supplementary nutrition programmes for women especially pregnant and lactating mothers. The government implements welfare schemes through food based nutrition interventions such as PDS, Integrated Child Development Scheme (ICDS) and mid-day meals. These programmes need to focus attention towards curtailing the high rate of malnutrition in India. Programmes such as Food for Work reduce malnutrition to some extent (Ibid.). The quality of food based nutrition interventions should conform to certain norms, along with affordability in the prices of basic food grains, adequate supply and regularity to ensure a reliable access to food. Major attention is required in the intake of vitamins and minerals, fats consumption,

diversity of diet, breastfeeding practices and maintenance of proper vigilance of these aspects (Deaton and Dreze 2009). Along with food and nutrition based interventions, reducing poverty and inequality by expanding the purchasing power of the poor households can avoid chronic food insecurity.

Food security policies built on nutrition intervention programmes should create nutrition awareness and prioritize other non-food factors. Nutrition education programmes that target children and youngsters in educational institutes and communities can gradually create a positive impact (Mannan 2004). While implementing such interventions, advertising and promoting healthy eating patterns by the government or industries is a significant approach (Ibid.). Obtaining feedback from community and eradicating social discrimination also improve the functioning of nutrition development programmes and thereby improve people's access to these services (Haddad 2011). The formulation and implementation of food and nutrition programmes can have better impact with wider participation that involves stakeholders from both public and private sector. Australia took the initiative to involve public and private sectors in 'health, agriculture, food processing, consumer and the media' in the formulation of policy (Mannan 2004).

Successful programming of food and nutrition strategy works with greater decentralization of planning and implementation along with co-ordination of work and responsibilities among major stakeholders (Haddad 2011). Brazil's national food and nutrition strategy fastens to a strong leadership support as a major social policy. In 2003, after forming the new government, President Lula da Silva initiated the zero hunger policy as a major social policy intervention by creating a new ministry in his office that co-ordinated with other ministries to attain food and nutrition goals. This initiative led to a substantial decline in hunger and child malnutrition (Ibid.). Similar intent and efforts in India can bring about a transformational change in food security and the direction of policy formulation to alleviate hunger and poverty.

Hunger, Malnutrition and Poverty are some major problems that the policy makers in India should address. Achieving food and nutritional security is one of the major goals of a welfare state like India. The next chapter brings out the Government

of India's efforts to achieve the goals of food and nutritional security through its major food policy programme i.e. the Public Distribution System (PDS). It discusses how government takes measures to address the availability and accessibility of food to the poor and vulnerable population through incentivizing the farmers with MSPs and subsidization of essential food commodities for public distribution through targeting approach.

## **CHAPTER 2**

### **FOOD POLICY IN INDIA**

#### **2.1 The Welfare State and Food Distribution Policy**

Under Article 38, which is considered as the keynote among the Directive Principles, the Constitution of India places the onus to ‘promote the welfare of the people’ on the state. This essentially establishes the welfarist orientation of the Indian Constitution that charges the Government of India with providing public services. The protection and promotion of the economic and social well being of citizens is one of the eminent tasks and responsibilities of a welfare state. The state’s orientation towards welfare is vital to eradicate hunger and poverty in India. The country had witnessed an extensive period of hunger and encountered major famines in modern history, especially in the late colonial period. Its response in the form of relief measures to these situations of drought and famine has helped shape its policy on food security. The response of the Indian State, as studies have shown, aimed at providing short-term relief during the prevailing crisis without actually safeguarding against similar crises in the future. It necessitated the state to undertake a comprehensive approach in understanding the factors that concern food production, food distribution, and the methods of drought and famine abatement (Jayal 1999, 43).

In the year 1942, the then Government of India under the British created the Department of Food to formulate and implement food policies. This was a time when the country was facing acute shortage of food and the concept of the Public Distribution System (PDS) was taking shape. At the time of independence, India was facing two major nutritional problems that affected both physical and economic access to food. The first was ‘the threat of famine and acute starvation due to lack of national and regional food security systems and the second was ‘chronic under-nutrition due to low dietary intake because of inadequate purchasing power among the poorer segments of the population’ (9th Five Year Plan Planning Commission 1997-2002). The post independence Government of India embarked on a mission to eradicate hunger along with planned development poverty alleviation (Jayal 1999, 31). This mission of eradicating hunger had two essential components; firstly, the

emphasis was on increasing agricultural production that had an ‘anti-imperialistic’ tone, with the objective to achieve self-sufficiency in food productivity; and second component dealt with the food distribution system reflecting welfarist nature of the India State (Ibid., 42).

One of the main objectives of PDS was to improve the welfare of the poor by providing food entitlements (Bapna 1990). The PDS had the objective of dispelling the situation of ‘food shortage’ and shielding the ‘producers from price fluctuations’ which later, from the 1980s onwards, expanded to providing food security and poverty alleviation (Kattumuri 2011, 10). These aforementioned objectives of PDS had been included in the vision of the Sixth Five Year Plan (1980-85) that called for PDS to be a permanent and stable feature for controlling price volatility, inflation and providing essential consumer goods (Planning Commission. 2005, 2). The attempt was to stabilize the price of foodgrains for the consumers to ensure food security. The Plan saw the launch of the Essential Supplies Program in 1982 that intended to provide more protection to consumers in a similar spirit (Ibid.).

The Government’s intervention through food subsidies in the form of PDS or the Rationing System has evolved throughout the national five year plans. Except for some changes in its targeting method and population coverage, the policy of food security has remained uniform. This is manifested in its effective price support operations for safeguarding the interests of the farmers, ‘maintaining satisfactory level of operational and buffer stocks of foodgrains to ensure National Food Security’ and ‘distribution of foodgrains throughout the country’ through public distribution system and other welfare schemes (Comptroller and Auditor General of India 2013, Chap. 1). These policy goals rely on domestic production of food grains, monitoring and stabilizing prices through Minimum Support prices (MSP) for assorted food grains procurement, open market sales and intervening in market to maintain price stabilization, buffer stock maintenance, and ensuring proper delivery to distribution agencies.

Abundant production, well-managed procurement and storage facilities are necessary conditions for food security but not sufficient. Food subsidy plays an important role to abate famine and hunger, and a rights based approach is integral to the achievement of these objectives. Absence of a rights based approach to deal with

hunger is a major hindrance to the socio-economic well being of the citizens. In the context of India, during the colonial times, the British rulers did not pay heed to eliminate hunger and food scarcity either through food distribution or check in food prices but merely sought to address the problem of famine through some irrigation facilities (Jayal 1999). After independence, the Indian Government sought to address hunger from a welfarist orientation through the Directive Principles of State Policy. Under Article 47 of the Indian Constitution, the State has the obligation to ‘raise the level of nutrition and the standard of living and to improve public health’. This approach was, however, seen as an adherence to a ‘needs based conception of justice in theory’ and was in reality ‘based on ideas of charity, benevolence, and paternalism’ (Ibid., 39). The State seriously needed to acknowledge its citizens and exercise legal enforceability and responsibility to attain ‘right to subsistence’ and ‘right to development’ (Ibid., 92). To think of welfare food subsidies as charity or freebies handed out to the poor deprive the citizens of rights and entitlements and weaken their citizenship; this weak citizenship not only deprive people of their rights but their lack of awareness about their rights disable them from demanding the same (Ibid., 94).

In 2001, the People's Union for Civil Liberties petitioned in the Supreme Court to acknowledge food as a right and to improve the measures of food policy and implementation (Schutter 2010). The right based approach to food in India is moreover substantiated in the context of Article 21 of the Constitution- Right to Life- that ensures ‘protection of life and personal liberty’ because lack of adequate food would mean depriving an individual the right to live a dignified life. It was only recently that the proposed National Food Security Bill in 2011 transformed into the National Food Security Act 2013, which establishes a political consensus to ensure food security to the people. The “Right to Food” in India is now firmly established and the state has the legal responsibility to enforce the mandate of the act. This act expands food distribution to 75 percent of the population in the rural areas and 50 percent of the population in urban areas. Respective states would provide allowance to those who fail to get their food entitlements. The nutritional component in the entitlement basket includes millets, free meals for children and pregnant women including other health benefits. Whether the Act, with its rights based approach, is able to address hunger and poverty in an effective manner shall be known only after some time.

As of today, the poorest households in India barely have the means to purchase their minimum food requirements even from the PDS. Poor socio-economic status has disabled them from utilizing even the available food subsidies. With the majority of the population living in deprivation, employment and other welfare programmes need to complement the food subsidy programme. Such complementary welfare programmes will improve their purchasing power and ensure better means to attain food security (Swaminathan 2000, 118-119). There are many areas where policy correction is required. Most notably, a strong political will is essential to transform the system from procurement to distribution in a proficient manner. In a welfare state, securing the interest of its people should be of paramount importance for the government.

## **2.2 Role of the implementing agencies of India's Food Policy**

The implementation of the objectives of food policy is the joint responsibility of both the central government and state governments. The central government takes control of the pricing, procurement, storage and distribution policy through its public sector unit, the Food Corporation of India (FCI) set up by the Food Corporation Act 1964. FCI functions under the administrative supervision and control of the Department of Food and Public Distribution, Ministry of Consumer Affairs, Food and Public Distribution (Comptroller and Auditor General of India 2013). Agencies such as FCI, state government agencies and private rice millers carry out food grain procurements for the central pool. The central pool comprises the total stock of food grains held by the FCI, state governments and their agencies and hence it is the stock held by several agencies. The Government of India prescribes the buffer stock policy but there is uncertainty with regard to the maximum storage capacity that the central pool can hold. There is no indication as to which agency is mainly responsible for maintaining the level of minimum buffer stock for the entire country. The FCI carries out the transportation of these food grains at the central pool stock from the procuring states through rail, road and river transportation system (Ibid.). Given that the country has formed various zones for this purpose, restrictions and permissions of foodgrains movement within and between zones, and purchase of foodgrains from one state to another, and so forth require the permission of the central government (Chand 2006).



State governments have a major role in both food production and distribution. Agriculture in India is a state subject and the act of fulfilling food grains production and developing agriculture depends primarily on the states. One of the most important responsibilities of the state government is to execute the food distribution policy. They have the responsibility to control the design and method of service delivery viz. entitlements, prices and beneficiary coverage, if any, through enhanced approach. Enhanced approach could be undertaken by ensuring maximum coverage of the poor through effective targeting, minimizing the cost of foodgrains, expanding the provision of essential commodities under the PDS, and improving governance and accountability mechanisms. Some state governments set up Civil Supplies Corporations or Essential Commodities Corporations through which they can procure additional commodities directly from the producers and sell at prices lower than the market prices through the established PDS (Food and Agriculture Organisation n.d.). The implementation of food policy varies from state to state depending on the method of food grains procurement and the public service delivery mechanism adopted by the states. Therefore, the commitment and responsibility shown by the states determines the effectiveness of the welfare policies (Swaminathan 2000, 124). The state governments take care of sub-allocating the procured food grains within the states. They allocate food grains to the Fair Price Shops (FPS) through state agencies such as state civil supplies departments or corporations. The state governments identify the beneficiaries, provide ration cards, and supervise the FPS. Once the FPS receives the commodities, it sells the same at subsidized prices to the intended beneficiaries such as BPL, APL, AAY, and Grain Banks where there is food scarcity, etc. In some states, PRIs and women's groups play an important role in the process of food distribution system. The local level institutions thus play an important role in ensuring the availability and accessibility of food grains to the poor (Chand 2006). Resting on the significant role of FPSs, it has been remarked that 'fair price shops constitute the backbone of the food security system for the poor' (Minister of Finance, Budget Speech 2004). The network of food distribution extends to 4.89 lakh FPS instituted in different parts of the states throughout the country (Comptroller and Auditor General of India 2013).

The distribution of food entitlements to eligible beneficiaries varies across states. The central government is responsible for providing six essential commodities

to the state governments. It consists of two cereals – rice and wheat – along with sugar, edible oil, coal, and kerosene oil. In addition, the state governments can provide other ‘essential commodities such as pulses, salt, candles, matchboxes, ordinary clothes, school text books or copies and the like’ (Food and Agriculture Organisation n.d.). Similarly, some states provide other commodities such as salt and tea (Swaminathan 2000, 7). The FCI manages the food grains distribution through various welfare schemes such as the ‘Mid-Day-Meal, Nutrition Programme, SC/ST/OBC Hostels, Welfare Institutions & Hostels, Annapurna, Sampoorn Gramin Rozgar Yojna (SGRY), National Food for Work Programme, Scheme for Adolescent Girls, Pregnant & Lactating Mothers and World Food Programme (WFP) etc’ (Food Corporation of India n.d.). This procedure of food allocation and distribution to the people constitutes the welfare programming of food policy in India.

### **2.3 Pricing policy and market intervention in food procurement**

The marketing policy of Government of India for food grain has two characteristics. One, it seeks to provide a fair price to the farmers for their produce by operating a public marketing system. Second, the Government of India intervenes in the market in order to ensure food security (Umali-Deininger and Deininger 2001, 322). The latter task is done at different levels i.e. procurement in the form of MSP, storage by FCI and similar bodies, and distribution in the form of PDS and open market sales (Pal, Bahl and Mruthyunjaya 1993). For procurement, government can either buy the produce directly from the farmers or impose levies on the millers and traders especially rice millers. For levies, millers are required to give away a portion of their stock to the government at a predetermined price, which is usually less than open market prices (Ibid.). This may serve as an indirect taxation on traders.

MSP is a mechanism to offer a fair price to farmers and incentivize them to produce more. This is an important part of government intervention at procurement stage by offering appropriate remuneration to the farmers for their production. The Commission for Agricultural Costs and Prices (CACP) recommends to the government the prices of major agricultural produce following which the government fixes the MSP. The rationale behind setting up of CACP and its mandate is that the agriculture market is very volatile and can lead to heavy losses to the producers when prices are less than the cost of production. To shield the producers from such price

fluctuations, CACP makes recommendations to the GOI. The role of CACP is to maintain a remunerative environment in agriculture that can motivate farmers to produce more through better technologies and farming practices. There are many commodities covered under this price guarantee scheme though the major focus has always been on the staple crops, viz. rice and wheat. A mere declaration of MSP however does not ensure remunerative justice to the producers unless procurement by the government agencies also takes place to facilitate MSP delivery to the farmers (Chand 2003, 2).

Of late, prices of inputs for cultivation have been rising. Furthermore, following the introduction of MGNREGS, there occur labor shortages in the farm in addition to higher demand for agricultural wages. These factors together make it difficult for the farmers to earn profits. As a result, the CACP comes under pressure to recommend a higher MSP to protect the farming community from making distress sales (Dev 2009, 5). This aspect of the country's agriculture pricing policy seeks to provide sufficient margins to the farmers especially for rice and wheat. The pricing policy strives to enable agricultural production to meet the demands of procurement, storage and distribution through PDS amidst global price hikes in international markets. This pricing policy is not without challenges since issues pertaining to inadequate public investment in agriculture and global price instability in the open trade are significant challenges that need to be addressed (Dev and Rao 2010).

Subsequent to fixing MSPs, FCI carry out a timely arrangement and well-organized procurements of food grains from the farmers. The way the grain procurement process by the government has been functioning could be detrimental to the health of the grain market. Over the years, the government has been raising the procurement prices given to producers in the form of MSP. This, in turn, resulted in increased issue price for open market wholesale. Thus it leaves little margin for the private retail traders who often suffer due to depressed demand and increased supply. Consequently, private traders begin to withdraw from the grain market. In addition, excess buffer stock with the government is enough to spook the sentiment among the market players that once government offloads its huge food stock in the open market, the prices would see a meteoric fall and hurt their profit margins; this does not augur well for grain trade growth in the country (Chand 2003).

The World Bank has criticized the government for its excessive intervention in the area of prices and procurement of foodgrains (Majumdar and Kapila 2006, 153). Especially with regard to wheat and rice, it says that engines of growth in future will be non-foodgrains too apart from wheat and rice, such as dairy products, vegetables, and fruits. Non-food grains not only add more value to the diet but also are also labor intensive in production, handling, and marketing and are thus capable of raising rural incomes (Ibid., 155). In December 2013 WTO Ministerial at Bali, it has been alleged that India is distorting the agriculture market via National Food Security Act (NFSA). The core issue of the debate at the global body was regarding the MSP that Government of India would pay to farmers for procuring foodgrains under NFSA, which according to the USA and EU would distort the foodgrains market. It contended that it would violate the WTO principle that subsidies to domestic farmers in developing countries should not exceed 10 percent of the value of production (Mukherjee *Business Standard*, 28 November 2013). This incident has brought to light the nature of government intervention in the grain market and its impact.

There is a need to re-examine how government has been intervening in the food grain market to secure the interests of the producers while balancing it with the interests of the consumers. Some suggest that the determination of MSP for wheat and rice should take into consideration the amount of existing food stocks and not just based on the cost plus formula (Srivastava, et al. 2003, 74). At the procurement stage, government should base its MSP not only on its cost of production but also take into consideration the demand for the produce and necessity of crop diversification. MSP provided for these selected crops should encourage technological investment in their production while at the same aim at diversifying the agricultural production. This MSP should cover crop insurance so that producers do not miss their investment (Chand 2003, 96). It is prudent that Government keep its procurement limited in a normal year. The fixation of MSP should reflect the relationship between demand and supply in the market (Ibid., 97). With regard to open market sales distorting the market balance, the government needs to couple the central issue price with the cost of handling the grains, and use that to sell the grains in the open market while considering the market conditions also. This would go a long way in stabilizing the market (Ministry of Consumer Affairs, Food & Public Distribution, Government of India n.d.).

The recently concluded State Food Ministers' conference noted that market interventions by the government should be on real time basis. This is possible only if an Action Plan permits each state to participate in supplying essential commodities at rational prices and monitors them. The real time based intervention can be made possible following an establishment of 'price monitoring cell' which will monitor the prices of certain essential commodities included in the Action Plan while assessing the 'whole sale prices at the mandies' and retail prices in the state (Ministry of Consumer Affairs, Food & Public Distribution, Government of India 2014). The ministerial conference also suggested that the government establish a 'Price Stabilization Fund' to back the states in their efforts to check price rise of those commodities that are necessary for consumption by common people (Ibid.).

#### **2.4 Buffer stock maintenance and issue of storage facility**

The maintenance of the buffer stock of foodgrains is intended to ensure food security in the country during times of crisis. The storage of the procured grains serves the purpose of making foodgrains available to the people through its public distribution system at issue prices decided by the government, and keeping a buffer stock to utilize in case of less productivity or in the event of any other crisis (Pal, Bahl and Mruthyunjaya 1993, 418). FCI allocates the set quantities of the stocked foodgrains kept in the storage facility to beneficiaries via the states and UTs, monthly wise, for a set quantity of prescription. Based on the recommendation of the Government of India, the FCI resorts to open market sales at a predetermined price to ensure the availability of foodgrains during weak monsoons and keep the inflationary pressure in check. It also serves the purpose of releasing the surplus food stock in market which otherwise could be deteriorating in quality or getting wasted at the storage. Largely the focus of Open Market Sale Scheme (OMSS) has been on rice and wheat.

The excess storage of buffer stock is one of the major problems in India's food policy. The enormous amount of food grains stocked in the FCI due to high MSPs has been a matter of concern. As on 1 October 2012, one estimate suggests that the stock with the FCI was 43.15 million tonnes of wheat and 23.37 million tonnes of rice, which was a few times the buffer norm (Jha *Business Standard*, 7 November 2012). This could be attributed to the increase in the procurement of food grains from 343

lakh metric tonne (LMT) during 2006-07 to 634 LMT during 2011-2012. This led to an increase in the stock of foodgrains in the Central Pool from 259 LMT on 1 June 2007 to 824 LMT on 1 June 2012 (Comptroller and Auditor General of India 2013). With such huge procurements, transportation of food grains from producing states to the consuming states also gets bulky.

Yet again, even though food grains procurement over the years has been huge, there is a threat that its current procurements and allotments are not sufficient to meet future requirements. This is because during 2006-07 to 2011-12, the average allocation for food distribution under the TPDS and other welfare schemes (OWS) was 593 LMT, which was higher than the average food grains procurement that was 514 LMT during the same period. The buffer stock policy is seen as bothersome since the prescribed minimum buffer norms do not outline the 'individual elements of food security' as for instance during times of emergency, price stabilization, food security reserve, TPDS and other welfare schemes (Ibid.).

In the entire process of government intervention, FCI has frequently faced criticism for its high cost of operation and inefficiency (Chand 2003, 92). The government in the form of subsidy reimburses the difference between the price at which FCI purchases food stocks and sales price along with the cost of handling the stocks. As a result, the Government of India that subsidizes 'its financial losses' serve as an important reason for FCI to remain inefficient (Umali-Deininger and Deininger 2001, 330). The high economic cost of the FCI's operation can be attributed to the 'purchase of lower than specified grade of produce, weight manipulations at the points of purchase and dispatch, excessive charges of FCI contractors, and adulteration and supply of poor stuff under levy and custom milling of rice' (Chand 2003, 93). Further, PDS is costly due to heavy procurement, cross movements, storage losses including administrative inefficiencies, and the FCI incurs nearly 80 percent of these costs (Food and Agriculture Organisation n.d.). These costs include the increased procurement price or MSP to about 20 percent per annum in past four years, and interest rates generated because of bank credit and transportation costs. However, it seems FCI can barely make an effort to reduce 20 percent of the total expenditure (Ibid.).

Ideally, the amount of food stock procured by the government should depend on the fluctuation in the production of foodgrains in a particular year. When the production is surplus, government should procure more and when production is less, it should release the buffer stock in the open market to stabilize the price volatility. This ideal situation expects the procurement and distribution to be more or less same. In such a case, price stabilization would serve its purpose of 'efficiency' in procuring as much as required, and 'equity' in distribution to the needful during crisis (Ramaswami 2002, 1129). However, fluctuations in output have not had a cause-effect relationship with the procurement and buffer stock held by the government. In fact, it has been rising irrespective of decreases in variation of cereal production (Chand 2003). The consistent escalation of the government's procurements of food grains over the years makes storage management a challenging task.

The shortage of storage facility in the central pool makes the storage of food grains procured by the state government agencies difficult. Lack of infrastructure facilities such as cold storage and refrigerated transport facilities have become major problems that cause huge losses to the central government and even cause food insecurity. Storage of agricultural produce assumes significance where nearly 18 percent of fruits and vegetables wasted in India every year amounts to loss of Rs. 13,300 crore (Bhosale *The Economic Times*, 28 November 2013). In addition, India wastes nearly 21 million tonnes of wheat annually, which is equal to the entire production of Australia (Ibid.). Massive losses caused at times of transportation, theft and even food decomposition compounds the issue.

The excessive stock of food grains held with the FCI and consequent withdrawal of private players from the scene of procurement and storage invited attention from the Competition Commission of India (CCI). The question discussed within the CCI was if there could be a better deal for the consumers when the private players can also participate in the process (*The Times of India*, 22 May 2013). The sentiments have found reflection in the Abhijit Sen committee that while FCI could play the pivotal role for procurement and distribution, there could be other supporting agencies viz. the state government, cooperatives and private traders (Ministry of Consumer Affairs, Food and Public Distribution, Government of India n.d.). Private

sectors can be involved to professionalize the management of FCI and refurbish its operations scientifically (Chand 2003, 95).

There are ways that the government can restructure management into a decentralized two-tier intervention. The centre can resort to maintain buffer stocks to execute significant market interventions and other emergencies and states governments can procure, store, process and distribute food subsidies (Srivastava, et al. 2003, 74). Similarly, the government can rationalize the movement of foodgrains and vegetables to avoid wastage of energy, unnecessary costs and other losses during transportation. Such a step can also help to reduce the cost of running the FCI. Building a stable storage and transportation facilities can avoid a large chunk of these losses and rather strengthen the efforts to provide food security to poor people.

## **2.5 Stages of implementation and targeting method for food distribution**

The Rationing System initiated by the British government distributed fixed quantity of certain commodities such as wheat or rice to the ration cardholders in some of the towns and cities. The system first implemented in Bombay in 1939 and subsequently extended to other towns and cities (Food and Agriculture Organisation n.d.). This rationing system stopped in 1947 and brought back in 1950 policy planning as a welfare measure. The return of the system in 1950 took place due to the poor performance of the economy at the domestic and global level. Indian economy faced inflationary pressures and the global food prices rose very high; as high as four times that before the Second World War (Ibid.). The food distribution during the 1950s displayed an urban bias and only later on was it extended to some rural areas (Swaminathan 2000, 8).

Due to the tremendous shortage of food during the war, and post-war economy inflation, the country embarked on a 'rehabilitation plan' with no initial plans for anti-poverty goals (Sinha 2006, 118). The government implemented the rationing system on a massive scale in response to such extreme shortages of food. It was only in the Seventh Five-Year Plan (1985-90) that the entire population was brought under the PDS, and this system prevailed in the national economy to sustain the system of food supply (Food Corporation of India n.d.). The universal distribution of food to every household irrespective of any income group however made the PDS ineffective and



impractical. The system of universal coverage showed the weakness of the PDS as it did not reach the poor in an effective manner. With the distribution of ration to every household, it experienced a reduction in the amount of distribution and made the system work on a first come first serve basis. In the universal PDS, subsidy reached the non-poor households, and some FPS dealers, contractors and other state functionaries siphoned off and replaced the commodities (Food Corporation of India n.d.). An evaluation study of the program in 1985 highlighted many defects at the operational level such as irregular supply of commodities to the FPS and poor quality of goods at FPS among others (Planning Commission 2005, 2). The universal approach induced leakages and diversion while disregarding the interests of the poor.

Against the universal distribution approach, targeting the poor beneficiaries was expected to determine suitable allocation for the poor households since it considered targeted beneficiaries as organized and informed regarding the public service delivery. It seemed more feasible to monitor fair supplies in terms of its quality and quantity and ensure delivery at the FPS. Such an approach sought to avoid leakages and diversions and make the implementation process better by making sure that services reached the poor. Targeting of poor and direct delivery of food to the poor expected to make the PDS effective (Food Corporation of India n.d.). Following this approach, in 1992, a revamped PDS with special emphasis on disadvantaged section of the population sought to rectify the problems in PDS. The revamped PDS provided food grains to population in special and difficult areas such as the drought prone areas, hill areas, desert areas, etc. Although the amended program did help the vulnerable sections of people, yet the lacunae still existed. Criticisms still emerged for non-coverage of the certain vulnerable areas and the most disadvantaged among the population like BPL. A case study of the revamped PDS in villages in Maharashtra showed that the coverage was not satisfactory and even its utilization was below the mark (Swaminathan 2000, 99). The revamped PDS also encountered other technical setbacks related to such as transportation problems and inefficiency in service delivery.

In the subsequent years, food policy in India leaned towards a targeted food distribution also known as Targeted Public Distribution System (TPDS). The objective shifted from the Universal Public Distribution System (UPDS) to targeting

beneficiaries and alleviating poverty. Hence, TDPS was reminded as one of the Poverty Alleviation Programmes (PAPs) of India after it started identifying BPL from June 1997 onwards. The focus under the TPDS was BPL household-centric unlike the previous method that failed to benefit the poor while leveling the 'budget food subsidy under control' (Planning Commission 2005, 73). In 1997, TPDS began with the distribution of special cards to the targeted families for a specially subsidized BPL price of wheat or rice or both. States began to identify BPL households and gave them highly subsidized food grains of 10 kg that rose to 20 kg by April 2000 while some states provided more food grains and additional food items such as oil, sugar and cereals (Yesudian 2007, 368). TPDS was set to benefit over six crore poor families with an allocation of 72 lakh tonnes of food grains per annum. Common varieties of rice were 'reserved exclusively' for the BPL (Planning Commission n.d.). For the BPL category, the states set a Consumer End Price (CEP) not exceeding fifty paise per kg over the Central Issue Price (CIP) at the level of FPS. Apart from states' own purchase of food grains from the FCI, the states could pursue additional food grains distribution for their populations if they were willing to contribute from their own resources or spend on their own.

In the course of its implementation, TPDS too began to encounter several technical and administrative problems. Its targeting method encountered major errors in the exclusion of eligible beneficiaries and inclusion of ineligible beneficiaries. Two types of errors were observed in the TDPS. Type I error meant errors of wrong exclusion and Type II error meant errors of wrong inclusion. The Type I error excludes the deserving poor households and the Type II error includes undeserving households (Swaminathan 2000). In addition, the targeting method led to a decrease in the food entitlements and did not realize its welfare objectives. Food entitlements were insufficient and poor households had difficulty in purchasing additional food requirements. The cost of delivery and administration in targeting the population was high and it demanded high administrative competence and commitment. The task of collecting and segregating exact information based on the income level of the poor was almost impossible. Targeting was also very prone to fraudulent practices because of the high demand for limited resources of food commodities. The high leakages of food resources exposed the severity of corruption in implementing agencies. Such administrative inefficiencies and corruption severely hampered poor people's access

to food resources. According to Swaminathan, targeting with all these factors led to weakening of the welfare as targeting did not necessarily mean increasing benefits for the poor. This method of targeting a section of population to meet the objectives of food policy was seen as a ‘dangerous policy’ and almost synonymous with ending the PDS (Ibid.).

## **2.6 Predicaments of Targeting and Welfare Implications**

Targeting mechanisms play a vital role in the implementation of food policy. The period of 1990s took a shift from universal transfer of welfare benefits to a target oriented approach since benefits ended up reaching the non-deserving poor instead of the intended beneficiaries. However, targeting comes with technical costs that require monitoring, assessment, and a take on political risks since the undeserving exclusion can lead to less political support for the programme (Devereux 2002). The World Bank studied 122 poverty alleviation programs in 48 countries and realized that targeted schemes were more ‘regressive’ than universal ones, meaning the effectiveness of targeted approach was considerably less than what a universal approach would have achieved (International Development Economic Associates 2011, 3). When the poor people or the targeted beneficiaries constitute a small proportion of the population, targeting seems more feasible but when the numbers are as large as in India, the cost of identification of beneficiaries and program monitoring crosses much more than the intended outcomes (International Development Economic Associates 2011).

The 1990s was also the period of orthodox reform and structural adjustment that sought to cut down welfare spending by relying on methods of targeting beneficiaries for food subsidies. Two main targeting methods were adopted during the 1990s: first, the revamped PDS that envisaged geographical or area based targeting in order to extend the services to certain backward areas of the country; second, the TPDS that mainly targeted the poor below the poverty line. This period witnessed inflation in food prices, decrease in food availability and supply and inadequate nutritional support. The impact of this policy change in post liberalization and structural adjustment seemed to have threatened the state of food security in India and weakened the welfare system (Swaminathan 2000).

Against a narrowly targeted programme leading to large exclusion errors, a general assumption surfaced that universal coverage would achieve wider coverage of eligible households with large errors of wrong inclusion and less exclusion. A tradeoff between these two types of errors would ideally seek to improve the coverage by expanding the inclusion of the deserving households and minimizing wrong exclusion errors. This is because wrong inclusion errors can cause fiscal deficit or financial costs but wrong exclusion leads to welfare costs that cost both individual and society in the form of hunger and malnutrition. This approach presents that welfare costs caused by hunger and malnutrition is harder to measure than fiscal costs (Ibid., 102).

Identification problems obviously lead to the exclusion of beneficiaries in welfare programmes. This exclusion is characteristic of seasonal migrants and, in cities, the homeless poor living in unauthorized colonies that do not have proper settlements. In urban areas, slum inhabitants or migrants face exclusion from food subsidies due to their lack of proof of residence; in rural areas, 'Social and Political factors' such as caste and political support for ruling leadership determine identification of BPL (Yesudian 2007, 369). Some have argued that those who have no 'political connections' and fail to 'break the law' when necessary, are destined to be poor and powerless (Corbridge et al. 2003, 5). In this context, those who establish connection with the agencies of 'political society' i.e. recognized political parties, local political brokers and councilors that serve as mediators between higher government officials and people, have higher prospects to be identified and included as beneficiaries of government schemes (Ibid.). Presumably, those who have no such political connections are excluded as beneficiaries for certain government schemes. Bihar did not conduct elections for local bodies since 1978 until early 2001; this absence of legally constituted institutions such as Gram Panchayats and Gram Sabhas for proper identification of beneficiaries left out eligible beneficiaries as ration cards were allotted by officials, district magistrates to Sub-Divisional Officers (SDOs) and down to lower rank officials and PDS dealers, which led to misuse of cards and generation of bogus cards (Mooij 2001, 8). Such misappropriation of ration cards by government officials leads to the exclusion of desirable person or family of persons.

The general assumption is that the transition from universal to targeted distribution leads to the inclusion of non-poor as beneficiaries and correspondingly

the exclusion of poor families (Planning Commission 2005, 74). Such errors were due to a mix of factors ranging from identification errors to administrative malpractices. Unfortunately, whatsoever the reason behind ineffective targeting, the thread of implication always runs between two knots: loss of welfare to the poor people and increase in the delivery cost for the government (Ibid., 80). Far worse, poorest of the poor do not benefit from targeting since they cannot afford to purchase even subsidized rations. Alternative methods of programming and implementation do not seem to help the poor. Living in extreme poverty prevents them from purchasing subsidized PDS commodities, and making no demand for food because of their helpless condition (Mooij 2001). Such conditions manifest the vulnerability of poor people and a lack of purchasing power to attain basic entitlements.

The problem of faulty targeting can occur either at the planning stage or the implementation stage. Pegging the poverty line at a level where even deserving households are excluded results in faulty targeting at the planning stage, while resorting to corrupt practices and benefitting bogus card holders is representative of implementation failure. During the planning stage, defining the poor and categorizing them accordingly has been quite contentious. This is because subsidies delivered to the people are in accordance with the poverty definition and estimation. To look into the dimensions factored while fixing poverty line, the now-defunct Planning Commission of India periodically constituted committees. This estimation relies on the consumption expenditure of food and non-food items that rely on the household's income. However, taking into account only the consumption expenditure which itself is only one aspect of deprivation that affects human well-being ignores other aspects of livelihood. The poverty line definitions therefore may not encapsulate the real living conditions of the poor. To look into this, the Rangarajan Committee was set up to estimate poverty while considering dimensions related to human development indicators such as access to education, life expectancy, per capita income, health and other social indicators (Planning Commission 2014).

## **2.7 Administrative inefficiencies and Corruption in PDS**

Multiple agencies are responsible for the storage of food grains for the central pool. In fact, this is often observed to have negatively affected transparency and accountability in the management of food grains. The system of internal audit and

physical verification of the FCI is substandard with a huge manpower shortfall and poor official standard and practices (Comptroller and Auditor General of India 2013). There are cases where officials from the Food and Civil Supplies department do not strictly monitor the misconduct of the FPSs, as some officials themselves are part of this nexus. In Bihar, a study showed how the officials from the department inform the dealers in advance when inspection team is to visit, in order to prevent the dealer from being punished for mismanagement (Mooij 2001). There is also the probability that workers from the FCI and/or SFCs assist the FPS dealers to divert food grains (Ibid). This shows that the working of the FPS and its dealers is rife with political interference and corruption.

At the distribution level i.e. at the level of the FPSs, administrative malpractices clearly defeat the very objective of price stabilization for essential commodities. Corrupt practices owing to diversion and black marketing take place in tandem. Due to the targeting method, there exists a huge gap between the price of BPL food grains and open market, which encourages diversion and illegal sale in the market. It is estimated that a diversion of one truck procures an illegitimate return of about Rs. 60,000 (Ibid.). Dealers divert commodities intended for actual cardholders such as wheat, rice, sugar, and kerosene. Dealers also replace better quality of food grains received from the FCI with inferior quality grains, sell the better quality in the open market, and generate black money. The Planning Commission in 2008 reported that only 42 percent of subsidized grains issued by the central pool reach the target group. Leakages are one third of total BPL allocation and in some states, almost three-fourth (Planning Commission 2005, 83). These diversions and leakages exist due to the absence of proper supervision of FPS and the absence of accountability for them. It is also compounded by the absence of doorstep delivery where private contractors from the FCI godowns transport food grains to the block level warehouses.

One of the reasons for diversion and black marketing is rooted in the disadvantageous commission rates for FPS dealers. In Bihar, the disgruntled FPS dealers earned a meager income amounting to just about Rs 400 to 600 a month, much lower than the income earned by the lowest office employees such as attendant or sweeper (Mooij 2001). FPS dealers also suffer losses when there is delay in the supply of Specified Food Articles (SFAs), short supply of goods, unequal distribution

of ration cards, and expensive transportation costs (Central Vigilance Committee on Public Distribution System 2007). Yet the irony is that the FPS dealers willingly pay huge sums of money to obtain licenses to run FPSs, since they get to earn profits from bogus ration cards by selling subsidized food commodities in the open market.

The FPSs dealers also find novel methods to deceive beneficiaries. Using improper weights to measure the entitled food commodities and adulterating these are two such methods. According to one study, in Bihar, dealers make false entries of sugar sale although people do not buy, and create bogus cards via blank application forms (Swaminathan 2000, 54). Such corrupt practices are primary impediments to people's access to entitled food and thus lower the nutritional status of the people with poorer food quality. In addition, people's lack of awareness about the availability of food grains at the FPS and absence of measures to hold them accountable lower their access to entitlements.

## **2.8 Factors that work behind the successful implementation of welfare food subsidy**

There exists a great deal of variation in the performance of PDS across states since different states have different approaches to policy implementation. Some states have better records of implementation and have carried out reforms in food policy. The Public Affairs Centre (PAC) in 2002 indicated that Tamil Nadu was the finest in terms of ease of food accessibility, reliability, usage and overall satisfaction of users (Chand 2006, 267). In 2006, the National Council of Applied Economic Research (NCAER) reported that Tamil Nadu had 82.4 percent of households that use PDS, followed by Kerala 78 percent, Karnataka 70 percent, Andhra Pradesh 66.4 percent, Maharashtra 50.7 percent, Madhya Pradesh 34.2 percent, Rajasthan 23 percent and only about 5 percent in UP and Bihar (Ibid., 267).

An effective functioning of PDS in the states requires both political and people's will to work in tandem to achieve major objectives of food security. Kerala demonstrates an effective system of service delivery in implementing food subsidies, characterized by strong political support and people's participation (Swaminathan 2000, 33). In Tamil Nadu too, state politics have a great impact on the workability of PDS because political parties see it as a very significant popular agenda and endow it

with political commitment and support. The state's food policy determines electoral outcomes, which is why the government attaches great significance to food policy issues. There is a firm belief that 'electoral outcomes are decided on the floor of FPS' (Chand 2006, 272). Consecutively, the effective and wide implementation of PDS within the state has a similar impact on the accomplishments of the state governance.

The conjectural success story of food policy in Tamil Nadu is not a sudden achievement but attributed to efforts made for over three decades. The state has a relatively bigger agenda with regard to food policy. Taking a cue from the Tamil Nadu's experience, it can be said that 'serious reforms' in PDS or the restructuring of PDS would require political consensus as there is an element of political sensitivity that electoral prospects would be hampered if reforms are short lived (Ibid., 291). In Chhattisgarh too, studies have shown that 'sustained reforms' along with 'political and social will' have made PDS more accessible, without which its progress cannot remain effective (Krishnamurthy et al. 2014). Political will, awareness and demand for an effective PDS, and sufficient financial resources cumulatively help to determine the success of food distribution policy.

Another determinant that contributes towards a state's effective implementation of PDS is the method adopted for targeting its population. Tamil Nadu did not implement PDS according to classification of beneficiaries as envisaged at the national level of TPDS that specially targeted BPL and APL. Its food policy incorporated universal coverage and gave food grains to the entire population. The top priorities of its social welfare policies consisted of food and nutrition intervention programmes. Since 1956, there existed some kind of food provision programmes for children and by the 1980s, such functioning programmes were nearly twenty-five in number (Chand 2006, 318). Chhattisgarh also claims to have covered 90 percent of its population with an entitlement of 35 kg of subsidized food such as rice, wheat flour, pulses, gram, and iodized salt (Gulati and Saini 2015). Kerala too successfully implements PDS with provisions of adequate entitlement to the populace. It implements an almost universal supply of subsidized food commodities that extends to majority of rural and urban households. Not just that, food entitlement is adequate in relation to the minimum cereal requirement. Those without land holdings to produce food for their own consumption are eligible to acquire ration cards. In 1991,



95 percent of households were under the food distribution system (Swaminathan 2000, 59).

Successful implementation of PDS relies on the collective participation of multiple stakeholders. Decentralization of functions to the local level representatives can provide better monitoring and improve administrative competency (Ibid., 120). From 2004 onwards, Chhattisgarh reformed the administration of FPSs by replacing FPS private dealers with local panchayats, women's SHGs and cooperatives. Some lauded PDS reforms in Chhattisgarh as a model for the National Food Security Act and other states. The Supreme Court too directed the Union Government to apply the Chhattisgarh model to the rest of the country (Krishnamurthy et al. 2014). Certain reforms where 'community organizations' administer the FPS, similar to that practiced in Chhattisgarh, are mentioned in the provisions of the recent NFSA (Ibid.). PDS in Chhattisgarh has served as an inspiring model for other states following which Haryana and Punjab carried out pilot projects on similar lines (Ibid.).

Decentralization of marketing and procurement policy facilitates the effective implementation of food policy. Once again, Tamil Nadu provides a good example. The Tamil Nadu Civil Supplies Corporation (TNCSC) established in 1972 directly procured paddy from farmers in the Cauvery delta and managed its storage and distribution. It stayed away from over-centralization and hence reduced operational inefficiencies (Srivastava, et al. 2003, 74). Chhattisgarh has also undertaken reforms in marketing and procurement policy from 2000 onwards. The state adopted decentralized procurement and bought additional food grains directly from its farmers at MSP, compensated by the central government. This led to an almost 100 percent increase in rice procurement. The state was able to lower the State issue price over the Central issue price in 2007 and gave the FPSs an interest free loan of Rs. 75,000 each and the commission for selling items rose from Rs. 8 to Rs. 45 per quintal (Ibid.).

Along with administrative reforms, technological changes can also be helpful for the proper authentication and verification of beneficiaries to facilitate the delivery of food grains. Gujarat implemented pilot projects in about 200 FPSs to eliminate bogus ration cards with the use of a biometric based Bar Coded Rations cards (Kumar n.d.). The identities of beneficiaries were verified across updated voter's photo ID card, LPG connection number, electricity connection number, DRDA's BPL number,

driving license number, and mobile number. The NIC Gujarat further verified these documents with the official data recorded by the respective departments and organization. Discrepancies, if any, helped to eliminate bogus identities. The project claimed to have eliminated 13 lakh bogus ration cardholders by January 2011 (Ibid.). It gave the cardholders a choice to change their default FPSs that helped to eliminate dealer's control while making FPS services competitive. This can serve as an enabler to shift power from FPS dealers to beneficiaries (Ibid.).

The PDS is an effective tool to address food security and help in poverty alleviation. The various agencies involved in the implementation of the system such as Central government, State governments, FCI, etc, play important roles to make PDS a success. Many ways to revamp and improve the working model of PDS have been experimented with, and the ready availability of its institutions, infrastructure and other information does not require a new start-up. Reforms need to be justified to bridge the social contract between the State and its citizens. Access to quality food at affordable prices is important to lead a dignified life as enunciated under Article 21 of the Indian Constitution. As with every policy that evolves over time, the PDS has come a long way since its inception and is still being revised periodically to serve the people better. The public policy of food security via the PDS can be rendered effective with the collaborative efforts of the State and its citizens. Nonetheless, PDS does have lacunae starting from its procurement chain, including pricing policy, to distribution, including and especially the identification of beneficiaries.

Major criticisms of PDS relate to its economic and administrative inefficiencies, corruption, and exclusion of its intended beneficiaries. To prevent such drawbacks and malpractices, an alternative service delivery mechanism such as Cash Transfer (CT) is debated by several scholars as a method of policy correction. India has had a vast experience in implementing CT for several decades through old age pensions, maternal incentives, scholarships, and wage for work and so forth. However, the course of implementing CT to attain the goals of food and nutritional security is of a recent experience. These aspects of understanding the implementation of CT are discussed in the next chapter.

## **CHAPTER 3**

### **UNDERSTANDING THE IMPLEMENTATION OF CASH TRANSFERS**

#### **3.1 Introduction**

In recent years, many governments across the world have experimented with Cash Transfers (CTs) as an alternative route to deliver services ranging from giving pensions and scholarships to providing food security to poor people. Contemplating CTs does not necessarily amount to an acceptance of the total failure of in-kind transfers. For instance, many empirical studies with regard to the Food Stamp programme in the US showed that poor households consume more through food stamps instead of increases in cash income. This occurs even though food stamp provision is infra-marginal, or somewhat lower than the household's requirement (Breunig, et al. 2001). Some have cautioned that there is a probability of reduction in food consumption when there is a shift from food stamps or food subsidies to CTs, known as the 'cash-out puzzle' (Ibid.).

The Food Stamps programme experience in the US suggested that with food stamps, nutrient availability to households increased two to ten times of what CTs could have achieved (Sudha 2011). A comparison of CTs and food subsidy in Bangladesh showed similar results (Ahmed 2005, Ninno and Dorosh 2003). Sri Lanka's experience showed that in-kind transfers or index-linked food vouchers serve the purpose better under inflationary pressures (Edirisinghe 1987). Even in health interventions, in-kind aid such as 'insecticide treated bed nets' in Western Kenya reduced the incidence of Malaria as against CTs which would have been spent on 'clothing and food' (Sudha 2011, 43). In this context, CTs can be an added weapon in the armory of state to deal with poverty and food insecurity.

If the case of India is considered, there are examples of successful implementation of PDS. In Tamil Nadu, on account of the Mid-Day Meal Programme, a decrease in the rate of school dropouts was recorded from '40 percent to 20 percent' along with increased enrolment of children from the minority

communities (Kattumuri 2011, 12). Tamil Nadu's experiment served as an inspiration for the then Prime Minister, P.V Narasimha Rao who launched a similar scheme on an all India basis (Ibid.). Likewise, Chhattisgarh too assumes significance in this backdrop as it has worked as a serving model for the Food Security Programme through its PDS, the implementation of which was facilitated by the use of technology and participation of women's SHGs and cooperatives.

Studies conducted to evaluate the impact of PDS on rural poverty have shown that states like Chhattisgarh and Tamil Nadu that have a well functioning PDS have succeeded in reducing the Poverty Gap Index (PGI) in rural poverty much better. The PGI measures the depth of poverty by expressing the percentage/ratio of the poverty gap to the poverty line. It is estimated that at an all-India level, PDS could reduce PGI of rural poverty by 18 to 22 percent and states with effective PDS could achieve a reduction of 61 to 83 percent in Tamil Nadu and 39 to 57 percent in Chhattisgarh (Dreze and Khera 2013). In this context, PDS has had some positive outputs and success stories. Nonetheless, the benefits of the PDS vary enormously. The relative performance of PDS across states has shown that Chhattisgarh, Tamil Nadu and Andhra Pradesh benefit larger sections of their population with the scheme. Some states do not receive their due allocation from the central pool. In this context, the story of Bihar is a case in point. During 1990s, the undivided Bihar, now Bihar and Jharkhand, was facing severe food insecurity and for many reasons could not reap the benefits of PDS (Mooij 2001, 2). First, it claimed that the allocation of foodgrains from the central pool is disparate wherein Bihar received less for long periods and Kerala received more since the mid 1960s. Second, the political economy of the state suggested an insufficient level of food production, lack of political will and public will for a food policy programme, and less response from civil society to such issues (Mooij 2001).

There are cases where food security entitlement programmes exclude many deserving beneficiaries. One report says that 'only sixteen percent of the resources allocated towards India's food subsidized distribution scheme reach the poor' (Kattumuri 2011, 15). A study in 2000 showed that the diversion of foodgrains at the national level was 31 percent for rice and 26 percent for wheat whereas for Bihar it was 64 percent and 44 percent in that order (Mooij 2001). This has not been a

problem in the southern states like Andhra Pradesh and Tamil Nadu. Implementation of PDS has had better impact in states like Andhra Pradesh, Gujarat, Karnataka, and Kerala than in poorer states like Bihar, Orissa, Rajasthan, and Uttar Pradesh where PDS does not contribute much to the alleviation of existent poverty and disparities. To avoid such imbalance, the central government needs to review challenges faced by the deprived states or at the local level while framing a general policy at the national level (Ibid.).

To correct corruption and inefficiencies of PDS and to include the excluded beneficiaries, the government has incorporated the use of technology solutions in PDS to reduce misappropriation of food grains. These include Global Positioning System (GPS) tracking of trucks carrying food grains, radio frequency identification devices, biometrics and smart cards to minimize ghost beneficiaries, and Electronic Public Distribution Monitoring System (e-PDMS) to keep a watch on food grains supply chain from FCI Godowns to the FPSs (Kattumuri 2011, 16). However there are fears that the 'Indian entrepreneurial skills might develop new methods of misuse and misappropriation of public resources' (Ibid., 17). The fundamental reason behind such apprehension is that physical commodities like food are easier to misappropriate especially at transportation and distribution levels than cash, which can be transferred and delivered directly into the beneficiaries' bank account (Samson 2009, 49). For this reason, even with the injection of technology to in-kind transfers, food can still be misappropriated whereas Cash for Food directly transferred to beneficiaries' bank accounts is deemed to be less vulnerable to misuse. Cash, unlike in-kind food transfers, is understood to be 'easily delivered' which 'can sometimes reach distant or scattered communities previously left out of the delivery system' (Molyneux 2009, 3). DCT to beneficiaries' bank account reduces the operational cost of the administration and avoids the extra time and cost that food transportation incurs. Administration of CTs also becomes simpler and inexpensive which can just cost at the most 'around one per cent of GNP' (Ibid.).

### **3.2 Typology of Cash Transfers**

Cash Transfers can be conditional or unconditional, one-off or repeated payments, targeted to specific groups or universal. Conditional Cash Transfers (CCTs) give cash to beneficiaries on the condition that they improve their livelihood,

education, healthcare, etc. Certain CCTs require the recipients to do something in the form of, say, rebuilding their house, planting seeds, providing labor, and establishing or re-establishing their livelihood (International Federation of Red Cross and Red Crescent Societies 2007). Unconditional Cash Transfers (UCTs) give cash to beneficiaries without having to fulfill any conditions. One-off payments hand out sum total of cash assistance entirely at once. Repeated payments transfer the cash on a monthly basis or at regular periods to the beneficiary's bank account.

Categorical or targeted CTs mainly assist those specific groups such as senior citizens, the physically challenged, children, pregnant or lactating mothers, etc. For welfare subsidy, targeted groups of poor households in India classify as BPL, APL, and AAY-poorest of the poor. Targeted CTs can be conditional or unconditional. In India, Janani Suraksha Yojana (JSY), the motherhood incentives scheme, is an example of conditional targeted CTs. In the unconditional-categorical type of CTs, especially of social security transfers, target groups include senior citizens, physically challenged persons, children, etc. Some perceive such social benefit transfers that provide cash grants to the vulnerable to guarantee human rights insofar as they constitute protective social security measures (Jain 2011). These are either implemented singlehandedly by an implementing agency or in partnership with several government agencies. Preferably implemented through government agencies as well with political support, social assistance programmes gives CT to long-term vulnerable, destitute households, and individuals akin to elderly and pregnant women and are typically repetitive, unconditional and predictable (International Federation of Red Cross and Red Crescent Societies 2007).

Universal CTs give cash assistance to all citizens, especially to an affected population during emergency or conflict situations. Cash fulfils the identified needs and these are universal UCTs usually given instantaneously in times of crisis. For immediate assistance, UCTs target those populations who have lost access to basic need for their survival i.e., employment, income, livelihood or economic productivity opportunities. In such situations, CT are regarded as 'one form of humanitarian response which can be used to address basic needs and/or to protect, establish or re-establish livelihoods or economic productive activities' (Ibid.). In disaster-affected areas, recipients use commodity or cash vouchers to exchange for services provided

item wise, sought in amount or in weight. In addition, there are combined vouchers that consist of cash and commodity values used to exchange in specified shops, traders and service providers or at a certain organized fairs. In disaster- affected areas, certain basic principles of CT require consulting the affected populations throughout the program, assessing needs with clear established objectives and making decisions accordingly (Ibid.). This requires satisfactory assistance with clear targeting rationale, timely assistance on delivery with adequate institutional competence. It requires maintaining coordination with governmental and non-governmental actors and carrying out proper monitoring, reporting and evaluation. It also needs to take into account forms of infrastructure, market support and the availability of other services (bid.).

### **3.3 Evolution and Strategies of Cash Transfer Programs**

After the Second World War, Europe administered birth grants with conditions of birth registration, although there is no mention about the specific reasons for such a condition; after the 1989 revolution, Romania provided for a universal child allowance with conditions to maintain school attendance in order to address the declining school enrolment rates (Fajth and Vinay 2010). CCTs were locally initiated in countries like Mexico and Brazil in the 1990s and later on, implemented nationwide in both countries (Lucy 2008). Bolsa Família in Brazil and Progressa-Oportunidades in Mexico are the most popular CT programs in Latin America and celebrated around the world. Bolsa Escola is a CCT program in Brazil, later renamed as Bolsa Família in 2003. Bolsa Familia is the largest CCT programme in the world covering nearly 14 million families or 55 million individuals, which form a quarter of its population (Sugiyama 2016). Mexico introduced a similar program known as Progressa in 1997 later renamed as Oportunidades in 2002.

When both Progressa and Bolsa Familia expanded, aid from development banks and international funding supporting CCTs began with the World Bank (WB) and Inter-American Development Bank (IDB) (Ibid.). Supporters of CCTs believed that decline in gender inequality are a major achievement of CCT programming. The WB acknowledged that an organized CCT program with well-targeted beneficiaries was a valuable apparatus to alleviate poverty and in building social capital (Molyneux

2009). In this context, Brazil and Mexico established CT programs and scores of studies have established the effectiveness of CTs in these countries.

Oportunidades in Mexico in late 1990s aimed to mitigate the incidence of increased poverty and inequality caused by structural adjustment reforms (Ulrichs and Roelen 2012). It was also in response to failures in their previous approach to poverty alleviation programs and in response to ‘wastage and inefficiency’ that mostly related to ‘food subsidies’ (Molyneux 2009, 6). The administration was inefficient and there was lack of coordination in ministries and departments that implemented such programmes. The existence of rampant corruption resulted in its failure to meet the needs of the targeted population (Molyneux 2009). This Mexican social policy was a celebrated CCT model in many countries around the world.

Bangladesh initiated the Female Secondary School Assistance project in 1993 to tackle gender imbalance in education (Fajth and Vinay 2010). Philippines introduced CCTs in the year 2008 during the time of food crisis, with monthly CTs for health and nutrition needs. It gave a monthly transfer of P500 to poor family and each child received P300 for education purpose. Stipends were limited up to three children and therefore a family could receive a maximum of P1400 in a month (Bello n.d.). Asian Development Bank (ADB) and the WB played a major part in supporting CCTs. With an additional loan of \$400 million from ADB, the program in Philippines was extended to 1.3 million families from an initial coverage of 700,000 families (Ibid.). CT programmes in Africa are mostly unconditional, targeting elderly pensioners and households with HIV AIDS affected members. Studies in western Kenya have shown that UCT reduced poverty substantially (Gangopadhyay et al. 2015).

To meet the obligation of MDGs and in order to reduce extreme poverty partially by 2015, many developing countries resorted to CTs as ‘the most effective means of tackling poverty and social exclusion’ (Molyneux 2009, 3). Such programs were inaugurated in more than forty countries where International Financial Institutions (IFIs) and donors from governments aided pilot projects (Ibid.). Modern CCTs in Ghana, Nigeria, Zambia, Turkey, Indonesia, Pakistan, New York City and Washington DC illustrate the feasibility of implementation of CTs in their own contextual setting (Fajth and Vinay 2010). Some UCT programmes are the Basic



Social Subsidy Programme (PSSB) in Mozambique, the Palestinian National Cash Transfer Programme (PNCTP) in Palestine and the Social Welfare Fund (SWF) in Yemen (Jones, et al. 2016).

CTs seek to achieve social and human development with coordinated efforts to focus on children's education, health and nutrition. Their significance is in the method of targeting at the family level so that intergenerational transmission of poverty is avoided (Molyneux 2009). They seek to transform the lives of the poor and vulnerable. The role of CTs is expanding by tackling the causes of poverty through training, livelihood skills, empowerment and wider participation (Molyneux et al. 2016). These initiatives are incorporated as complementary services in Mexico's Progresosa and Brazil's Bolsa Familia (Ibid.). It seeks to bring 'broader positive changes' to deliver 'positive' relations i.e. to achieve 'horizontal relationship within communities and vertical relationship with the state through developing forms of social accountability and citizen engagement' (Ibid., 1087). Social accountability seeks wider participation of citizens and Civil Society Organizations' (CSOs) to make the state responsive and hold it accountable (Jones, et al. 2016). There is also a driving need to foster state-citizen relationship and ease the communication channel between the beneficiaries and service providers in CT programmes (Jones, et al. 2016; Samuels and Stavropoulou 2016). This is approachable through exchange of ideas, and through training of implementers to instill a multi-dimensional understanding of poverty, psychosocial wellbeing, and the material and non-material effects of such programmes (Samuels and Stavropoulou 2016)

### **3.4 Impact of Cash Transfers programmes**

In Mexico, the Progresosa- Oportunidades Program relied on the theory of change or the human capital theory, which conceived of better education leading to better jobs and incomes, to thereby overcome the intergenerational transmission of poverty (Ulrichs and Roelen 2012). CCT programmes like Oportunidades in Mexico substantiated the contribution of CTs to reduce poverty, improve health and increase school enrolment. The program achieved significant results especially in the attainment of school attendance and access to health care services of the poor. This is an approach to help the families to come out of inter-generational poverty trap and ensure a better future for their children (Samson 2009, 51). Studies have shown CTs

as beneficial in uplifting poor households above the poverty line. Studies in Mexico and Brazil have shown that millions have benefited from CCTs. Bolsa Familia in Brazil, which is a CCT program, had 12 million households as beneficiaries. It lifted 20 million Brazilians from absolute poverty and pushed 31 million into the middle class (Bello n.d.). The Progres-a-Oportunidades Program in Mexico enrolled over 5.2 million households through CCTs and the share of the population living in poverty was reduced by 16 percent (Ibid.).

Targeting and placing conditionalities upon the recipients served as important instruments that worked behind CTs. Conditionality conjugates with responsibility since cash transferred to the mothers for their children's educational scholarships makes them responsible to fulfill the demands of the program (Molyneux 2009). Furthermore, conditionality on parents to send their children to schools fulfils the constitutional obligation of the government to invest in human capital of their children (Standing 2008, 12). An important factor for the preference of conditionality in Latin America is because it has easier avenues for getting services than Africa and South Asia where accessibility to services is poor. Conditionalities for receiving cash benefits rested on regular school attendance and access to health care services. CCT schemes are favored on the basis that these schemes help in communicating to the uninformed people the importance of health and education (Arnold et al. 2011, 49-50).

Studies suggest that CCT works better than UCT when the objective is to improve human capital (Sudha 2011, 42). Studies that validate CCT as more effective in reducing poverty than UCTs mostly attribute this to better outcomes in school enrolment rates in Latin America (Baird et al. 2011). This encouraged several policy makers to contemplate the beneficial effects of CCT. The WB in 2009 endorsed CCT and expedited efforts to strengthen its schemes through massive financial support (Standing 2012). This acceptance of conditionality seems possible because conditions legitimized the transfer politically. Without conditions, CTs can be observed as merely freebies, and as such opposed by the middle class and financial institutions (Standing 2008, 12). It is so because more often than not, the number of beneficiaries i.e. the disadvantaged sections, are less than the number of people that actually finance the scheme i.e. taxpayers, and they may not be so generous in letting their

taxes being utilized as ‘handouts’ (Ariel, et al. 2009, 10). The positive aspect in UCTs as against CCTs is that at least they do not put the extra burden of verifying compliance and thus constraining an already choked government (Arnold et al. 2011, 51). This is so because there is an added cost in verifying the compliance to the conditions, which can run as high as one-fourth of the total administrative costs (Sudha 2011, 45). Some presume UCTs to be more beneficial for the social welfare of the society than CCTs or in-kind transfers because, just as market fails, UCTs enable households to exercise their choice of expenditure (Ariel, et al. 2009).

According to the WB, CCTs benefit women and the marginalized by reducing gender inequality (Bello n.d.). CTs empowered women in Mexico as they gained ‘self confidence, awareness and control over family resources’, while in Chile, Panama and the Dominican Republic, obtaining identity documents enabled them to benefit from various ‘social programs, voting rights and legal protection’ (Ibid.). UCTs also made it possible for women to look for alternative childcare and pay for transportation thereby enabling them to join the labour force (Standing 2012, 86). On the nutritional front, CCTs showed positive impact on nutritional levels of children. In Namibia, UCTs helped to improve the ‘weight for age figures’ for infants in the age group of 0-5 years (Ibid., 84). Such results are evident from Brazil, Namibia and South Africa. Although there was no such substantial inference from Mexico’s Progres-Oportunidades Program, yet there too it helped in reducing child labour (Ibid., 86). However, the impact of CT on the nutritional status of children relies on the age of the child, the duration and size of the cash. The conditionality may also be responsible in determining the nutritional status of children but even with conditionality, the above factors interfere. UCT in Mozambique and CCT in Honduras serve as an exemplar where the size of cash transfer was too low to have a substantial impact on child nutrition (Arnold et al. 2011, 22)..

Some scholars argue that beyond poverty alleviation, strategies of CTs programs entail national development. The idea of CT is supposedly spreading in the form of a Southern Revolution and the impact of these programs in the global south are showing a sense of ‘national development strategies’ and not just poverty alleviation (Hanlon et al. 2010). Its short-term achievement, they argue, is to reduce poverty levels and lessen the miseries of the poor. Its medium-term achievement

enables poor people to make use of their own agency and helps them to engage in micro level plans that would eventually increase their production and earnings. Its long-term achievement enables people to be healthier and better educated (Ibid.). In due course, thus, CTs enable people to obtain better economic opportunities and contribute towards economic growth, and further enable poor people to move with the trend of globalization during times of global food, fuel and financial crises (Ibid.).

Further, the impact of CTs is observing a trend of development from human capital to social capital transformations. Recent studies relating to UCTs in Yemen, West Bank and Gaza in the Middle East region and in Kenya, Uganda and Mozambique in sub-Saharan Africa (Pavanello, et al. 2016; Samuels and Stavropoulou 2016), show that CTs not only reduce poverty and enhance human capital such as education, healthcare and nutrition, but also creates a positive societal impact by strengthening social relationships in community life (Pavanello, et al. 2016). Due to CTs, beneficiaries are able to present themselves with confidence and self-respect and further socialise by way of family gatherings, religious engagements and other social events (Molyneux et al. 2016). These kinds of positive relations betoken psychological well-being amongst the individual beneficiaries and in relation to others, which integrates society in general (Pavanello, et al. 2016; Samuels and Stavropoulou 2016). Such positive relations with NGO support can create a horizontal cohesion amongst the beneficiaries to handle common issues (Molyneux et al. 2016).

It is believed that positive psychological wellbeing leads to better performance in education, wider social networking and participation, and empowerment in terms of decision making ability (Attah, et al. 2016). The fulfillment of material needs by CTs helps to create a positive psycho-social state of wellbeing. Studies show that the Child Support Grant (CSG) in South Africa addresses psychological barriers in children by fulfilling 'basic symbolic needs' such as the 'right' shoes and clean uniforms, proper hairstyle and better food for lunch that makes them feel socially acceptable in schools (Adato et al. 2016). It also makes the children feel 'more confident' and improve their relations with teachers and classmates, giving a sense of direction in their lives (Attah et al. 2016, 13). It is said that CTs not only alleviate poverty but also help to lessen risky behaviors amongst vulnerable adolescent beneficiaries where 'economic and

social dependence' are fulfilled through 'transactional sex' or 'substance abuse' (Adato et al. 2016, 2).

### **3.5 Critical assessment of cash transfers**

In Latin America, CTs mostly rest on conditionality to achieve the program's objectives. Conditionality includes attending regular meetings, ensuring children's school attendance, nutritional status maintenance, health checks etc. It also deploys CCTs based on a range of eligibility criteria i.e., age, gender, level of education of each family member, electricity, tap water, and household assets. It requires family members, specially the mothers, to attend time-consuming sessions of meetings, talks on health and provide community labor voluntarily (Ghosh 2011). This way, CCTs are challenging because sometimes the conditions appear too stringent to comply with or poor people may not have enough means for compliance as observed mainly in Latin America and Mexico.

By attaching conditionalities to transfers, policy makers presume that recipients are not capable of making decisions on their own and thus need to be steered (Standing 2012, 52). Besides, placing conditionality to distribute benefits leads to stigmatization and is mostly imposed on women to comply with (Samson 2009, 51). Moreover, CCTs and targeting involve the role of bureaucracy in the monitoring and evaluation of programs that lead to corruption (SEWA Bharat and UNICEF 2014). However, it is also argued that conditionality that enables both the states and the citizens to be responsible can make them true partners in poverty eradication. Such an approach allows the state to see beneficiaries as agents capable of tackling their problems themselves than requiring external steering (Ariel, et al. 2009, 10).

A critical analysis based on whether different vulnerable people equally benefit from the rest of the beneficiaries showed that CCT programmes like Oportunidades failed to address the structural causes of poverty that confronts the indigenous people considered the most vulnerable and marginalized in Mexico. The poor, remotely settled and highly marginalized, do not seem to adapt in 'one size fits all' social programme (Ulrichs and Roelen 2012). For instance, people who live in remote areas, and have less opportunity to access basic resources, find it hard to

comply with conditionality. In weak commodity markets where people have to walk miles to buy commodities or where they are geographically isolated from commodity markets, cash infusion will be a hardship to the poor due to rise in prices causing imbalance in demand and supply (Devereux 2002).

The apparent advantage CTs offer over in-kind transfers is contingent on market penetration (Sudha 2011, 43). CTs can stimulate local markets since cash with recipients will generate demand. More demand could invite more supply in business from traders and farmers as happened in South Africa where the Child Support Grant was in place (Arnold 2011, 22). However, a reverse situation can present itself if demand is not followed by increased supply as it could push up the prices in the local market (Ibid., 23). Where the market is inadequate, the purpose of CTs would be defeated since beneficiaries may have to travel long distances to buy a commodity for the cash. This brings down the benefit-cost ratio of CT (Sudha 2011, 43).

Social welfare programmes that seek to provide employment for public works or community work projects will also not benefit those poor and vulnerable who are unable to work or are constrained to work. As such, it requires social protection programmes to identify and address the specific needs of the people (Devereux 2002). Replacing all other public welfare provisioning of services by CTs may not succeed in achieving the overall objective of poverty alleviation. CTs cannot fairly replenish the livelihood aspects of certain vulnerable population if the programme fails to examine structural causes of poverty (Ulrichs and Roelen 2012). The design and implementation of CCT programmes needs to pay prior attention to the structural causes of vulnerability and some particular needs of the people who are involved (Ibid.).

CT programming without an effective targeting strategy can create social tensions especially amongst those eligible beneficiaries who are excluded. Some negative effects in the form of 'intra- community tensions' and 'feelings of unfairness' are mostly attributed to its targeting approach (Pavanello, et al. 2016, 1). Due to targeting, there are cases of exclusion of some eligible beneficiaries and hence it creates resentments amongst beneficiaries and non-beneficiaries (Ibid.). In addition, due to lack of information regarding the eligibility criteria of beneficiaries and the basis for such selection, people remain powerless to reap the benefits of CT

interventions (Pavanello, et al. 2016). In Lesotho, tensions arose between beneficiaries and non-beneficiaries on account of people's lack of knowledge regarding the program's eligibility, selection criteria, rightful entitlements, and exclusion of some eligible beneficiaries (Attah, et al. 2016). Absence of a clear targeting strategy in CT programme can leave behind 'social tensions' amongst some individuals, which can affect their 'psychosocial wellbeing' (Ibid., 12).

CT programmes also have limitations in the size of its transfers, which may not address the socio-psychological constraints of the poor. According to one study in South Africa, there are three levels of needs to explain the effectiveness of Child Support Grant (CSG), a CT programme. The first is basic material needs i.e. food, transportation and school expenses that fulfill 'basic subsistence' and CTs primarily seek to address this basic need; the second level is 'material social needs' i.e. having the 'dignity' to attend school 'without humiliation', which is referred to as 'basic symbolic'; the third level of need is 'consumptive symbolic', which are of higher consumption i.e. 'expensive clothes, jewellery, cell-phones, specialty foods, rides in luxury cars' (Adato et al. 2016, 4). To fulfill 'social needs' is to be able to bath and appear clean, wear good uniforms and clothing, carry better food for lunch to school and maintain good hairstyles, which CTs like the Child Support Grant (CSG) in South Africa address to some extent (Ibid.). Due to insufficient amount, CTs have limitations in addressing higher consumption, which are embedded in 'historical, sociocultural, and psychosocial processes'; this is pointed out especially in the context that vulnerable young girls and women indulge in sexual relationships in exchange for money, gifts and status, which are 'sex linked to subsistence' and 'sex linked to consumption' (Ibid.). It not only leads to health-related risks but there are other costs that run high for the society. The study calls for a novel way to address such 'non-material drivers', apart from addressing basic material and social needs (Ibid.)

### **3.6 The Workability of Cash transfers**

There are several reasons for not letting CTs substitute public services. More importantly, it is the fear of inflation eroding the value of cash, which can prove to be disastrous in the absence of support services such as food aid. Usually, the solution suggested for this problem is inflation indexed CTs. Although it may work theoretically, in actual practice, the time to calculate the inflation and index the CTs to

it would take time. In due course, the beneficiaries would suffer. Thus, in such situations, the simultaneous availability of public services will ease the pressure on the poor people (International Development Economic Associates 2011). Another apprehension with respect to CTs is that the male member of the family can grab the cash handed out to the female member of the household. In such a scenario, if complementary services such as PDS are available, there is assurance of food supply should the male member choose to waste the money on unworthy activities such as drinking, gambling, etc (Ibid.).

While incorporating CTs in welfare schemes, adequate infrastructural facilities and trained personnel management are a prerequisite. In most of the CCT schemes, the preconditions hover around the use of ‘government-managed facilities’ (Sudha 2011, 44). Leaving poor people entirely at the mercy of private service providers is no justification for CTs replacing the public services. For instance, government hospitals and health care centres provide preventive and curative services (International Development Economic Associates 2011). If issues like attendance of doctors, availability of medicines etc are addressed, 90 percent of people going to hospitals would prefer to get treatment in public hospitals than private hospitals on account of the lower cost of the former (Kannan *The Hindu*, 1 August 2013). It becomes imperative that government provide strong and supportive infrastructure so that beneficiaries can move towards using such facilities. A comprehensive social protection programme not only requires effectively placed institutions and structures, but competent administration and efficient road and telecommunications infrastructure and delivery services such as post offices to reach the intended beneficiaries, including the political will to redistribute income from the rich to the poor (Devereux 2002).

The theory of change based on human capital in social protection schemes will be undermined unless it examines market constraints, unequal access to basic social services such as geographical isolation, poor quality of education, unequal capital or asset holdings. Some people have less opportunity to transform their educational attainments into greater income. On a critical analysis of Mexico’s Oportunidades, a study shows that, in comparison to those who are better placed in terms of accessibility, indigenous people are unable to achieve the change that would benefit



them better, as the human capital transformation from the programme is limited due to structural constraints (Ulrichs and Roelen 2012). Accessibility can be enhanced through increased opportunity costs to those confined to vulnerability and marginalization by increasing their benefits and moderating conformity to conditionality to those who have less access to basic services in health, education, etc (Ibid.).

In the Indian context, the situation does not seem so bright. For instance, if we look into the health care sector, forty percent of the primary health centres are understaffed. In the backdrop of shortages in government led facilities, it is difficult to imagine that CTs alone can fulfill the objective of poverty alleviation. The increased demand for services following cash transfers puts pressure on government's infrastructural capacity. In India, no comprehensive CT scheme exists so it is difficult to estimate the effects of CTs in this context (Svedberg 2012, 60). The government is in the process of distribution of UID cards to the residents of India and this could become the basis of receiving benefits from the government (Ibid., 61). Until such a process is completed, it is not appropriate to call for replacing the existing 'supply side initiatives' since the infrastructure needs a lot of development (Sudha 2011, 46).

Those who speak of the efficacy of CTs put forth the view that the success of CTs is context dependent. The context is 'extensive public provisioning of services' where CTs will provide 'demand-side incentives' thus matching the supply side provisions (Ibid.). It depends on how good the provisions of services for the public are. If the supply side provisions are there i.e., government led institutions make services available, people will be able to make use of their cash. Only then will the demand generated by the cash go hand in hand with the provisions of services. Infrastructure and personnel management services that CTs require, such as civil services and banking services, need examination. These services served by implementing agencies should be 'fair; assured; practical' (Hanlon et al. 2010, x). Even Progresa in Mexico and Bolsa Familia in Brazil were rolled out in areas where accessibility to services was not a problem thus making the conditionalities feasible in CCTs (Sudha 2011, 45).

Where targeting beneficiaries in CTs is concerned, some believe that cash given to the people, whether universal or targeted, will always have inclusion and

exclusion errors. Evidently, a targeting approach used may work well in one context but not in another and therefore some suggest it is best to combine two or more targeting approaches to reduce error (Arnold et al. 2011, 53). Some suggest participative and transparent methods of targeting beneficiaries by letting the rightful beneficiaries know about the methods of targeting and the reasons for such selection (Pavanello, et al. 2016). The method of involving communities in program design and implementation can evade wrong exclusion errors. The national CT programme in Kenya in Sub-Saharan Africa involved people in all stages of beneficiaries' selection i.e. from the first selection till the final validation of eligible beneficiaries. It involved the communities through discussions, presentations and decisions to arrive at a consensus regarding the final list of beneficiaries (Ibid.). What is significant is that, sound programming and accurate targeting of welfare transfers programmes curtail income variations and equate consumption levels (Devereux 2002). Accurate targeting of transfers in poverty alleviation programmes expands the welfare of the poor.

### **3.7 Cash Transfer Programmes in India**

India is one of the leading countries in the global southern revolution where the government widely implements welfare programs through CTs. Some suggest that MGNREGS is equivalent to a CT programme since it guarantees Work for Money or Cash for Work, where it pays wage for unskilled labour and infrastructure related activities (Hanlon et al. 2010). Direct Cash Transfers (DCTs) to the targeted groups mainly involve beneficiaries of Below Poverty Line (BPL), old age pensioners, women, children, students, etc. Schemes that target specific groups through DCTs include National Social Assistance Programme (NSAP), Janani Suraksha Yojana (JSY), Indira Gandhi Matritva Sahyog Yojana (IGMSY), various scholarships meant for SCs, STs, minorities, merit students, etc.

National Social Assistance Programme (NSAP) is India's social security programme launched in August 1995. It is an example of UCTs where pension schemes for senior citizens are given to those that meet certain eligibility criteria i.e., elderly citizens who are above 60 years of age. Janani Suraksha Yojana (JSY) also known as Safe Motherhood Scheme is a central government's National Maternity Benefit Scheme launched in 2005. It is a CCT based incentive for institutional

deliveries for pregnant mothers. Conditionality rests in the guidelines that prescribe monetary incentives to pregnant women provided babies are delivered at government institutions like Primary Health Centres, hospitals etc. It aims to promote health check-ups for pregnant women and to have access to an institutionalized delivery procedure. IGMSY is also a type of CTs that provide Conditional Maternity Benefit (CMB) scheme. The Government provides CTs for educational purposes through scholarships schemes intended for SC, ST, minorities, merits, etc.

### **3.8 Pilot Cash Transfers Projects in relation to food security in India**

Although the social spending of the government increases with time, the bottlenecks in the delivery method remain the same. In response to this, SEWA (Self-Employed Women's Association) initiated CTs for direct mode of service delivery to the people. It studied the practicability of CTs as an opportunity for social protection. The projects initiated by SEWA were UCTs in an effort to avoid the stringent conditionalities of CCTs. In Delhi, an urban-based SEWA project implemented the first Applied Research on UCT. It was an experimental study of UCTs conducted in 2010 in Raghbir Nagar (West Delhi), in place of food subsidy. The hypothesis of the project was that CTs alter human behavior and promote the living conditions of households and particularly help children to gain better health and nutritional status (Fernandez *Le Monde diplomatique*, 4 May 2013). The consumption survey relied on the measurement of the Indian Council of Medical Research (ICMR) calorie conversion chart for 300 CT volunteer participant households and 150 non-participants households (Gangopadhyay et al 2015). Each CT participant households received rupees 1000.

Proponents of CTs point to leakages and corruption in PDS, whereas opponents of CTs fear the misuse of cash to buy non-essential items. Opponents of CT mainly emphasize that provision of cash can lead to less expense on food and more on other things that may lead to lower nutritional intake especially among children. Such discomfiture with CTs proved wrong in the SEWA led project. Instead, the project observed that CTs enabled households to shift to nutritious food intake, which were of non-cereal commodities. Households improved their nutritional intake in non-cereal items such as pulses, meat, milk, eggs, etc, which proved that welfare cash transfers that replace welfare in-kind transfers do not abate food security (Ibid.).

With the support of CTs, the UCT pilot study in Delhi observed a pattern of change in household food consumption in comparison to their previous consumption while receiving in-kind transfers i.e. PDS. It showed effectiveness in achieving banking inclusion of poor households. The opportunity provided to poor households to choose between UCT and in-kind welfare transfers was itself seen as an expansion of people's welfare (Ibid.). The study encouraged replacement of in-kind transfers with UCTs.

The United Nations Children's Emergency Fund (UNICEF) administered and SEWA coordinated two UCT pilot projects in 2011 in Madhya Pradesh (MP) to study the impact of basic income grants. Eight villages participated in the project that covered 4000 individuals. Twelve non-participant villages served as controls for a comparison. Under the same project, SEWA provided additional support to four villages for a few years in 'support groups, savings cooperatives, bank loans, training in financial management' (Fernandez *Le Monde diplomatique*, 4 May 2013). The project intended to observe what happens when people receive cash as a supplementary support (Ibid.). The study observed the impact of the program over 18 months using random based control methodology. Each man, woman and a child received a minimum monthly income. Initially, it began by giving rupees 200 each for adults and rupees 100 each for children and later increased to rupees 300 and rupees 150 respectively (Standing *The Financial Express*, 6 June 2013). It implemented a similar pilot project in MP in other tribal villages for 12 months with the same amount of CTs and took up another tribal village for a comparative study (Ibid.). The project sought to ensure fairness and equity with positive treatment towards the disadvantaged such as lower castes, women and disabled (Ibid.)

The pilot CT projects showed positive results. The injection of financial liquidity was boosted due to CTs and there was a shift from the purchase of low quality food grains from controlled PDS to the market, which enabled people to purchase and consume better food quality such as fresh fruits and vegetables, eggs, meat, and fish and receive healthcare too. On the nutritional front, the 'average weight for age of young children' especially among young girls improved in SC and ST households (Ibid.). Some used money to buy shoes and pay for transportation costs. Overall, the project observed three times improvement in school attendance and exam

performance with better marks in 68 percent families (Fernandez *Le Monde diplomatique*, 4 May 2013). The supplementary income transferred to women showed substantial improvement in household health, education and nutrition (SEWA Bharat and UNICEF 2014).

The CT projects conceive of cash contributing to the growth of the local economy. Savings improved three times over earlier levels, and some even began to venture upon fresh businesses (Fernandez *Le Monde diplomatique*, 4 May 2013). There were investments in small scale activities with increase in the quality and quantity of seeds, use of sewing machines, setting up of small shops, and mending equipments, etc that increased production and yielded better incomes (Standing *The Financial Express*, 6 June 2013). The increase in production and growth also suggested that flexibility in supply could maintain and stabilize inflationary pressures caused by the rising demands of food and other goods. It witnessed increased labour and productivity, reduced bonded labour, reduced current debts and evaded big debts (Ibid.).

Given a choice, most of the participants preferred cash than food subsidies since PDS through the FPS was rife with power and control (Ibid.). CTs made people work harder and take control of their lives, in contrast to a controlled subsidized scheme that hardly reach the deserving people. The controlled subsidized schemes were perceived to constrain economic and power structures and establish corrupt practices in the distribution of food subsidy (Ibid.). What remained questionable is whether CTs can ‘overcome the failings of the existing system so as to induce structural changes that would revive economic growth while addressing the disgraceful fact that over three hundred and fifty million people remain mired in poverty after two decades of high growth’ (Ibid.).

The projects also implied that CTs are ‘not a magic bullet’ but work best ‘with good public services and social investment’ (Ibid.). The cost of DCT is that it requires an established mechanism for a fair course of action to be undertaken. The MP pilot project gave cash at first and after three months, transferred directly into the beneficiaries account in a bank or cooperatives accounts. This procedure could thrive well while implementing CT programs at both state and national level (Ibid.). The pilot projects showed that the workability of DCTs improved with the involvement

and participation of independent yet trustworthy civil society groups with voice, as with organizations like SEWA.

### **3.9 Recent developments concerning Cash Transfers in India**

In 2012, the Government of India announced DCTs of various welfare schemes to the intended beneficiaries through an Aadhaar based identity and the associated Bank accounts of the recipients. The inspiration to hand over money directly to the poor was first suggested in the Government of India's Economic Survey for 2009-10 which sought to replace basic food items through coupons or CTs (Anu 2013). With the objective of enhancing 'efficiency, transparency and accountability' and lessening corruption, the National Committee on DCT was constituted by then Prime Minister (*The Hindu*, 20 October 2013).

The National Committee on DCT consisted of Executive Committee on DCTs and Three Mission Mode Committees on Technology, Financial Inclusion, and Implementation. The Mission Mode Committees were to design and implement the DCT scheme. The Technology Committee worked on technology, payment architecture and other issues of IT; the Financial Committee ensured universal banking access and financial inclusion; and the Implementation Committee oversaw the implementation of CTs in each departmental ministry (Ibid.). The Chairman of the Unique Identification Authority of India (UIDAI) headed the Technology Committee, the Secretary of the Department of Financial Services headed the Financial Inclusion Committee and each Ministry set up Implementation Committees (*Prime Minister's Office* Government of India, 30 November 2012).

The official plan of CTs was to ensure an inclusive registration of beneficiaries digitized through Aadhaar numbers with assistance from UIDAI and IT Department. The Department of Financial Services in consultation with UIDAI, Banks and the concerned implementing ministries, adjudicated the standard form of data entries to create Aadhaar numbers including Bank account details (Ibid.). The Technology Committee ensured speedy allocation of Aadhaar numbers to the beneficiaries, which would be integrated with Aadhaar Payment Bridge, interlinked with the Banking system. To ensure an inclusive enrolment of beneficiaries via Aadhaar numbers and associated bank accounts at the field level, the implementing

ministries adopted the ‘camp approach’ and instructed the authorized Collectors and Banks to organize camps to register Aadhaar numbers and enroll beneficiaries (Ibid.).

The CT facility sought to give individual citizens access to government’s welfare schemes with Unique Identification Aadhaar cum individual Bank accounts. Individual beneficiaries would have Aadhaar numbers to use micro ATMs and Bank ID numbers for banking transactions. The states would continue to transfer funds to beneficiaries for the Centrally Sponsored Schemes and the concerned Ministries would transfer funds directly to the beneficiaries for the Central Sector Schemes (Ibid.). Schemes for minor beneficiaries required the child’s Unique Identification Number (UIN) and joint account with the mother’s bank account for cash transactions.

Initially, the Government planned to implement the scheme in 51 districts. As on 1 January 2013, DCT was rolled out in only 20 districts to cover two lakh beneficiaries. The Finance Minister declared that ‘whether there is Aadhaar card or not, money will be credited, money will be withdrawn’ (*The Economic Times*, 1 January 2013). This ensured cash subsidies transferred to the beneficiaries’ bank account even for those without Aadhaar number. However, the prior implementation for this announcement covered mainly those schemes that already formed the basis of cash transfers i.e. pension money transfers, educational scholarship and safe motherhood incentive schemes. It excluded the direct transfer of subsidies for Food, Fertilizers and Kerosene during the initial stage of the scheme implementation.

### **3.10 Comparing Cash Transfers and PDS in Food Security**

With criticisms that PDS is expensive along with procedural complexity, there are prospects that CTs could provide a better service delivery mechanism without having to spend much. Practically, CTs for food is a relatively new idea in the Indian context. In a society as diverse as India, any proposal for a completely new idea to replace an existing one is bound to generate vehement opposition. It is so because human rationality is fearful of losing what we already have for something new, even if it apparently offers something better. Such an opposition is amplified in an atmosphere of lost faith in administrative machinery (Standing 2012, 97).

There is a suggestion that India can presently continue with the TPDS while carrying out pilot CT projects in order to evaluate its effectiveness in Indian society (Svedberg 2012, 61). The objective of bringing CTs should not be limited to the thought of substituting food aid with CT. An important aspect of CT was that it ‘can complement almost any form of assistance’ (Bailey and Hedlund 2012, 13). India can learn from Zimbabwe’s National Action Plan for Orphans and Vulnerable Children, which provided cash assistance along with basic social services to the poorest families to benefit the vulnerable children (International Development Economic Associates 2011).

The unchanged contour is that CTs and PDS have common objectives of eradicating poverty and providing food security to the vulnerable sections of Indian masses. CTs and in-kind transfers can substitute each other but they work best when they complement each other (Sudha 2011, 41). These complementary interventions can be in the nature of nutrition programs, vocational skill training programs and social development programs (Arnold et al. 2011, 56). From the evidence on hand from around the world, it appears that CTs acting alone without other social protection interventions are not likely to help the poor leave the ‘tag’ sustainably (Ibid., 19). Institutionalizing CTs by incorporating them into public policies can be an instrument in addition to existing social protection schemes<sup>2</sup>. A right based approach to CT and other social protection schemes can strengthen the social contract between the citizens and the states, and at the same time, augment the cycle of policy formulation and implementation process.

The following chapter describes the working of CT and PDS in Delhi to understand the research methodology that is adopted for the study. It provides the rationale for the comparison of CT and PDS and the central background of the literature that lays the groundwork for the framework of the study. It explains the rationale for the selection of sites and beneficiaries for the conduct of the empirical research. It seeks to compare and understand CT and in-kind transfers by surveying and examining people’s perspectives with regard to their experiences in CT and PDS, their relation with their service providers and the social, economic and behavioral impact of PDS and DAY on them. It makes an attempt to understand the different perspectives of the people and the service providers such as the FPS dealers and program officials of the implementing agencies.

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<sup>2</sup> African Heads of State recently made such a move in 2009 in the African Union’s New Social Policy Framework for Africa (Ibid., 60- 61).



## **CHAPTER 4**

### **METHODOLOGY OF THE RESEARCH**

(Period of field study: February 2015 to April 2015)

#### **4.1 The working of PDS and DAY**

The research compares two welfare schemes in the nature of food programmes, one of which is an in-kind transfer programme i.e. the Public Distribution System (PDS) and the other is a Cash Transfer (CT) programme i.e. Dilli Annashree Yojna (DAY) in Delhi. PDS is one of the largest in-kind transfers of subsidized food, which has been in existence for decades throughout the country. The Delhi Government announced the implementation of DAY as its first Direct Cash Transfer (DCT) scheme for food security on 15 December 2012. The scheme introduced a monthly CT of Rs. 600 to the bank accounts of the eldest female members of the beneficiaries' households. The concerned implementing agency of PDS and DAY is the Department of Food, Supplies and Consumer Affairs, Government of National Capital Territory of Delhi.

For the implementation of DAY, the government collaborated with several organizations and established institutions such as Mission Convergence also known as Samajik Suvidha Sangam (SSS), Unique Identification Authority of India (UIDAI), several major banks, and National Payment Corporation of India (NPCI). Mission Convergence is the chief implementing partner-agency for DAY. The Delhi Government officially launched Mission Convergence on 14 August 2008 (Mission Convergence, Delhi n.d.). It is a registered state level body with the mission to provide seamless delivery of government welfare services. It does so by strengthening public service delivery and by institutionalizing Public Private Community Partnership. Mission Convergence works in collaboration with its Gender Resource Centres (GRCs) and Suvidha Kendras (SK) who work in close contact with the local people. For DAY, Mission Convergence developed pre-printed forms based on a vulnerability survey database and verified the eligibility criteria of the CT beneficiaries accordingly. It maintained an online application software for data entry and Management Information System (MIS) reports to facilitate this process. It

provided administrative support and supervision on a regular basis in the implementation of DAY (Kumar 2015). Mission Convergence collaborated with the Gender Resource Centres (GRCs), banks and UIDAI to open no-frills bank accounts for the beneficiaries and facilitate Aadhaar enrolments and CT for the vulnerable section of the population of Delhi (Ibid.).

As far as PDS is concerned, it has a different approach. Unlike DAY, it is an in-kind transfer programme. For the implementation of PDS in Delhi, the Department of Food, Supplies and Consumer Affairs has eight PDS Godowns that supply commodities to the FPSs. Out of these eight Godowns, two are state Godowns and six are FCI Godowns. The FCI Godowns manage the allocation of wheat and rice. The State Godowns, also known as Delhi State Civil Supplies Corporation (DSCSC), manage the supply of sugar. There are over two thousand FPSs in Delhi, which work in partnership with the department to allocate or distribute foodgrains to the people. These FPSs spread across seventy Circle Offices under nine Districts Offices<sup>3</sup>. The PDS underwent a landmark shift in the year 2013 when the Government of India enacted the National Food Security Act (NFSA) covering two-thirds of Indian population. Under the NFSA, there is an online facility to apply for the scheme, track the application status, and download e-ration cards. Likewise, the NFS website under the Delhi government provides this facility. The department verifies and validates the applicants for the scheme and accordingly issues fresh ration cards. With an aim to improve the service delivery of foodgrains to the people, the government in Delhi introduced SMS service to send text messages to the beneficiaries whenever foodgrains reach the FPS. It also introduced Point of Sale (POS) at the level of FPSs to verify the distribution of food grains to the beneficiaries by biometric system or Aadhaar card.

#### **4.2 The rationale behind the comparative research**

Both PDS and DAY aim to provide food security through different methods i.e. in-kind transfers and CT respectively. Their similar objectives, though sought to be achieved with different approaches, make the two schemes suitable for

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<sup>3</sup> For details, see the National Food Security website of Delhi <http://nfs.delhi.gov.in/>

comparative analysis. The eligibility criteria of beneficiaries for both the schemes have commonalities. PDS has multiple categories of households wherein having a valid ration card makes them eligible to receive subsidized food. These categories of cardholders are Antyodaya Anna Yojana (AAY), Below Poverty line (BPL), and Above Poverty Line (APL). Those belonging to the APL category are further sub-categorized into holders of Jhuggi Ration cards (JRC), Resettlement Colony Ration cards (RCRC), and APL-Stamped (S) cards. The AAY category of cardholders belongs to poorest of the poor households. JRC and RCRC are poor people who are vulnerable in terms of the geographical location of their settlements. There is no other specific reason according to the government as to why the JRC and RCRC fall under the APL category. However, the AAY, BPL, JRC and RCRC categories of cardholders are generally considered as the most vulnerable or vulnerable households who live below the poverty line.

In Delhi, APL cards are of two types, stamped and unstamped, in terms of the annual income of the card holder; the stamped category belongs to the individual who has an annual income of less than or equal to Rupees one lakh and the unstamped category card holder has an annual income of more than Rupees one lakh (Varma 2012). The Delhi government notifies the issue of new cards under BPL and AAY cards. An application for a new card without the specified notification of the government would be an unstamped ration card (Ibid.). Unstamped APL cards are not eligible to receive food grains yet people use it as an 'identity card' or an 'address proof' (Ibid., 10). Entitlement of commodities and the corresponding prices vary among the cardholders of AAY, BPL, and APL categories. The AAY category of cardholders is entitled to get more food grains at cheaper prices than the other categories of ration cardholders. Amongst all the cardholders, greater entitlements go to the BPL and AAY cardholders than the rest. AAY, BPL, and APL- JRC cardholders are entitled to receive kerosene whereas sugar is restricted only to AAY and BPL cardholders. One more condition is that the categories of AAY, BPL, and APL- JRC are not entitled to receive kerosene if they are using LPG cylinders; instead, they receive cash subsidy for LPG cylinders (Ibid.).

The eligibility criteria for people to be included as beneficiaries under DAY is that their family income should not be more than one lakh per annum and they should

not possess AAY and BPL cards of the PDS meant for accessing subsidized food. The scheme sought to cover those poor households who lived below the poverty line, but not covered under the PDS in Delhi. Official figures reported that out of the total 7.5 lakh BPL families in Delhi, only 4.09 lakh were eligible to get ration card under PDS. Implementation of DAY benefited those 'poor families who had been left out of the PDS system due to a cap on the number of beneficiaries fixed by the Centre' (*Business Standard*, 18 December 2012). With the termination of DAY i.e. after one year of its implementation, the government claimed to have benefitted one lakh poor people in Delhi. Subsequently the government decided to merge DAY with the NFS scheme, implemented through the PDS. DAY's beneficiaries were to enroll at the NFS Programme. This shift was possible because of the similarities in the eligibility criteria and objectives of both PDS and DAY.

The National Food Security Act (NFSA) has been in operation from 1 September 2013. For the purpose of the food subsidy programme, the Act covers 50 percent of households in the urban areas and 75 percent households in the rural areas. All households having an annual income of less than one lakh are eligible for the scheme. The scheme has sought to cover the populations which are geographically and socially vulnerable such as transgender, single women, disabled, homeless, casual workers, etc. The previous classification of several ration cardholders has been discontinued and the present beneficiaries of NFS consist mainly of AAY and Priority households (PR). PR is also understood as General Households. According to the NFSA, after the identification of the AAY households, the remaining eligible households are called PR or General Households. The nomenclature of the previous household categories of BPL, APL and its variants has given way to AAY and PR households in accordance with the eligibility guidelines of the scheme.

The Government of India has kept a ceiling on the number of beneficiaries to provide subsidized food in Delhi at 73 lakh persons (Government of NCT of Delhi 2014). According to the Food and Supply Officer (FSO) of the department in Delhi, around 80 lakh applicants applied for new ration cards under the NFS scheme. During the period of the field study, the government had verified and validated more than 60 lakh applicants. In April 2015, according to Delhi's NFS website, more than 17 lakh households had enrolled under the scheme covering above 60 lakh persons. Under the

NFS scheme, the procedure for identification and validation of beneficiaries can take a few months or up to a year. According to the FSO of the implementing department, the duration for identification procedure and validation depends on the number of applicants at a particular time and place. After the government verifies and issues fresh cards, there is no need for further verification. Such verified beneficiaries can start collecting foodgrains from the FPS once they have received the ration cards. Some beneficiaries of DAY who obtained fresh ration cards under the NFS scheme were already receiving foodgrains at the time of the study.

### **4.3 Research framework**

To assess the status of food security at the household level, this research examines physical and economic access to food, and seeks to analyse whether and how households ensure food utility through basic nutrition care and hygienic surroundings. The indicators of income poverty and status of food security are measured by recording households' monthly income, share of income expenditure for food and non-food items, quantity of food intake in kilograms, and diversity of diet intake. It also encapsulates households' access to safe drinking water, sanitation facilities, primary healthcare and education, which are cumulatively essential to the determination of food and nutritional security. Ignoring these factors leads us to neglect the prevalence of hunger and malnutrition, and the diseases and health risks which make poverty an intergenerational concern. Therefore, access to these basic amenities by the poor households forms a major part of the research survey. Keeping the aforementioned parameters that delineate food security in sight, the study has looked into households' performance under two welfare schemes that aim to ensure food security via different delivery mechanisms.

The field study was conducted during the months of February to April 2015. The field research is immensely helpful in appreciating the perspective of the citizens as consumers in choosing between PDS and CT. A questionnaire-based survey and Focus Groups Discussions (FGD) with PDS and CT respondents provides a useful understanding of the beneficiaries' perspectives regarding these social security schemes. For the PDS respondents, the idea behind the survey was to get responses which pertained to the trust that beneficiaries repose in the government sanctioned ration shops: whether people trust the quality of ration provided at the FPS; and

whether they would like to stick to a more efficiently functioning PDS or shift to CT. The interactions with CT respondents throw light on financial inclusion among sections of people in Delhi. The interviews also touch upon the point relating to the shift in the diet patterns of beneficiaries given the flexibility in utilizing cash unlike a rigid PDS. It also helps to understand the impact of CT on households' food security. One important aspect of the study is to analyze the gender balance in the households' consumption and expenditure following the operation of DAY and PDS since both DAY and NFSA envisage providing cash and food subsidy to the female head of the family through two different delivery modes. The study facilitates the understanding of the impact of these programmes on a household's food consumption and the exercise of economic decision-making in such families. In this way, it helps to understand the influence of these programmes on the gender equation in a patriarchal society.

#### **4.4 Research Design: Selection of sites and choosing the beneficiary**

The research determined the sampling area according to the administrative and institutional set up of the department that executed PDS and DAY. According to this division, there are nine District Offices in the Department of Food and Supplies and Consumer Affairs of Delhi Government. Across these nine District Offices, there are seventy Circle Offices that manage the ration cards of the PDS beneficiaries. The survey covered the District Offices of North West, North East, West, and South West, which had the highest number of poor households that received food subsidy under PDS during the time of the study. The rationale for the selection of sites therefore relied on the maximum number of PDS households in each districts.

**Table 1: District wise share of PDS households in Delhi**

Sl No	District Offices in Delhi	Highest number of households rank wise	No of Households
1	Central	8	125308
2	East	6	160831
3	New Delhi	9	81094
4	North	7	151514
5	<b>North East</b>	<b>2</b>	<b>245994</b>
6	<b>North West</b>	<b>1</b>	<b>273989</b>
7	South	5	193707
8	<b>South West</b>	<b>3</b>	<b>238415</b>
9	<b>West</b>	<b>4</b>	<b>196484</b>
<b>Total households</b>			1667336

Source: Website of NFS Delhi <http://nfs.delhi.gov.in/> Data retrieved on March 3, 2015

The Delhi NFS website provides the details of eligible PDS households, which gets regularly updated. For instance, on 13 January 2015, there were 1616043 registered PDS households' at NFS website and this number had gone up to 1713429 on 8 April 2015. This happens because of the shift of the previous PDS cardholders to AAY or PR under the NFSA. Not only that, based on their eligibility, the newly registered beneficiaries of the NFS programme are updated either in AAY or PR households list on a regular basis. Likewise, data with regard to total number of households in District Offices and Circle Offices is updated at regular intervals. For instance, Circle Kirari in North West once had the highest number of households that received PDS but Circle Badli replaced its position a few months later. This occurs when the cardholders of the previous categories such as the BPL, JRC, RCRC, and APL update their card to the NFS format i.e. either AAY or PR, depending on their eligibility, and the same gets updated on the online database.

According to data available in the public domain during the survey period, District Offices of North West, North East, West, and South West had the highest number of households that received food subsidy under the PDS. During that period,

the District Office of North West had the maximum concentration of AAY, BPL, and RCRC households and South West district office had the maximum number of PR households. While Central Delhi had the minimum number of RCRC households, the JRC and APL-S category households here were highest in number; and New Delhi had the minimum number of households under AAY, BPL, and PR. Overall, the four districts of North West, North East, West and South West captured the maximum concentration of poorest households, notably AAY and BPL card holders, under the PDS. The maximum concentration of poorest amongst the poor households is likely to give greatest choice for the sample, which makes the areas covered by these four District Offices ideal for the study.

In comparison to PDS data, the data of households for CT under DAY was not available in public domain and furthermore not categorized according to the type of households such as AAY, BPL, etc. In addition, in view of the fact that DAY was implemented for a period of one year and then terminated, the most logical way to make a comparative study of PDS and CT was to select the beneficiaries from the same District Offices from where the PDS households were chosen. This comparison has helped to understand the change in perspective, if any, of beneficiaries while moving onto provision of subsidized food under PDS to CT under DAY. Therefore, for DAY too, the chosen District Offices are North West, North East, West and South West for the reasons stated above.

The government implemented PDS and DAY in all the seventy Circles of the total nine District Offices in Delhi. There are several Circles in each District Office. For the purpose of the survey, the Circles were chosen based on the maximum number of poor households under the PDS. The same Circles were used to select the beneficiaries of CT under DAY. Given below are the details of the total number of households of PDS and DAY in each Circle Office.



**Table 2: Distribution of total number of households under PDS and DAY in each Circle Office**

<b>S. No.</b>	<b>District Office</b>	<b>Circle</b>	<b>Circle No.</b>	<b>Total No of households in each circle under PDS</b>	<b>Total No of households in each circle under DAY</b>
1	North West	Kirari	09	44449	1438
2	North East	Karawal	70	38763	1669
3	West	Vikaspuri	31	41228	2615
4	South West	Matiala	34	40340	1982

Compiled Source: Website of NFS Delhi <http://nfs.delhi.gov.in/>, February 2015

Mission Convergence Office, Government of NCT of Delhi, 2015

These four Circle Offices are Matiala in district South West, Vikaspuri in district West, Kirari in district North West and Karawal in district North East. Within the Circle Offices of food supply chain in Delhi, there are several localities and villages. Therefore, households may belong to different localities under the same Circle Office although they may take rations from the same FPS. Within Circle Office Matiala, the survey covers the localities of Jhuggi Goyala Dairy, Chhawla village, Shiv Puri, Pappan Kalan, Shyam Vihar, Dwarka, and Nangli Dairy Najafgarh. In Circle Vikaspuri, it covers the localities of Kalibasti Hastal, Indira Camp, Chanchal Park Bakarwal, Budhela, Shiv Vihar, JJ Colony Bakarwala, Hastal Vihar and Baprola Vihar. In Circle Kirari, it covers the localities of Prem Nagar-I, II and III, Ramesh Enclave, Indra Enclave, and Pratap Vihar. In Circle Karawal, the survey covers the localities of Dayalpur, Soniya Vihar, Sri Ram Colony or Rajiv Nagar, and Khajoori Khas.

The Questionnaire-based survey covers a sample size of eighty households. For the comparative study, forty households each from PDS and DAY participated in the survey. For this purpose, ten households were selected in each of the four Circle Offices. Given that PDS beneficiary households have several categories, viz. AAY, BPL, APL-JRC, APL-RCRC, APL-S and PR, the representation of these households vary in number. Out of ten households from each Circle Office, three households each are from AAY and BPL categories to give greater representation to extremely poor

and vulnerable households. The rest of the categories are composed of one household each from APL-JRC, APL-RCRC, APL-S, and PR that, all together, make ten households in each circle.

To make the survey evenly representative, Systematic Random Sampling was adopted for choosing individual households. To choose three beneficiaries under AAY, the total number of beneficiaries under AAY in each circle is divided by 3. For instance, if total number of beneficiaries in AAY is say 602, dividing this number by three, gives us 200.66667. Subsequently, the lower round figure of 200 is the first beneficiary for the purpose of survey i.e. 200<sup>th</sup> beneficiary on the list and subsequently the 400<sup>th</sup> and 600<sup>th</sup> beneficiaries are considered. This method enables us to make an unbiased selection from the entire list of beneficiaries. In case a particular beneficiary is not traceable or unavailable for some reasons, the preceding beneficiary of the first selection is taken i.e. 199<sup>th</sup> beneficiary is chosen if 200<sup>th</sup> beneficiary is absent; 399<sup>th</sup> if 400<sup>th</sup> is absent and so forth. Further, if the immediate preceding beneficiary i.e. an alternative to the first beneficiary is also not available, it takes the beneficiary preceding the first alternative. This method seeks to find the nearest possible alternative to the chosen beneficiary in case of her absence. Similarly, this method is applied to the three beneficiaries of the BPL category. For the remaining categories of households, the method adopted is to choose the beneficiary lying at the median position in the list of households. To arrive at that, the total number of beneficiaries in a category is divided by two and, if the answer arrived at involves decimals, the lower round figure is selected. If the chosen beneficiary is untraceable or unavailable, the beneficiary just preceding the central figure is the next selection.

The selection of beneficiaries under DAY is different from the selection of PDS beneficiaries because DAY beneficiaries did not have categories of different types of households. To select ten beneficiaries from four Circles under DAY, the total DAY beneficiaries in the chosen Circle are divided by ten, and, in case of decimals, the lower round figure is selected. In case the first selection of beneficiary is unavailable, the preceding beneficiary is chosen. The general method is to make an alternative selection to replace the first preferences of beneficiaries in a situation of difficulty in tracing house address or wrong addresses and vice versa. Given below are the chosen numbers of beneficiary for both PDS and DAY as shown in the table.

**Table 3: Selected beneficiaries of PDS and DAY for Questionnaire based Survey**

Sl No.	District Office	Circle Office	DAY		PDS	
			Beneficiary no.	Preference no.	Beneficiary no.	Preference no.
1	NW	Kirari	143	1	324	1
2			285	2	646	3
3			429	1	971	2
4			568	5	359	2
5			714	2	1719	2
6			851	8	2580	1
7			1001	1	6	4
8			1144	1	11	5
9			1286	2	942	4
10			1428	3	20246	4
11	NE	Karawal	164	3	549	1
12			331	2	1098	1
13			497	2	1639	9
14			663	2	1310	1
15			830	1	2619	2
16			995	2	3930	1
17			1161	2	11	2
18			1327	2	1	1
19			1492	3	245	16
20			1658	3	16334	2
21	SW	Vikaspuri	261	1	317	1
22			522	1	634	1
23			779	5	951	1
24			1042	3	379	1
25			1305	1	756	3
26			1563	4	1137	1
27			1826	2	98	1
28			2085	4	1275	3
29			2349	1	51	3
30			2610	1	1776	1
31	W	Matiala	198	1	312	4
32			396	1	636	1
33			592	3	954	1
34			789	4	1206	3
35			990	1	2413	4
36			1187	2	3624	1
37			1385	2	49	1
38			1584	1	667	1
39			1782	1	274	1
40			1980	1	16817	1

**Compiled sources:**

1. Website of NFS Delhi <http://nfs.delhi.gov.in/> February, 2015
2. Mission Convergence Office, Government of NCT of Delhi, February 2015

## **4.5 Method of Data Collection**

Questionnaire-based survey, Focus Group Discussions (FGD), and interviews form the basis of the primary data collection. Derivations of secondary sources are books, journals, government database, newspaper reports, articles and websites from online sources. The Mission Convergence provides data for respondents under DAY. Household details of PDS beneficiaries under the NFS programme are available on the website of the Department of Food, Supplies and Consumer Affairs, Government of NCT, Delhi.

### **4.5.1 Data from the Questionnaire based Survey**

There are five sections in the household survey data viz. demographic details and segmentation of households; family income and consumption expenditure on food and non-food; service delivery mechanism and consumer choice; utility of basic amenities; and socio-economic impact. The demographic details of the households capture the household respondent's age group, gender, religion, caste and community, literacy level, households' size, type of households and settlements. Religion notably forms the basis of the community to which they belong. The survey identifies two types of households, i.e. Nuclear family households and joint family households. Nuclear family household means a single family where the couple and their children live together. Joint family household type means a larger extended family with children, parents and grandparents, etc. The survey notes two types of settlement, i.e. Pucca and Jhuggi house. Pucca houses or settlements refer to means houses built from solid permanent materials such as cement, brick, stone, etc. Jhuggi closely relates to the type of slum settlements where houses are made of weak materials such as mud, plastics, tin, etc. In Jhuggi settlements, all the houses are very small and most of the houses are adjoined i.e., they share a wall.

The section on Family Income and Consumption Expenditure on Food and Non-food captures the source of livelihoods of the respondents' families and household related expenses. It provides the income levels and the nature of work that members of the households are engaged with. It attempts to observe the trend of relationship between the households' size and the Monthly Per Capita Expenditure (MPCE). It seeks to capture the share of consumption expenditure on food and non-

food in relation to income and the size of the households. Households' food consumption mainly considers wheat, rice, sugar and pulses for two reasons. Firstly, PDS has the provision to distribute wheat, rice and sugar. Secondly, pulses form a rich source of proteins. Pulses' inclusion gives an idea about the nutritional intake of the households. It is to be noted that PDS does not cover pulses. The consumption expenditure of non-food mainly includes expenses on children's education, medical facilities, and clothing. These expenses include school fees, uniforms, transportation, and the like. The expenses on non-food category capture the number of households that indulge in non-essentials such as tobacco and alcohol. This attempt is to verify the general assumption that people who receive CT make wasteful expenditure.

The study compares the actual monthly consumption of wheat, rice, pulses and sugar against the household's ideal monthly requirement. The actual amount of food consumption in kilograms by the PDS households is a combination of FPS allocation and rations bought from the open market or other sources. Other sources of obtaining food can be production for self-consumption from one's own field or garden. DAY households purchase food from the open market or other sources. The ideal monthly consumption of food items is what households would consume if they had more financial strength. The ideal requirement of food items such as wheat, rice, pulses and sugar are suggested by the household participants at the time of the survey. The survey also seeks to identify the type of food or the diversity of diet consumed by the households. This is classified as vegetarian and non-vegetarian. The first group consists of those households that consume mainly cereals, pulses, vegetables, milk and milk products and the second group consumes all the items consumed by the first group, including eggs, fish and meat. It tries to comprehend how food subsidies from PDS and CT from DAY contribute towards both food and nutritional security to the households.

The section on service delivery mechanism and consumer choice gives details of the PDS consumer's experience of collecting rations from the FPSs and their view on the quality of the ration. Households provide information about the quantity of ration collected from the FPS and if they feel they pay more than the legitimate price of the ration. It gives an idea of the respondents' views about the working of the FPSs. This section brings out intriguing aspects of the survey in relation to the preference of

the respondents for service delivery mechanism, CT or PDS, and the reasons for their choice. It also reveals the magnitude of indispensability of PDS in the life of respondents. For DAY, it surveys if the households receive cash regularly, and the manner of receiving CT. The study integrates beneficiaries' ideas on what amount would be appropriate as CT for a similar scheme. It thus points out the relevance of cash for the households amid the availability of another food security scheme i.e. PDS. One significant step is to reveal the households' preference for cash or food as a medium of service delivery for welfare schemes.

The section on utility of basic amenities explores the crucial aspects concerning households' access to basic amenities such as piped water connection, clean drinking water, healthcare facilities, electricity connection, and education for children, toilet facility and practice of open defecation. Access to these basic amenities is important because these factors are crucial to determine the food security of households. Use of in-house toilets and forbidding open defecation are ways that contribute to food security and better health. Open defecation not only causes the faecal matter to percolate to ground water and contaminate it but can cause infections to human body directly.

The section on the socio-economic impact identifies the decision makers of the households with regard to food and with regard to general household finances. One of the major factors contributing to women's empowerment is their achievement of economic independence. Economic independence enables women to shed their dependence on men for their day-to-day needs. It also empowers women to spend willfully on their needs, which gives them a sense of freedom and choice. In this context, DAY provided cash to female heads of household and this section studies this aspect. It tries to understand the decision making process at the household level and whether gender discrimination exists with regard to food consumption and behaviour. It also looks at women's participation in social awareness campaigns such as health, nutrition and education and the sense of empowerment achieved (or not) by them.

#### **4.5.2 Conduct of Focus Group Discussions**

A total of eight FGDs were conducted across the four districts based on voluntary participation. The study covered areas in four circles namely Prem Nagar-I

in Kirari, Vikas Nagar in Vikaspuri, Soniya Vihar in Karawal, Shiv Vihar in Matiala. Prior to the discussion, the purpose of the study and the difference between the PDS and the CT were explained to the group participants. The participants expressed their experience and understanding of both the welfare schemes and clarified any queries thereupon. The study expected the participants to respond with honesty with an assurance of anonymity for their responses. The participants were briefed about the provisions of the NFSA and their responses ascertained about times of food crisis: what amount and type of food they would consume to maintain their health; and whether they would migrate in search of food and employment. At the household level, questions were asked about who ate more or less, and why; if they faced problems in accessing basic amenities; if they gave importance to the role of women in ensuring the family's food consumption; whether women could handle cash better than men and other aspects of decision making at the household level.

In FGDs, the beneficiaries actively participated in the discussion on many issues that revolved around access to basic amenities of the households. Some FGDs consisted of both beneficiaries of food and cash recipients. The perspective of the beneficiaries of both PDS and DAY helped to obtain their feedback with regard to the mechanism of service delivery. Some of the beneficiaries of DAY that already had ration entitlement under the NFS scheme following the termination of DAY were able to provide some judgments on both the types of service deliveries. This data augmented another form of a participative study, apart from the questionnaire-based survey.

#### **4.5.3 Interviews with the FPS dealers**

Subsequent to the Group Studies, the field study moved on to interviews with the FPS dealers where the beneficiaries collected rations. Participants from Group Studies directed the researcher to locate their respective FPS dealers. Open-ended interviews with the FPS dealers helped to understand their working and relationship with the people. Interviews with the FPS dealers covered the areas in four Circle Offices where the group study participants and survey respondents collected rations.

Interviews carried out with the FPSs dealers are Balajee store in Prem Nagar-I at Kirari, Ram Gopal Vijayvargiya store in Vikas Nagar at Vikaspuri, Suman store in

Soniya vihar at Karawal Nagar and Dev Gun Store in JJ Colony at Matiala. In Matiala, although the Group Study took place in Shiv Vihar, the interview with the FPS dealer was held at JJ Colony since the ration shop at Shiv Vihar closed down during the field visit. Both Shiv Vihar and JJ colony belong to the same Circle Office i.e. Matiala. The respondents from the survey collect rations from the Dev Gun Store at JJ Colony, Matiala.

#### **4.5.4 Interviews with the policy makers or practitioners**

Both structured and non-structured Interviews were also conducted with individual respondents, policy makers or practitioners. Interviews with officials help to understand the implementation process and differences in the effectiveness of PDS and CT schemes. It brings out the challenges faced by the implementing agencies of DAY and PDS. It helps to understand the impact of the first DCT scheme for food security initiated by the Delhi government.

#### **4.6 The field experience**

The field study covers the districts of North East, North West, West, and South West Delhi. Most of the localities surveyed are located on the outskirts of the main city. Transportation facilities such as Metro train, buses, and autos are available to reach these regions. Most of the areas around the localities are unclean and unhygienic especially due to sewage waste in open drains. Localities around station block in Prem Nagar-I under Kirari circle, Kalibasti under Vikaspuri circle and Sri Ram colony under Karawal Nagar circle have highly unhygienic surroundings. In many places, there are no provisions for disposal of garbage, which therefore lay out in the open.

In general, the conduct of the field survey faced many challenges, beginning with that of tracing the beneficiaries' addresses. Despite these difficulties, respondents have helped tremendously in making the field survey meaningful with their proactive and critical replies to the survey questionnaires. Most of the selected beneficiaries were available for participating in the survey. Some beneficiaries whose addresses were untraceable could not participate. The addresses of the beneficiaries, which had just the name of the locality or village but did not mention any block number, were either hard to trace or untraceable. Some beneficiaries had wrong house addresses



even though the chosen beneficiary was around the vicinity of the given address with a different address. Some addresses from the given data were traceable but the registered beneficiaries did not live there and somebody else was residing at that address. While searching for beneficiaries, some addresses had an incorrect block number even though the name of beneficiary and locality was correct. In one case, two different households with same name details shared the same address in one building. There were major difficulties in finding out the exact addresses and physically locating the beneficiaries. Such instances made the field visits somewhat complicated even though the method of selection was being rigorously followed. Other than the complexity involved in tracing the house addresses of the households, there was no other difficulty all through the process of the survey. All the beneficiaries were very co-operative and responsive to the survey. Queries and doubts regarding the study were sincerely answered by all the individual beneficiaries and family members.

Conducting FGDs for PDS respondents was relatively less difficult than CT respondents since several households in areas of field study were beneficiaries of PDS. Thus, the majority of voluntary participants were usually PDS beneficiaries. This was not the case with the CT respondents because the beneficiaries of DAY were scattered in different localities in each of the four circles. Therefore, in the case of FGDs amongst DAY beneficiaries, people made efforts to travel some distance to come together to participate in the group study. The conduct of interviews with the FPS dealers and program officials was done without much difficulty.

The data collected from the Questionnaire-based survey is reported in five main sections viz. demographic details and segmentation, family income and consumption expenditure on food and non-food, service delivery mechanism of PDS and DAY and consumer choice, utility of basic amenities such as education, healthcare, sanitation care and so forth, and the socio-economic impact of PDS and DAY. The responses of the FGD participants, FPS dealers and program officials are elaborated to compare and understand each side's perspectives on both the welfare schemes. All findings from the field research are described in the following chapter through series of illustrations using figures, tables and images.

## CHAPTER 5

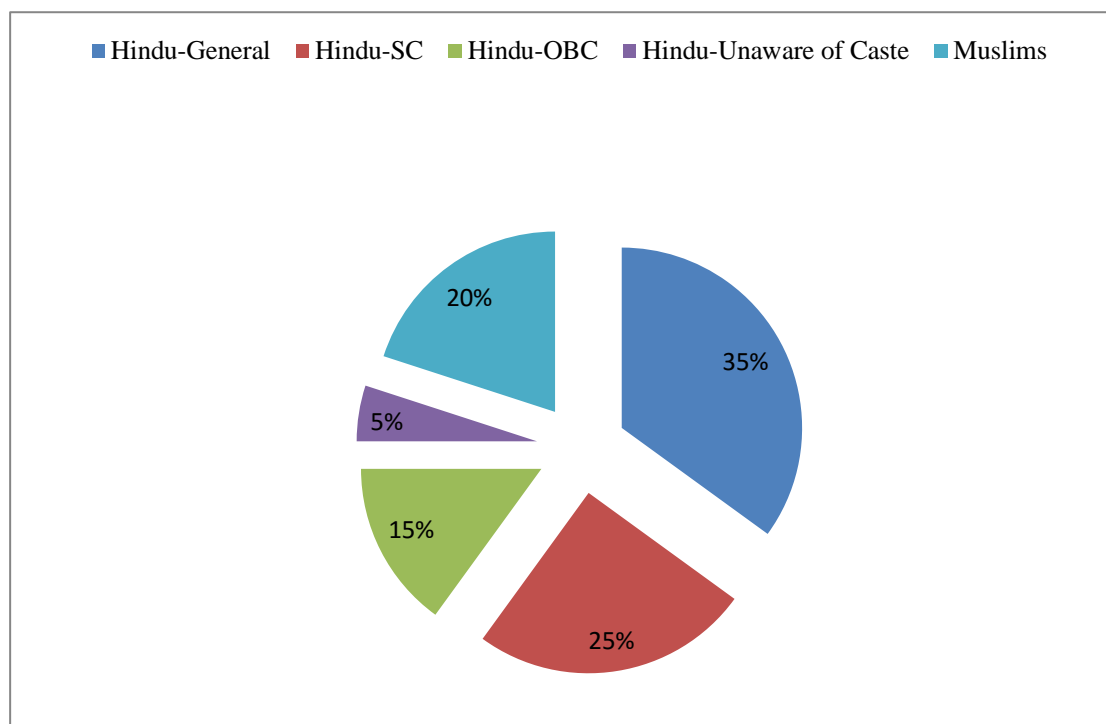
### FINDINGS OF THE COMPARATIVE STUDY OF PDS AND CT IN DELHI

#### 5.1 Responses of the PDS beneficiaries surveyed

##### 5.1.1 Demographic details of the households

All the ration card holders are female in the age group of twenty-five to seventy-five. There are thirty-two Hindu households and eight Muslim households from the survey conducted in forty PDS households. Thus, 80 percent of the respondents belong to Hindu community and 20 percent of the respondents belong to Muslim community. Shown below is the representation of community wise breakup of respondents (Figure 1).

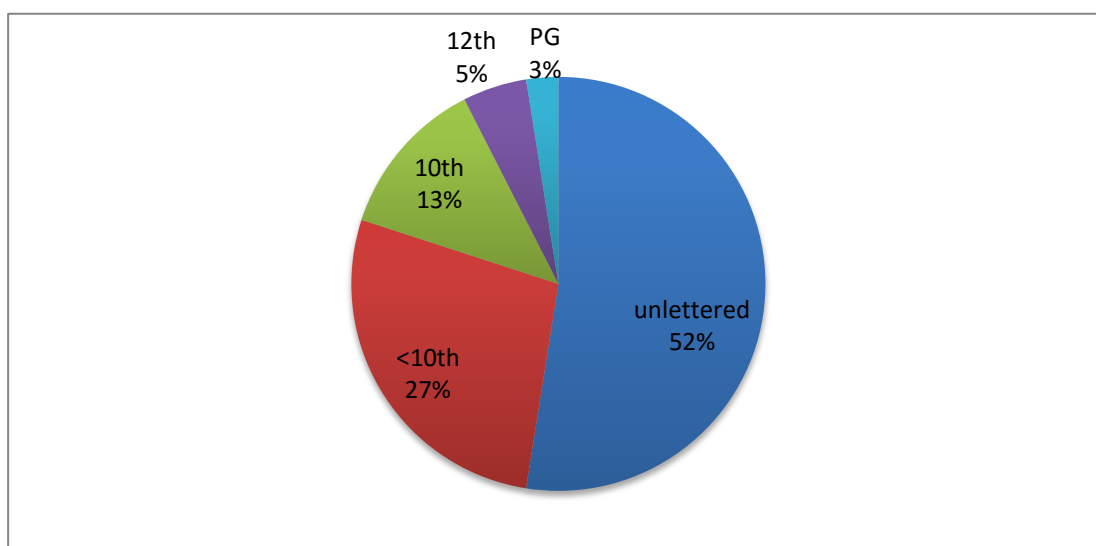
**Figure 1 Caste and community representation of the PDS respondents**



Source: Author's calculation of primary data (Appendix B. Table 1)

The data for literacy shows that majority of respondents are unlettered. Nearly 52 percent females are unlettered. Only one out of forty respondents is a postgraduate and the remaining could not study beyond the senior secondary level. The percentage wise breakup of the literacy status of the beneficiaries is shown in the below figure.

**Figure 2 Literacy levels of PDS beneficiaries**



Source: Author's calculation of primary data (Appendix B. Table 2)

There are twelve Single/Nuclear family households and fifteen Joint family households i.e. 62.5 percent of the households are of Single family category while remaining are Joint family households. The size of households varies from one to thirteen and the average household size is six. The majority of the households i.e. 77.5 percent live in Pucca settlements while the remaining 22.5 percent of households live in Jhuggi settlements.

**Table 4: Type of household and settlements of PDS respondents**

Particulars	Type of household		Type of settlement	
	Joint	Single	Pucca	Jhuggi
No of Households	15	25	31	9
Percentage wise	37.5	62.5	77.5	22.5

Source: Author's calculation of primary data

#### 5.1.2 Family income and Consumption Expenditure on Food and Non-food Items

Members of the households earning a livelihood vary in number from zero to four. Overall, the average number of income earners in a household is one. Twenty-four households or 60 percent of households depend on the income earned by one member and twelve households or 30 percent of households depends on the income earned by two members. Only two households depend on four income earners from

their family and one household depends on the income earned by three members in their family. There is only one household with no income earner, which is sustained by renting out a portion of the house.

**Table 5: Earning capacity of PDS Households**

No of income earners in a household	No of such households	Percentage wise
0	1	2.5
1	24	60
2	12	30
3	1	2.5
4	2	5
Total	40	100

Source: Author's calculation of primary data

For livelihood purposes, income earners are engaged in diverse activities ranging from working in government service to casual labour. Out of fifty-eight total income earners from forty households, twenty-four or 41 percent are casual labourers, twenty or 34 percent work in the private sector, nine or 15 percent are in self-employment and only four members or 7 percent work in the government sector. Therefore, the majority of them are casual workers.

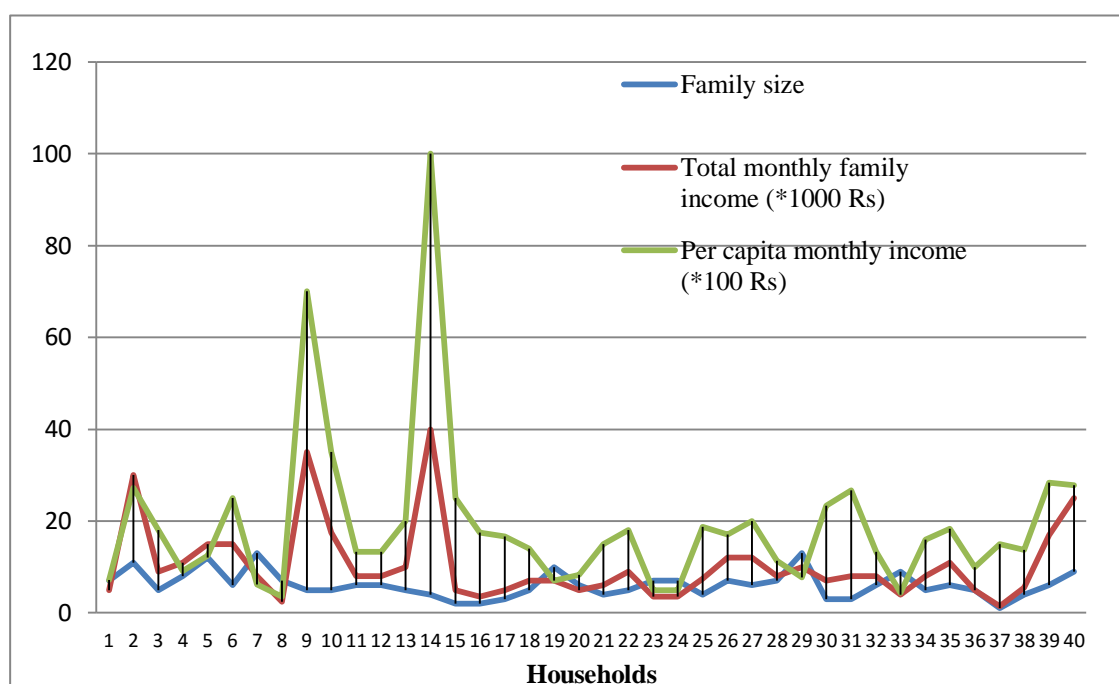
**Table 6: Nature of employment and number of income earners of PDS households**

Nature of work	No of Income earners	Percentage
Casual Work	24	41
Private sector	20	34
Self-employed	9	16
Government service	4	7
Others (House rent)	1	2
Total	58	100

Source: Author's calculation of primary data

Out of forty households, the member of the household who earns the maximum income i.e. Rs. 40000 a month, works in the private sector. The household with the minimum income earns Rs. 1500 per month from a rented house and not through labour or employment. The household that earns maximum income consists of four members and the household that has the minimum income is a sole member. The average monthly income of the PDS households is Rs. 10450 and the average per capita income is Rs. 1741.66. As shown below in the figure 6, with the increase in family size there is a decrease in the per capita monthly income and vice versa.

**Figure 3 PDS households' total monthly income and per capita monthly income**



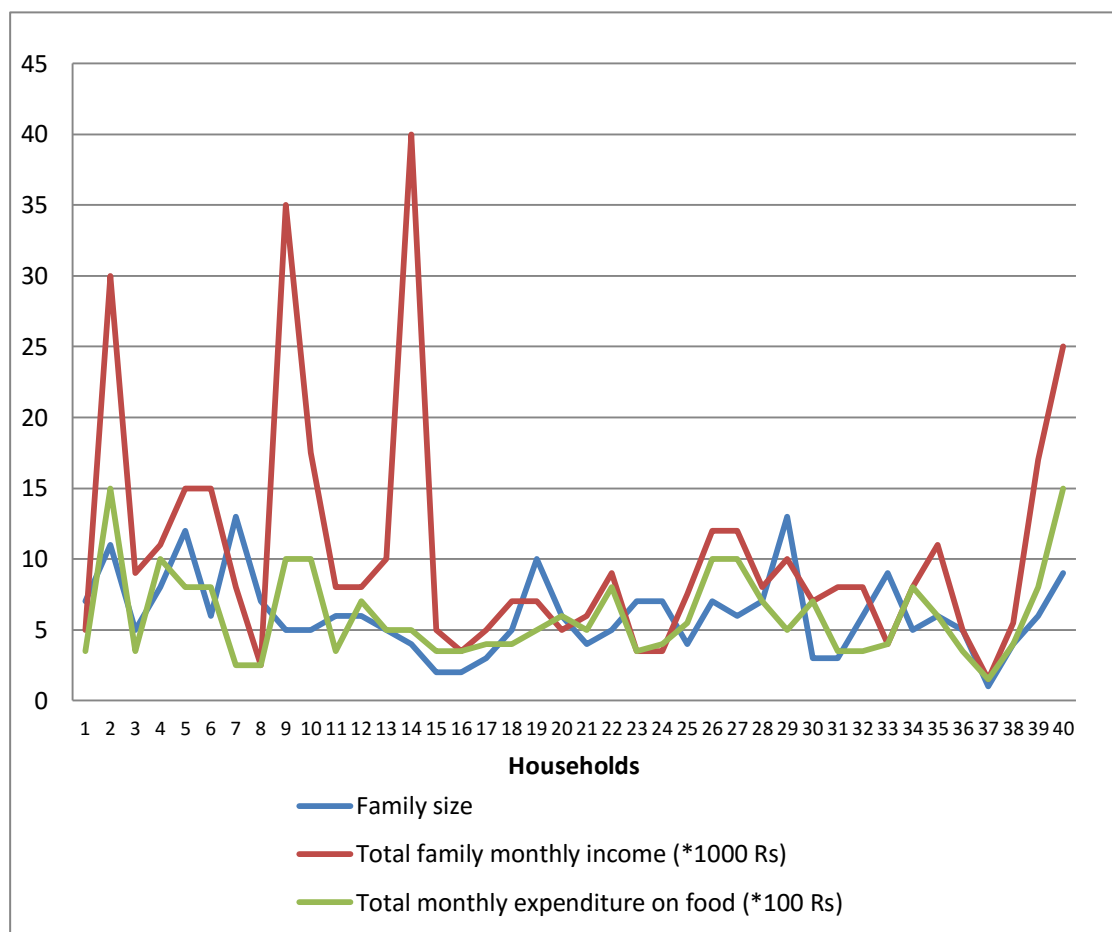
Source: Author's calculation of primary data (Appendix B. Table 3)

There is a variation in the individual household's Monthly Per Capita Expenditure (MPCE) on food and non-food in relation to the total monthly income and households' size. For example, a thirteen member household that earns a total of Rs. 8000 per month spend Rs. 2,500 on food. A twelve member household that earns Rs. 15,000 per month spend Rs. 8000 on food, and a ten member household that earns Rs. 30,000 spend Rs. 15,000 on food per month (Appendix B Table 4). Amongst PDS households, the average monthly consumption expenditure on food is Rs. 6037.5 and the average MPCE on food is Rs. 1006.25.

The individual household's share of MPCE on non-food items is as low as Rs. 36 per month whereas the maximum is Rs. 1,750 per month (Appendix B Table 5). The maximum expenditure on non-food items by a household is Rs. 10,000 per month, which consists of eleven members. The household that spends minimum on non-food consists of seven members who spend Rs. 250 only per month. Overall, the households average monthly consumption expenditure on non-food is Rs. 1937.5 and the average MPCE on non-food is Rs. 322.91 only.

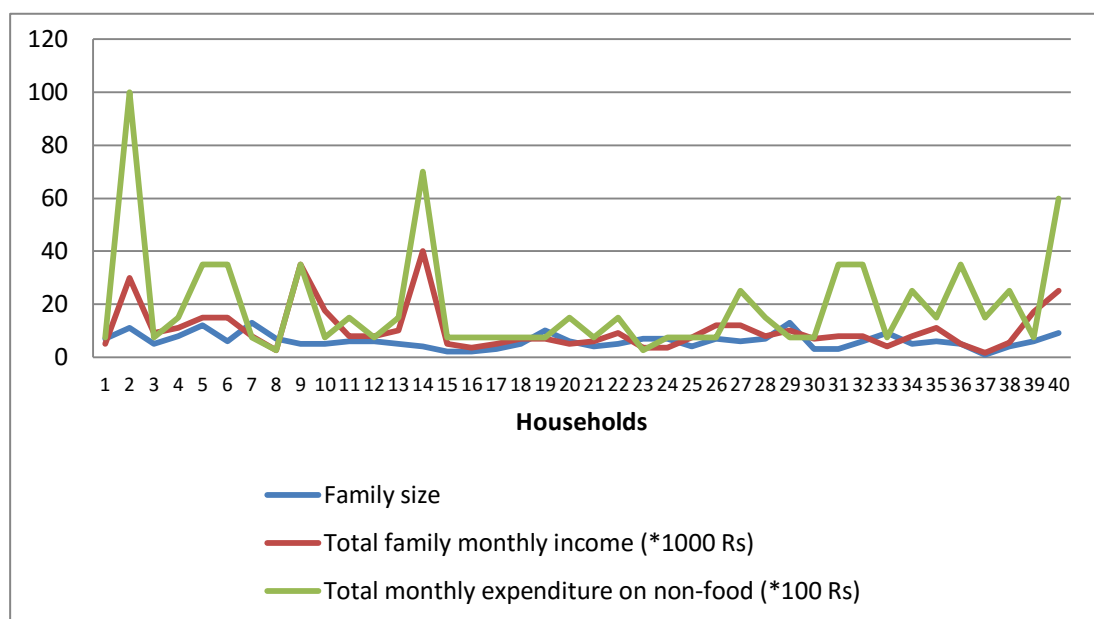
The line charts below shows that the monthly expenditure on food and non-food items varies in direct relation to family size in most cases. This inference is natural considering that, when family size increases, expenditure on necessities such as food, children's education, healthcare and so forth generally also increases. The horizontal axes represent the forty households in the following figures 4 and 5.

**Figure 4 Expenditure on food in relation to PDS households' size and family income**



Source: Author's calculation of primary data (Appendix B. Table 4)

**Figure 5 Expenditure on non-food items in relation to PDS households' size and family income**



Source: Author's calculation of primary data (Appendix B. Table 5)

The expenditure on non-food items is divided into four categories i.e. education, clothing, medical care, alcohol and tobacco. This classification is in order to capture the nature of non-food expenses and not in terms of the share of income expenses.

**Table 7: Particulars of cash spent on non-food by PDS households**

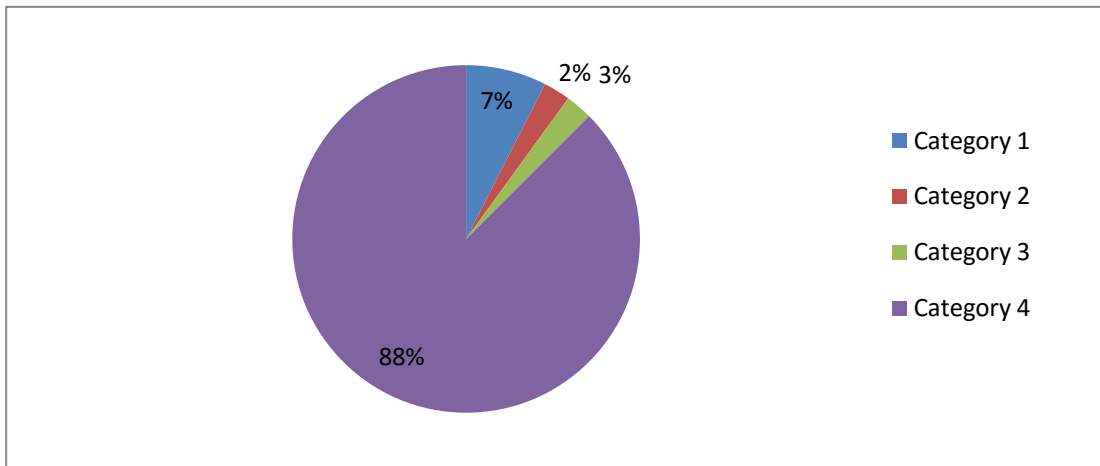
Particulars	Education	Medical	Clothes	Alcohol	Tobacco	No. of households	Percentage of households
Category 1	☑	☑	☑	☑	☑	3	7.5
Category 2	☑	☑	☑	☑	☒	1	2.5
Category 3	☑	☑	☑	☒	☑	1	2.5
Category 4	☑	☑	☑	☒	☒	35	87.5
Total						40	100

Source: Author's calculation of primary data

For the purpose of classification in the nature of non-food expenses, households are divided into four categories. Category 1 households spend on all non-food items i.e. education, medical care, clothes, alcohol and tobacco. Category 2 spends on all non-food items excluding tobacco. Category 3 spends on all non-food

items excluding alcohol. Category 4 spends on all non-food items excluding both alcohol and tobacco. The figure 6 below illustrates that 87.5 percent of households avoids spending money on alcohol and tobacco and spends on education, medical care and clothing. Households that spend cash on alcohol and tobacco apart from other items come a distant second comprising only 7 percent of such households.

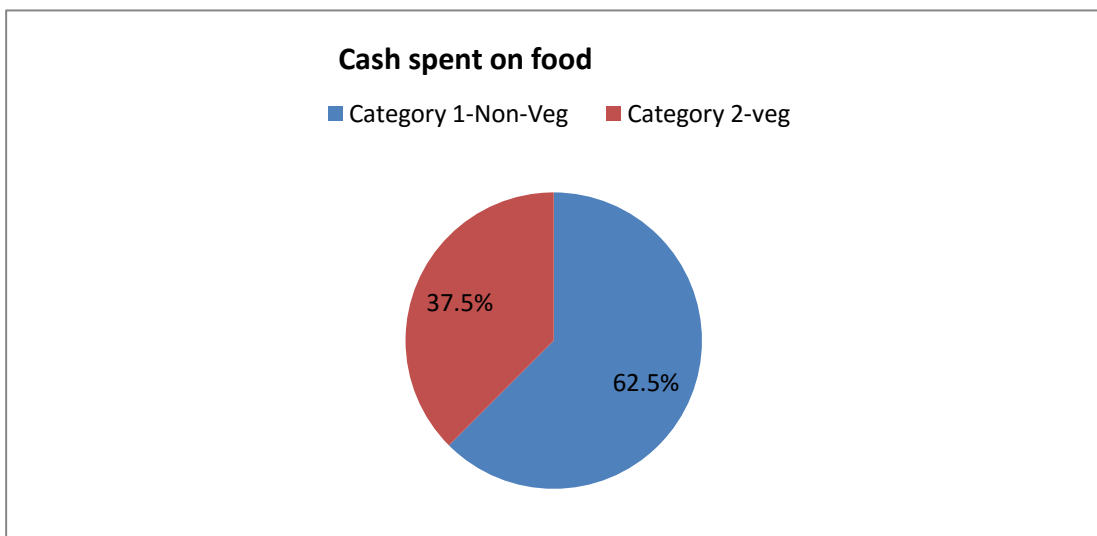
**Figure 6 Particulars of cash spent on non-food items in PDS households**



Source: Author's calculation of primary data

The households' type of food consumption shows that 62.5 percent of households are non-vegetarians and remaining 37.5 percent of households are vegetarians as presented in the figure below. All the households take at least two meals a day.

**Figure 7 Type of food consumption by PDS households**



Source: Author's calculation of primary data (Appendix B. Table 6)

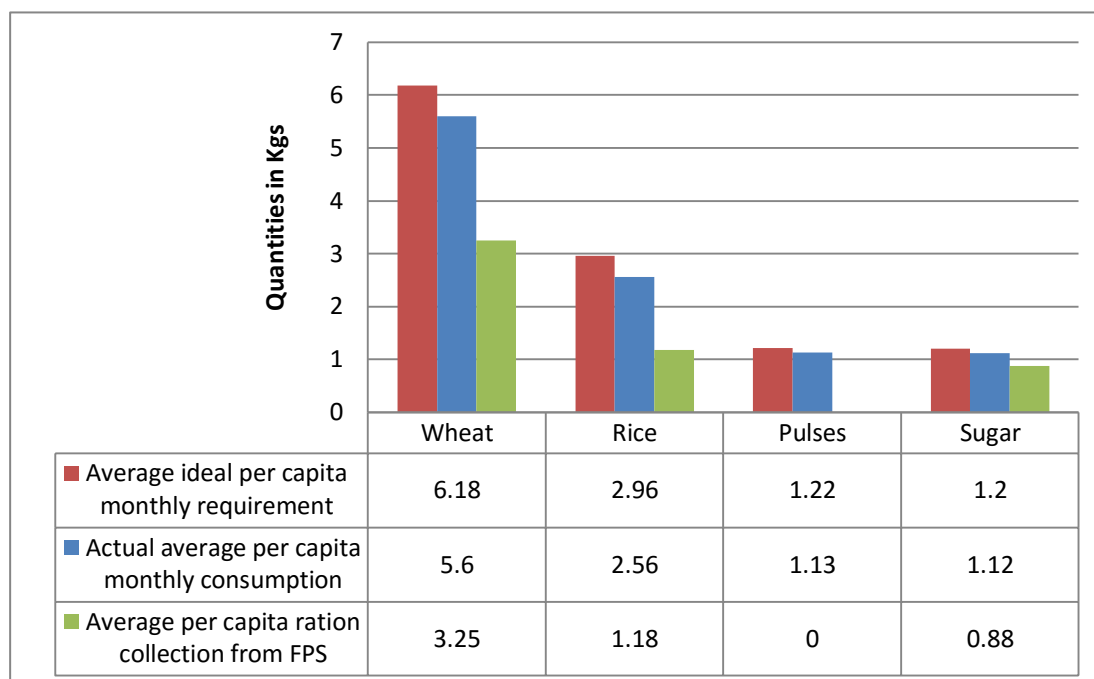


PDS households obtain their total monthly consumption of food items from the FPSs, open market and other sources. The average total monthly actual consumption of food items by the households is 33.65 kg of wheat, 15.36 kg of rice, and 6.81 kg of pulses and 6.75 kg of sugar (Appendix B Table 7). The average monthly per capita consumption is 5.6 kg of wheat, 2.56 kg of rice, 1.13 kg of pulses and 1.12 kg of sugar.

Based on the PDS households assumption, their ideal monthly food items requirement is 37.13 kg of wheat, 17.8 kg of rice, 7.36 kg of pulses and 7.2 kg of sugar. Therefore the ideal monthly per capita requirement is 6.18 kg of wheat, 2.96 kg of rice, and 1.22 kg of pulses and 1.2 kg of sugar (Appendix B Table 8). If we compare the ideal requirement of these food items to the actual consumption, PDS households require additional 3.48 kg of wheat, 2.44 kg of rice, 0.55 kg of pulses and 0.45 kg of sugar to fulfill its ideal requirement. In terms of per capita consumption, an additional 0.58 kg of wheat, 0.39 kg of rice, 0.07 kg of pulses and 0.06 kg of sugar fulfills the ideal requirement.

The actual quantity of ration purchased from the FPS varies across the forty PDS households. Each household has only one ration cardholder. The type of ration cards possessed by the households determines the items and quantity of food they receive from the FPS i.e. wheat, rice and sugar. Under BPL card entitlement, the maximum quantity of wheat received by one household is 30 kg (Appendix B Table 9). Under APL entitlement, the maximum quantity of rice received by a household is 20 kg. Amongst those households who purchase or used to purchase ration from the FPS, the average amount of wheat collected by thirty-four households is 18.76 kg while that of rice collected by thirty-one households is 6.67 kg each month. Less than half of the households receive sugar i.e. only 40 percent of PDS households collect sugar from the FPS. Most of these households receive 5 kg of sugar and a few receive a little more than 5 kg and thus the average is 5.25 kg. On an average, out of those who collected ration from the FPS, the monthly per capita allotment of ration from the FPSs is 3.25 kg of wheat, 1.18 kg of rice and 0.88 kg of sugar.

**Figure 8 Actual consumption and ideal requirement of wheat, rice, pulses and sugar amongst PDS households and FPS allocation**



Source: Author's calculation of primary data (Appendix B. Table 7-9)

### 5.1.3 Service delivery mechanism and consumer choice

Twenty-seven out of forty households collect rations from the FPS. In terms of service delivery, approximately 68 percent of households utilize PDS service and amongst these, 63 percent of households receive ration from the FPS regularly and 5 percent do not. 22 percent of households have stopped receiving ration under PDS, some since the past few months and others for several months, while the remaining 10 percent did not collect ration from FPSs at all.

**Table 8: Whether PDS households collect ration on a regular basis**

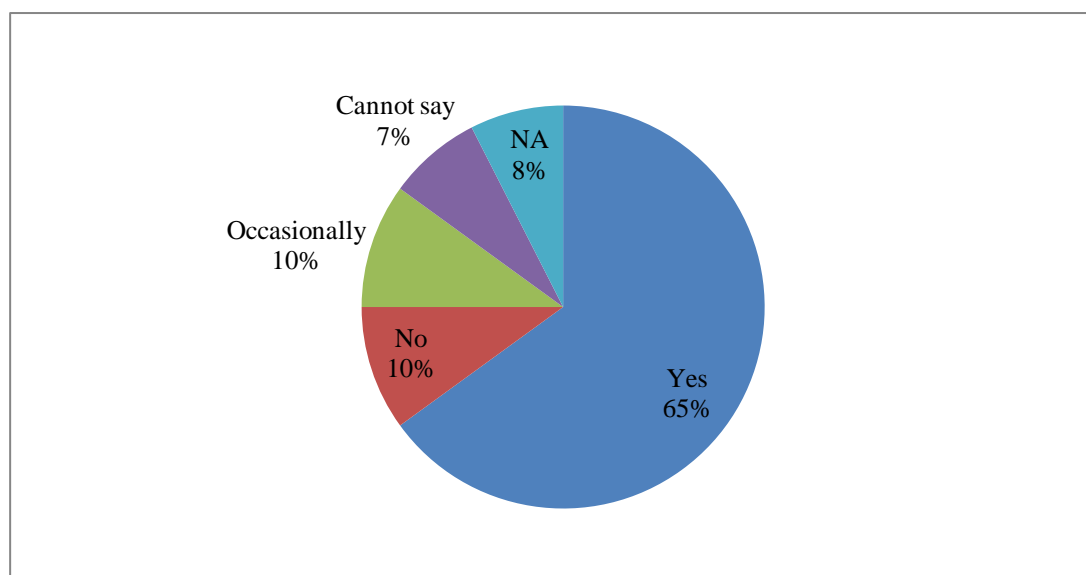
Remarks	Yes	No	Stopped receiving ration under PDS	Yet to receive	Never	Stopped PDS and received CT under DAY	Total
No of households	25	2	9	2	1	1	40
Percentage of households	62.5	5	22.5	5	2.5	2.5	100

Source: Author's calculation of primary data (Appendix B. Table 10)

Amongst those households that never collected rations from the FPSs, two households that recently received a fresh PR card under NFS scheme had not yet begun to collect their ration allocation at the time of the survey. Under the NFS scheme, some fresh cardholders were yet to receive rations at the time of the survey. One of the households never collected rations although it had the ration card; the household did not require PDS due to sufficient resources at home and instead opted for CT. One of the households had a ration card but did not receive PDS and instead received CT under DAY. This respondent was a previous PDS beneficiary who became a CT beneficiary under DAY.

In reference to the quality of the ration supplied by the FPS, 65 percent of households trust the quality of the ration as against 20 percent of households that suspect its quality. Although there are not many complaints with regard to the quality of food grains distributed at the FPSs, some still complain that the FPS dealers degrade grain quality by mixing it with poorer quality. Those households that do not receive rations anymore could not comment on the quality of the ration.

**Figure 9: Whether PDS households trust the quality of ration**



Source: Author's calculation of primary data (Appendix B. Table 11)

Twenty-three out of forty households pay more than the subsidized price of rations from the FPSs. Only thirteen households pay the actual subsidized price. Four households could not comment because they have never received rations, are yet to receive them or have completely stopped collecting rations. Therefore, only one-third

of the respondents admit to paying the valid amount of the subsidized price of the ration as mandated under their respective ration cards and approximately 58 percent households pay more than the valid price. This reflects the degree of corruption and black marketing at the food distribution level.

**Table 9: Whether PDS households pay more than the subsidised price**

<b>Remarks</b>	<b>Yes</b>	<b>No</b>	<b>NA</b>	<b>Total</b>
No of households	23	13	4	40
Percentage of households	57.5	32.5	10	100

Source: Author's calculation of primary data

Amidst black marketing and erosion of food grains quality at the food distribution level, an overwhelming majority, i.e. 90 percent of the households find PDS indispensable and only one household thinks otherwise.

**Table 10: Whether households finds PDS indispensable**

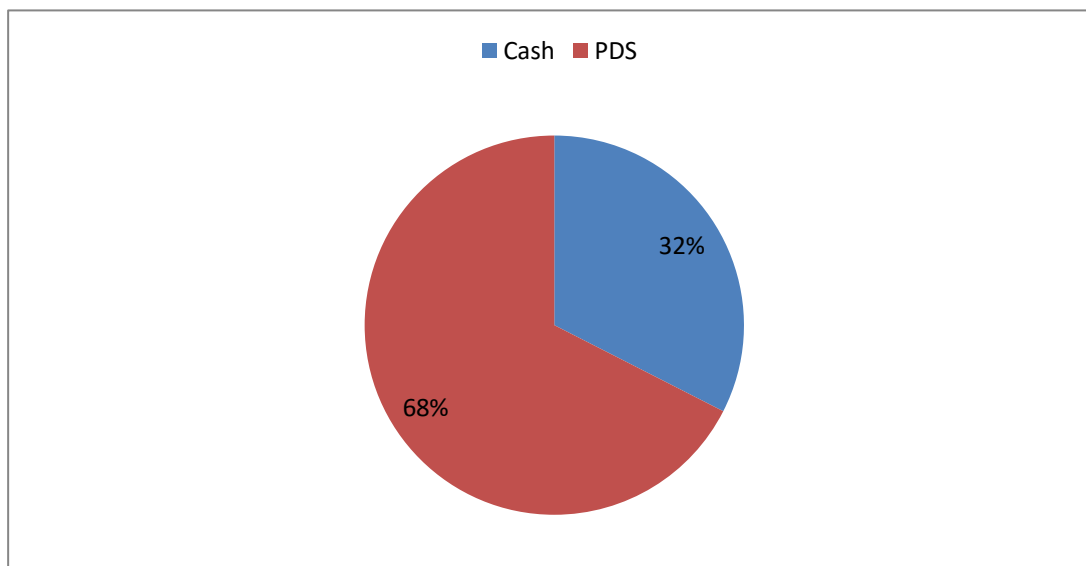
<b>Remarks</b>	<b>Yes</b>	<b>No</b>	<b>NA</b>	<b>Total</b>
No of households that finds PDS indispensable	36	1	3	40
Percentage of households	90	2.5	7.5	100

Source: Author's calculation of primary data

For some, there has been a shift in their preferences regarding service delivery in the light of an alternative arrangement such as CT. This is evident from the subsequent table where nearly one-third of the respondents prefer to have CT as against 68 percent of households that choose to remain with PDS. This change in the preference of service delivery mechanism is attributed to various reasons such as the rude and allegedly corrupt behaviour of FPS dealers, crowded FPS and long waiting queue, inadequate allocation under PDS and the flexibility in utilizing cash. However, the wish of some to continue to receive rations under PDS is due to a negative perception of CT rather than a positive inclination for PDS service; and this negative

inclination is due to the CT amount being low and prone to misuse. There is also the problem of utilizing banking facilities such as ATM or frequenting Bank. To some extent, they also find PDS assuring them of subsidized ration.

**Figure 10 Preference of PDS households for cash or food**



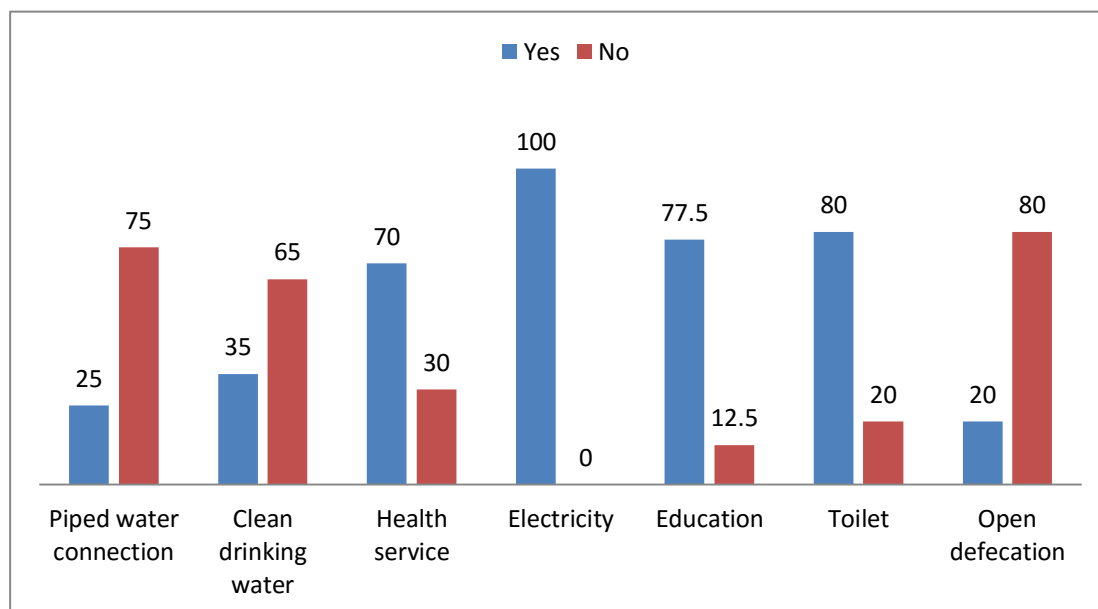
Source: Author's calculation of primary data (Appendix B. Table 12)

#### 5.1.4 Utility of basic amenities

One of the major problems for the respondents, and one that is more or less uniform across all of them, relates to access to clean water for everyday household purposes. Three-fourths of the households do not have piped water connections and have to collect water from a common tap in the locality. Even then, there is no surety about the quality of water since on several occasions the water stinks of sewage, which is a serious health hazard. The condition is even less satisfactory with respect to drinking water. Out of forty PDS households, 65 percent complain of difficulty in obtaining clean drinking water since their only source is the Delhi Jal Board's (DJB) water tankers. Even when these tankers arrive, the point of collection of water is usually too far from their houses or the crowds around the tanker make the task all the more difficult. 35 percent of the households who have access to clean drinking water also obtain water from DJB but neither access to tankers nor the difficulty of getting water is a problem for them. Despite the water problem, 80 percent of the households have toilets in their houses and do not defecate in the open while the remaining do. One positive aspect in the following data is that 77.5 percent of the respondents'

children obtain education either in school or in college. Amongst the rest of the families, 10 percent either have no children or too young to send to schools and 12.5 percent do not send them at all. Another positive aspect is that 100 percent of the respondents' houses are electrified.

**Figure 11 Access to basic amenities amongst PDS households**



Source: Author's calculation of primary data (Appendix B. Table 13)

\* 4 households (ten percent) do not have children or too small to go to school

### 5.1.5 Socio-economic impact

In 95 percent of the households, females manage the household's general expenditure whereas in the remaining 5 percent, both males and females collectively decide. In almost 98 percent of households, females manage decisions regarding food or diet.

**Table 11: PDS households' decision making with regard to food and general finances**

<b>Decision maker</b>	<b>Who makes decisions with regard to food?</b>	<b>Percentage</b>	<b>Who makes general decisions with regard to household finance?</b>	<b>Percentage</b>
Husband/Father	0	0	0	0
Wife/Mother	39	97.5	38	95
Both husband and wife	1	2.5	2	5
Total no of households	40	100	40	100

Source: Author's calculation of primary data

The respondents claimed that there is no discrimination between male and female members in the food allocation at home. However, nearly 8 percent of the respondents admit to fighting over food, which means fighting over what to eat rather than over food allocation according to the respondents.

**Table 12: PDS households' behavior with regard to food**

<b>Cause</b>	<b>Fight for food</b>		<b>Share of food</b>	
	<b>Yes</b>	<b>No</b>	<b>Discrimination</b>	<b>No discrimination</b>
Remarks				
No of Households	3	37	0	40
Percentage of households	7.5	92.5	0	100

Source: Author's calculation of primary data

In addition, there has been little participation of the women respondents in awareness campaigns or workshops on education, health, nutrition and so on. Out of forty respondents, only three have visited or attended such programs. Programs that provide vocational training to the women to facilitate their economic independence and decision making role at the household level and beyond are conspicuous by their absence.

**Table 13: Participation in Health, Nutrition and Education Awareness Campaign by PDS respondents**

Cause	Health, Nutrition and Education Awareness Campaign	
	Yes	No
Remarks		
No of Households	3	37
Percentage of households	7.5	92.5

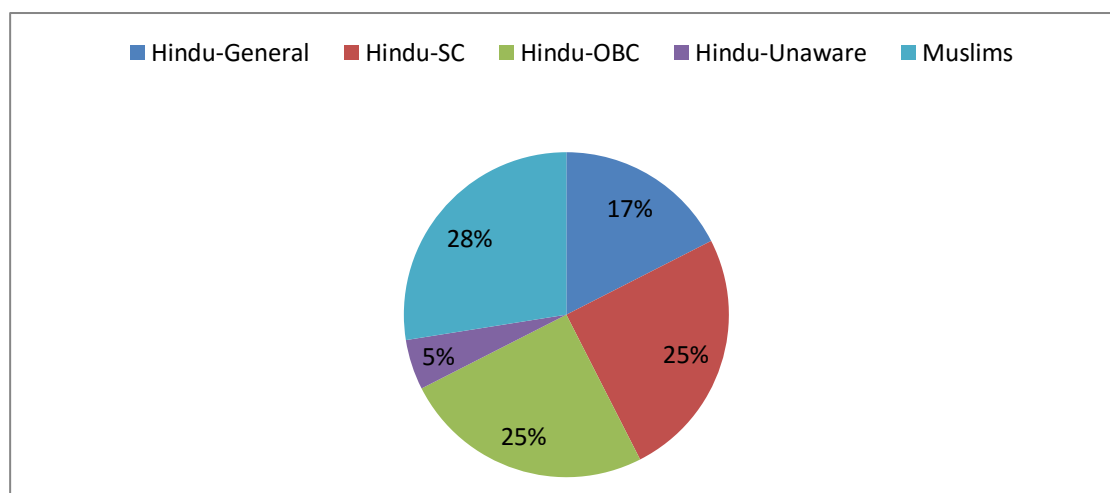
Source: Author’s calculation of primary data

## 5.2 Responses of the DAY beneficiaries surveyed

### 5.2.1 Demographic details and segmentation of households

All the beneficiaries of DAY are females, of an average age of forty-four years. The eldest female head of the households is seventy-two years old while the youngest is twenty-two years old. Of the forty households surveyed which received CTs under DAY, approximately 72 percent of households are Hindus and remaining 28 percent are from Muslim community. Among Hindu households, SCs and OBCs constitute 25 percent each while General category form 17 percent of the households surveyed and 5 percent are unaware of their castes. None of the households surveyed belong to ST category.

**Figure 12 Caste and community representation of the DAY respondents**



Source: Author’s calculation of primary data (Appendix B. Table 14)



The differences in the communities to which respondents belong water down when it comes to the type of houses they live in. 95 percent of them reside in *Pucca* houses while only 5 percent or two households live in *Jhuggi* settlements.

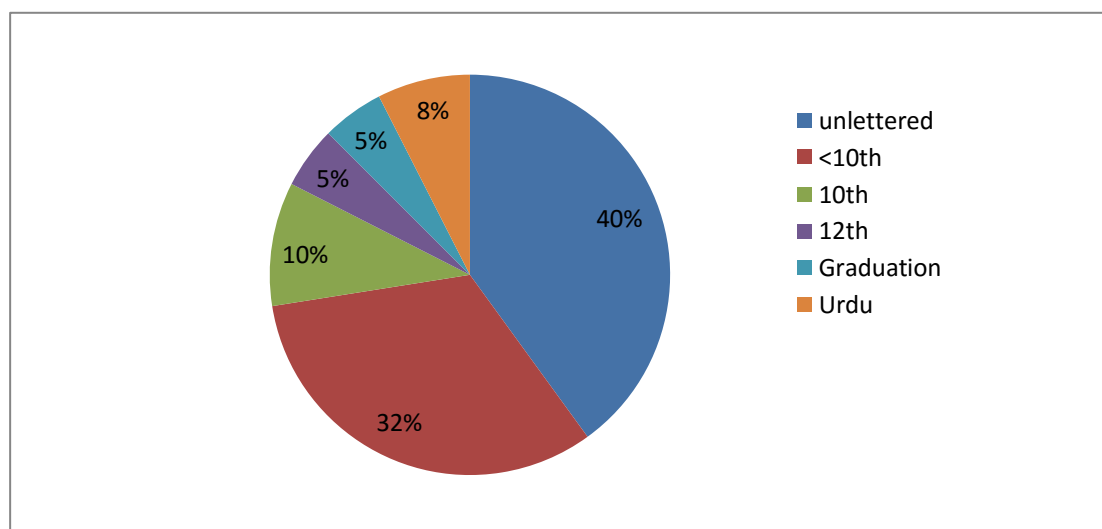
**Table 14: Type of housing and settlements of DAY respondents**

Particulars	Type of settlement	
	Pucca	Jhuggi
No of Households	38	2
Percentage wise	95	5

Source: Author’s calculation of primary data

The literacy status of the respondents shows that 40 percent of the women are unlettered. Only 5 percent of them are graduates and nearly 47 percent studied up to the senior secondary level. None of the women are postgraduates or have any technical education.

**Figure 13 Literacy levels of the DAY respondents**



Source: Author’s calculation of primary data (Appendix B Table 15).

### 5.2.2 Family Income and Consumption Expenditure

In each household, there is at least one person who works in order to earn a livelihood for the family. Single member earning households are in a majority at 75 percent and only 10 percent of households have four family members who work to earn.

**Table 15: Earning capacity of DAY households**

No of income earners in a household	No of such households	Percentage wise
0	0	0
1	28	70
2	7	17.5
3	4	10
4	1	2.5
Total	40	100

Source: Author's calculation of primary data

Amongst the income earners, 52 percent are in casual employment, 22 percent in self-employment category while just 2 percent in government service and the rest work at private organizations on a monthly salary basis.

**Table 16: Employment and Number of Income earners of DAY households**

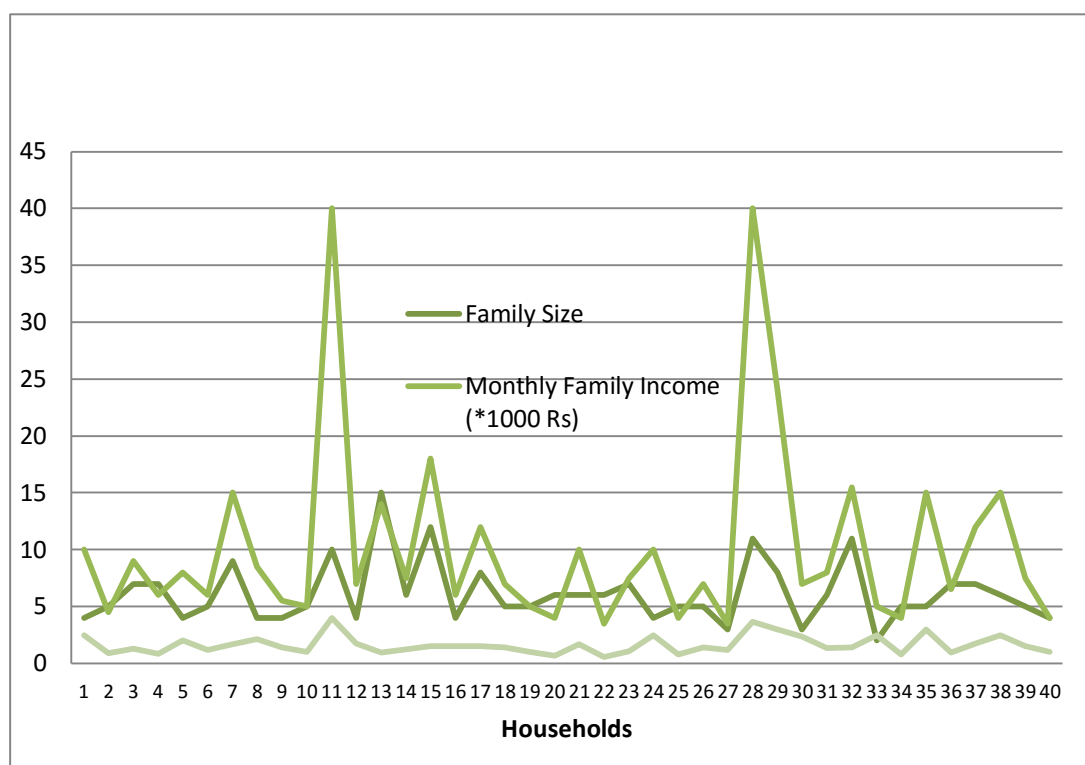
Nature of work	No of Income earners	Percentage Wise Distribution
Casual Worker	24	52.17
Self employed	10	21.74
Government service	1	2.17
Private	11	23.91
Total	46	100

Source: Author's calculation of primary data

The average family size is approximately six and the household with the maximum family size is fifteen. The household with the maximum monthly income

earns Rs. 40,000 and the household with the minimum monthly income earns Rs. 3500 (Appendix B Table 16). Overall, the average monthly income of the family is Rs. 10,175 and the per capita income is Rs. 1661.22. The general observation is that, with the increase in household size, per capita income decreases even in some households where monthly family income is exceptionally high, in comparison to other households. An illustration through Figure 14 shows that the peak monthly income is Rs. 40,000 for the households with ten or eleven members.

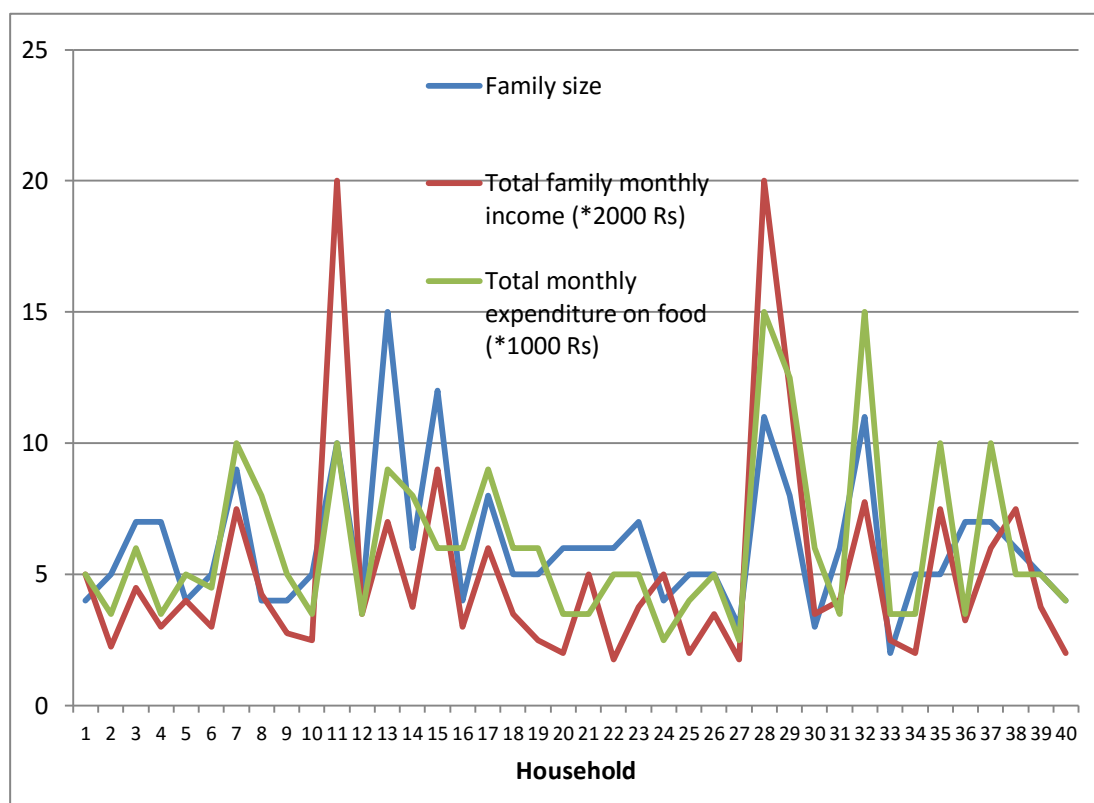
**Figure 14 DAY households' total monthly income and per capita monthly income**



Source: Author's calculation of primary data (Appendix B Table 16).

In the figure, the horizontal axis represents the number of households and the lines pointed along the vertical axis show variations in monthly income of the families and the monthly per capita income with the variation in family size. On an average, DAY households spend 61 percent of total monthly income on food i.e. Rs. 6125 out of Rs. 10,175 (Appendix B Table 17). The average MPCE on food is Rs. 1000. Figure 15 illustrates that depending on the income, food expenditure increases or decreases in relation to the households' size.

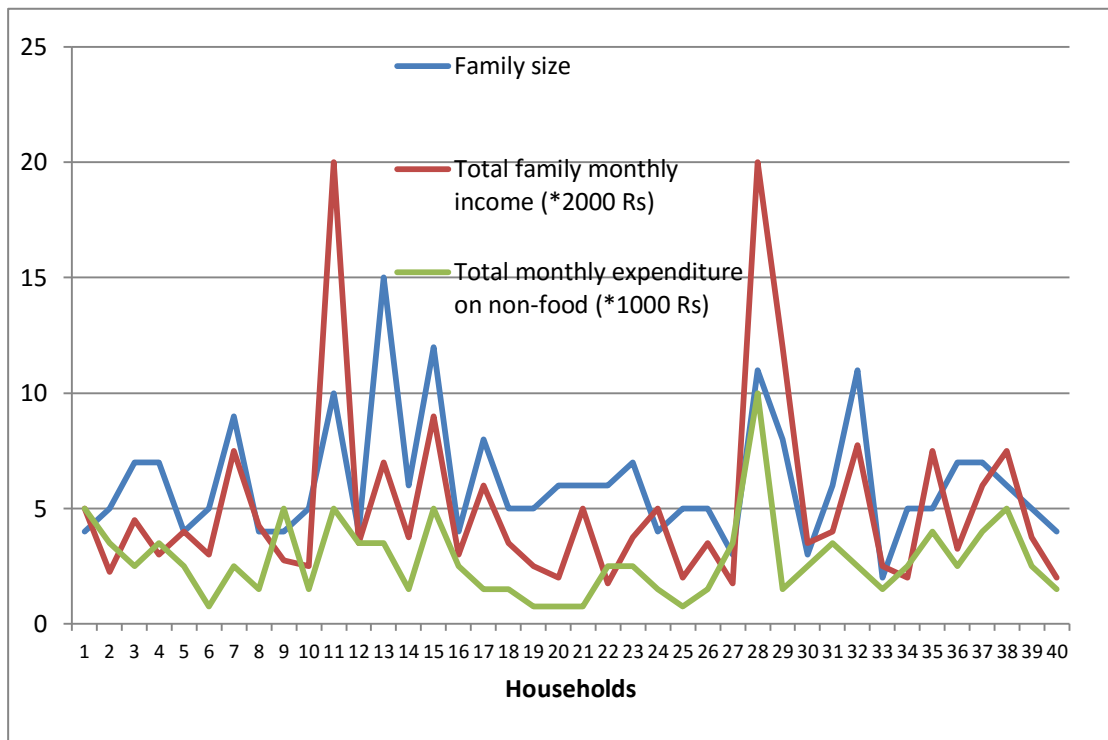
**Figure 15 Expenditure on food in relation to DAY household size and income**



Source: Author’s calculation of primary data (Appendix B Table 17).

The horizontal axis represents the number of households and the lines pointed along the vertical axis show variations in monthly income of the families and the share of expenditure on food with the variation in family size. With the variation in family size and income, there is commensurate adjustment in the expenditure on non-food items as well. Households spend 27 percent of monthly income on non-food i.e. Rs. 2756 out of Rs. 10,175 (Appendix B Table 18). The expenditure on non-food is considerably less than expenditure on food.

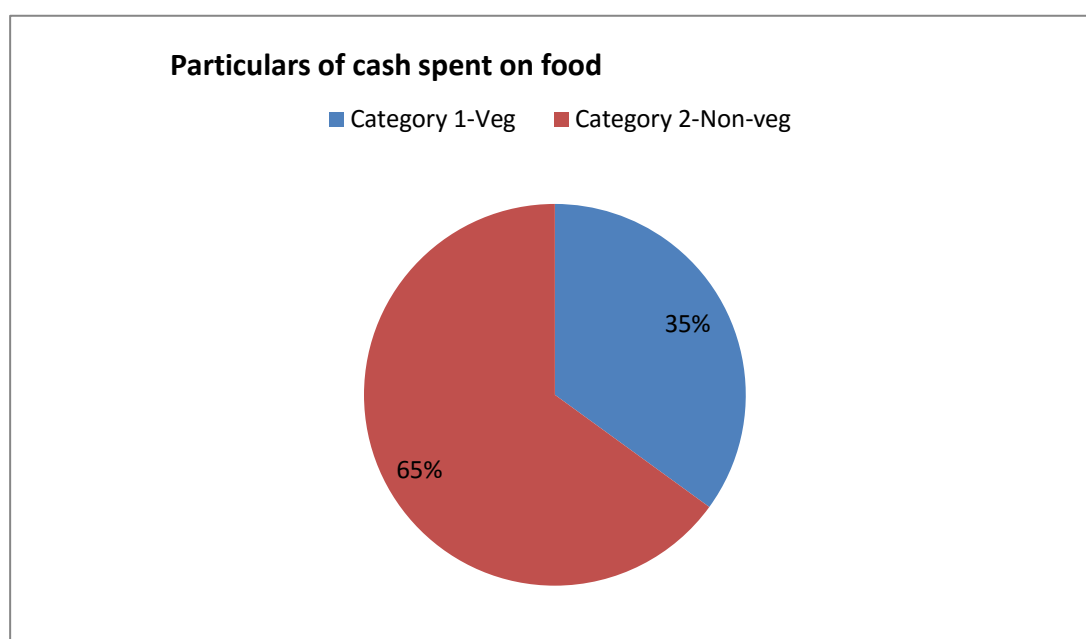
**Figure 16 Expenditure on non-food in relation to DAY household size and income**



Source: Author’s calculation of primary data (Appendix B Table 18).

Types of food consumption are distinguished by vegetarian and non-vegetarian food preferences. Category 1 consists of those households that consume mainly cereals, pulses, vegetables, milk and milk products. Category 2 households consume all the items consumed by vegetarians including eggs, fish and meat. According to the figure below, 35 percent of the households are vegetarian and remaining 65 percent are non-vegetarians. All the households take at least two meals per day.

**Figure 17 Type of food consumption by DAY households**



Source: Author's calculation of primary data (Appendix B Table 19).

In the non-food items category, the survey captures household expenses on education, health, clothing, including non-essential items such as alcohol and tobacco.

**Table 17: Particulars of cash spent on non-food by DAY households**

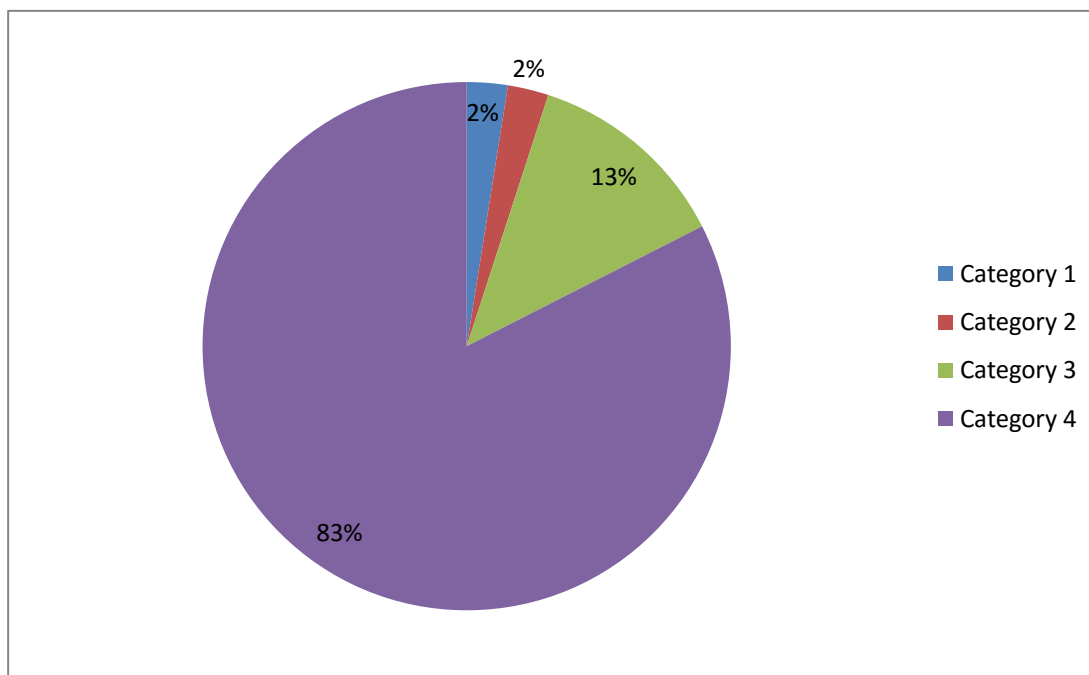
Particulars of Cash spent on Non-food	Education	Medical	Clothes	Alcohol	Tobacco	No. of households	Percentage of households
Category 1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	2.5
Category 2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	2.5
Category 3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5	12.5
Category 4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	33	82.5
Total						40	100

Source: Author's calculation of primary data

Category 1 households spend on all non-food items such as education, health, education, including alcohol and tobacco. Only one out of forty households falls under this category. Category 2 households spend on all non-food items except tobacco. Here too, only one out of forty households falls in this category. Category 3 households spend on all non-food items excluding alcohol; there are five households

are under this head. Category 4 households spend on all non-food items excluding alcohol and tobacco. This shows that thirty-three out of forty households do not indulge in consumption of alcohol and tobacco, which form an estimated 82.5 percent of the households surveyed. Figure 18 illustrates that a resultant of majority of households not spending cash on alcohol and tobacco.

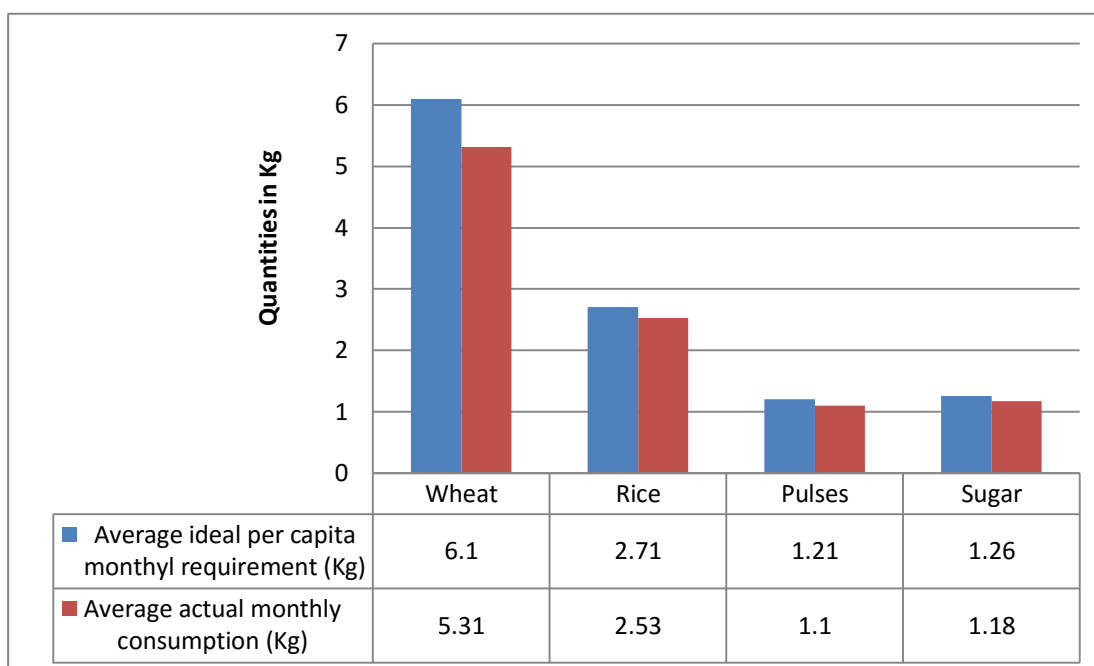
**Figure 18 Particulars of DAY households' expenses on non-food items**



Source: Author's calculation of primary data

On an average, DAY households consume 32.5 kg of wheat, 15.51 kg of rice, 6.75 kg of pulses and 7.28 kg of sugar per month (Appendix B Table 20). The per capita consumption is 5.31 kg of wheat, 2.53 kg of rice, 1.10 kg of pulses and 1.18 kg of sugar. Ideally, households require on an average 37.37 kg of wheat, 16.63 kg of rice, 7.42 kg of pulses and 7.77 kg of sugar per month (Appendix B Table 21). The ideal per capita requirements each month is 6.10 kg of wheat, 2.71 kg of rice, 1.21 kg of pulses and 1.26 kg of sugar. The differences between actual consumption and ideal per capita requirement of food items are illustrated in figure 19 below.

**Figure 19 Actual consumption and ideal requirement of food per month in DAY households**



Source: Author’s calculation of primary data (Appendix B Table 20-21).

### 5.2.3 Service Delivery Mechanism and Consumer Choice

In each of the forty households, there is one beneficiary i.e. the female head of the family who received CT under the DAY. Out of forty households, thirty-eight or 95 percent of the respondents received CT while two or 5 percent of the respondents did not, although their names were included in the list of DAY beneficiaries.

**Table 18: Number of respondents that received CT under DAY**

Particulars	No of households	Percentage of households
Cash receiving beneficiaries	38	95
Those who did not receive cash	2	5

Source: Author’s calculation of primary data

Although 95 percent of beneficiaries received CT, only 7.5 percent of the respondents received CT on a regular-monthly basis and 87.5 percent of the beneficiaries received CT on a cumulative basis for two or more months.



**Table 19: Frequency of CT**

<b>Particulars</b>	<b>No of households</b>	<b>Percentage</b>
Households that received CT each month	3	7.5
Households that received CT after few months' gap	35	87.5
Households that did not receive CT	2	5
Total	40	100

Source: Author's calculation of primary data

The maximum total amount of CT received by one household is Rs. 14000 and the minimum total CT received by any household is Rs. 400 (Appendix B Table 22). Thirty-eight out of forty households received cash directly in their bank accounts and the remaining two households did not receive CT at all. Twenty-nine households are able to give estimates of the total amount of CT received from the scheme and nine households are not able to recall. On this basis, households receive on an average CT of Rs. 6962 per month.

Only one out of forty households admits that an amount of Rs. 600 is appropriate as CT for food subsidy. Twenty-nine households or 72.5 percent of the respondents estimates that at least Rs. 1500 would be more appropriate for food subsidy. One of the households surveyed does not desire cash; in fact, she does not need either CT or PDS. The remaining nine households i.e. 25 percent think that any amount between Rs. 600 and Rs. 1500 would be adequate as CT for food subsidy.

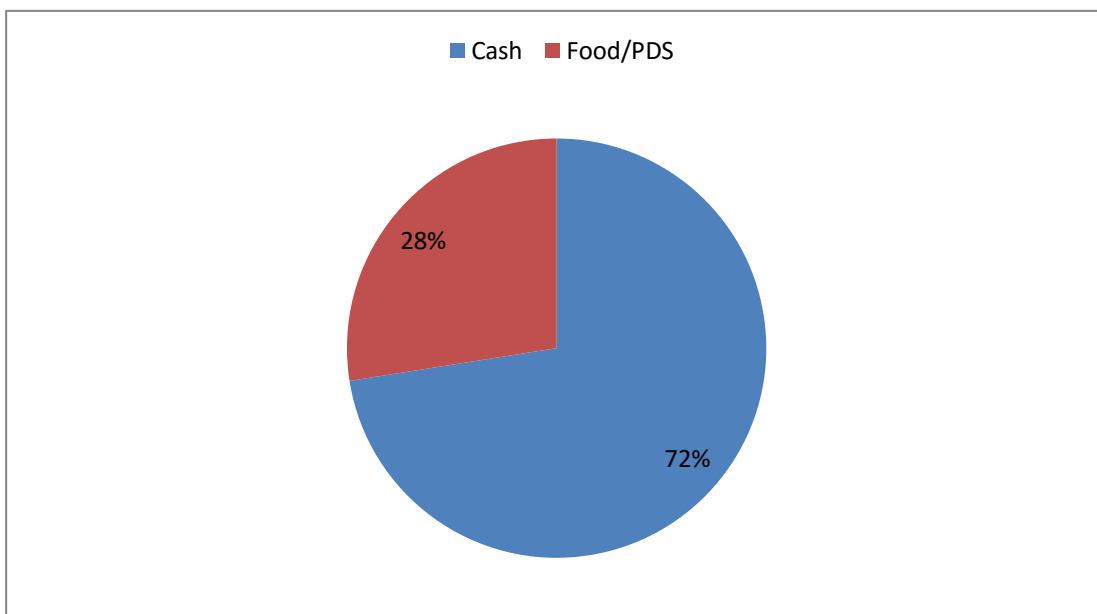
**Table 20: An appropriate amount of CT for food subsidy according to DAY households**

<b>Amount (Rs) per month</b>	<b>No. Of households</b>	<b>Percentage</b>
600	1	2.5
600-1000	2	5
1000-1500	7	17.5
>1500	29	72.5
Does not need	1	2.5

Source: Author's calculation of primary data

Amongst DAY households, twenty-nine out of forty households i.e. 72 percent prefer CT because of various reasons. The remaining eleven households, i.e. 28 percent, show a preference for PDS. Their reasons are that CT of Rs. 600 is insufficient and direct access in kind is a better guarantee of food. The fear of misuse of cash is also an important reason for a few to show disinclination towards CTs.

**Figure 20 Preference of DAY households for cash or food**



Source: Author's calculation of primary data (Appendix B Table 23).

Most of the households attribute their preference for cash to the multiple uses and flexibility it provides in terms of choice of expenditure; they can spend cash on education, adds to savings and buy better quality products including ration from places other than FPS. Some call PDS allocation too low and FPS dealers corrupt, which is the reason that they prefer to have cash instead of going to FPS only to return with a bag full of excuses. Such excuses relate to rations running out, ration supplies not arriving on time or it being time to shut down the shop. For some, distance of FPS from home is also a factor for choosing CTs with wide ATM network. Interestingly, 97.5 percent of all these households surveyed find monthly CT of Rs. 600 indispensable.

**Table 21: Households that find CT of Rs. 600 indispensable**

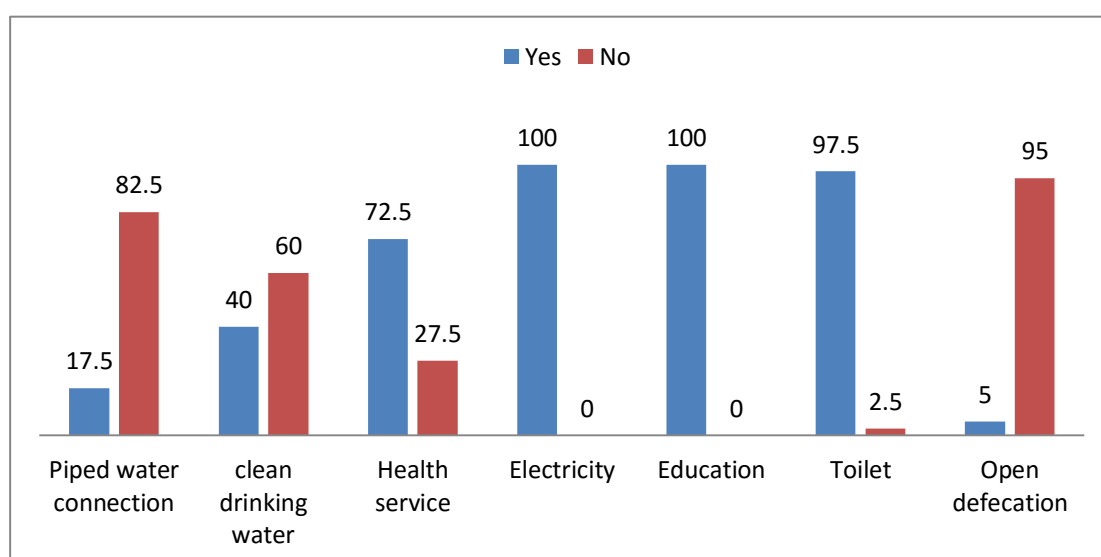
Remarks	Yes	No	Total
No of households that find Rs. 600 indispensable	39	1	40
Percentage of households	97.5	2.5	100

Source: Author's calculation of primary data

#### 5.2.4 Utility of Basic Amenities

According to the survey, a majority of the households do not have access to piped water and clean drinking water. 82.5 percent of the households do not have piped water connection and 60 percent of households lack access to clean drinking water. Most of these households rely on the tanker service of the DJB for drinking water, while one common tap is shared among several households and for washing clothes and other household purposes. Majority of the households send children to school and have electricity connections, constructed toilets and access to health care facilities. All the households who have children of school and college going age send them for education. Every household surveyed has an electricity connection. 97.5 percent of houses have constructed toilets but members of one household still defecate in the open, as they do not have a toilet.

**Figure 21 DAY Households' access to basic amenities**



Source: Author's calculation of primary data (Appendix B Table 24).

### 5.2.5 Socio-economic Impact

According to the respondents, in all the households, female members make decisions with regard to food and 90 percent of households make decision with regard to household finances. In a few households, both husband and wife together take general decisions with respect to household finance.

**Table 22: DAY Households decision making with regard to food and general finances**

<b>Decision maker</b>	<b>Who makes decisions with regard to food?</b>	<b>Percentage</b>	<b>Who makes general decisions with regard to household finance?</b>	<b>Percentage</b>
Husband/Father	0	0	0	0
Wife/mother	40	100	36	90
Both husband and wife	0	0	4	10
Total no of households	40	100	40	100

Source: Author's calculation of primary data

No discrimination was reported between female and male members of the families in access to or share of food. However, 20 percent of the respondents admit to fighting over food, which according to them means not for share of food amongst family members but rather on what to eat.

**Table 23: DAY households' behavior with regard to food**

<b>Cause</b>	<b>Fight for food</b>		<b>Share of food</b>	
	<b>Yes</b>	<b>No</b>	<b>Discrimination</b>	<b>No discrimination</b>
Remarks				
No of Households	8	32	0	40
Percentage of households	20	80	0	100

Source: Author's calculation of primary data

Only four women i.e. 10 percent of the respondents have participated in or attended awareness programs and workshops conducted by Government or NGOs.

**Table 24: Participation in Health, Nutrition and Education Awareness Campaign by DAY respondents**

Cause	Health, Nutrition and Education	
	Yes	No
Remarks		
No of Households	4	36
Percentage of households	10	90

Source: Author's calculation of primary data

Twenty-seven i.e. 68 percent respondents strongly agree that CT gives them a sense of empowerment. Some women who do not receive cash also assert that cash would empower them. None of the women deny that cash would empower them although ten respondents i.e. 25 percent of the women do not actually understand the meaning of the term "women's empowerment" or the impact that CT could have on them.

**Table 25: Achievement of women's empowerment through DAY**

Do you feel empowered after receiving cash	Yes	No	Can't say/Don't understand	N/A
No. of such women	27	0	10	3
Percentage	67.5	0	25	7.5

Source: Author's calculation of primary data

### 5.3 Comparison of PDS and DAY households' data

#### 5.3.1 Demographic details and segmentation of households

All the beneficiaries are females of an average age of forty-four years in DAY and forty-two years in PDS. A community wise breakup of respondents shows that DAY covers 25 percent of Hindu-OBCs households and PDS covers 15 percent. Coverage of respondents from Muslims community in DAY is 28 percent and 20 percent in PDS. Both the schemes equally cover 25 percent of Hindu-SC respondents. In housing settlements, a larger number of households receiving PDS live in Jhuggi settlements than those covered by DAY. While 22 percent from PDS households live in Jhuggi, only 5 percent from DAY households live in Jhuggi settlements. The rest of the households live in Pucca houses. The average size of households for both DAY and PDS is approximately six members.

Literacy levels are lower among PDS respondents than DAY respondents i.e. 52 percent of the PDS respondents are unlettered compared to 40 percent of the DAY respondents who are unlettered. A higher number of DAY respondents have studied up to senior secondary level than the PDS respondents. There are 5 percent respondents under DAY who are graduates whereas none under PDS. Further, 3 percent of PDS respondents are postgraduates as against zero postgraduates under DAY.

**Table 26: Comparison of literacy levels of PDS and DAY respondents**

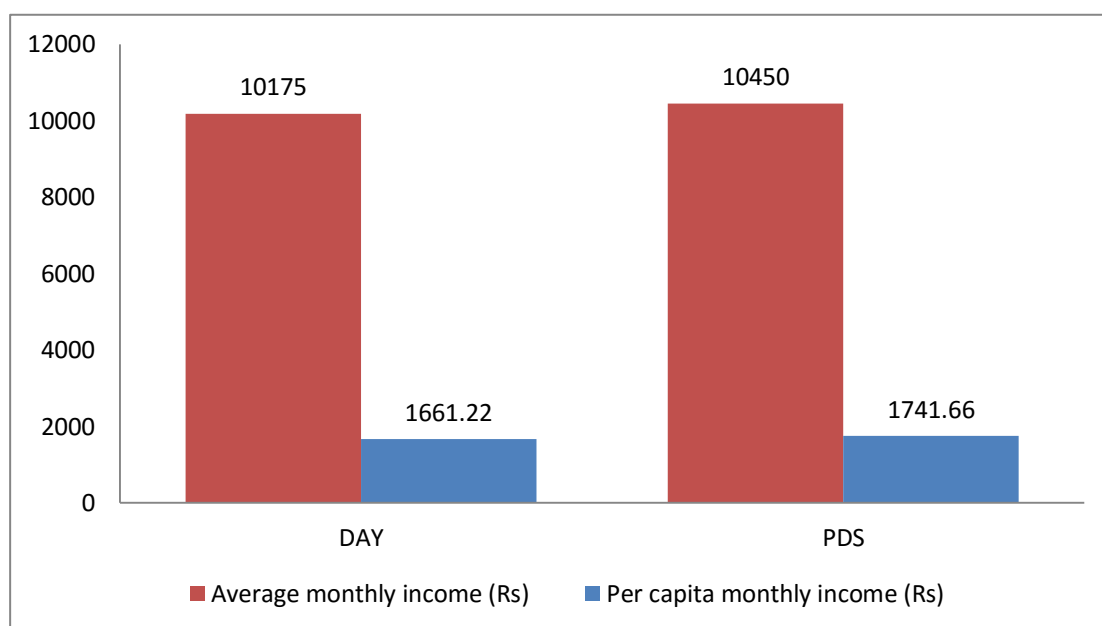
Education	PDS (%)	DAY (%)
Unlettered	52	40
<10 <sup>th</sup>	27	32.5
10 <sup>th</sup>	13	10
12 <sup>th</sup>	5	5
Graduation	0	5
Post graduation	3	0
Urdu	0	7.5
Total	100	100

Source: Author's calculation of primary data

### 5.3.2 Family's income and consumption expenditure on food and non-food

Figure 22 shows a difference of Rs. 275 in the average monthly income of DAY and PDS households. Similarly, the average per capita monthly income differs by approximately Rs. 80.44. Both the income data place PDS beneficiaries in a better position than DAY beneficiaries. This is important in the context that, for poor households, even Rs. 200 matters.

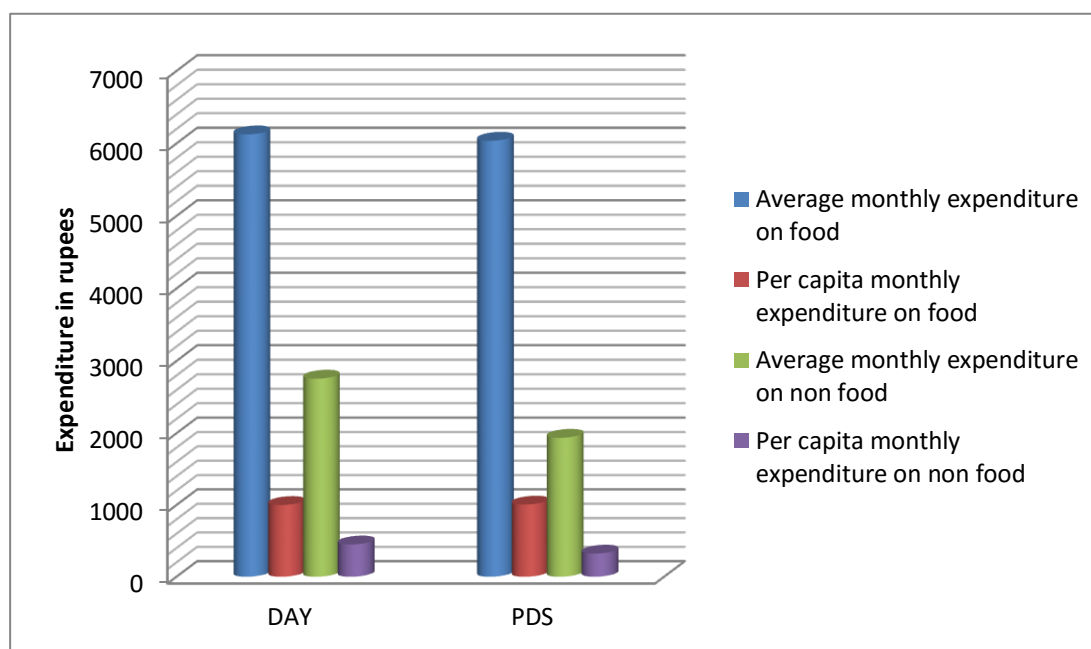
**Figure 22 Comparison of average monthly income and average per capita monthly income of DAY and PDS households**



Source: Author's calculation of primary data (Appendix B Table 26).

Expenditure on food and non-food items by the households of both the schemes varies in relation to the household's income. On an average, DAY households spend slightly more on food and considerably higher on non-food than PDS households although their income is lower than PDS households. DAY households spend more on food than PDS households by a difference of Rs. 87.5 and more on non-food by Rs. 818.75. This indicates that CT households exercise the choice to spend more education, health and clothing, as compared to PDS respondents. At the level of per capita expenditure comparison, PDS households spend more on food by six rupees and DAY households spend more on non-food by Rs. 127.09.

**Figure 23 Comparison of expenditure on food and non-food items of DAY and PDS households**

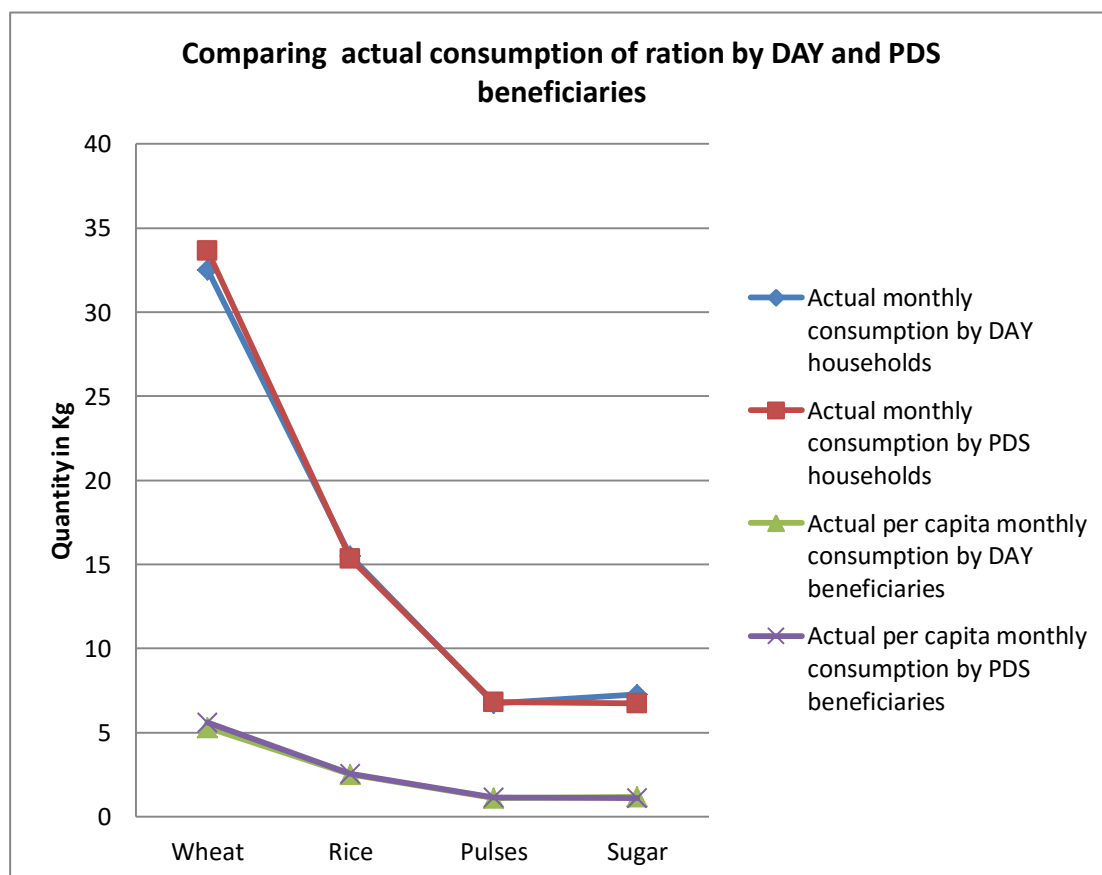


Source: Author's calculation of primary data (Appendix B Table 27).

The actual per capita consumption of food items by the households such as wheat, rice, pulses and sugar indicate only slight variations. In a month, PDS households consume approximately 1 kg more of wheat than DAY households and rest of the food items consumption remains almost the same in both. In terms of monthly per capita consumption, an individual from both PDS and DAY households consume approximately 5 kg of wheat, 3 kg of rice, and 1 kg of pulses and sugar each.



**Figure 24 Comparison of consumption of food items by DAY and PDS respondents**

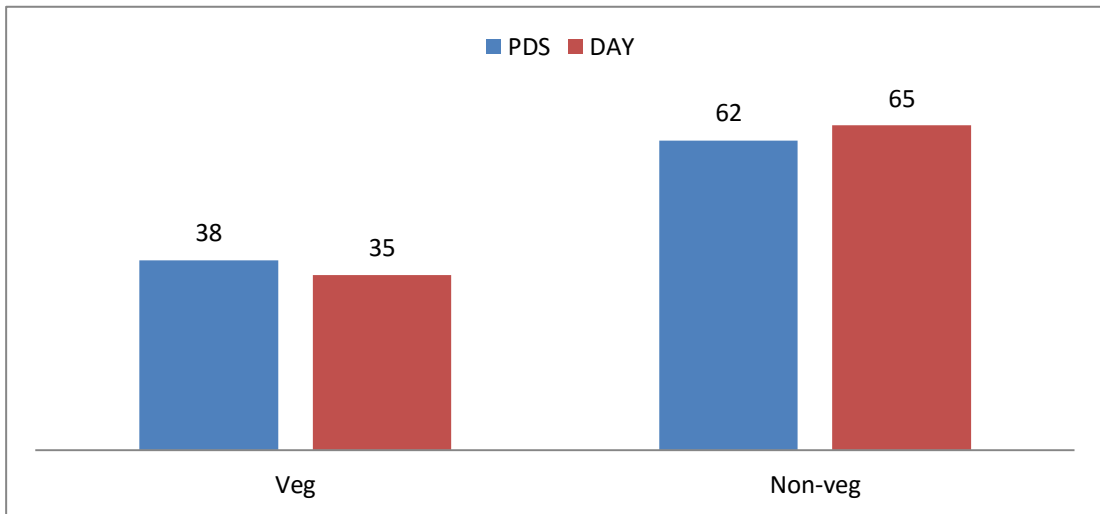


Source: Author’s calculation of primary data (Appendix B Table 28-29).

The gap between the actual consumption of ration and ideal requirement of ration per month in PDS households is 3.48 kg of wheat, 2.44 kg of rice, 0.55 kg of pulses and 0.45 kg of sugar. In DAY households, this gap is 4.87 kg of wheat, 1.12 kg of rice, 0.67 kg of pulses and 0.49 kg of sugar. In both the households, the ideal monthly per capita requirement is approximately 6 kg of wheat, 3 kg of rice, 1 kg of pulses and sugar each.

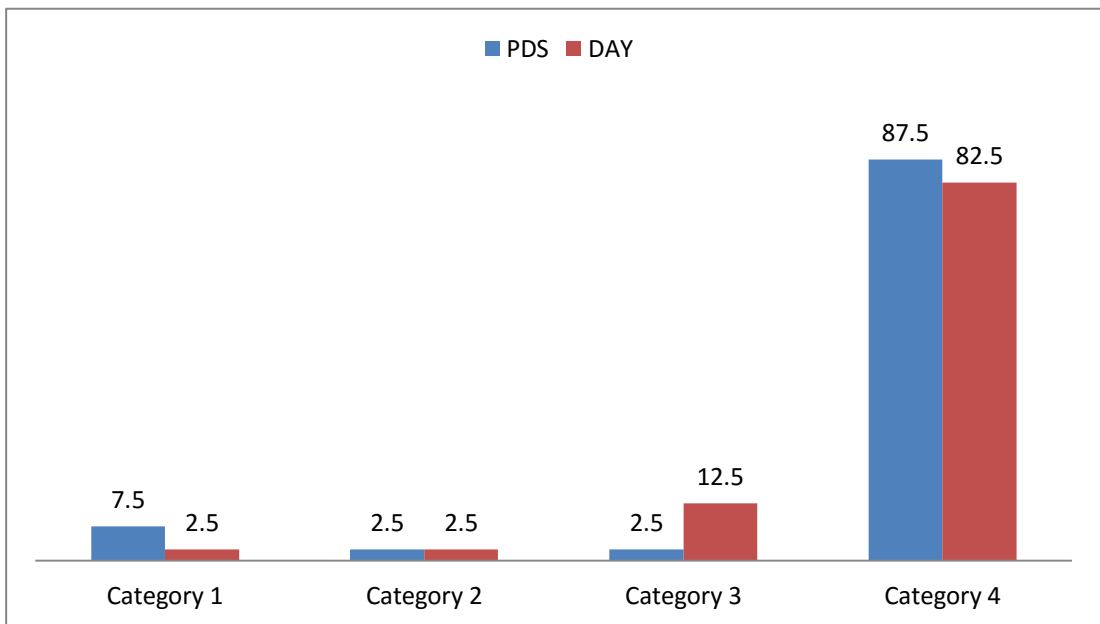
The comparison of the consumption of particulars of food between DAY and PDS respondents shows that a little over third of respondents are vegetarians and rest all are non-vegetarians i.e. 65 percent of DAY respondents and 62 percent of PDS respondents are non-vegetarians. The number of respondents following a non-vegetarian diet is more in DAY than PDS household.

**Figure 25 Comparison of PDA and DAY households in diet diversity on percentage basis**



Source: Author’s calculation of primary data (Appendix B Table 30).

**Figure 26 Comparison of the nature of expenditure on particulars of non-food items on percentage basis: Essentials (Education, medical, clothes); Non-essentials (alcohol, tobacco)**



Source: Author’s calculation of primary data

Category 1 includes those households that spend on all non-food items, both essentials and non-essentials. Category 2 includes those households that spend on all non-food items, excluding tobacco. Category 3 included those households that spend on all non-food items, excluding alcohol. The remaining households in Category 4 do not spend on non- essentials such as tobacco and alcohol. It shows that 7.5 percent of PDS households and 2.5 percent of DAY households spend on both alcohol and

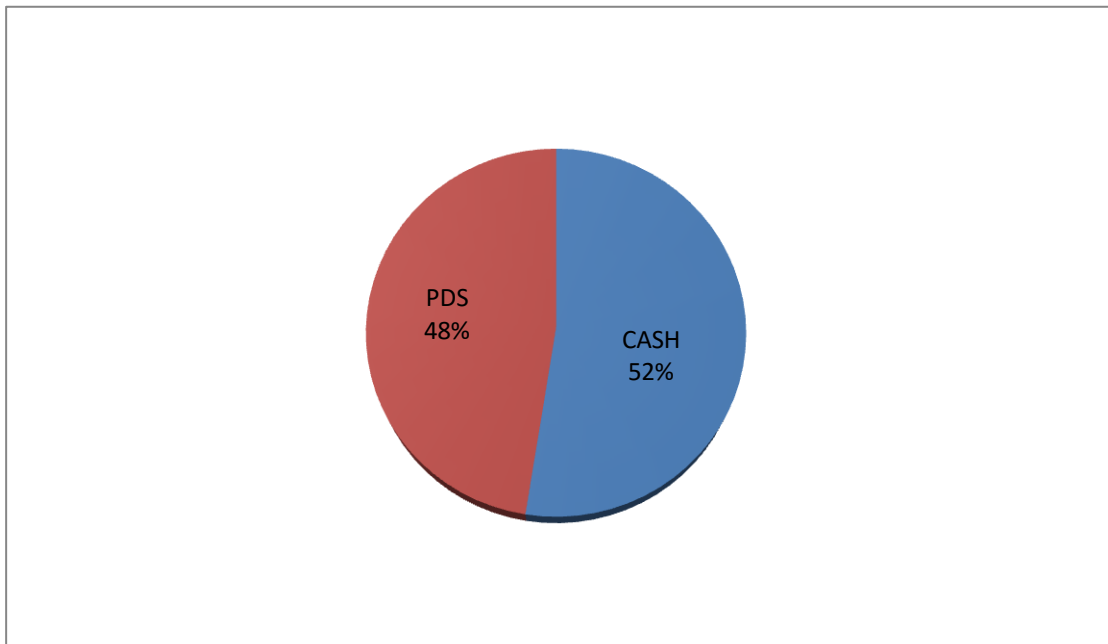
tobacco. In the category 2, 2.5 percent from both households equally spend on alcohol. In Category 3, 13 percent of DAY households and 3 percent of PDS households spend on tobacco. Category 4 shows that majority of the households keep away from consumption of alcohol and tobacco. Overall 17.5 percent of households from DAY and 12.5 percent of PDS households spend on alcohol and tobacco.

### 5.3.3 Service delivery mechanism and consumer's choice

Twenty-seven out of forty households collect ration from the FPS and thirty-eight out of forty households receive CTs under DAY i.e. 95 percent of DAY households utilize CT and 68 percent of households utilize rations from PDS. DAY households receive on an average a total amount of Rs. 6962 under DAY. PDS households on an average receive 3.25 kg of wheat and 1.18 kg of rice per head each month from the FPS. Out of eighty households from both PDS and DAY, 52 percent or forty-two households prefer CT as against 48 percent that prefer PDS. There are several reasons quoted by the respondents for their preference for CT. The most important of these reasons is the multiple uses to which cash can be put and the flexibility it affords. As many argue, cash enables people to add to their savings and invest in their children's education and future. Largely, feeling a sense of empowerment by female head of the family, the multiple forms of utility of CT and its investment value are the main reasons why the majority of the households prefer CT to PDS.

For some, the foremost reason to opt for CT is their aversion towards PDS because of improper and allegedly corrupt behavior of FPS dealers. Those who support PDS are also critical of FPS dealers. Almost every respondent, including those supporting PDS, complain that not all family members' names are enlisted on the ration card. This creates problems for ensuring food security. Respondents who want to continue receiving food under PDS contest that at least the current provisions ensure some access to subsidized food. This, many respondents fear, may not be the situation under CT. In addition, many respondents express the concern that CT of Rs. 600 under DAY is insufficient for their ration requirement.

**Figure 27 Comparison of preference for Cash or Food amongst PDS and DAY households**

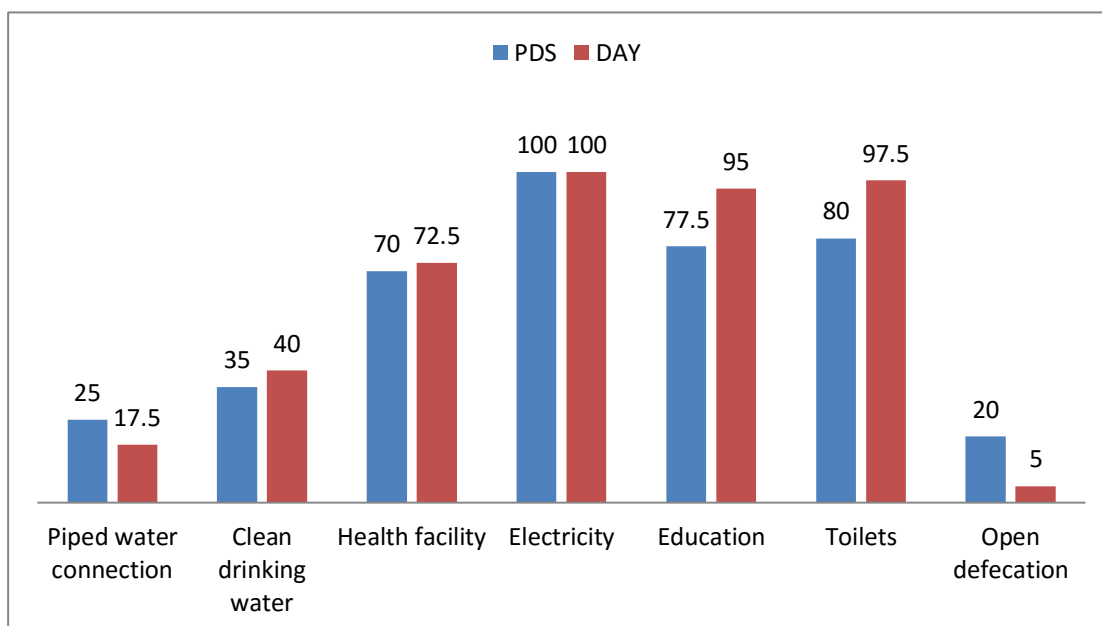


Source: Author's calculation of primary data (Appendix B Table 31).

#### 5.3.4 Utility of basic amenities

A majority of households from both PDS and DAY do not have access to clean drinking water and piped water connection. Not even one-third of both types of households have access to a piped water connection. Just about one-third of households from both types of households have access to clean drinking water. Access to basic healthcare facilities is better although many of them have to travel few or even more kilometers to visit a government hospital. One achievement is that all the houses have electricity connected to their homes. More households from DAY than PDS have access to education i.e. 95 percent of DAY households with children receive education against 78 percent in PDS households with children. In sanitation and toilet use too, DAY households perform better than PDS households i.e. 98 percent of DAY households have toilets inside the house against 80 percent of PDS households. More households from PDS practice open defecation as compared to DAY households. Although most of the households have toilets inside, open defecation is still practiced by some of the households. Some do it as a habit and some out of compulsion due to scarcity of water resources. Lack of access to water affects their sanitation and hygiene care practices too.

**Figure 28 Comparison of access to basic amenities among DAY and PDS households on percentage basis**

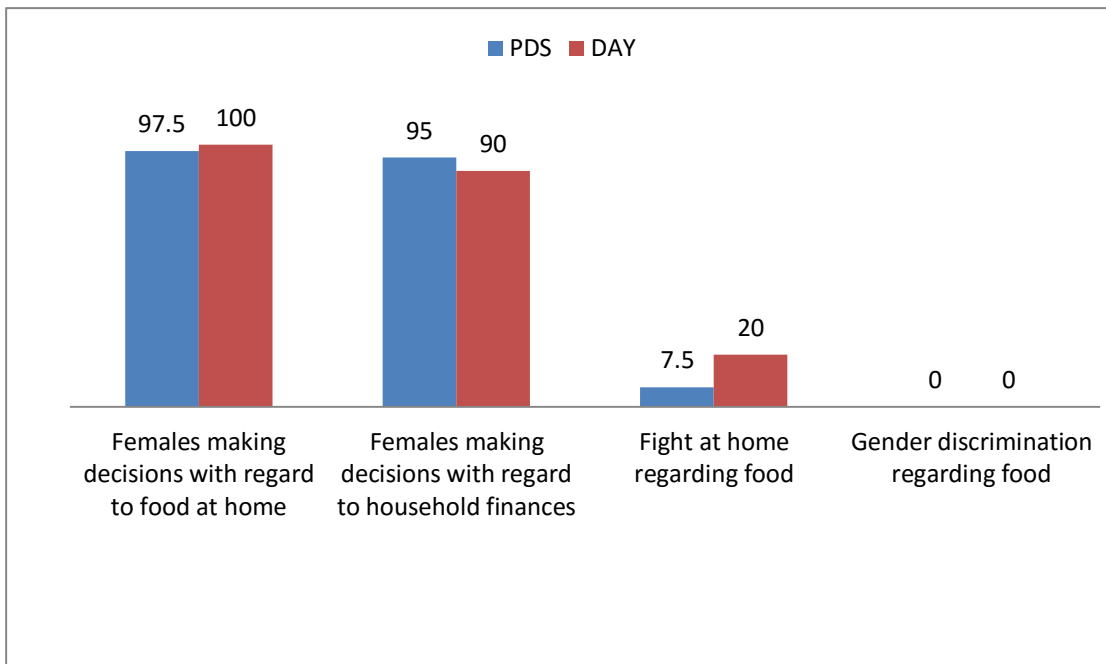


Source: Author's calculation of primary data (Appendix B Table 32).

### 5.3.5. Socio-economic impact

More than 90 percent of households in both PDS and DAY report that women make decisions with regard to food and household finances. For a comparison, more women from DAY households are reported to have a decision-making role with regard to food and more women from PDS households have decision-making role in general household finances. According to this comparison, households that receive CT exercise a greater decision-making role in food at the household level, while in households that receive food subsidy women exercise a greater decision-making role in managing household finances. Quarrels over food at home, reported to generally be arguments over what to eat for meals and not for the relative shares of food amongst members, occur more in DAY households than in PDS households. No gender discrimination is reported in food consumption in either PDS or DAY households.

**Figure 29 Comparison of socio-economic impact among DAY and PDS respondents on percentage basis**



Source: Author's calculation of primary data (Appendix B Table 33).

## 5.4 Description of the Focus Group Discussions conducted amongst PDS and CT beneficiaries

### 5.4.1 North West District

In circle Kirari under the North West District Office, the FGD consisted of six participants, one male and five females. The participants were unenthusiastic about the idea of migration when asked about their reaction during times of food crisis. Instead, they suggested that eating less out of compulsion would be their course of action given that such a move would ensure continuity of their children's education. The group further spoke about healthy food which according to them is any regular diet having pulses, rice, wheat, etc. There were complaints among the participants regarding access to clean drinking water. They got water supply fortnightly mostly and sometimes weekly. With regard to handling of cash, the participants believed that women handle cash better than men in households do.

Image 1: Women collecting water from tankers of DJB at Prem Nagar-I in Kirari, North West District, Delhi



Source: Photography during the field visit. April 28, 2015.

In another FGD that comprised five members, one male and four females, participants disclosed that they bought food grains in 'black' by paying Rs. 15 per kilogram for wheat and Rs. 22 per kilogram for rice from the FPS. The food grains they received from the FPS were meager for the monthly consumption of all the members of the households. For that reason, the participants assumed that unless a household gets 20-30 kg of wheat and rice each, PDS would not be an ideal way to attain food security.

Another FGD conducted in Prem Nagar I under Circle Office Kirari consisted of three members, two CT respondents and one PDS beneficiary. Under DAY, one woman received a total cash amount of Rs. 7000 following the termination of which she applied for a ration card under NFS. She was still awaiting her ration card at the time of the conclusion of the field study. The other CT respondent did not know how much she received under DAY since her son managed it. After obtaining cash entitlement from DAY, the ration office denied her ration entitlement under NFS on the remark that one member in her household was allegedly a government employee, although she denied it. The PDS respondent from this group has had a very frustrating experience with the functioning of FPS in the locality. The FPS dealer, according to her, is corrupt, arrogant, and dictatorial, adulterates rations and the shop rarely opens and closes shop on time. Due to such complaints and inefficient services of the FPS, all the three participants prefer to receive CT rather than ration entitlement.

Image 2: FPS in Kirari, North West District, Delhi closed on Tuesday at 10 a.m. Scheduled closing is on Monday.



Source: Photography during the field visit. April 28, 2015.



#### 5.4.2 South West District

Two FGDs were conducted at two different localities in Circle Vikaspuri under the South West Delhi District Office i.e. Kali Basti Jhuggi and Kali Basti Hastal. Participants from Kali Basti Jhuggi said that, during times of food crisis, they had to resort to borrowing money in order to purchase food from the open market. Asked if they would consider migrating at such times, participants answered in the negative because of their hope that they would improve their living conditions in Delhi. Men are mostly casual workers and women mostly perform household work. According to them, not just women but both men and women can handle cash well. Some complained that they had stopped receiving rations for a long period due to their ration cards either being blocked or becoming invalid. Although there is a facility to view the card status and download ration cards on Delhi's NFS website for the new applicants, they show helplessness because of their ignorance of, and lack of access to, computers or technology.

Under the Office Circle Vikaspuri, the locality in Kali Basti Hastal had a large number of complaints regarding the functionality of the FPS. The participants alleged that FPS dealers do not give all entitled commodities at a time and sold in 'black' too. They reported that the FPS rarely opens on time or opens only for a short duration. Even when the shop does open, either people wait in lengthy queues or the FPS dealers send them away with numerous excuses. The participants reported that FPS dealers give one commodity on one day and ask the customers to come back next day for other commodities. The usual practice is such that when customers return to collect the remaining commodity the next day, they are in for a rude shock as the rations would be finished. The people in this locality therefore sensed foul play and alleged that commodities were being diverted to the open market<sup>4</sup>. Many complained

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<sup>4</sup> In 2003, the survey conducted by Parivartan in Delhi reported that the diversion in PDS is 87 percent of wheat and 94 percent of rice. It was reported that out of total 182 families- 142 families did not receive wheat and 167 families did not receive rice for the month of June for the same year (Pande 2008, 52). Parivartan is a Delhi-based grassroot organization that sought to combat corruption and build social accountability in PDS by using the tool of Right to Information Act (RTI) to expose the truth behind the diversion of foodgrains and the misdeeds of PDS officials. The campaign was incited by an incident in 2002 when a woman named Triveni, who did not get her entitled share of ration for past three months from the FPS, used RTI to access the records and cash memos of the PDS allocation

about their ration cards being blocked for long and the fact that, though they intimidated this to the village representative, no action was taken in the matter.

Another FGD in Vikas Nagar, under Circle Vikaspuri had four CT respondents as participants. Among these four respondents, three women beneficiaries were from DAY and one was accompanied by her husband. Two women previously covered under DAY are now receiving rations under the NFS scheme. They had no complaints with regard to the quality of ration received from the FPS but they doubted the weighting machine used by the FPS dealer and suspected that the quantity received could be less. They thought that the behavior of the FPS dealers and treatment towards the beneficiaries was satisfactory. The foodgrain they receive is 5 kg per member as envisaged under the NFS scheme. However, two women who were receiving rations under the NFS still preferred to receive CT than PDS because the FPSs are quite distant from their homes. It is therefore difficult to frequent FPS especially when FPS is not open or ration is not available at the store. On the other hand, they can spend cash on various requirements such as medical bills and a more diverse diet. The woman accompanied by the husband preferred PDS to CT even though she still awaited the receipt of a fresh ration card under NFS. Field visits to ration stores at Vikas Nagar were not successful as they had closed down by afternoon and the shop would not open again until the next morning. The shop, according to the group, usually opens for a short duration in the morning only.

#### 5.4.3 West District

In Shiv Vihar under Matiala circle in West District Office, two males from the households listed under DAY responded to questions on the food security scheme. The female heads were unavailable at the time of survey. While both the households had applied for the CT under DAY, only one household received cash and the other did not. The household that did not receive cash also did not have a ration card. Thus, they had to buy rations from the open market at market prices. The other family, which had earlier received cash under DAY, complained that although they had a

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and later found out that that someone else's thumb nails of various sizes were used to collect her share for the months that she did not even receive (Pande 2008).

ration card, only one person of the family was listed on it, i.e. the female head and the names of the other three members do not appear on it. This compelled both the households to buy costly rations from the open market, which strained their household finances. Later, the same FPS dealer, when interviewed, argued that the government's list of beneficiaries that he possessed contained only one member of the family and thus he was not obliged to provide coverage for the other three members. When asked about their preference between CT and PDS, both choose CT for the same reasons. Apart from other reasons, both agreed that they mainly disliked long waiting hours at the FPSs.

#### 5.4.4 North East District

Five females and one male participated in the FGD conducted in Soniya Vihar under Karawal Nagar Circle Office in Northeast district. Among the five females, one had received CT under DAY and from amongst the rest four only one was an active recipient of ration under PDS. The remaining three women including the previous DAY beneficiary had applied for new ration cards under NFS. The DAY beneficiary received a total of Rs. 3600 in three installments i.e. Rs. 1200 per installment after a two month gap. She had applied for fresh ration card under NFS, which she still awaited at the time of the end of the field study. One woman managed to get an e-ration card stamped through an acquaintance in the ration office. All the rest had received messages on their mobile phones about their ration cards being ready. However, two women allege that when they go to the ration office to get their ration cards, the person in-charge asks for Rs. 100 to distribute each of their ration cards. One of them responded that the employees in ration office behave in a very arrogant manner to her and others who accompanied her to collect their ration cards, and she still does not have it. One woman had applied for a ration card twice and got rejected both times because her household had consumed more than 2kw of electricity. She responded that she has been paying electricity bills of less than Rs. 300 for several years. It appeared that she could not be using more than 2kw of electricity.

The group respondents, when asked about their preference between cash and food, chose CT over PDS because of the aversion that they had developed towards the FPS dealer and ration office. The group participants alleged that the FPS dealer at Suman Store, in this case, does not follow prescribed timings in opening the shop and

gives less ration than the actual entitlement. Although the quality of ration is satisfactory, all disliked the behavior of the FPS dealer. The participants also alleged that he asks for money in return for getting them their ration cards. The male participant complained that the FPS dealer diverts rations and sells in black while generating scarcity for the real beneficiaries. He too chose CT over PDS for want of assurance of service delivery directly into the hands of beneficiaries. This group's respondents too were unenthusiastic about migrating out in search of better food and employment. All the households had access to toilet facilities although access to water and electricity was not satisfactory.

## **5.5 Description of the Interviews held with the Fair Price Shop dealers**

### **5.5.1 North East district**

In Soniya Vihar, Karawal Nagar Circle Office under the Northeast district, Suman Store is one of the ration shops that distributes ration under PDS to the poor households. The store is not far from the residences of the respondents surveyed under the FGD. For most of the respondents, the distance from their homes to the FPS is few hundred metres. The owner of the store was present and the store was open at the time of visit i.e. 11:30 AM on 4 April 2015. The dealer was receptive to the questions but visibly uncomfortable. According to the FPS dealer, he receives the ration at the beginning of each month. He pays in advance to the government. The commission that he has been receiving is 70 paise on every kilogram of ration sold. This commission is very low according to him and thus it is difficult to pay the rent for the shop.

The FPS dealer complained that the rations supplied by the government had always been less than the demand. Due to limited stocks of rations, he frequently kept his store shut. He admitted to giving less than the entitled amount of ration to the beneficiaries, but attributed it to meager supplies. According to him, there are nearly 2500 beneficiaries registered at his shop. However, he suspected that several of the beneficiaries who had been coming to collect rations could be fake. This suspicion arose because some people possessing ration cards, according to him, seemed well off, which indicated that these were errors of wrong inclusion. Sometimes, several people would come with multiple ration cards. Due to the large number of allegedly

fake beneficiaries, the ration allotment became inadequate for the deserving beneficiaries. There was no use of technology such as Point of Sale (POS) system and/or Aadhaar card to verify the beneficiaries while collecting rations although the Delhi government claims to have introduced this system. If use of technology verifies the beneficiaries, according to him, his list of beneficiaries could reduce to half.

One incident during the process of interview refuted, to some extent, the claims of the FPS dealer at Suman Store. One beneficiary had come to collect his rations while the interview was in progress. The FPS dealer denied him the rations by saying that there was no stock available. However, photographs taken at the store after interview found few sacks that contained some foodgrains inside a storeroom in the shop. The Image 3 below is the FPS that denied ration to the beneficiary and claimed to have finished the ration for the month of April. The beneficiary, who the FPS dealer denied the ration, later on confided that storeowner had been making the same excuses for a long time. The beneficiaries, according to him, are bullied and threatened by the FPS dealer.

Image 3 Suman Store-Soniya Vihar, Karawal Nagar, North East District, Delhi



Source: Photography during the field visit. April 4, 2015.

### 5.5.2 South West District

The FPS dealer interviewed in Circle Matiala under South West District is Dev Gun Store at JJ Colony Dwarka Sector-3. The FPS dealer was initially reluctant to interact and share any details regarding the functioning of the store. After

persuading and convincing him that the interview was only for research purpose and not anything else, he shared some information. According to him, there is a fixed quota of ration for his store for each month and the government does not always supply the ration at the beginning of each month. He had distributed the allocation for the month of April and allocation for the month of May had arrived and was stocked in the store. He sold wheat, rice and sugar at Rs. 3, Rs. 2 and Rs. 14 respectively.

Image 4: Dev Gun store at JJ Colony, Dwarka Sector-3, Matiala, South West District, Delhi



Source: Photography during the field visit. April 27, 2015

There are less than 1000 ration cardholders collecting rations from his store. The FPS accepts both the fresh ration cards under NFS scheme and the old ration cards to distribute the entitlement under PDS. This entitlement includes 4 kg of wheat and 1 kg of rice per member. The old ration cardholders under BPL and AAY category receive 6 kg of sugar too. According to him, there were hardly any fake beneficiaries registered at his store. The preparation of ration cards following Aadhaar based verification had led him to trust the genuineness of the beneficiaries. There was no use of POS at his store to verify the beneficiaries. Beneficiaries from the JJ colony in Sector-3 of Dwarka and Goyala Dairy collected rations from this store. He did not have any complaints regarding the quality of ration supplied from the government. The commission earned by him was 70 paise per kilogram of food grains sold, which he received in his bank account every month.

### 5.5.3 West District

Ram Gopal Vijayvargiya store in Vikas Nagar under Vikaspuri circle is the FPS dealer interviewed from West District. The shop owner was very receptive and responsive to the questions posed to him. His store has been functional since 1970 and has around 1000 ration cardholders registered of which, according to his estimate, around 2 percent could be fake beneficiaries. There are no old ration cardholders at Ramgopal Vijayvargiya Store and all the beneficiaries at his store have new ration cards as required under NFS scheme. He was not aware of POS and trusted the genuineness of ration cardholders since the new cards followed Aadhaar based verification.

Image 5: Ramgopal Vijayvargiya Store at Vikas Nagar, Vikaspuri, West District, Delhi



Source: Photography during the field visit. April 27, 2015

Ration usually arrives at his store by the second week of every month and finishes in less than two weeks. At the time of the visit, the dealer had already allocated the rations for the month of April to the beneficiaries and had stocked rations for the month of May. According to him, the rations supplied to him were usually 2 percent less than the quota that he is supposed to receive. There was no complaint with regard to the quality of ration supplied by the government. The dealer distributed wheat, rice and sugar as mandated under NFS scheme, with a commission of 70 paise on each kilogram of food grain sold. The weighing machine was functional at his store, as seen below.

Image 6: Ramgopal Vijaywargiya Store at Vikas Nagar, Vikaspuri, West District Delhi



Source: Photography during the field visit. April 27, 2015

#### 5.5.4 North West District

The FPS dealer interviewed in Kirari circle is the Balaji Store. At his store, rations for the month of April were over and stocks for May had not arrived yet. He said he usually received supplies from the government either in the first week of each month or in the last week of the preceding month. The rations would usually last the whole month. He found the quality of rations satisfactory, and had no complaints even with respect to the quantity of ration supplied from the FCI.

Image 7: Balajee Store at Prem Nagar-I, Kirari, North West District



Source: Photography during the field visit. April 28, 2015



There were around 1100 ration cardholders registered at his store. All these beneficiaries, he said, had new ration cards under NFS scheme. Many beneficiaries registered at his store had motorized vehicles, which, according to him, meant that many of these beneficiaries could be well off. He was not aware of POS to verify the beneficiaries but trusted the verified Aadhaar based identification prior to issuance of ration cards. He also said that there were no complaints from the beneficiaries regarding the service his FPS provided.

## **5.6 Concluding remarks**

The field survey could be relatively smoothly conducted due to the enthusiasm shown by respondents from both PDS and DAY in answering the questions. The women interviewed have a busy and heavy household schedule but managed to find time to elaborate on the answers sought in the survey. Some family members accompanied most of the respondents to answer the questions of the survey. Almost all the women respondents live a very humble life except for one PDS respondent who appeared well off possibly because of small family size and higher family income. The FGDs gave additional insights into the functioning of the two food security schemes. This was so because the participants, when assembled together, felt secure because of commonality in their status as beneficiaries of government schemes and facing similar problems. Moreover, the bandwagon effect allowed them to be more frank and articulate with respect to the problems they were facing from FPS dealers or otherwise. The queries did not point to any one particular person and this made the respondents comfortable in sharing their grievances on the inefficiency of local level representatives, FPS dealers and other basic services. Of course, discrepancies nevertheless exist between the responses given by the FPS dealers and the FGD participants from the locality.

The above description of the research findings is discussed in the consecutive chapter to understand various aspects of implementation of PDS and DAY in Delhi and also by looking at other relevant studies. These findings are explained in the context of estimating income poverty and consumption expenditure, the efficacy of PDS and DAY in attaining food and nutritional security, limitation of PDS allocation and the implication of higher subsidies that could have better a impact on education, clothing, healthcare, sanitation and so forth. In this connection, it discusses people's

proposal regarding the size of food and cash subsidies. It analyses the usage level of food and CT by the households and the coverage of targeted beneficiaries achieved by PDS and DAY. Other opinions relating to whether households that receive CT spend the money unnecessarily or improve diet and nutritional status are explained. It further explains people's choice of service delivery and looks at some aspects of governance and accountability mechanisms in PDS and DAY, which needs to be addressed. It also discusses the situation of the beneficiaries whether or not their participation in social awareness programmes, exercise of rights and entitlements through DAY and PDS has an impact on them socially, economically and behaviourally.

## CHAPTER 6

### DISCUSSION OF THE RESEARCH FINDINGS

#### Background

In order to provide food security and alleviate poverty, the Government of India has conceptualized several policies. Of all these, two very important and enduring policies are the Public Distribution System (PDS) and Cash Transfers (CTs). The PDS has evolved through several revisions and reforms, which include changes in the method of targeting of beneficiaries and use of technology to improve the efficacy of the policy for providing maximum results. The CT scheme under study namely, Dilli Anashree Yojna (DAY) is of recent origin yet intended to provide food security to the poor people of Delhi. The following pages seek to analyse the findings of our comparative study of PDS and DAY in Delhi.

#### 6.1 Comparison of households' income and consumption expenditure

The majority of the households' income is earned from casual employment or the private sector. The rate of self-employment is low, which may indicate the low risk taking appetite of poor households leading to poor entrepreneurship among them. Monthly income and consumption expenditure on food and non-food items give a picture on the financial status of the households and how it influences basic food and nutritional security. This study does not treat the food and cash subsidies received under the welfare schemes i.e. PDS and DAY as part of the households' total monthly income for two reasons. First, the CT from DAY served as a supplementary support for the households' food related expenses. Second, the in-kind transfers under PDS served a portion of the households' monthly food consumption. The monthly food consumption of PDS households was composed of rations collected from FPS as well as open market or other sources. Food subsidies from PDS and CT from DAY only partially facilitated households' economic access to food and dietary intake.

The average total income data placed PDS beneficiaries in a slightly better position. The average monthly income for a family of six is Rs. 10450 in our PDS sample and Rs. 10175 in our DAY sample. The average per capita income is Rs.

1741.66 in PDS households and Rs. 1661.22 in DAY households. This makes the average per capita expenditure per day Rs. 58.05 in PDS households and Rs. 55.37 in DAY households. Taken as a whole, the monthly expenses on food and non-food items are higher in DAY households than PDS households. Both the households utilize a major portion of their monthly income on food, education, clothing and healthcare. PDS households spend Rs. 7975 or 76 percent of their monthly income on food and non-food items out of a total average income of Rs. 10450. DAY households utilize Rs. 8881 or 87 percent on food and non-food items out of a total average income of Rs. 10175 per month.

The Suresh Tendulkar Committee on Poverty 2009 and the Rangarajan Committee on Poverty 2014 are two recent reports that provide national poverty line estimations by looking at household's income and consumption expenditure. These estimates rely on the monthly expenditure for both food and non-food items for a family of five. According to the Tendulkar report on the poverty line, the average monthly income for a family of five is Rs. 4080 in rural areas and Rs. 5000 in urban areas (Planning Commission 2009). This makes the MPCE Rs. 816 for rural areas and Rs. 1,000 for urban areas, which shows that those who spent more than Rs. 27.20 in rural areas and Rs. 33.33 in urban areas per day are above the poverty line. According to the Rangarajan report on poverty line estimate, the monthly income for a family of five is Rs. 4860 for rural areas and Rs. 7035 for urban areas (Planning Commission 2014). For this monthly income, the MPCE is Rs. 972 for rural areas and Rs. 1407 for urban areas. Likewise, people unable to spend Rs. 32 in rural and Rs. 47 in urban areas per day are considerably poor.

Both the Committees mainly estimate households' expenses on food, healthcare, education, and clothing. The Rangarajan committee additionally includes expenses on transportation, rent, and other non-food items that contribute towards households' nutritional security. The current research adopted a similar approach by mainly recording household's expenses on food, education, healthcare, and clothing. Under these categories, it covers expenses on transportation, education fees, uniforms, etc to accomplish the same non-food needs. In keeping with the aforementioned two reports, the poor in PDS and DAY households in Delhi are placed above that defining

line although the majority of the surveyed households belong to the most vulnerable and highly disadvantaged groups in Delhi.

## **6.2 Food consumption, diet diversity and the efficacy of PDS and DAY**

In order to correct the limitations of estimating households' food security based only on income and share of expenditure on food and non-food items, the study observes the actual consumption of food items in quantity and also the diversity of diet intake. Both PDS and DAY households obtain rations from the open market and other sources such as production from one's own field or garden for self consumption. PDS households obtain ration from the FPSs too. The main food items noted in this study are wheat, rice, pulses and sugar. Wheat, rice and sugar form major components of food subsidies that PDS distributes whereas pulses serve the purpose of fulfilling an aspect of nutritional content. This section presents the comparison of the households' average and per capita consumption of these food items against their ideal ration requirement. It also gives an idea about the efficacy of PDS and DAY towards households' food and nutritional intake.

Both PDS and DAY households consume wheat the most, followed by rice and then other food items. PDS households consume more wheat than DAY households and DAY households consume more rice than PDS households do, by a marginal difference. The average monthly consumption of wheat is approximately 1 kg more in PDS household i.e. PDS households consume 33.65 kg of wheat and DAY households consume 32.50 kg of wheat. The average monthly consumption of rice is a little more in DAY i.e. DAY households consume 15.51 kg of rice and PDS households consume 15.36 kg of rice. The average monthly consumption of pulses and sugar by both PDS and DAY households is around 7 kg each. This shows that both PDS and DAY households consume matching quantity of food each month, except for a slight variation in wheat consumption. When it comes to per capita consumption, both households consume almost the same quantity of each food items. Although DAY households do not get food entitlement from the PDS, their per capita consumption of food items is equal to that of households from PDS.

Both households do not fulfill their ideal monthly requirement of wheat and rice. The ideal requirement of food items is suggested by the households themselves,

based on how much they would consume if they had more financial strength. For this to happen, PDS households require additional 3.48 kg of wheat, 2.44 kg of rice, 0.55 kg of pulses and 0.45 kg of sugar and DAY households require additional 4.87 kg of wheat, 1.12 kg of rice, 0.67 kg of pulses and 0.49 kg of sugar. This indicates that physical access to wheat and rice for both the households is inadequate. A positive observation is that both households almost fulfill the ideal consumption requirement of pulses and sugar. On per capita basis, the consumption of rice, pulses and sugar appears satisfactory in both the households as members fulfill the ideal requirement for these items. In both PDS and DAY households, the actual monthly per capita consumption is approximately 5 kg of wheat, 3 kg of rice, and 1 kg of pulses and sugar each. The ideal monthly per capita requirement is approximately 6 kg of wheat and the rest food items remain nearly the same. Overall, the per capita fulfillment of ration requirement appears nearly satisfactory.

There is a visible gap between the monthly consumption of food items by the households and the quantity of ration allocation from the PDS. On an average, members from both the households consume approximately 5 kg of wheat and 3 kg of rice per month. The monthly allocation of ration from FPS is 4 kg of wheat and 1 kg of rice. According to this estimation, ration allocation to PDS consumers falls short by over 1 kg for wheat and 2 kg for rice. Further, according to the comparison of PDS allocation to the ideal ration requirement, the per capita allocation of ration from PDS falls short by approximately 2 kg for wheat and 2 kg for rice. This estimation implies that the food subsidy of PDS does not entirely fulfill total households' needs. PDS provides less than the required wheat and rice, which form two very important elements of a diet. This certainly puts up a question mark over whether PDS with these limits can ensure food security for the poor households.

A study has shown that higher food subsidies do not necessarily lead to higher consumption of cereals (Balasubramanian 2015). It says that higher transfer of subsidies in PDS during 1999-2000 and 2009-2010 saw a reduced expenditure on food and an increase in non-food expenditure in three-fourth of the households, and the remaining one-fourth households too spent considerable amounts on non-food items (Ibid., 643). It says that households consider additional food subsidies from PDS as CT and hence a shift from PDS to CT may not likely increase the cereal

consumption. This implies that a reformed PDS with an increased food distribution may not lead to higher cereal consumption and that neither CT nor PDS would raise the food consumption expenditure of households (Ibid.). It contemplates that food subsidies in comparison to CT contribute towards higher food consumption although PDS may be infra marginal. According to the study, PDS subsidies are infra marginal as they do not go beyond 27 per cent of the household's total cereal consumption in any year (Ibid., 646). Therefore, it recommends the implementation of PDS as a 'distribution mechanism' and 'safety net' with an increased limited free food supply while also intervening in direct nutrition programmes to children to tackle malnutrition in India (Ibid., 654).

One significant finding of the current research is that an increase in CT or food entitlement can obviate households' tendency to eat less or borrow money to fulfill their food requirement. This is because although the surveyed households almost meet their ideal per capita food items requirement, the expenses for the same are met either within the income budget of the family or borrowing, if need be, due to financial constraints. Some households from FGDs assert that they may choose to either eat less or not borrow in times of hardships. This indicates that there is lack of access to basic food amongst some of these poor households. In this context, it is vital to increase the size of CT or food entitlement as it can demonstrably improve households' food consumption. Increase in food entitlement can overcome the current limitations of the PDS allocation, thereby enhancing households' access to food without economic constraints. It can ease the household's ability to fulfill its ideal monthly ration requirement, thereby fulfilling physical access to food adequately. In this case, PDS can raise the allocation of food items such as wheat and rice to ensure adequate entitlements for the people. Schemes like DAY can increase the size of CT to make a better impact on households' food security.

It is argued that households consider additional food subsidies from PDS as CT (Balasubramanian 2015). Therefore, an increased food subsidy can have a better impact on household's access to non-food essentials such as education, clothing, healthcare, and sanitation, which improves the general status of households' food security. This is because households from DAY that receive CT spend higher on these essential non-food items and likewise, higher numbers of DAY households have

access to education, healthcare and sanitation, in comparison to PDS households. One significant aspect is that although food subsidies from PDS and CT from DAY have limitations, households covered by both nearly fulfill the ideal per capita requirement of food items. Expenditure on food is obviously inevitable for any household under any circumstance. Further, both households spend major part of their monthly income on food to fulfill their basic food requirements. PDS households spend 58 percent of total monthly income on food Rs. 6037 out of Rs. 10,450 and DAY households spend 60 percent of total monthly income on food i.e. Rs. 6125 out of Rs. 10,175.

With regard to diversity in diet, more households from DAY than PDS consume additional food items apart from vegetarian food products. Food culture and preferences may affect a household's diet consumption pattern. Religion and economic status can be such determinants, which influence dietary intake. DAY category has higher number of households from the Hindu (OBC) and Muslim community than PDS. The culture and food habits of these communities may contribute towards higher diversity of diet amongst DAY households. CT schemes like DAY can also have an impact on households' dietary intake. The UCT experimental project in Delhi observes a change in the pattern of households' diet intake compared to previous consumption under PDS. CT enabled households to shift to nutrients rich food such as non-cereal commodities including pulses, meat, milk, eggs, etc (Gangopadhyay et al. 2015). This suggests that PDS food entitlements prior to CT did not address diet diversity effectively. Antagonists of CT are skeptical whether the households that receive cash will actually spend the money on food or on wasteful expenditure such as tobacco and alcohol and if, the latter may degrade their children's nutritional intake. This fear is not borne out, since DAY households exercise higher consumption expenditure on food and non-food and have a comparatively more diverse diet than PDS households. It is likely that CT contributes towards higher consumption of diverse food items and improves nutrient intake.

In both categories of households, starvation is not apparent since households consume at least two meals a day. However, two meals a day do not necessarily indicate that the amount or quality of food intake is satisfactory. Lack of access to adequate food is apparent since some respondents from FGDs admit that fights over food occasionally occur among family members due to scarcity of food.



Notwithstanding this, these households do not want to migrate for food or money in case of any food crisis. Instead, they resort to borrowing money or start eating less. One of the important reasons for this choice is to ensure the continuity of their children's education. Most of them are migrants from different regions of India and have settled in Delhi for an extensive period. Several such families have built houses in Delhi for permanent settlement. They struggle hard to find employment and sustain a livelihood in Delhi. These poor households choose to live in Delhi to sustain their livelihood. Moreover, the CT and food subsidy under DAY and PDS respectively serve as vital supplementary aids to sustain their livelihoods.

### **6.3 Utility of welfare subsidy and the idea of appropriate grant**

CT delivers services via banking. As per the specification of DAY guidelines, the survey shows that most of the beneficiaries receive cash in their bank accounts. Amongst DAY households, 95 percent of the respondents receive cash directly in their bank accounts and remaining 5 percent do not, although their names are registered as beneficiaries in the list provided by the government. Amongst PDS households, 68 percent purchase rations from the FPSs, and the rest do not receive rations either because their ration cards are invalid, blocked or they are waiting for fresh NFS cards. This indicates that more households from DAY have been able to utilize the cash subsidy than households from PDS utilize food subsidy.

On an average, the per capita monthly consumption of wheat is 5.6 kg by PDS households and 5.31 kg by DAY households. Amongst PDS households, the share of monthly per capita consumption of wheat from FPS is 3.25 kg. According to this consumption, the percentage share of wheat consumption from PDS stands at 58 percent, which is higher than all-India rural and urban consumption data released by the NSSO. According to the NSSO consumption expenditure survey 2011-12, the monthly per capita consumption of wheat in rural area is 4.29 kg out of which the share of PDS is 0.744 kg and 3.544 kg from other sources. In urban areas, this share is 0.406 kg from PDS and 3.605 kg from other sources. This makes the percentage share of wheat consumption from PDS 17.3 percent in rural area and 10.1 percent in urban area (National Sample Survey 68th Round 2011-12). This comparison shows that PDS households in Delhi consume a greater amount of wheat and the percentage share of wheat from PDS is higher than the average in NSSO data. It also establishes

that wheat forms an important component of poor households' diet in Delhi. Similar estimation is not carried out for DAY households as they do not consume ration from the PDS.

Rice consumption amongst PDS and DAY households in Delhi is lower in comparison to the NSSO survey. According to this study, the monthly per capita consumption of rice by PDS households in Delhi is 2.56 kg and 2.53 kg in DAY households. According to NSSO 2011-2012 survey, the monthly per capita consumption of rice in rural area is 5.98 kg and 4.49 kg in urban areas. However, the percentage share of rice consumption from PDS is higher amongst PDS households in Delhi than NSSO consumption survey data for both rural and urban. The monthly per capita consumption of rice by PDS households in Delhi is 2.56 kg out of which they obtain 1.18 kg from PDS and 1.38 kg from other sources. According to this usage, the percentage share of rice consumption from PDS is 46 percent. This is higher than NSSO survey for the share of rice consumption from PDS i.e. 27.9 percent in rural area and 19.6 percent in urban area (Ibid.). In NSSO survey 2011-2012, the monthly per capita consumption of rice in rural areas from PDS is 1.670 kg and 4.306 kg from other sources. In urban areas, households utilize 0.882 kg from PDS and 3.605 kg from other sources (Ibid.).

According to NSSO survey, the share of sugar consumption from PDS in rural area is 0.113 kg and 0.603 kg from other sources, which makes the percentage share of/from PDS 15.8 percent. In urban areas, this share is 0.084 kg from PDS and 0.732 kg from other sources, which makes the percentage share from PDS 10.3 percent (Ibid.). In this study, the monthly per capita consumption of sugar in Delhi is 1.12 kg in PDS households and 1.18 kg in DAY households. PDS households consume 0.88 kg from PDS and 0.24 kg from other sources. This makes the percentage share of sugar consumption from PDS 78.57 percent. However, this estimation relies on only sixteen out of forty households that collect sugar from the FPSs in Delhi. The remaining households do not collect sugar or are not entitled. The NFSA provides an entitlement of 6 kg sugar only to AAY and some members of PR households who are old BPL card holders i.e., those cardholders before the introduction of the NFS scheme. According to the implementing department, these old BPL cardholders are Priority Households Sugar (PRS) because of the entitlement of sugar. Sugar is limited

to old BPL cardholders under the PR category of NFS because of the present maximum limit applied by the Ministry of Consumer affairs, Food and Public Distribution.

With regard to DAY, respondents feel that CT amount is less and insufficient to meet their basic needs. That Rs. 600 per month is insufficient for a household, twenty-nine or 72 percent out of forty CT respondents estimate that at least Rs. 1500 should serve as a basic CT for food subsidy per month. Majority of CT respondents assume that at least Rs. 1500 per month can serve as the right grant or appropriate amount as CT for food subsidy. Since households from both PDS and DAY have an average number of six members, per capita cash entitlement arrives at Rs. 250 per month. The households that participated in the Madhya Pradesh UCT pilot projects in 2011 were given a minimum monthly income of Rs 200 each for adults and Rs. 100 each for children, which were later increased to Rs. 300 and Rs. 150 respectively (Standing *The Financial Express*, 6 June 2013). In the year 2010 in Delhi, the urban-based UCT project as a replacement for food subsidy provided each CT participant households an amount of Rs. 1000.

For the purpose of this research, the ideal grant of CT should be that amount which provides the greatest minimum entitlement as income transfers desired by majority of the households i.e. Rs. 1500 per month for each household or Rs. 250 per month on per capita basis. For PDS, the gap between the quantity of food entitlement provisioned by NFSA and household's ideal requirement is the additional ration that the households require. In this case, PDS has to fulfill the per capita ideal requirement of rations by the households especially for wheat and rice. Given that the ideal per capita requirement of food grains by PDS households is 6 kg of wheat and 3 kg of rice, PDS should ideally provide the same quantity as equivalent to an adequate entitlement for food subsidy. Otherwise, PDS at present provides 4 kg of wheat and 1 kg of rice as food entitlement under NFSA.

#### **6.4 Comparison of households' access to education, clothing and health care**

The consumption expenditure on non-food mainly includes expenses on education, clothing, and health care services, which are significant for households' food security. The general living standard of the people significantly depends on

access to these basic amenities. The study observes a direct relation between the households' monthly expenses on non-food and their access to education, health care and other basic amenities that determine households' food security. Between DAY and PDS households, the former spend more on these essentials and consequently their access to children's education, health care and sanitation fare better. The monthly expense for non-food items by DAY households is Rs. 2756.25 and Rs. 1937.5 by PDS households and MPCE is Rs. 450 for DAY households and Rs. 322.91 for PDS households. Since DAY households spend more than PDS households on non-food items by a difference of Rs. 800, the CT of Rs. 600 may have contributed towards this higher expense, which also has a positive impact on household's performance in education, healthcare, and sanitation services. The SEWA led CT pilot projects observes that CT as supplementary income transferred to women creates a substantial positive impact on households' health, education and nutrition (SEWA Bharat and UNICEF 2014).

Another lead provided by expenditure on non-food items is the number of households that consume alcohol and tobacco which are deemed to be wasteful expenditure because it does not contribute to households' food security. Opponents of CT fear that CT can lead to higher expenses on non-essential items such as tobacco and alcohol but this study could not establish this belief. The finding here is that DAY households tend to spend more on tobacco than PDS households do whereas PDS households spend more on alcohol than DAY households do. The study did not conduct an individual estimation of monetary expense on non-food items i.e. education, clothing and healthcare including share of expenses on alcohol and tobacco. Therefore, comparison between the two households on the basis of maximum or minimum expenditure in rupees for these individual items cannot be determined. However, CT households do spend higher on non-food items than PDS households do, leading to higher access to education, healthcare and sanitation and diet diversity. It can be that indulgence in the consumption of alcohol and tobacco does not have anything to do with the method of service delivery, cash or in-kind transfers, of welfare schemes.

It is important to note that consumption of tobacco and alcohol in some of these households may indicate a state of food insecurity. Studies have shown a direct

relation between food insecurity and use of tobacco saying that the use of tobacco is more rampant in those poor households who are food insecure (Babu et al. 2014). In this case, most of the surveyed PDS and DAY households belong to the “most vulnerable” and “vulnerable” groups. Although APL category under PDS is slightly better off than AAY or BPL category, it is not an indication that the poorer amongst these households indulge more in wasteful expenditure such as alcohol and tobacco. The expenditure on alcohol and tobacco also indicates the practice of disparate gendered expenditure in the households as it is mainly men who indulge in these expenses. One positive aspect of the non-food expenses category is that there seems to be no gender bias when it comes to expenditure on education, clothing and health care, including the share of food amongst households’ members. According to the respondents, there is no element of gender discrimination in the consumption and expenditure for food, education, healthcare, and clothing at the household level.

### **6.5 Comparing effectiveness of service delivery in PDS and DAY**

Proponents of CT believe that CT can plug leakages and reduce corruption, which is rampant in PDS. A comparative study of UCT i.e. social pension schemes for widows and elderly and in-kind transfers such as PDS reveals that CT is more progressive and effective in targeting and delivery of services. A comparative study of these two welfare schemes shows that targeted UCT such as pension schemes are less affected by corruption and leakages, which usually happens in PDS (Dutta, Howes and Murgai 2010).

According to this study, CT is effective in targeting and delivering service to 95 percent of DAY households. A comparison shows that there is higher exclusion of eligible beneficiaries in PDS, as only 68 percent of its households receive food entitlement from FPS as against 95 percent of DAY households that receive CT. This indicates higher leakages and inefficiency in the service delivery mechanism of PDS than DAY. If 40 percent of PDS allocation does not reach the PDS beneficiaries, as reported in Business Standard on February 3, 2014, CTs can be an obvious choice over PDS to deliver welfare subsidy. In this case, the administrative cost of public service delivery via CT is less than that of PDS, which can help the government in reducing its expenditure and use it for some other productive purpose. Yet there are

many factors that go into this selection, one of which is adequate public infrastructure enabling CT beneficiaries to avail public services at affordable rates.

For DAY, the implementing agencies create bank accounts for beneficiaries and link these to unique identification number to avoid duplicity. Beneficiaries could themselves open bank accounts in any Aadhaar enabled bank to avail the cash subsidy. The banks link no-frills bank accounts to Aadhaar number at NPCI to conduct CT to the beneficiaries (Kumar 2015). Forms of application for CT require secure and punctual transfer from GRCs to the Programme Management Unit (PMU) of Mission Convergence and further to Food Supply Office (FSO) for verification and sanctioning. Administrative challenges subsist with training, monitoring and supervising large number of staff to implement the CT (Ibid.). According to the Program Officer of DAY, these are some administrative and technical challenges to making CT services more accessible.

Under DAY, the actual cash entitlement is Rs. 600 per month. Given that the government implemented DAY for a year, DAY beneficiaries should receive a sum of Rs. 7200. Out of 95 percent of the respondents that receive cash directly in their bank accounts, only 72 percent of households are able to recall the approximate total amount of CT. Out of those who recall the amount, DAY households receive an average total amount of Rs. 6962. According to this estimation, DAY beneficiaries receive 97 percent of the entitled CT thereby implying 3 percent of the allotted amount did not serve the intended purpose and got diverted or lost. The cash entitlement falling short by some amount casts a shadow on fair practice in CT. The percentage of amount lost may not seem a big amount but it does not rule out the possibility of siphoning off a greater sum in future if neglected. If households do not receive the entitlement in full, CT may not serve the purpose of countering leakages and corruption like that of dishonest means practiced by PDS intermediaries such as FPS dealers. Nonetheless, comparison shows that cases of leakages, black marketing and corruption are higher in PDS.

In PDS corruption and black-marketing is detectable through several means at the food distribution level of FPSs. The per capita quantity of wheat that the current PDS cardholders in Delhi purchase from FPSs is not satisfactory. According to the survey, on an average, FPSs allocate 3.25 kg of wheat, 1.18 kg of rice and 0.88 kg of

sugar per head per month. This quantity of wheat allocated by the FPS does not match with the quantity of food assured by the NFSA. The NFSA entitles a total of 35 kg of food grains to AAY households irrespective of the size of household and to each member of PR or general household 4 kg of wheat and 1 kg of rice. Moreover, the Act states that eligible households are entitled to get rice at Rs.3 per kg, wheat at Rs 2 kg and coarse grains at Rs.1 per kg. According to this legal price set by the NFSA, 4 kg of wheat and 1 kg of rice from FPSs cost a total of Rs. 14 per month. However, FPS dealers do not pursue the legal price for sale of foodgrains set by the NFSA. Approximately 58 percent of PDS households pay more than the price set by the government. Some households pay Rs. 15 per kilogram for wheat and Rs. 22 per kilogram for rice to the FPS dealers. Only one-third of the respondents admit to paying the stipulated amount of the subsidized ration as mandated under their respective ration cards. This element of black-marketing at the food distribution level erodes the notion of food subsidy as a welfare measure.

Majority of the surveyed households (65 percent) trust the quality of ration that they purchase from PDS, as against 20 percent of households that doubt it. Respondents from FGDs however have strong objections regarding the quality of ration. When confronted with this complaint, the FPSs dealers allege that the quality of the ration supplied from the FCI is satisfactory. This indicates that adulteration of food grains takes place at the distribution stage from FPSs. During the visits to the FPSs, two out of four FPSs had ration stocked for the following month and the remaining two FPSs awaited its allocation to arrive for the next month. According to the FPSs dealers, the quantity of ration supplied from FCI is roughly sufficient for distribution to the beneficiaries except for one store that had more than 2500 registered beneficiaries. This is a very high number considering all the other stores usually have around 1000 registered ration cardholders. Despite the FPSs' dealers claim that the ration with them is sufficient for the registered beneficiaries, several ration cardholders from the FGD complain that they have been receiving less than their entitlement from the FPS. To the FPS dealers, since all the people coming to their stores have ration cards, they cannot deny such people their entitlement. In fact, all the storeowners argue that there could be fake beneficiaries getting advantage of subsidized rations.

To deliver food subsidy to the people, the FPS dealers rely on the genuineness of ration cards believing that the government has already verified their Aadhaar cards under the mandate of the NFS scheme. However, the FPS dealers have the discretion under the NFSA to use technology such as Aadhaar card based identification of beneficiaries. Following the Supreme Court's order not to make Aadhaar card mandatory for public service delivery, the aforementioned discretion has become redundant. For DAY, Aadhaar was made mandatory for CT applicants as it was the main form of documentary proof demanded by the banks to open no-frills bank account (Kumar 2015). Opening of a bank account required the Aadhaar enrolment slip, DAY application form along with a photo, and ration card if they possessed one. In DAY, the Aadhaar-linked bank accounts aided the service provider to validate the transfer of cash entitlement to the identified beneficiaries by date, time and amount.

There is an irregularity of service delivery in both PDS and DAY, which erodes the timely assurance of welfare subsidy. In terms of frequency in service delivery, PDS performs better than CT i.e. 63 percent of PDS households collect ration every month and only 8 percent of DAY households receive monthly CT and the rest receive in cumulative amounts of two or more months. In this regard, the only exception is the announcement made by the government at the launch of DAY in December 2012 that the scheme will be implemented with retrospective effect from April 1 2012, which indicated that the beneficiaries would initially receive a total CT of Rs. 4800 meant for recent past eight months (*The Economic Times*, December 15 2012). In PDS, irregularity of ration delivery at FPSs is one amongst many reasons for dissatisfaction among consumers. The dealers rarely open or close shops on time. There is a general complaint amongst the FGD participants that FPSs owners do not follow a proper timetable for opening and shutting down their shops; commodities are also unavailable on many occasions, and thus does not provide entitled commodities at a right time. When the shops are open, the beneficiaries wait in long queue but are later asked to go back with numerous excuses. It is not easy for the poor to frequent FPSs far-away from their homes, which could be more than two to three kilometers.

### **6.6 Cash or in-kind transfers: People's choice of service delivery mechanism**

Out of eighty households from both PDS and DAY, forty-two households prefer cash and thirty-eight households prefer food subsidy. This number puts CT



above in-kind transfers as the choice of mechanism of service delivery with 52 percent out of eighty households opting for it. Nevertheless, the fact is that 48 percent of the people prefer PDS as food subsidies remain indispensable to the poor. Out of the forty-two households that prefer cash, twenty-nine respondents are from DAY and thirteen respondents from PDS. Out of thirty-eight households that prefer PDS, eleven respondents are from DAY and twenty-seven respondents are from PDS. This shows that the majority of those who tried CT prefer cash and the majority of those who tried PDS prefer food. Similarly, the pilot projects of CT implemented in Madhya Pradesh show people's choice for CT over in-kind transfers where most respondents preferred cash over food subsidies (Standing *The Financial Express*, 6 June 2013). Among the CT respondents, since 72 percent of DAY respondents want to continue to receive cash, there is a possibility that PDS respondents too may get positively inclined towards cash if they experience CT. This may hold the same for DAY respondents who too may get positively inclined towards food if they experience PDS.

Despite black marketing, erosion of food grains quality at the food distribution level, irregular service delivery, and tiresome efforts to purchase subsidized food grains, the majority of PDS households still find food subsidy indispensable. It seems as though households wish to continue to buy food grains from FPS at a price slightly lower than the open market price. Most of the survey respondents who have experienced PDS still prefer subsidized rations despite many predicaments, as it remains vital for the households. Several PDS respondents have been critical of FPSs as well as the system itself, yet prefer to continue with its service. The preference for PDS over CT despite complaints possibly suggests that they are apprehensive of something new and different which they have not tried yet, i.e. CT. Those who choose PDS are fearful that they may lose what they already have although the service point of FPS manifests several flaws. They argue that PDS at least is an assured way of obtaining subsidized rations.

Some who prefer to receive rations under PDS offer reasons against CT (rather than positive reasons for PDS) such as that the cash amount is low and prone to misuse, along with banking problems. Many respondents feel that CT of Rs. 600 is too low to meet their dietary needs; they would shift to CT provided the amount under the scheme is increased. Some CT respondents from DAY also choose PDS thinking

that cash is insufficient and prone to misuse, and so opt for direct access to food rather than direct CT. Amongst the FGD participants, most of them are critical of the working of FPSs yet some choose to go with it because PDS remains indispensable. This indispensability is due to the assurance of rations given under PDS and the affinity and comfort developed due to long experience with it.

Most of the CT respondents prefer cash for the feasibility and flexibility of using money for several purposes. Cash is preferred for its multiple utility and prospects for savings too. Cash enables them to purchase better quality rations and food. The availability of cash, according to these women, does not just serve the purpose of buying goods and services according to one's wishes but also gives a sense of empowerment. As DAY has terminated, most of the recipients that received cash are very keen to know about the restart of such a CT scheme. The CT has served as a complementary means to ensure basic households needs. Some choose CT because of the limitations and inefficiency of PDS: PDS allocation is less; ration quality from PDS is of poor quality; they do not trust the FPS dealers who deny them rations citing excuses; FPS is crowded; and FPS is too far. Most of the respondents of the FGD have a decided preference for CT over PDS.

### **6.7 Governance and Accountability in PDS and DAY**

Case studies of CT in Mozambique, Palestine and Yemen show that beneficiaries not only desire an increase in the size of CT and regular payment but seek participation in governance and supervision of the programmes (Jones, et al. 2016). DAY beneficiaries too desire an increase in the amount of CT and regular payment and they may likely express interests for participation in governance and program supervision if they continue to use CT service for longer duration. In this context, CT through DAY was implemented for a period of one year only. DAY beneficiaries do not seem to have clear channels of communication with the CT service providers because some did not know if the CT scheme is still operational or not. They assume that the scheme has terminated since they stopped receiving money for a prolonged period. Some beneficiaries who received cash only for some months or received less than the entitled amount could not raise their concerns to claim full

entitlement. In a case study related to DAY, it is mentioned that for any grievances and queries, stakeholders can call the toll free number 1800-110-841 (Chowdhary 2013-2014, 18). Due to lack of awareness perhaps, beneficiaries could not establish direct access to information or to raise any grievances related to payment related issues. This squarely puts a question mark on the ability of the government to make its institutions and service providers accountable for public service delivery.

As for PDS, people's knowledge and experiences with regard to corruption and inefficiencies in the service delivery system mainly occur at the local FPSs level. Some people complain to the FPS dealers or local representatives like the village chairman who does not address their grievances. Some complaints, that pertain to ration cards disengaged from PDS for several months and years, are not rectified. According to the Food and Supply Officer (FSO) of the concerned department, in case of any complaints and grievances, beneficiaries can call 1967 for assistance or they can also visit Circle Offices or approach the FSO on any issue. Similarly, the Anti Corruption Branch of the government of NCT of Delhi have an Anti corruption 24/7 helpline 1031 for people to lodge or report complaints for harassment and bribes. However, the respondents have no idea of any grievance redressal facility for complaints related to PDS. They therefore feel helpless after being deprived of their entitlements by the government service providers. Steps taken by the government cannot be transformational if people are unaware of such measures and incapable of holding FPS dealers or public institutions accountable. The availability, accessibility and utility of such services need to be widely disseminated and encouraged to make the service providers accountable. Nonetheless, the workability of such services again relies on the responsiveness of the government service providers, to rid them of corruption and black-marketing and to redress any grievances.

To get rid of corruption in processing and obtaining ration cards, the Delhi government initiated an online facility for the application and distribution of e-ration cards (*The Economic Times*, 13 March 2015). This initiative undertaken by the Delhi government does not seem to have eased people's access to services. People from surveyed households and FGD participants did not know how to access computers or use technology to view the status or download ration cards. To fulfill this requirement, they would have to make frequent visits to cyber cafes or internet cafes

and pay for those services several times. Due to lack of awareness, some beneficiaries refused CT as a mechanism for service delivery since the use of banking and technology did not seem friendly or evoked fear. There were no complaints amongst DAY beneficiaries with regard to opening a bank account or obtaining an ATM card. The implementing agencies create bank-linked unique identification account for the CT beneficiaries and set up banking services for the beneficiaries.

It is well known that FPS is the only point of access to subsidized food grains for poor households. A corrupt FPS dealer is an obstacle to access subsidized food. In the backdrop of PDS, marked with corruption and inefficient service delivery, direct CT provides an alternative method to a more effective and reliable service delivery mechanism to the poor. The use of technology reduces human intervention to some extent especially when there is a sort of intermediary interruption in service delivery. CT in the bank account of the beneficiaries, as happened under DAY, eliminates the discretion of FPS dealers and put beneficiaries' in-charge of their entitlement. The technological advantage utilized for direct CT to bank accounts of beneficiaries' put CT ahead of in-kind transfers. Unlike in-kind transfer, there is minimal possibility of diverting CT from reaching its targeted beneficiary due to use of technology. In CT, use of Aadhaar card-linked-bank accounts seeks to provide direct service delivery to the people and avoid duplication all together.

Recently, the Indian government has rephrased CT by introducing the JAM (Jan Dhan Yojana + Aadhaar number + Mobile number) trinity to initiate direct benefit transfer of welfare services to poor people. In reference to PDS, some have pointed out that the utility of JAM trinity for DBT should not dismantle PDS but to strengthen PDS wherein technology such as JAM tools can serve as best practice to rectify illegal diversions in PDS (Masiero 2015). This use of technology in PDS seeks to combat leakages to bring transparency in governance. However, a study of ICT in PDS in Karnataka points out that there are some drawbacks i.e. misuse of machines, less monitoring in early supply chain and technology which are impediments to such a policy shift (Masiero and Prakash 2015). In fact, to avoid policy shift to CTs, ICT is seen as an alternative tool to correct faults in PDS. However, the potentiality of technology in PDS cannot be achieved unless technical inefficiencies at the FPSs supply chain are taken care of. For this purpose, it suggests an effective

supplementary system to take care of technical failures or machine failures through maintenance of paper based account books, holistic monitoring at the supply chain level, including an efficient back end support system to monitor the supply chain before reaching the FPS level (Ibid.). CT schemes like DAY also need well-regulated monitoring and accountable service providers to ensure that the cash entitlement reach the beneficiaries' bank account at regular intervals in the right amount.

In Brazil's Bolsa Familia, the state-led top-down approach largely contributes towards the CT program assessment rather than people-led bottom-up demand approach (Sugiyama 2016). This indicates that the participation of citizen and community in monitoring and accountability mechanisms is low compared to state-led administrative assessment for the efficiency of the programme (Ibid.). In the case of PDS and DAY, both the state-led top-down approach and the people-led bottom-up approach appear weak. First, the grievance redressal mechanisms and accountability of service providers are weak in both PDS and DAY. Although some sort of Helpline is set up to redress grievances, these facilities are not disseminated to the concerned beneficiaries effectively. Second, there is a lack of people's participation in monitoring and accountability mechanisms in both PDS and DAY.

In Bolsa Familia, in the absence of an efficient monitoring agency and on account of extreme poverty and vulnerability, CSOs and media serves as vital agencies to monitor the program and examine government assessment reports; these intermediaries facilitate people's participation (Ibid.). The Aids Support Organisation (TASO Project) in Uganda shows that strengthening accountability mechanisms through the support of NGOs enhances the social contract between the state and citizens (Bukonya 2016). It shows that social accountability and social protection schemes invigorate the 'social contract' between the state and its citizens in a positive manner; they can 'civilize the state' and empower the citizens to 'engage the state to improve the service delivery' (Ibid., 12). The government seeks to address multidimensional facets of poverty and social vulnerabilities through welfare schemes. An effective social accountability can address these concerns through people's participation, adequate provisions of information access, feedback, monitoring and evaluation (Molyneux et al. 2016, 9). Such accountability

mechanisms strengthen the role of the citizens and the state and welfare programmes like PDS and DAY ought to accomplish the same.

### **6.8 Social, psychological and gender impact of PDS and DAY**

It is said that when people are aware of their rights and entitlements, they can be confident, individually or collectively, to defy any maltreatment by the program officials (Molyneux et al. 2016). Women respondents from both PDS and DAY are aware of their welfare entitlements, cash or in-kind, under their respective scheme. However, there are significant impediments that stand in their way of exercising their rights and challenging any mistreatment by the service providers. The majority of them are unlettered and lack of awareness impedes their exercise of rights and entitlements. Majority of women respondents from both types of households find it hard to interpret important official documents such as the Aadhaar card, ration card and electricity bill, which further hinder them from exercising their rights and utilizing public services.

Most of the women from both types of households have never participated in any sort of vocational training or awareness campaigns that may facilitate their role and participation within and beyond the household level. Due to lack of ability to use technology, PDS beneficiaries find it difficult to access online services concerning ration cards. In this context, DAY beneficiaries are in a better position since most of them are able to utilize ATMs or visit banks to withdraw money. The utility of banking facilities also helps to achieve financial inclusion to some extent. However, some CT beneficiaries still need to build awareness and ability to use banking services to make financial inclusion a reality. Irrespective of cash or in-kind transfers' mechanism for public service delivery, there is a need to strengthen social participation and awareness building amongst these women through training, workshops, seminars, campaigns and beneficiaries meeting to share and exchange views and experiences. It will augment their participation and contribution towards the effectiveness of the programmes. CCTs in Latin America show that social participation through training and social interactions builds self confidence, which has a positive impact at the personal, household and even at the community level (Adato et al. 2016).

PDS beneficiaries are not able to effectively defy mistreatment by the program officials i.e. the FPS dealers. When questions are posed with regard to food distribution service, there is high level of frustration and resentment amongst PDS respondents against the FPS dealer. Majority of them feel abused due to unfair behavior of the ration dealers who they perceive as corrupt, arrogant and dictatorial. At the FGDs, some PDS beneficiaries are visibly restless, frustrated, and furious as they are very often mistreated by the FPS dealers. Many of them seem to suffer at the hands of corrupt practices in PDS. Turning down requests for full entitlement of rations, adulterating rations and diverting good quality to the open market, keeping stores closed at no fixed time and threatening to tear off the ration cards are allegedly some of the tactics used by the FPS dealers, according to the FGD respondents, to deny them their entitlements. Respondents from FGDs are apprehensive that PDS may involve massive diversion of rations to the open market thus depriving eligible beneficiaries of their entitlements.

Not all have bitter experiences with the FPS dealers. Some have had a good experience while the rest have complaints against the FPS service and its dealers for several years. There is, to a large extent, fear and doubt in the minds of the PDS beneficiaries with regard to the working of the FPS and its dealers. It generates negative feelings amongst beneficiaries and in relation to their service providers as they are mistreated and disrespected at the FPSs, which can affect their psychosocial wellbeing. Such disrespectful attitudes towards beneficiaries by program officials bring them 'shame, humiliation and low self-esteem' and threaten their participation in the programmes (Samuels and Stavropoulou 2016). Beneficiaries wish to be treated with respect and dignity (Jones, et al. 2016) and in the context of PDS, majority of people's feelings and their relation with the FPS dealers remain negative.

CT respondents too experience doubt and worries when the payment is insufficient or deficient; however, unlike PDS beneficiaries, DAY respondents do not express frustration and anger against banking personnel because they receive CT in their bank account and do not have direct contact with the service provider. According to DAY respondents, receiving cash makes them "feel good" and empowered. Studies show that positive relations between beneficiaries and service providers can create psychological well-being amongst individual beneficiaries and improve their relation

with others and society in general (Pavanello, et al. 2016; Samuels and Stavropoulou 2016). Such positive relations are fostered well with NGO support as it enables beneficiaries to come together and address their common problems (Molyneux, Jones and Samuels 2016). For these reasons, psychosocial dimensions in the planning, implementation and evaluation of programmes are highly recommended (Samuels and Stavropoulou 2016).

At the household level, people's behavior with regard to sharing of food amongst family members is satisfactory. Beneficiaries from both PDS and DAY households calmly state that there is no discrimination in the sharing of food during meals. With regard to decision making role at the household level, there is a contradiction between the outcomes of these two welfare schemes. A higher number of CT respondents exercise decision-making role in matters of food and a higher number of PDS respondents handle decisions with regard to cash. The duration of a welfare programme that seeks to improve livelihood conditions of the poor may have an impact on the decision making role on food and general finances at the household level. Given that PDS households have been depending on food subsidy for several years and DAY households received CT for a year only, the former has reaped welfare benefits for a much longer duration. Nonetheless, most of the women head in both PDS and DAY households make decisions with regard to food and household finances.

Overall, both schemes show a positive gender impact and women feel empowered. Women respondents from both PDS and DAY feel a sense of empowerment being the beneficiaries of the program. Women respondents from PDS feel empowered as ration cards are imprinted by their names for the food subsidy. According to the program officer, Mission Convergence, DAY made women feel empowered by achieving a sense of self-reliance and independence as it transferred CT to the bank accounts of the eldest female members of the households. Due to the short duration of the implementation of DAY, the concerned department found it too early to see if the scheme had any noticeable impact on child's enrolment ratio in schools, child labor, and malnutrition; moreover, the scheme primarily targeted women in the households (Kumar 2015). CT programmes have a positive gender impact on the role of women in the households as women respondents from DAY feel



empowered. In a similar context, the CCT programme Red Solidaria (RS) in El Salvador contributed towards achievement of women's personal empowerment from their role as beneficiaries and through informal education, which strengthened their citizenship (Adato et al. 2016).

## **6.9 Limitations of the current research and future scope**

The field study was conducted from February 2015 to April 2015. During the period of this research, the Delhi government announced some initiatives with regard to access to basic amenities such as drinking water facilities, piped water connection, relaxation in electricity bills that can have an impact on food security at the household level. The government announced that households that use electricity up to 400 units would pay only half the bill amount. It also announced a plan to provide 20,000 litres of free water to every household (Anand and Sriram *The Hindu*, 26 February 2015). It sought to initiate full network piped water connection, sewage connection, including ways and means to promote water harvesting. The scheme for free water where consumers did not have to pay for sewer charges was supposed to come into effect from March 1, 2015 (*Firstpost*, 25 February 2015). The Delhi government also sought to amend Delhi Jal Board (DJB) and make access to clean drinking water a 'right' (*NDTV*, 28 January 2015). This study did not test such intentions whether those were effective or not. At the administrative level, to get rid of corruption and black-marketing at the FPSs, the government took steps to provide a three-month temporary license to FPS dealer on the basis that if there was any complaint against the FPS licensees it would lead to cancellation of their ownership. This step was in order not to let people suffer at the hand of FPS dealers (*The Economic Times*, 13 March 2015). This study did not examine whether such steps were effective in practice or not. It was rather late to incorporate all these initiatives for the study and at the same time, the duration between these initiatives and conduct of the field research was too short to study their impact.

As far as CT is concerned, although DAY has been terminated in Delhi, the Government of India still seeks to expand the implementation of CT for food subsidies to the beneficiaries of the States (*Livemint*, 12 March 2016). Moreover, the Aadhaar (Targeted Delivery of Financial and Other Subsidies, Benefits and Services) Bill, 2016 has become an Act on March 25, 2016 (Ministry of Law and Justice, *The*

*Gazette of India* 2016). This act authorizes direct delivery of welfare benefits to the bank account of the beneficiaries. These recent advances and proceedings undertaken by the Government of India make the comparative study of in-kind transfers and cash transfers befitting for future research.

## CONCLUSION

Cash transfers and in-kind transfers within the purview of policy choice have been a matter of contention especially when its objective is to provide food and nutritional security to the people. Any policy alternatives should pledge to secure an appropriate and effective mechanism to ensure that the welfare benefits actually do reach the poor. In the same manner, CT as an alternative service delivery mechanism markedly promised to deliver economic efficiency, transparency with accountability and elimination of corruption, which PDS was mostly criticized for lacking in these. CT is undoubtedly another supportive solution, apart from PDS, to provide food and nutritional security to the poor. Both PDS and DAY remain indispensable to support the livelihood security of the poor. However, there are weaknesses in ensuring “rights” and “security” to its beneficiaries in an impartial manner and in delivering welfare benefits as per their legal entitlement without delay. What remains crucial, therefore, for these policy initiatives, is to ensure adequate entitlements, whether cash or in-kind transfers, to improve household’s social and economic access to food and non-food essentials such as education, clothing, healthcare, and sanitation care and so forth. The context of food security in this study therefore closely studied household’s employment and income expenditure for food and non-food, food consumption and diet diversity, utility of welfare entitlements from PDS and DAY, access to education, clothing, healthcare, sanitation and so forth, which determines the overall status of a household’s wellbeing. The following lines present the concluding verdicts regarding the comparison of DAY and PDS in fulfilling food security for the poor.

The status of food and nutritional security in both the categories of households is below the normal levels. To begin with, households’ food security is hindered by lack of formal employment and thence, an inadequate income constrains their ability to actualize their ideal monthly requirement of basic dietary needs. It is, therefore, obvious that PDS and DAY form an important livelihood support for these households. Thereupon, a shortfall in the entitled grant, whether cash or in-kind transfers, can seriously hinder their ability to attain basic food security and general wellbeing. Besides, majority of beneficiaries from PDS and DAY are unlettered, which further hinder them to exercise their rights and reap the benefits of welfare entitlements through rightful access to it. What is again disconcerting is that, there is

no sort of responsive service providers in both PDS and DAY to correct any deficiency in delivering cash or in-kind transfers. This perhaps points to the fact that there is an absence of positive relations between the service providers and the beneficiaries as we can observe many PDS beneficiaries feeling frustrated and haunted by the rude behavior of the FPS dealers. It is also unexpected that service providers from a CT programme like DAY, which rely on technology services, do not seem to have established any kind of communication with the beneficiaries. These prevailing factors intensify the status of food insecurity among the households of both the categories.

Overall, the service delivery mechanism is better in CT than in-kind transfers are. DAY delivers welfare entitlement to huge percentage of its eligible beneficiaries than PDS. The exclusion of targeted eligible beneficiaries from utilizing welfare benefits is more in PDS than DAY. This demonstrates that these welfare programmes do not ensure “rights” and “security” to its beneficiaries in an equitable manner. PDS performs well in delivering the entitled quantity of rice as envisaged under the NFSA but there is a short fall in delivering the entitled quantity of wheat. In DAY too, the CT falls short by some amount. In PDS, although beneficiaries receive the entitled rice in right quantity, the notion of welfare subsidy is eroded by making the poor pay more than the legal price set by NFSA. This does not support the claim made by the Finance Minister in the Budget Speech 2004 that FPS serves as the backbone of food security for the poor. Black-marketing is one of the major reasons why corruption is endemic in PDS. Although majority of PDS cardholders buy rations in the black market, they are more vocal about the mismanagement of the FPS service and its dealers for their corrupt and impolite attitude. Both the welfare schemes have the common problem of ensuring timely delivery of welfare benefits i.e. irregularity of ration allotment or irregular payment of CTs. Irregularity of CT or PDS, uncertainty in the functioning of the FPSs and the unwelcoming attitude of the its dealers erode prompt service delivery. Therefore, in both PDS and DAY, major impediments at the last delivery point are likewise, deficiency of right entitlement to the beneficiaries, and charging the poor extra money for the subsidized food, also compromise food security, and the neglect of these issues compounds the problem of food insecurity in these households.

Both PDS and DAY are nonetheless vital in achieving the household's basic food and nutritional needs. PDS remains indispensable for the poor and DAY serves as an effective alternative route to deliver welfare benefits and to meet similar objectives as PDS i.e. food security. The social security net provided primarily to the poor households forms an important basis of the household's food and nutritional security. It has a positive impact on women's decision-making role in households' food consumption and finances handling. Welfare schemes like DAY that improve people's purchasing power have a positive spillover effect in achieving food and nutritional security, together with access to education, clothing, healthcare and sanitation practices. Both PDS and DAY, seeking to address poverty and attain food security, have a spillover effect on the gender equation at the households' level. For instance, CT provided to the families in the name of female heads make women in households economically empowered as is evident from the responses of DAY beneficiaries. Similarly, ration cards provided in the name of female member of the families makes them feel empowered. It can also make their male counterparts see women as provider of food and earn respect. The study however did not incorporate men's view on the manner of ration cards or CT given in the name of women headed households.

Both the schemes, PDS and DAY are well intended. If implemented in true spirit both are capable of ensuring food security and sustaining livelihood. What this research has exceptionally tried to unveil is the question on what would serve as the appropriate grant, cash or in-kind transfers, for the poor in Delhi? We know that a CT of Rs. 600 is too low for the poor to attain food security. From the survey, majority of DAY households propose that the appropriate cash entitlement for basic food and nutritional security per month would be at least Rs. 1500 for each household or Rs. 250 per head, since the average household size is six. PDS, which provides 4 kg of wheat and 1 kg of rice per person as food entitlement under NFSA is also less for its beneficiaries too. A per capita allotment of at least 6 kg of wheat and 3 kg of rice would serve as the appropriate grant for food subsidy, according to the respondents' ideal ration requirement. It is crucial to raise the limited supply of food or CT to improve the situation of households' wellbeing. For both the schemes to work well, they require uninterrupted service delivery that provides welfare entitlements in the right amount or quantity to the eligible beneficiaries. Adequate entitlements, whether

in cash or in-kind, can ensure the general household's wellbeing. Adequate cash or food entitlements not only ensure food and nutritional security but also improve households' performance in education, healthcare, clothing, and sanitation practices, which determines the general status of households' food security.

The study concludes with a discussion of people's choice of service delivery mechanism tilting in favor of CT rather than PDS for addressing food security, for already stated reasons such as flexibility in using cash and avoiding the corrupt FPS dealers. Although the majority of households prefer CT to PDS as the choice of service delivery mechanism, the mode of service delivery provided to the citizens is the prerogative of the state. Irrespective of which mode of service delivery it adopts, the state needs to look into several issues that impede people's access to food security. At the household level, both PDS and DAY households are in dire need of clean drinking water and access to piped water connections. It should ensure ease and affordable access to public health and other public services that are crucial to attain food security. Although, the majority of beneficiaries from both PDS and DAY are aware of their welfare entitlements, there is still a need for government to spread awareness about the legal entitlements for effective and inclusive targeting of the poor and to deliver their rightful entitlements. This can begin with participative and transparent methods in targeting beneficiaries and putting in place institutional mechanisms for social accountability to ensure that entitlements are delivered in an adequate quantity to achieve a greater impact on the beneficiaries' wellbeing.

Although the State ultimately determines policy formulation, people also need to be assertive in calling for need-based policies and holding public functionaries accountable. In the context of PDS, local representatives like village chairman and service providers like FPS dealers do not effectively address the grievances of the beneficiaries. DAY beneficiaries have no clear communication link with the service providers or local representatives to claim any grievances or shortfalls in CT. There is a lack of effective grievance redressal mechanisms in both the programmes and the concerned implementing agencies and service providers are not held accountable, which ultimately weakens the impact of the program. For any deficiency in the CT entitlements, beneficiaries should be able to have direct access to the service providers who in turn should be able to address any grievances related to payment

related issues. At the food distribution level, FPS dealers not only have to be honest and accountable but cultivate and uphold a positive attitude towards the beneficiaries. This will not only encourage people to participate in the effective implementation of CT and PDS but also foster inclusiveness and co-operation in the society. Effective governance calls for the government as the prime mover, and the society to cooperate in policy formulation and implementation. The state should also place distributive justice at its heart to bring efficiency in service delivery with regard to public policies such as PDS and DAY.

As it has been emphasized in the previous chapter, for the purpose of conducting further research akin to the current one, some of the recent initiatives announced by the Delhi government to improve household's access to basic amenities such as, installation of piped water connection, concession of electricity bills, and objective to make clean drinking water as a "right" (if actualized), can be studied to see their impact on the state of food security amongst the poor households in Delhi. Although DAY is discontinued in Delhi, the Central government is pushing the states to implement direct delivery of welfare benefits to the beneficiaries. With the National Food Security Act 2013 promising "right to food" (mostly implemented as an in-kind transfer programme) and the recent mandate of the Aadhaar (Targeted Delivery of Financial and Other Subsidies, Benefits and Services) Act 2016 legalizing the use of Aadhaar to implement direct cash transfer, the case for and against both CT and PDS draws attention in the light of delivering welfare benefits to the people. A further research in subject to the comparative study of CT and in-kind transfers looks promising.





0-500  500-1000  1000-2000  2000-3000  >3000  Others (.....)

**Percentage of household expenditure for food (for office):** \_\_\_\_\_

**15. Diversity of Diet: How do you spend the money on food?**

Cereals  Pulses  Vegetables  Eggs  Milk and milk products  Fish and meat  Others  Specify (.....)

**16. How is cash spent with regard to non-food?**

Children's education  Medical facilities  Clothing  Alcohol  Tobacco  Others  Specify (.....)

**17. How many meals does your family take in a day?**

Once  Twice  Others  Specify (.....)

**18. Actual consumption of ration in a month (in Kgs. PDS+ purchased from open market)?**

Wheat < 35  35  >35  Specify (.....)

Rice <10  10  >10  Specify (.....)

Pulses <10  10  >10  Specify (.....)

Sugar <10  10  >10  Specify (.....)

Others  Specify (.....)

**Per capita consumption (for office):** \_\_\_\_\_

**19. How much quantity of ration do you ideally require in a month (in Kgs.)?**

Wheat < 35  35  >35  Specify (.....)

Rice <10  10  >10  Specify (.....)

Pulses <10  10  >10  Specify (.....)

Sugar <10  10  >10  Specify (.....)

Others  Specify (.....)

**Per capita consumption (for office):** \_\_\_\_\_

**III. Service Delivery Mechanism and Consumer Choice**

**20. Type of ration card:** AAY  BPL  APL  JRC  RCRC  Others  Specify (.....)

**21. No. of ration card holders:** 1  2  >3  Specify (.....)

**22. No. of PDS beneficiaries:** 0  2  3  4  5  >5  Specify (.....)

**23. Do you collect the ration regularly?** Yes  No

**24. Is a ration card valid enough to obtain ration?** Yes  No

**25. Do you trust the quality of ration at FPS?** Yes  No  Cannot Say

**Reason:** \_\_\_\_\_

**26. Do you have to pay more than the subsidized price at the FPS for your ration?**

Yes  No

**27. Quantity of ration collected monthly from FPS (in Kgs):**

Wheat < 35  35  > 35  Specify (.....)

Rice <10  10  >10  Specify (.....)

Pulses < 10  10  > 10  Specify (.....)

Sugar <5  5  >5  Specify (.....)

Others  Specify (.....)

28. Members to feed: 1  2  3  4  5  >5  Specify (.....)

Per capita consumption (for office): \_\_\_\_\_

29. Can your family dispense with PDS? Yes  No

30. Do you like/prefer PDS or Cash for Food? PDS  Cash for Food

Reason, if PDS: Assurance of foodgrain supply  Access to subsidized ration  Banking problem with CT  Fear of Misuse of Cash  Others  Specify (.....)

Reason, if Cash for Food: Cash is assured  Cash has a multiple value  PDS is ineffective-poor quality ration, inconsistent supply, etc  Others  Specify (.....)

31. Describe the significance of PDS:

Supports our Livelihood  Complements other means  Food grain allocation is not sufficient  Others  Specify (.....)

#### IV. Utility of Basic Amenities

32. Do you have a piped water connection? Yes  No

33. Do you have access to clean drinking water? Yes  No

34. Do you have access to healthcare facilities in Clinic/Dispensary/Hospitals/etc? Yes  No

35. Do you have an electricity connection to your house? Yes  No

36. Do the children go to school/receive education? Yes  No

37. Do you have a constructed toilet? Yes  No

38. Do you or anyone in the family defecate in open? Yes  No   
Reason, if yes.....

#### V. Socio-economic impact

39. Who makes economic decisions with regard to food?

Husband/Father  Wife/Mother  Others  specify (.....)

40. Who makes general decisions with regard to households' finances?

Husband/Father  Wife/Mother

41. Do you fight at home with regard to food at home? Yes  No

42. Who gets better share of food at home?

Male member(s)  Female member(s)  No discrimination  Not applicable

43. Do you attend any Awareness Campaign on Health/Nutrition/Education/etc?

Yes  No



Cereals  Pulses  Vegetables  Eggs  Milk and milk products  Fish and meat  Others  Specify (.....)

**16. How is cash spent with regard to non-food?**

Children's education  Medical facilities  Clothing  Alcohol  Tobacco  Others  Specify (.....)

**17. How many meals does your family take in a day?**

Once  Twice  Others  Specify (.....)

**18. Actual consumption of ration in a month (in Kgs.)?**

Wheat < 35  35  >35  Specify (.....)

Rice <10  10  >10  Specify (.....)

Pulses <10  10  >10  Specify (.....)

Sugar <10  10  >10  Specify (.....)

Others  Specify (.....)

**Per capita consumption (for office):** \_\_\_\_\_

**19. How much quantity of ration do you ideally require in a month (in Kgs.)?**

Wheat < 35  35  >35  Specify (.....)

Rice <10  10  >10  Specify (.....)

Pulses <10  10  >10  Specify (.....)

Sugar <10  10  >10  Specify (.....)

Others  Specify (.....)

**Per capita consumption (for office):** \_\_\_\_\_

**III. Service Delivery Mechanism and Consumer Choice**

**20. Amount of cash received monthly (Rs.):** < 600  600  >600  Specify (.....)

**21. Members to feed:** 1  2  3  4  5  >5  Specify (.....)

**Per capita availability (for office):** \_\_\_\_\_

**22. Did you receive the cash regularly?** Yes  No

**23. Mode of cash delivery:** Bank account  Post office account  Business correspondent  Others  Specify (.....)

**24. Would you like to continue to receive CT?** Yes  No

**25. Can your family dispense with a CT amount of Rs. 600?** Yes  No

**26. What amount (in Rs.), according to you, is appropriate for taking care of your minimum basic requirements in a month?**

600 is appropriate  600-1000  1000-1500  >1500  Specify (.....)

**27. Do you prefer Cash Transfer/access to PDS?** CT  PDS

**Reason, if CT:**

CT supports our livelihood  No access to PDS and CT is the only choice  Ineffective PDS-poor quality ration, inconsistent supply, etc

Others  Specify (.....)

**Reason, if PDS:**

Banking problem  The amount of CT is insufficient  Direct access to food is better   
Others  Specify (.....)

**28. Describe the significance of CT:**

Supports our Livelihood  complements other means  Amount is not sufficient   
Others  Specify (.....)

**IV. Utility of Basic Amenities**

**29. Do you have a piped water connection?** Yes  No

**30. Do you have access to clean drinking water?** Yes  No

**31. Do you have access to healthcare facilities in Clinic/Dispensary/Hospitals/etc?**  
Yes  No

**32. Do you have an electricity connection to your house?** Yes  No

**33. Do the children go to school/receive education?** Yes  No

**34. Do you have a constructed toilet?** Yes  No

**35. Do you or anyone in the family defecate in open?** Yes  No   
Reason, if yes.....

**V. Socio-economic impact**

**36. Who makes decisions with regard to food?**

Husband/Father  Wife/Mother  Others  Specify (.....)

**37. Who makes general decisions with regard to households' finances?**

Husband/Father  Wife/Mother  Others  Specify (.....)

**38. Do you fight at home with regard to share of food?** Yes  No

**39. Who gets better food at home?**

Male member(s)  Female member(s)  No discrimination  Not applicable

**40. Do you feel economically empowered after receiving cash?** Yes  No

**41. Do you attend any Awareness Campaign on Health/Nutrition/Education/etc?**

Yes  No

### **3. Interview- 1**

Name of the Organization: Department of Food, Supplies and Consumer Affairs, GNCT, Delhi

Official respondent: Food and Supply Officer (FSO)

#### **Questions regarding DAY**

1. What was the core objective behind a Cash Transfer (CT) of Rs. 600?
2. Was the CT meant for comprehensive food security or a supplementary measure to sustain their livelihood? Is the amount of CT sufficient to address the problem of food security which also encapsulates nutritional security?
3. In accordance with the NFSA, the central government kept the ceiling at 73 lakh beneficiaries to be provided food subsidy in Delhi. Given that DAY is merged with the NFS programme, what is the current status of the beneficiaries of DAY?
4. Given that DAY was implemented by the department in collaboration with eighteen major banks, how will the efficiency of the banking and financial institutions in Delhi be ensured to implement cash transfers?

#### **Questions regarding PDS**

5. What is the difference in the outlay between the delivery mechanisms of PDS and CT?
6. What are the topmost priorities to maintain an effective PDS?
7. Until now, what has been done to improve the effectiveness of PDS delivery in your office/ department?
8. Do you think that the subsidized food received by the PDS beneficiaries improves a person's right to food and prospects of maintaining good health?
9. What is the likelihood that government will increase the amount of foodgrains allocation to the beneficiaries? How much increase in food allocation will improve the situation of the beneficiaries?

#### **4. Interview- 2**

Name of the Organization: Samajik Suvidha Sangam, Mission Convergence, GNCT, Delhi

Official respondent: Program Officer

##### **Questions regarding DAY**

1. As one of the major stakeholders in the implementation of DAY, what was the role of your organization?
2. Given that the Gender Resource Centers (GRCs) in your organization identify beneficiaries and open bank accounts for them, what were the main problems faced by the GRCs during the procedure of (a) Identification of beneficiaries and (b) Banking enrollment?
3. What was the role of banks in facilitating the opening of bank accounts for DAY beneficiaries?
4. What is the significance of the Aadhaar number to conduct transfer of money? Is Aadhaar mandatory for beneficiaries to receive cash transfer? How does migrant population in Delhi obtain Aadhaar card to gain access to DAY?
5. What were the technical or administrative problems at every stage of the implementation of DAY?
6. What impact did DAY have on child's enrolment ratio, child labor and malnutrition?
7. How did DAY make women experience a sense of empowerment?

## APPENDIX B. TABLES

(The below tables are the researcher's calculation of primary data)

### 1. Caste and community representation of the PDS respondents

Community	Caste Category	No of respondents	Percentage wise
Hindu	General	14	35
	SC	10	25
	OBC	6	15
	Unaware of their Caste	2	5
Muslims	NA	8	20
ST	NA	NIL	NIL
Total		40	100

### 2. Literacy levels of PDS beneficiaries

Literacy level	No of respondents	Percentage wise
Unlettered	21	52.5
<10	11	27.5
10 <sup>th</sup>	5	12.5
12 <sup>th</sup>	2	5
PG	1	2.5
Total	40	100

### 3. PDS households' total monthly income and per capita monthly income

Sl No	Total Income of a household per month	Size of household	Monthly Income Per person
1	5000	7	714.2857
2	30000	11	2727.273
3	9000	5	1800
4	11000	8	916.6667
5	15000	12	1250
6	15000	6	2500
7	8000	13	615.3846
8	2500	7	357.1429
9	35000	5	7000
10	17500	5	3500
11	8000	6	1333.333
12	8000	6	1333.333
13	10000	5	2000
14	40000	4	10000



15	5000	2	2500
16	3500	2	1750
17	5000	3	1666.667
18	7000	5	1400
19	7000	10	700
20	5000	6	833.3333
21	6000	4	1500
22	9000	5	1800
23	3500	7	500
24	3500	7	500
25	7500	4	1875
26	12000	7	1714.286
27	12000	6	2000
28	8000	7	1142.857
29	10000	13	769.2308
30	7000	3	2333.333
31	8000	3	2666.667
32	8000	6	1333.333
33	4000	9	444.4444
34	8000	5	1600
35	11000	6	1833.333
36	5000	5	1000
37	1500	1	1500
38	5500	4	1375
39	17000	6	2833.333
40	25000	9	2777.778

4. Family Income and Consumption Expenditure on Food in PDS households

SI No	Total Income of a household per month	Size of household	Cash spent on food	MPCE on food
1	5000	7	3500	500
2	30000	11	15000	1363.636364
3	9000	5	3500	700
4	11000	8	10000	1250
5	15000	12	8000	666.6666667
6	15000	6	8000	1333.333333
7	8000	13	2500	192.3076923
8	2500	7	2500	357.1428571
9	35000	5	10000	2000
10	17500	5	10000	2000

11	8000	6	3500	583.3333333
12	8000	6	7000	1166.666667
13	10000	5	5000	1000
14	40000	4	5000	1250
15	5000	2	3500	1750
16	3500	2	3500	1750
17	5000	3	4000	1333.333333
18	7000	5	4000	800
19	7000	10	5000	500
20	5000	6	6000	1000
21	6000	4	5000	1250
22	9000	5	8000	1600
23	3500	7	3500	500
24	3500	7	4000	571.4285714
25	7500	4	5500	1375
26	12000	7	10000	1428.571429
27	12000	6	10000	1666.666667
28	8000	7	7000	1000
29	10000	13	5000	384.6153846
30	7000	3	7000	2333.333333
31	8000	3	3500	1166.666667
32	8000	6	3500	583.3333333
33	4000	9	4000	444.4444444
34	8000	5	8000	1600
35	11000	6	6000	1000
36	5000	5	3500	700
37	1500	1	1500	1500
38	5500	4	4000	1000
39	17000	6	8000	1333.333333
40	25000	9	15000	1666.666667

5. Family Income and Consumption Expenditure on Non-food in PDS households

SI No	Total Income of a household per month	Size of household	Cash spent on Non-food	MPCE on Non-food
1	5000	7	750	107.1428571
2	30000	11	10000	909.0909091
3	9000	5	750	150
4	11000	8	1500	187.5
5	15000	12	3500	291.6666667

6	15000	6	3500	583.3333333
7	8000	13	750	57.69230769
8	2500	7	250	35.71428571
9	35000	5	3500	700
10	17500	5	750	150
11	8000	6	1500	250
12	8000	6	750	125
13	10000	5	1500	300
14	40000	4	7000	1750
15	5000	2	750	375
16	3500	2	750	375
17	5000	3	750	250
18	7000	5	750	150
19	7000	10	750	75
20	5000	6	1500	250
21	6000	4	750	187.5
22	9000	5	1500	300
23	3500	7	250	35.71428571
24	3500	7	750	107.1428571
25	7500	4	750	187.5
26	12000	7	750	107.1428571
27	12000	6	2500	416.6666667
28	8000	7	1500	214.2857143
29	10000	13	750	57.69230769
30	7000	3	750	250
31	8000	3	3500	1166.666667
32	8000	6	3500	583.3333333
33	4000	9	750	83.33333333
34	8000	5	2500	500
35	11000	6	1500	250
36	5000	5	3500	700
37	1500	1	1500	1500
38	5500	4	2500	625
39	17000	6	750	125
40	25000	9	6000	666.6666667

6. Type of food consumption and frequency of meals taken per day by PDS households

Particulars	No. Of households	Percentage
Category 1 (Non-vegetarians)	25	62.5
Category 2 (Vegetarians)	15	37.5

Two meals per day	40	100
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7. Monthly consumption of food items by PDS households

Sl No	Size of household	Consumption of ration in a month (in Kg)			
		Wheat	Rice	Pulses	Sugar
1	7	50	10	5	5
2	11	50	15	10	12
3	5	40	15	5	5
4	8	30	10	10	7
5	12	70	40	20	20
6	6	50	10	10	10
7	8	30	5	5	5
8	7	40	0	2	2
9	5	40	15	15	15
10	5	30	15	15	12
11	6	20	30	5	5
12	6	20	22	7.5	6
13	5	25	10	3	5
14	4	15	8	5	2
15	2	20	5	5	5
16	2	8	5	5	5
17	3	25	10	5	5
18	5	35	10	5	5
19	10	70	10	5	5
20	6	30	20	3	3
21	4	25	20	5	10
22	5	30	30	4	5
23	7	50	25	10	10
24	7	25	10	5	5
25	4	15	40	4	5
26	7	20	50	15	7
27	6	40	22.5	10	10
28	7	40	5	5	3
29	13	50	15	4	5
30	3	15	5	3	5
31	3	33	5	8	8
32	6	40	15	10	5
33	9	50	30	10	10
34	5	25	20	5	7
35	6	35	20	5	6
36	5	40	5	5	5
37	1	5	5	5	5

38	4	40	10	5	5
39	6	20	10	5	5
40	9	50	7	4	10
Average	6	33.65	15.36	6.81	6.75

8. Ideal requirement of food items by PDS households in a month

Sl. No	Size of household	Ideal requirement of ration in a month (in Kg)			
		Wheat	Rice	Pulses	Sugar
1	7	50	10	5	5
2	11	60	25	10	10
3	5	40	15	5	5
4	8	50	17	10	10
5	12	70	40	20	20
6	6	50	10	10	10
7	8	30	5	5	5
8	7	45	17.5	10	10
9	5	40	15	15	15
10	5	35	15	15	12
11	6	25	35	5	5
12	6	25	25	7.5	6
13	5	25	10	3	5
14	4	15	8	5	2
15	2	20	5	5	5
16	2	27.5	15	5	5
17	3	30	15	5	5
18	5	35	10	5	5
19	10	70	10	5	5
20	6	30	20	3	3
21	4	25	20	5	10
22	5	30	30	4	5
23	7	50	25	10	10
24	7	30	15	7	5
25	4	20	50	5	5
26	7	20	50	15	7
27	6	40	22.5	10	10
28	7	40	5	5	3
29	13	70	20	5	5
30	3	20	10	5	5

31	3	33	5	8	8
32	6	50	25	10	10
33	9	50	30	10	10
34	5	35	30	10	10
35	6	40	15	10	10
36	5	40	5	5	5
37	1	10	5	3	2
38	4	40	10	5	5
39	6	20	10	5	5
40	9	50	7	4	10
Average	6	37.13	17.8	7.36	7.2

9. Actual collection of ration from the FPS by PDS households

Sl. No	Size of households	Ration collected from FPS (in Kg.)		
		Wheat	Rice	Sugar
1	7	24	5	5
2	11	NA	NA	NA
3	5	NA	NA	NA
4	8	25	10	7
5	12	20	0	5
6	6	24	6	0
7	8	20	0	0
8	7	13	2	0
9	5	0	15	0
10	5	25	20	0
11	6	15	5	0
12	6	16	4	0
13	5	25	10	5
14	4	NA	NA	NA
15	2	8	2	6
16	2	8	2	5
17	3	25	10	6
18	5	15	5	0
19	10	Can't say	Can't say	Can't say
20	6	20	5	0
21	4	25	10	5
22	5	25	10	5

23	7	25	10	5
24	7	4	2	5
25	4	17	4	0
26	7	20	5	5
27	6	17	4	0
28	7	20	5	0
29	13	17	4	0
30	3	17	4	0
31	3	8	0	0
32	6	20	10	5
33	9	25	10	5
34	5	20	5	5
35	6	15	4	5
36	5	30	10	0
37	1	20	5	0
38	4	15	0	0
39	6	15	4	0
40	9	NA	NA	NA
<b>Average</b>		18.76	6.67	5.25

\*NA: Do not collect ration from the FPS

10. Whether PDS households collect ration on a regular basis

SI No	Beneficiary No	Do you collect the ration Regularly?
1	312	Yes
2	636	Yet to receive. Have not started collection
3	954	Got cash under DAY
4	1206	No-stopped for a month and started again
5	2413	Yes
6	3624	Yes
7	49	Yes
8	667	Yes
9	274	No- Irregular
10	16817	No- stopped since three months
11	317	Yes
12	634	No- stopped since two months
13	951	Yes
14	379	Never
15	756	Yes
16	1137	Yes
17	98	No- stopped since Feb 2013

18	1275	Yes
19	51	No- stopped since four months
20	1776	No- stopped since six months
21	324	Yes
22	646	Yes
23	971	Yes
24	359	Yes
25	1719	No- stopped since two months
26	2580	Yes
27	6	No- stopped since three months
28	11	No- stopped since three months
29	942	Yes
30	20246	Yes
31	549	Yes
32	1098	Yes
33	1639	Yes
34	1310	Yes
35	2619	Yes
36	3930	Yes
37	11	No- stopped since four-five months
38	1	Yes
39	245	Yes
40	16334	Yet to receive. don't know the address of the FPS

11. Whether PDS households trust the quality of the ration?

Remarks	Yes	No	Occasionally bad	Cannot say	NA	Total
No of households	26	4	4	3	3	40
Percentage of households	65	10	10	7.5	7.5	100

12. Preference of PDS households for Cash or Food?

Preference	No of households	Percentage of households	Reasons
Cash	13	32.5	Cash has multiple value; Ineffective PDS; Botherome FPSs; Less ration; Rush and crowd at FPSs
Food	27	67.5	Assurance of foodgrain supply; Access to subsidised ration; Cash is less; Cash is prone to be wasted; Fear of Misuse of Cash; Banking problem
Total	40	100	



13. Access to basic amenities amongst PDS households

Particulars of basic amenities	Households with Access to these basic amenities			
	Yes	Yes in %	No	No in %
Piped water connection	10	25	30	75
Clean Drinking water	14	35	26	65
Clinic/Dispensary/Hospital, etc	28	70	12	30
Electricity	40	100	0	0
Education for Children*	31	77.5	5	12.5
Toilet	32	80	8	20
Open defecation	8	20	32	80
* 4 households (10%) do not have children or too small to go to school				

14. Caste and Community representation of the DAY respondents

Caste and community representation of the DAY respondents			
Community	Caste Category	No of respondents	Percentage Wise Distribution
Hindu	General	7	17.5
	SC	10	25
	OBC	10	25
	Unaware of their Caste	2	5
Muslims	NA	11	27.5
ST	NA	0	0
Total		40	100

15. Literacy level of DAY respondents

Education	No. of People	Percentage
Unlettered	16	40
<10 <sup>th</sup>	13	32.5
10 <sup>th</sup>	4	10
12 <sup>th</sup>	2	5
Graduation	2	5
Post graduation	0	0
Urdu	3	7.5

Total	40	100
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16. Total family income and monthly income per person of DAY households

Sl. No	Family size	Monthly Family Income (Rs)	Monthly Income Per person
1	4	10000	2500
2	5	4500	900
3	7	9000	1285.714
4	7	6000	857.1429
5	4	8000	2000
6	5	6000	1200
7	9	15000	1666.667
8	4	8500	2125
9	4	5500	1375
10	5	5000	1000
11	10	40000	4000
12	4	7000	1750
13	15	14000	933.3333
14	6	7500	1250
15	12	18000	1500
16	4	6000	1500
17	8	12000	1500
18	5	7000	1400
19	5	5000	1000
20	6	4000	666.6667
21	6	10000	1666.667
22	6	3500	583.3333
23	7	7500	1071.429
24	4	10000	2500
25	5	4000	800
26	5	7000	1400
27	3	3500	1166.667
28	11	40000	3636.364
29	8	24000	3000
30	3	7000	2333.333
31	6	8000	1333.333
32	11	15500	1409.091
33	2	5000	2500
34	5	4000	800
35	5	15000	3000

36	7	6500	928.5714
37	7	12000	1714.286
38	6	15000	2500
39	5	7500	1500
40	4	4000	1000

17. Family Income and Consumption Expenditure on Food in DAY households

Sl. No.	Family size	Monthly Family Income (Rs)	Monthly Expenditure on Food (Rs)	MPCE on Food (Rs)
1	4	10000	5000	1250
2	5	4500	3500	700
3	7	9000	6000	857.1428571
4	7	6000	3500	500
5	4	8000	5000	1250
6	5	6000	4500	900
7	9	15000	10000	1111.111111
8	4	8500	8000	2000
9	4	5500	5000	1250
10	5	5000	3500	700
11	10	40000	10000	1000
12	4	7000	3500	875
13	15	14000	9000	600
14	6	7500	8000	1333.333333
15	12	18000	6000	500
16	4	6000	6000	1500
17	8	12000	9000	1125
18	5	7000	6000	1200
19	5	5000	6000	1200
20	6	4000	3500	583.3333333
21	6	10000	3500	583.3333333
22	6	3500	5000	833.3333333
23	7	7500	5000	714.2857143
24	4	10000	2500	625
25	5	4000	4000	800
26	5	7000	5000	1000
27	3	3500	2500	833.3333333
28	11	40000	15000	1363.636364
29	8	24000	12500	1562.5
30	3	7000	6000	2000
31	6	8000	3500	583.3333333

32	11	15500	15000	1363.636364
33	2	5000	3500	1750
34	5	4000	3500	700
35	5	15000	10000	2000
36	7	6500	3500	500
37	7	12000	10000	1428.571429
38	6	15000	5000	833.3333333
39	5	7500	5000	1000
40	4	4000	4000	1000

18. Family Income and Consumption Expenditure on Non-Food in DAY households

Sl. No.	Family size	Monthly Family Income (Rs)	Monthly Expenditure on Non-food (Rs)	MPCE on Non-food (Rs)
1	4	10000	5000	1250
2	5	4500	3500	700
3	7	9000	2500	357.1428571
4	7	6000	3500	500
5	4	8000	2500	625
6	5	6000	750	150
7	9	15000	2500	277.7777778
8	4	8500	1500	375
9	4	5500	5000	1250
10	5	5000	1500	300
11	10	40000	5000	500
12	4	7000	3500	875
13	15	14000	3500	233.3333333
14	6	7500	1500	250
15	12	18000	5000	416.6666667
16	4	6000	2500	625
17	8	12000	1500	187.5
18	5	7000	1500	300
19	5	5000	750	150
20	6	4000	750	125
21	6	10000	750	125
22	6	3500	2500	416.6666667
23	7	7500	2500	357.1428571
24	4	10000	1500	375
25	5	4000	750	150

26	5	7000	1500	300
27	3	3500	3500	1166.666667
28	11	40000	10000	909.0909091
29	8	24000	1500	187.5
30	3	7000	2500	833.3333333
31	6	8000	3500	583.3333333
32	11	15500	2500	227.2727273
33	2	5000	1500	750
34	5	4000	2500	500
35	5	15000	4000	800
36	7	6500	2500	357.1428571
37	7	12000	4000	571.4285714
38	6	15000	5000	833.3333333
39	5	7500	2500	500
40	4	4000	1500	375

19. Type of food consumption and frequency of meals taken per day by DAY households

Particulars	No. of households	Percentage
Category 1 (Non-vegetarians)	14	35
Category 2 (Vegetarians)	26	65
Two meals per day	40	100

20. Monthly consumption of food items by DAY households

SI No.	Family Size	Actual consumption of ration in a month (Kg)			
		Wheat	Rice	Pulses	Sugar
1	4	40	15	10	15
2	5	30	15	5	5
3	7	30	35	5.5	5.5
4	7	40	20	8	9
5	4	30	20	5	5
6	5	30	10	5	6.5
7	9	30	30	10	10
8	4	30	15	10	5
9	4	40	20	10	8
10	5	27.5	10	8.5	6
11	10	40	20	7	7
12	4	20	10	10	5

13	15	30	30	10	10
14	6	25	20	5	5
15	12	40	15	10	10
16	4	30	10	10	10
17	8	50	10	5	5
18	5	40	15	5	5
19	5	20	6	5	5
20	6	20	10	5	5
21	6	60	5	3	8.5
22	6	40	15	10	10
23	7	37.5	27.5	8	8
24	4	40	6	4	5
25	5	25	15	5	5
26	5	25	25	5	5
27	3	22.5	15	10	5
28	11	50	17.5	6	10
29	8	30	5	5	10
30	3	15	10	3	5
31	6	40	15	5	5
32	11	60	20	10	10
33	2	20	6	4	3
34	5	37.5	15	5	5
35	5	30	22.5	12.5	10
36	7	15	15	5	10
37	7	30	10	5	5
38	6	30	10	5	5
39	5	20	5	3.5	5
40	4	30	25	7	20
<b>Average</b>		32.5	15.51	6.75	7.28

21. Ideal requirement of ration by DAY households

SI No.	Family Size	Ideal requirement of ration in a month (Kg)			
		Wheat	Rice	Pulses	Sugar
1	4	40	15	10	15
2	5	40	20	5	5
3	7	40	40	10	10
4	7	50	25	9	9
5	4	30	20	5	5
6	5	30	10	5	6.5
7	9	40	30	10	15

8	4	30	15	10	5
9	4	40	20	10	8
10	5	27.5	10	8.5	6
11	10	50	20	7	7
12	4	32.5	15	10	5
13	15	40	32.5	10	10
14	6	25	20	5	5
15	12	50	20	10	10
16	4	30	10	10	10
17	8	50	10	5	5
18	5	40	15	5	5
19	5	30	6	5	5
20	6	20	10	5	5
21	6	60	5	3	8.5
22	6	50	15	10	10
23	7	50	35	8	8
24	4	40	6	4	5
25	5	25	15	5	5
26	5	25	25	5	5
27	3	22.5	15	10	5
28	11	65	17.5	6	10
29	8	30	5	5	10
30	3	15	10	3	5
31	6	40	15	5	5
32	11	60	20	10	10
33	2	27.5	6	4	3
34	5	40	15	10	5
35	5	40	22.5	12.5	10
36	7	30	15	10	10
37	7	30	15	10	10
38	6	30	10	5	5
39	5	40	10	10	10
40	4	40	25	7	20
Average	6.125	37.37	16.63	7.42	7.77

22. Total amount of CT received by DAY households

Sl no. of households	Total amount of CT received
1	4200
2	7200
3	7200
4	cannot recall
5	7200
6	7200
7	7000
8	5000
9	7000
10	Did not receive CT
11	12000
12	1800
13	cannot recall
14	3700
15	1200
16	12000
17	7200
18	7200
19	7200
20	400
21	3000
22	8200
23	11000
24	cannot recall
25	cannot recall
26	14000
27	7800
28	7000
29	8000
30	3600
31	cannot recall
32	cannot recall
33	7200
34	10000
35	12000
36	cannot recall
37	5400
38	cannot recall
39	cannot recall
40	Did not receive CT



23. Preference of DAY households for Cash or Food

Preference	No of households	Percentage of households	Reasons
Cash	29	72.5	PDS allocation is less; Don't trust the FPS dealer since he doesn't always provide ration citing excuses; FPS crowded; Cash has multiple utility; Cash can provide savings; FPS too far; Cash can help better quality ration i.e. PDS has poor quality ration
Food/PDS	11	27.5	Cash prone to misuse; Cash is insufficient; Direct access to food is better.
Total	40	100	

24. DAY households' access to basic amenities

Particulars	Households with Access to these Particulars			
	Yes	in %	No	in %
Piped water connection	7	17.5	33	82.5
Clean Drinking water	16	40	24	60
Clinic/Dispensary/Hospital, etc	29	72.5	11	27.5
Electricity	40	100	0	0
Education for Children*	38	100	0	0
Toilet	39	97.5	1	2.5
Open defecation	2	5	38	95
* One household has children too small to go to school and another does not have kids				

25. Comparison of PDS and DAY respondents' households' size

Sl. No.	Delivery Mechanism	Average Family Size
1	DAY	6.125
2	PDS	6

26. Comparison of PDS and DAY respondents' households' finances

Sl. No.	Mode of service delivery	Average Monthly Income	Average Per Capita Monthly Income
1	DAY	10175	1661.22
2	PDS	10450	1741.66

27. Comparison of PDS and DAY households' expenditure on food and non-food

Sl. No.	Service Delivery Mechanism	Average monthly expenditure on food	Average MPCE on food	Average monthly expenditure on non-food	Average MPCE on non-food
1	DAY	6125	1000	2756.25	450
2	PDS	6037.5	1006.25	1937.5	322.91

28. Comparison of actual consumption of ration between DAY and PDS beneficiaries

Sl. No.	Delivery Mechanism	Average monthly consumption of wheat (kg)	Average monthly consumption of rice (kg)	Average monthly consumption of pulses (kg)	Average monthly consumption of sugar (kg)
1	DAY	32.50	15.51	6.75	7.28
2	PDS	33.65	15.36	6.81	6.75

29. Comparison of the actual per capita monthly consumption of ration between DAY and PDS households

Sl. No	Delivery Mechanism	Actual per capita monthly consumption of wheat (Kg)	Actual per capita monthly consumption of rice (Kg)	Actual per capita monthly consumption of pulses (Kg)	Actual per capita monthly consumption of sugar (Kg)
1	DAY	5.31	2.53	1.10	1.18
2	PDS	5.6	2.56	1.13	1.12

30. Comparison of PDA and DAY households in diet diversity

Categories	Vegetarians (%)	Non-Vegetarians (%)
PDS	38	62
DAY	35	65

31. Comparison of consumers' preferences for cash or food

Sl. No.	Delivery Mechanism	No of respondents in favor of	Percentage
1	DAY (Cash)	42	52.5
2	PDS (Food)	38	47.5
Total		80	100

32. Comparison of PDS and DAY households in access to basic amenities on percentage basis

Particulars	Percentage PDS	Percentage DAY
Piped water connection	25	17.5
Clean drinking water	35	40
Health facility	70	72.5
Electricity	100	100
Education	77.5	95
Toilets	80	97.5
Open defecation	20	5

33. Comparison of PDS and DAY households on socio-economic impact on percentage basis

Particulars	PDS	DAY
Females making decisions with regard to food at home	97.5	100
Females making decisions with regard to household finances	95	90
Fight at home with regard to food	7.5	20
Gender discrimination with regard to food	0	0

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