INTRODUCTION

One of the major problems that independent India is faced with is the problem of providing minimum quantities of food, clothing and shelter to all. One of the ways of overcoming the first problem, namely, providing food security to the weaker section of society has received a good deal of attention among the policy makers both in the state and central governments.

An important measure taken by the government especially the government of India is to strengthen the public distribution system through adequate provision of food grains and other essentially daily needs of life. In India, primarily sketched with a high degree of inequality in income distribution, widespread poverty, unemployment, food insecurity, low purchasing power, malnutrition etc, are common. It is for this reason the concern for ensuring food security has been at the top of agenda for both Central and State governments, and also it has received a good deal of attention among the policy makers. Several measures have been undertaken to eradicate poverty for the benefit of people in general and weaker section is particular. One of such measures to provide food security at affordable prices to the below poverty line families, Government of India was introduced Targeted Public Distribution System (TPDS). The TPDS is an important instrument of policy aimed at reducing poverty through the mechanism of delivering minimum requirements of
food grains at highly subsidised prices to the families of Below the Poverty Line (BPL).

The public distribution system now known as the targeted public distribution system has made considerable progress in the most parts of the country. Though there is a deficiency with regards to its implication, yet a viable alternative has not been found. Therefore, there is a need for a proper investigation of this vital antipoverty programme implemented in the country.

1.1 Poverty, Hunger and Malnutrition in India

Hunger and malnutrition are the basic forms of human deprivation. India is the second highest population country in the World after China. One-third of India's population lives below the poverty line and India is home to one-third of the world's poor people. There are dismal statistics about poverty in this fourth largest economy in the world, which ranks 126th out of 177 in the World Human Development Index. Though the middle class has gained from recent positive economic developments, India suffers from substantial poverty. According to the World Bank's estimates on poverty based on 2005 data, India has 456 million people, 41.6 per cent of its population, living below the new international poverty line of $1.25 (PPP) per day. The World Bank further estimates that 33 per cent of the global poor now reside in India. Moreover, India also has 828 million people, or 75.6 percent of the population living below $2 a day, compared to 72.2 per cent for Sub-Saharan Africa. On the other hand, the Planning Commission of India uses its own criteria and has estimated that 27.5 per cent of the population was living below the poverty line in 2004–2005,
down from 51.3 per cent in 1977–1978, and 36 per cent in 1993-1994. The source for this was the 61st round of the National Sample Survey Organisation (NSSO) and the criterion used was monthly per capita consumption expenditure below Rs. 356.35 for rural areas and Rs. 538.60 for urban areas. 75 per cent of the poor are in rural areas, most of them are daily wagers, self-employed householders and landless labourers. Although Indian economy has grown steadily over the last two decades, its growth has been uneven when comparing different social groups, economic groups, geographic regions, and rural and urban areas.

Incidence of poverty in India is estimated by the Planning Commission on the basis of quinquennial large sample surveys on household consumer expenditure conducted by the National Sample Survey in its various rounds. Post-economic reform period (after 1991) evidenced both setbacks and progress. Rural income poverty increased from 34 per cent in 1989-90 to 43 per cent in 1992 and then fell to 37 per cent in 1993-94. Urban income poverty went up from 33.4 per cent in 1989-90 to 33.7 per cent in 1992 and declined to 32 per cent in 1993-94 also, NSS data for 1994-95 to 1998 show little or no poverty reduction, so that the evidence till 1999-2000 was that poverty, particularly rural poverty, had increased in post-reform period. However, the official estimate of poverty for 1999-2000 was 26.1 per cent (Table-1), a dramatic decline that led to much debate and analysis.

The latest National Sample Survey (NSS) for 2004-05 is fully comparable to the surveys before 1999-2000 and shows poverty at 28.3 per cent in rural areas, 25.7 per cent in urban areas and 27.5 per cent for the country as a whole, using Uniform
Recall Period Consumption method. The corresponding figures using the Mixed Recall Period Consumption method was 21.8 per cent, 21.7 per cent and 21.8 per cent respectively. Thus, poverty has declined after 1998, although it is still being debated whether there was any significant poverty reduction between 1989-90 and 1999-00. The latest NSS survey was so designed as to also give estimates roughly, but not fully, comparable to the 1999-2000 survey. These suggest that most of the decline in rural poverty over the period during 1993-94 to 2004-05 actually occurred after 1999-2000. The details of trends in poverty rate in India are depicted in Table-1.1 and Figure-1.1.

According to the Food and Agriculture Organisation (FAO) of the United Nation, over 225 million Indians remain chronically undernourished. The National Nutrition Monitoring Bureau has estimated that in 2000-01 about half of the rural children below five years of age suffer from malnutrition and 40 per cent of adults from chronic energy deficiency. This is due to the fact that a substantial proportion of the people are too poor to buy enough food and also exposed to diseases caused by poor sanitation, which results in poor conversion of food into energy. Such a high level of wasting away of human resources should be a cause for concern. According to Radhakrishna (2005) nutritional status among tribal is worse with over 60 per cent tribal children below five years suffered from malnutrition and more than half the adult tribals from chronic energy deficiency.
Table 1.1: Poverty rates in India estimated by NSS

<table>
<thead>
<tr>
<th>Year</th>
<th>Round</th>
<th>Poverty Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1977-78</td>
<td>32</td>
<td>51.3</td>
</tr>
<tr>
<td>1983-84</td>
<td>38</td>
<td>44.5</td>
</tr>
<tr>
<td>1987-88</td>
<td>43</td>
<td>38.9</td>
</tr>
<tr>
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<td>36.0</td>
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<tr>
<td>1999-00</td>
<td>55</td>
<td>26.1</td>
</tr>
<tr>
<td>2004-05</td>
<td>61</td>
<td>27.5</td>
</tr>
</tbody>
</table>

Figure 1.1: Trends in Poverty rate in India (%)

Source: NSSO (2007), Planning Commission, GoI.

The Uniform Recall Period (URP) consumption distribution data of NSS 61st Round shows that poverty ratio of 28.3 per cent in rural areas, 25.7 per cent in urban
areas and 27.5 per cent for the country as a whole in 2004-05. The corresponding poverty ratios from the Mixed Recall Period (MRP) consumption distribution data are 21.8 per cent for rural areas, 21.7 per cent for urban areas and 21.8 per cent for country as a whole. The percentage of poor in 2004-05 estimated from URP consumption distribution of NSS 61st round of consumer expenditure data are comparable with the poverty estimates of 1993-94(50th round) which was 36 per cent for the country as a whole. The percentage of poor in 2004-05 estimated from MRP consumption distribution of NSS 61st Round of consumer expenditure data are roughly comparable with the poverty estimates of 1999-2000 (55th round) which was 26.1 per cent for the country as a whole.

As per Economic Survey (2007-08) the average per capita consumption expenditure for rural and urban population was Rs. 558.78 and Rs. 1,052.36, respectively. NSSO data also reveals that rural population on an average spends about 55 per cent of its consumption on food and remaining 45 per cent on non-food items. On the basis of NSSO data for various rounds, it is observed that reporting of inadequate food has also come down between 1993-94 and 2004-05 with 1.9 per cent households reporting inadequate food availability for the country as a whole in 2004-05 as against 4.2 per cent households in 1993-94. Of these, 1.6 per cent households reported inadequate food for some months while 0.3 per cent reported inadequate food for all months. Further, rural households accounted for a predominant share of inadequate food availability.
To day, India is one of the highest levels of malnutrition country in the World and there are reports of hunger and starvation deaths from different parts of the country. Hunger is the most deplorable manifestation of poverty. This can manifest itself in the form of starvation, chronic under nutrition deficiencies. Gopalan (1995) argues that challenges involved in food and nutrition security relate to both production and distribution of food, but inequitable distribution rather than inadequate production is the major factor underlying India’s current problem of malnutrition. The inequality cannot be corrected through exercises in tokenism and populist ‘give away’ programmes, but only through creation of and support to income generating skills among the poor. With 74 per cent of India’s under-three children being officially declared as anemic and 50 per cent of them suffering from moderate to severe malnourishment, 87 per cent of our pregnant women anemic and scores of starvation deaths across the country (Jain and Mihir, 2005). One in every five children who die the world over is an Indian. Patnaik (2005) on the basis of latest unpublished NSS data reported that ‘half our rural population or over 350 million people are below the average food energy intake of sub-Saharan Africa countries’.

The calorie intakes referred to the calories from different food items and were calculated using conversion factors provided by NSSO (1996) in its Report No 405. The minimum (threshold) food-energy requirement was taken as 1,800 kcal/person/day for rural households and 1,575 kcal for the urban households. It represented 75 per cent of the recommended values, 2,400 kcal/person/day for rural and 2,100 kcal/person/day for urban. An intake below this threshold was considered
not sufficient for maintaining health and body weight and carrying out light physical activity. The threshold level of food-protein intake was taken as 48 g/person/day for an average Indian. The households consuming below this level were treated as malnourished.

India has a record in terms of the absolute number of persons suffering endemic or chronic hunger, whether measured by calorie intake or anthropometric indicators of malnutrition. One-third of the world’s malnourished children are in India. According to the National Family Health Survey (NFHS) 1998-99, 46.7 per cent of children below the age of three were malnourished by a weight-for-age criterion. In 2005-06, according to NFHS-3, the incidence of malnutrition was 45.9 per cent—a mere one percentage point decline. Data from the National Nutrition Monitoring Bureau indicate that 48.5 per cent of adults had a Body Mass Index below the norm in 1993-94. In other words, approximately one-half of the Indian population is malnourished today.

The per capita annual food-grain availability for India in 2006 was 179 kg, against 552 kg in Europe, and 909 kg in America. In other words, we are getting just one-fifth of what the Americans get and one-third of what the Europeans eat. So, in a way, we are already under-fed, as a nation. This figure of 179 kg conceals the fact that nearly 20 per cent of our population, living below the poverty line, does not get two square meals per day (Murthy, 2008). This shows that the number of people living below the poverty line (BPL) in the country continues to remain in the range of 22-23 crore.
1.2 The Concept of Food Security

Human beings can survive with economic, social and political deprivation but not with biological deprivation such as food and water. Food security means that food is available at all times, all persons have means of access to it, it is nutritionally adequate, in terms of quality, quantity and variety and is acceptable within the given culture. Only when all these are considered, food is secure (FAO, 1996).

The concept of food security has undergone considerable modification in recent years. Earlier, food security implied arrangement for providing physical supply of an adequate minimum level of food grains to the population. However now it is recognized that the ultimate aim of food security is not only provision of food grains of entire population on a stable basis throughout the year. But also to ensure that all poor and vulnerable sections have economic access to food grains. This implies that satisfactory production levels and stability of supply should be matched by reduction in poverty and an increase in the effective demand to ensure economic and physical access for the poor.

Food security refers to the availability of food and one's access to it. A household is considered food secure when its occupants do not live in hunger or fear of starvation. World-wide around 852 million people are chronically hungry due to extreme poverty, while up to 2 billion people lack food security intermittently due to varying degrees of poverty (FAO, 2003). A direct relationship exists between food consumption levels and poverty. Families with the financial resources to escape extreme poverty rarely suffer from chronic hunger; while poor families not only
suffer the most from chronic hunger, but are also the segment of the population most at risk during food shortages and famines.

Three commonly used definitions of food security come from the UN’s Food and Agriculture Organization (FAO), World Development Report (1986) and the United States Department of Agriculture (USDA):

- According to FAO ‘Food security exists when all people, at all times, have access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life’.

- Food security for a household means access by all members at all times to enough food for an active, healthy life. Food security includes at a minimum (1) the ready availability of nutritionally adequate and safe foods, and (2) an assured ability to acquire acceptable foods in socially acceptable ways (that is, without resorting to emergency food supplies, scavenging, stealing, or other coping strategies). (USDA):

- World Development Report (1986) defined food security as “access by all people at all times to enough food for an active and healthy life”. However Food Security as a concept emerged at the United Nations Food and Agriculture Organization (FAO) World Food Conference in 1974.

Food security means when all people at all times have physical and economic access to sufficient food to meet their dietary needs for a productive and healthy life. Food Security has three dimensions.
1.2.1 Food Security at household level

Food security at household level depends on purchasing power and income of household. This directly relates to the availability of employment. Food insecurity at a household level is mainly due to poverty. The poorest groups in India are usually those who own little of productive resources or have little access to such resources and land lessness which has been increasing, both absolutely and relatively in most of the developing countries. The poor desire income from wage work in which they may be simultaneously underdeveloped and forced to un wage work. The pure landless population in the developing world between 1980 and 1985 has increased by 11 percent from 171 million to 180 million. In India land reforms was considered as an important Institutional policy in providing access to land. But it was not successful in transferring surplus land from landlords to landless labourers.

In India, a small/marginal farmer is forced to sell a part of his food production, even when it is insufficient to meet his family’s yearly needs, to be able to pay for necessities such as utensils, clothes, health, education and so on. Second, the farmer also grows commercial or cash crops, which are more remunerative than food-grains. Third, during sowing they have to pay the labourers the wages in cash. Fourth, most farmers also have to meet expenses for social obligations such as festivals, debt payment, and so on. To encourage farmers to produce more the Government provides subsidies on fertilisers and irrigation (electricity charges), crop loans, and so on. In addition, it fixes the minimum support price (MSP) for various foodgrains, pulses, oilseeds and cash crops.
It is a bitter fact that though India had 30 per cent of its grain production in public stock (over 60 million tonnes) in 2000, about 25 per cent of Indians were undernourished and food insecure. As the MSP is not adequate — nor are the purchase centres — farmers are compelled to sell paddy to local traders or ‘net buyers’ of villages. Therefore, as far as economic accessibility is concerned, people living below the poverty line (26 per cent) cannot afford to buy food. The another aspect of food security is the consumption pattern for wellbeing at the intra-household level — there is often a visible discrimination against females, children, elderly, disabled, widows, wife and children of non-earning males and so on either due to scarcity of food in the family or discriminatory social practices or individual biases of the head of the family. Finally, food absorption is another aspect of food security at the individual level. As some family members often do not get nutritious food in terms of required calories, there is an increase in the number of underweight children, children with stunted growth, diseases due to malnourishment, and infirmity leading to early mortality.

1.3 Public Distribution System

The PDS in its present form initiates as a producer price support cum consumer subsidy programme. The main emphasis was on price stabilization till the last 1970 and PDS was mainly confined to urban areas and food deficit states. The welfare dimension of the PDS has gained importance since the early 1980 and its coverage has been extended to rural areas in some states as well as to area with high incidence of poverty. Food grains distributed through PDS was 8.8 Mts. in 1970; it
has been increased to 20.5 Mts. on 1997. Procurement of food grains also raised from 6.7 Mt. in 1970 to 23.6 Mt. in 1997.

The original objective of the PDS in India was stabilization of prices of food grains and management of its supply. Over time, it came to be seen as an instrument for poverty alleviation. Those who subscribed to this view contented that the PDS should not be evaluated on the basis of poverty alleviation. The primary responsibility of the central government was to intervene in the market for food grains by announcing minimum support prices as well as procuring surplus food grains. This was offered to the states for distribution through PDS at subsidized price. The government of India however, changed this policy as part of its economic reform programme and introduced in 1997 targeted PDS (TPDS) under which food grains are being allocated to states on the basis of the estimates of population ‘below the poverty line’. As such, the allocation was 10 kgs of cereals per family per months. Any additional requirement desired by the states was allotted at a higher price. The intention was to limit the PDS only to the poor and phase it out to the non poor over a period of time. The recent budget [2000-01] increased the quota from 10 kgs to 20 kgs to the poor and linked the changes in issue prices to changes in economic cost.

Opinions were sharply divided on the question of the design of the PDS. While there is a case for excluding the rich from PDS, there is a strong case for including a significant section of the population who are neither rich nor poor. Such a programme will entail less errors of exclusion of the poor than a targeted PDS which is narrowly focused for those below the poverty line in this strict sense of the term.
This is because the poverty line is a methodologically driven one and may not be suitable for the purpose of programme implementation.

Due to the large increase in the prices, the off take of cereals from PDS has declined from 19.3 Mt. in 1991-92 to 15.0 Mt. in 1994-95, effecting food security of the poor. The sharp increase in the minimum support and central issue prices explain the abnormal increase in the carrying cost of buffer stocks in 1993-94 and 94-95.

There is a sharp increase in the annual carrying cost of cereal buffer stocks both absolutely and relatively to total food subsidy. It increased nearly three fold over the period 1990-91 to 94-95, on the other hand expenditure on cereal subsidy has declined by 27 percent between 1992-90 to 94-95. The distribution of cereal subsidy between wheat and rice was more or less equal and the subsidy on coarse cereal has been negligible. Despite the increasing trend, the central food subsidy by antipoverty programmes has declined in the recent years. Parik (1993) has examined the cost effectiveness of PDS for every rupee spent on PDS. The amount reaching to the poor was less than 0.22 paise in all the states. PDS is the major programme through which food subsidy is directed to provide food security. But in the context of recent structural adjustment policy, consumer subsidy has been falling, it also lead to rise in issue price, leading to fall in off-take from PDS. Hence, the role of PDS in providing subsidized food is not possible in terms of reducing food insecurity.
1.3.1 Present State of Public Distribution System and need for the studies

Today there are 60 million tonnes surplus food grains in government godowns, every year more than 1 million tones are lost in storage. Yet, 325 million people are living in below poverty line and nearly 50 million on the brink of starvation. According to Planning Commission of India 36 percent of wheat, 31 percent of rice and 23 percent of government stock draining to the block market at national level. The stocks are diverted to the block market by a nexus of officials and traders through the fake BPL cards. The official figures of bogus BPL cards in circulation in India estimated at 7.9 million. In the month of April the stocks allocated to various states under different schemes tells another story that many states offtake are very poor and many unsold food grain returns to government which shows the government inability to provide food grain for poor despite an increasingly unmanageable food grains surplus is enough reason that we have to study the impact of government public distribution system with reference to food security of poor in India. Of all the safety net operations that exist in India, the most far reaching in terms of coverage as well as public expenditure on subsidy is the PDS.

The PDS provides rationed amounts of basic food items (rice, wheat, sugar, edible oils) and other non food products (kerosene, coal, standard cloth) at below market prices to consumers through a network of fair price shops distributed all over the country. The PDS had been criticized for its urban bias and its failure to serve effectively the poorer sections of the population. As many of studied on benefit incidence of fiscal transfer, this type evaluation of PDS failed to consider the counterfactual and take the fiscal transfer as the net gain accruing to the poor using
PDS. Since June 1997 PDS turned into the Targeted Public Distribution System, the aim is to target the poorest household by differentiating the access quantities and prices at which one is allow to buy. The differentiation is made with respect to the state official poverty lines. Those households below the poverty line (BPL households) are entitled with ration card that allows them to buy more quantity at a higher subsidized price. The main issue of TPDS is that as any targeting program it will always involve, albeit to different degree, problems of imperfect targeting.

1.4 Statement of the Problem

Food security has been a major goal of development policy in India since the beginning of planning. Food availability and price stability were considered measures of food security till the 1970s and the achievement of self-sufficiency was accorded high priority in policy. India's food security policy has a laudable objective to ensure availability of foodgrains to the common people at an affordable price and it has enabled the poor to have access to food where none existed. The policy has focused essentially on growth in agriculture production (once India used to import foodgrains) and on support price for procurement and maintenance of rice and wheat stocks. The responsibility for procuring and stocking of foodgrains lies with the Food Corporation of India (FCI) and for distribution with the public distribution system (PDS). India at present finds itself in the midst of a paradoxical situation: endemic mass-hunger coexisting with the mounting foodgrain stocks. The foodgrain stocks available with the FCI stands at an all time high of 62 million tonnes against an annual requirement of around 20 million tonnes for ensuring food security. Still, an estimated 200 million
people are underfed and 50 million on the brink of starvation, resulting in starvation deaths. The paradox lies in the inherent flaws in the existing policy and implementation bottlenecks.

Over the decades the functioning of the Public Distribution System (PDS) in India has suffered due to inefficient management and lack of proper targeting to improve the food security of the poor. Although, India has achieved self-sufficiency in food grain production, and surplus food stocks are available in the Food Corporation of India (FCI) godowns across the country, the poor have little access to food as they lack purchasing power. The level of procurement has been increasing over the years, the FCI holding stocks beyond the needed buffer stocks (Krishnaraj, 2005). There was a huge outcry by the public that FCI godowns were bursting with grain, eaten away by rats while the poor were dying of hunger. Food for work programmes did not ease the situation. This paradox of surplus food availability in the market and chronic hunger of the poor has brought into sharp focus, the lopsided policies of the government, with regard to food distribution in the country. According to the Tenth Plan document by Government of India ‘The PDS in its original form was widely criticised for its failure to serve the below poverty line (BPL) population. Below poverty line (BPL) households have not been properly covered owing to leakages through widespread corruption, illegal sales, creation of false cards and the use of facilities by better-off households. Several empirical studies, based on PDS purchases, have shown that the poor were not benefiting much from the PDS. In a study on the effectiveness of the PDS in reaching the poor, Parikh (1994) says that ‘the cost effectiveness of reaching the poorest 20 per cent of the households through
PDS cereals is very small. According to him, for every rupee spent, less than 22 paise reach the poor in most of the states.

TPDS is precisely targeted toward the poor and it should have greater impact among the poor than others. Identity of beneficiaries are important for designing better policy and determine links between poverty and other characteristics that hamper or on the contrary favor better targeting. Therefore, the study has been conducted on ‘Impact of Public Distribution System on Food Security among Poor in Karnataka’, for an in-depth analysis.

1.5 Brief Review of Literature and Research Issues

There is a very high incidence of child malnutrition in India, estimated at 66 per cent in 1998 for children below five years (World Bank 1998). The all-India figures on malnutrition conceal enormous variation across the regions of India, a fact that the proposed analysis will exploit, given that there are also remarkable variations in access to and usage of the public distribution system through which food subsidies are made available to households in India. The incidence of malnutrition has been declining but not as rapidly as recent economic growth in India may lead us to expect. Malnutrition is concentrated amongst the poor and the fact that it can impair productive activity and educational achievement and creates a poverty trap that can perpetuate itself across generations. An intriguing fact about malnutrition is that it is not limited to the poor. Indeed, about 70 per cent of individuals are estimated to be
malnourished in India as compared with the 30 per cent that have incomes below the poverty line (Swaminathan 2000 and Suryanarayana 2001).

There is no existing research that attempts to analyse the impact of the Public Distribution System on the poor households. Previous research on the PDS in India has been concerned with its inflationary consequences, its administration, and its correlation with poverty. The researchers and experts have been conducted studies on PDS with different dimensions. The regional variations in the supply of food grains through the PDS have been investigated by Tyagi (1990), urban bias (Howes and Jha 1992), targeting (Dev and Suryanarayana 1991), and the growing cost of the food subsidy (World Bank 1998). The welfare effects of the PDS is studied by Parikh (1994). As the latter makes a relatively careful attempt, it is considered in some detail. Both use the 1986–87 National Sample Survey data which provide information on open market and PDS prices and expenditures for a range of commodities. Radhakrishna and Subbarao (1997) compute the income gain for users of the PDS as the product of the quantity purchased from the PDS and the price differential between the open market and the PDS.

The available literature in the field of PDS clearly indicate that most of the studies attempted to study operation of PDS system and to measure its cost of operation and subsidy given to PDS and also administrative costs involved in this PDS system. Few studies have attempted on efficiency and targeting of PDS. And more number of studies concentrated on the functioning of PDS with reference to Maharastra, Bihar and Jharkand states. The studies by Kannan, Mahendradev, Alokh Narain, Sharma attempted to connect food security issues with PDS have been
confined to explain theoretical views on it. This clearly helps to find the research gap in this field and establishes the fact that there has been no systematic study conducted to assess the impact of PDS on food security of the poor in India. Therefore, the present study is proposed to study the impact of PDS on food security among poor with following objectives.

1.6 Objectives and Hypotheses of the Study

The broad objectives of the present study are;

1. To analyse the status of food security and functioning of PDS at macro level.
2. To study the socio-economic characteristics of BPL sample households.
3. To examine physical and economic access of food grains through PDS to the poor at household level.
4. To quantify the poor who are buying food grains in Fair Price Shops at BPL Prices.
5. To study the impact of PDS on food security at household level among BPL cardholders.
6. To examine the functioning and effectiveness of PDS in the study area.

And finally, to provide policy suggestions based on the findings of the study for further policy intervention for the effective functioning of PDS.
Hypotheses of the Study

Following are the few hypotheses to be tested in the study

1. The demand for food grains by the poor is not met by supply of food grains through PDS alone.
2. The BPL families will buy more food grains of the total requirement from PDS sources than the open market.
3. Lack of purchasing power is the major constraint to buy food grains on time at PDS shops.

1.7 Methodological framework

The methodological section envelops a brief discussion of the study area, sample design, nature and source of data and analytical framework employed in the present study, for addressing the set objectives.
1.7.1 Selection of the study area

The present study was undertaken from Chamarajanagar district of Southern Karnataka for an in-depth analysis. The selection of the district was purposive for the following reasons:

1. The district provided an excellent background for the study. The reason for selecting Chamarajanagar, which is classified in the ‘High Power Committee on Redressal of Regional Imbalances’ (Dr. D.M. Nanjundappa’s Committee report) as the most backward district in the Karnataka State (GoK, 2002).

2. The district represents highest number of poor families. Of the 2.42 lakh families in the district, 1.74 lakh families (71.9 per cent) have been identified as Below Poverty Line (BPL) families. Ration will be distributed to them at subsidised rate (GoK, 2006-07).

3. The literacy level of Chamarajanagara district is 51 per cent, unfortunately one of the lowest in the State.

4. The District is predominantly agrarian and irrigation facility is very sparse in District, the farmers are largely dependent on seasonal rains to grow their Crops. On an average per capita income of the district at current prices for 2004-05 was Rs. 14329 and it is one of the lowest in the State

In view of the above background, Chamarajanagar district became an ideal choice for conducting the present research study.
Map of the study area
Map of the Chamarajanagara District
1.7.2 Sampling Design

For an in-depth study, a multi-stage stratified sampling technique was employed for selection of the sample households. The sampling process consisted of three stages viz., at the first stage district, taluka/block were in the second and the sample households have been selected ultimately at the third stage (Chart-I).

Chamarajanagar district has 04 taluks, namely Chamarajanagar, Gundlupet, Kollegal and Yelandur. A complete enumeration of BPL card holders households’ was carried out for the all the taluks in Chamrajanagar district in order to collect secondary information on type of ration card holders, number of fair price shops and social groups across rural and urban areas. Based on the above criteria, a sample of 250 each from rural and urban areas, thus total sample of 500 BPL households have been selected with representation of all the taluks.
Chart I: Sampling Framework

Selection of District

Chamarajanagar

Criteria for selection of the district
- Most backward district.
- Highest number of poor families living in the district.
- Low level of literacy (51%).
- Low per capita income (Rs. 14329)

Taluks covered
1. Chamarajanagar
2. Gundlupet
3. Kollegal
4. Yelandur

Selection of Blocks

Selection of Sample Households

- A total of 500 sample households, (rural=250, urban=250) which are belong to BPL have been selected randomly from four taluks with proportionately.
- The selection of sample households with the criteria of rural and urban, BPL card holders and also social groups.
1.7.3 Sources and Methods of Data Collection

The data for the present study is drawn from both primary and secondary sources to accomplish the set objectives of the research endeavor. The details are given below.

The secondary data were collected from various published sources like FAO, World Development Reports, Economic Surveys, NSS publications etc, to understand the incidence of poverty, status of hunger, malnutrition. Moreover, Census reports, Statistical Abstracts and other related published/unpublished documents were utilized for the study.

The primary data were collected from the sample households using well-designed and pre-tested schedule, canvassed through personal visits and enquiry with heads of the households. The data collection entailed three parts. The first part comprised the general features of the sample households encompassing demographic particulars such as size and composition of family, occupation, size of landholding, livestock possession, source of family income and the like. The second part related to detailed information such as number and type of ration card holder, quantity of food grains purchased from fair price shops and in open market, price of food grains, consumption pattern etc., The third part deals with perceptions about the functioning of fair price shops and constraints faced by the poor.

1.8 Analytical Framework

The data collected during the period of enquiry, were scrutinized and crosschecked in order to ascertain the socio-economic profile of sample households, type of ration card holders, quantity of food grain purchased under PDS, consumption pattern, by sample households, etc. The statistical techniques of frequencies, weighted averages,
cross tabs and compound growth rates were used to analyse the data as per the objectives of the study. The graph/charts were also used in the study.

1.9 The Scope of the Study

The study covers on various socio-economic issues of poor and food security. It is intended to provide policy suggestions for further improvement in the functioning of PDS shops in an effective manner. It is expected that the academicians or researchers will get clear vision of impressive empirical evidence to support their studies in future. The government agencies, Non Government Organisations (NGOs) and other policy makers will be benefited from this study to extend the present programmes/schemes for the poor families. Fair price shops constitute the backbone of the food security system for the poor. The study would address the weaknesses in the system and suggest the measure to strengthen public distribution system in favour of poor people.

1.10 Chapterization of the Thesis

For analytical convenience, the thesis has been organised into seven chapters. The Chapter-I deals with introduction, incidence of poverty, hunger and malnutrition, importance of food security, present status of public distribution system, statement of the problem, research issues, objectives and hypotheses, methodological framework and scope of the study. The detailed literature on the subject matter has been reviewed and presented in the Chapter-II. The Chapter-III gives a brief history of PDS, trends in food grains, growth and trends in PDS in India and Karnataka. The salient features of the study area both Karnataka and Chamarajanagar are presented in Chapter-IV. The socio-economic characteristics of sample households are given in the Chapter-V. In the Chapter-VI, impact of PDS on food security of poor analysed with respect to the quantity of food grains purchased, consumption pattern, the role of PDS in food security, opinion
of the BPL card holders on PDS etc. Finally, Chapter-VII provides the summary, conclusions and policy suggestions.