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**Public Distribution System in Gujarat:  
A Synoptic Overview**

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## **Abstract**

Public Distribution System (PDS) programme in India has been introduced for achieving multiple objectives. Its primary objective is to provide subsidised foodgrains and other items of daily necessity such as oil, sugar and Kerosene etc. to weaker sections of the population. The programme also aims to stabilise market prices of foodgrains in times of unusual inflationary tendencies, to provide food security to areas suffering from drought and similar natural calamities and manmade disasters, to provide support prices to farmers and to maintain buffer stock. The PDS programme is implemented in welfare state mode with universal beneficiary approach and hence it has been under criticism for being non-specific and wasteful. It has also been found to be an inadequate programme to fully address the food security problem of the poor and vulnerable. PDS is a centrally planned programme and each state in India implements the design set by the Central Government. This paper reviews the PDS programme in Gujarat since the formation of the State in 1960 and comments briefly upon its effectiveness in delivery and addresses the food security issue for the poor.

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# **Public Distribution System in Gujarat: A Synoptic Overview**

**Sudarshan Iyengar**

## **1. Introduction**

Putting morsels of food in the mouths of those who are poor and generally find it difficult to buy food from the market should be perhaps the major aim of any public distribution system in a country like India where substantial numbers of poor persons live. One is not certain whether this objective is being achieved effectively in most parts of the country or not. There is substantial literature on the subject that highlights the range of issues that deal with the efficiency of delivery systems and targeting the population whose welfare needs to be improved. It is assumed that government's continued interest in running the public distribution system (PDS) is to protect the poor and vulnerable sections of population from possible inflation due to frequent and relatively wide fluctuations in the supplies (Kabra and Ittyerah 1992). Government also runs this programme as an anti poverty programme by selling food at subsidised price creating a positive income effect for the poor. PDS, as it has evolved over the years in India, aims to achieve more than one objective. The broader framework within which PDS operates contains minimum support price (MSP) programme to support farmers in getting remunerative prices from the market, procurement of food grain by a centralised agency namely the Food Corporation of India (FCI) to maintain buffer stock to meet unexpected shortfall in food grains supply, to release it in open market to regulate the market prices downwards, to supply food to poor and unemployed labour through food for work schemes, to support specific weaker sections of the society etc. The Principal Secretary, Food and Civil Supplies, Government of Gujarat states ten different contexts in which the PDS needs to be viewed (Dash, 2003). A review of PDS programme thus in effect becomes a review of the effectiveness with which the programme is able to achieve multiple objectives of reaching poor and deprived sections of the population with food and employment, regulate the foodgrains markets, improve regional transportation networks and support farmers etc.

This paper does not aim to undertake any comprehensive review, but an attempt is made to look at the functioning of the PDS infrastructure and changes therein over time in Gujarat and then comment upon the situation with respect to foodgrains distribution and the target groups. Thus a somewhat limited exercise of an overview of the Gujarat State's Public Distribution System (PDS) is attempted. Even this exercise is limited by the extent of the relevant data that are available. The main source of compiling information has been the volumes of annual 'Socio-economic Review, Gujarat State', published by the Bureau of Economics and Statistics, Government of Gujarat. It was also possible to obtain some information from the Gujarat State Civil Supplies Corporation (GSCSC) with respect to latest situation. An attempt is made to understand the PDS in Gujarat with the help of schemes that are implemented under the programme, the supply infrastructure and its features. It should be recorded that like all other government programmes time series data on the subject are not available at desired level of disaggregation of area and population.

Before attempting the overview of the PDS in Gujarat, it is important to bring out a special feature of the State with respect to foodgrains production. Gujarat has been a deficit state with respect to food grains. Traditionally, the state grew cash crops such as cotton and groundnut and hence area devoted to food grains is limited. The yields of food grains crops are also compared to many other states. Large part of the state is drought prone and hence rain fed cultivation is more prominent. In Section 2 a brief description about Gujarat and its agriculture with specific reference to foodgrains production is attempted. In Section 3 the PDS infrastructure is analysed and in section 4 analysis of the PDS functioning in the context who benefits and how and the issues in nutritional aspect and its relationship with PDS is attempted. Section 5, discusses the implications for effective programme for supporting food and nutrition supply to poor and vulnerable.

## **2. Food Grains Production in Gujarat**

The present day Gujarat came into existence on May 1, 1960. Gujarat is a rain shadow and hence receives low rainfall during a year. It is a drought prone state with 15 out of 25 districts (before 1997, 12 out of 19) being drought prone. The annual normal rainfall varies from 350 mm in Kachchh to 1850 mm in Dangs and 12 districts receive less than 750 mm of annual rainfall. The northeast and

southeast hilly and undulating terrain is inhabited by tribals. Agriculture is largely rain fed. Table 1 presents the cultivated area and area irrigated in Gujarat.

It may be seen from Table 1 that only half of Gujarat's land is under cultivation. It started with a poor irrigation record in 1960-61 with only 7 per cent area under irrigation and in 1990-96 it has almost quadrupled. This has had definite positive impact on both yields and production of various crops. Foodgrains production has also grown, but as stated earlier, traditionally, Gujarat is not a foodgrains producing state. Even in the early 1950s, the area under foodgrains crop was 62 per cent. Taking triennium averages for first three years of decades it has been shown that the share of area under foodgrains has come down from 62 per cent in 1950 to 44.4 in 1990. The triennium average for 1993-96 gives a figure of 43.5 per cent, (Patel, 2001). However, when we look at the decadal averages between 1970s and 1990s and compare it with 1960-61 figures, we find that area under foodgrains as percentage to gross cropped area declined only in the 1990s. Table 2 shows the percentage area under cereals and pulses over time to gross cropped area.

It may be observed that with the rise in gross cropped area, the share of area under foodgrains increased marginally in 1970s and 1980s and only in the 1990s it declined somewhat significantly (Table 2). Comparing the figures in Table 2 with Patel's analysis (Patel A.S.2001), it appears that the area under foodgrains in Gujarat declined very sharply first between 1950 and 1960 and then modestly in the 1990s. In the first three years of 1950s the area under foodgrains was 62 per cent and in 1960-61 it was 47 per cent. Thus even before expansion in irrigated area took place after 1960, foodgrains crops had lost priority to cash crops. With increase in irrigation facility and expansion in gross cropped area, foodgrains did not receive any special attention. On the contrary in the 1990s the share of foodgrains crops to total gross cropped area declined further.

Increase in irrigation facility and related technologies including improved and high yielding seed varieties have helped in increasing the yields and therefore the production of foodgrains in the state. Table 3 contains data on foodgrains production in 1960-61, decadal averages for 1970s and 1980s and annual data for the 1990s up to 1996-97.

It may be observed that production has increased over time. The per capita availability of foodgrains increased in 1970s over 1960s, but after that it has been declining. The annual data for the 1990s show year-to-year fluctuations. Given

the caloric requirement for the survival of a healthy person engaged in manual work and given the income distribution in the society, it may be said that the foodgrains production in Gujarat is not enough to feed its population. Vepa, (2003) has calculated the per capita per day net production of food items in Gujarat for triennium 1995-98 and compared the figures with the Indian Council of Medical Research (ICMR) norms and all India figures. Against the ICMR norm of 420 grams per day per capita of cereals net production (net of seed, feed and wastage) in Gujarat it was 223 grams, while the national average was 430 grams. In case of pulses the ICMR norm is 40 grams per capita per day, Gujarat produced 29 grams and all India average was 32 grams. Gujarat exceeds the ICMR norms and all India averages in case of Sugar (55, 30 and 41 grams respectively), edible oil (44, 22 and 18 grams), milk (265, 150 and 184 grams) and fish (40, 25 and 14 grams). ICMR list of food items that form a balance diet for normal healthy person numbers 10 and include cereals, tubers, pulses, sugar, edible oil, fruits, vegetables, milk, eggs and fish. The total food required under all categories amount to 982 grams per person per day. Net production of these food items taken together in Gujarat in 1995-96 was estimated to be 857 grams, which is 87 per cent of the ICMR norm. The all India figure was 1031 grams, 5 per cent more than the ICMR norm (Vepa, 2003, Table 1).

In Table 2 we have examined the foodgrains statistics only and in those figures the production was gross, that is seed, feed and wastage is not deducted while calculating annual per capita production. When we compare with Vepa's estimate, we find that the net production is around 91 kilograms per year per person in Gujarat, which is way below the gross production of about 122 kilograms (1995-98) for the comparable period. The net is about 75 per cent of the gross production. Gujarat indeed is not self sufficient in case of foodgrains. Since income distribution is skewed, the distribution of available food will also be skewed. Although poverty ratios have been falling sharply in Gujarat, still food distribution to the poor and vulnerable sections may have to be done through the PDS until market forces can cater to all sections of population. Further, as stated earlier, there are other programmes too, under which food supply has reached people engaged in employment programmes, mid-day meal programmes for children etc. In this context PDS becomes important.

### **3. PDS Supply and Infrastructure in Gujarat**

According to the Ministry of Consumer Affairs, Food and Public Distribution, Government of India, PDS has evolved over time as a major instrument of the Government's economic policy for ensuring availability of foodgrains to the public at affordable prices as well as for enhancing the food security for the poor. It is an important constituent of the strategy for poverty eradication and is intended to serve as a safety net for the poor whose number is more than 330 million and is nutritionally at risk. PDS with a network of about 4.63 lakh Fair Price Shops (FPS) is perhaps the largest distribution network of its type in the world.

PDS is operated under the joint responsibility of the Central and the State Governments. The Central Government has taken the responsibility for procurement, storage, transportation and bulk allocation of foodgrains, etc. The responsibility for distributing the same to the consumers through the network of FPSs rests with the State Governments. The operational responsibilities including allocation within the State, identification of families below poverty line, issue of ration cards, supervision and monitoring the functioning of FPSs rest with the State Governments. PDS means distribution of essential commodities to a large number of people through a network of FPS on a recurring basis. The commodities distributed are wheat, rice, sugar, edible oil, and kerosene.

Department of Food and Civil Supplies was responsible for organising and operating the PDS in the state at the time of its formation in 1960. Even as part of the erstwhile Bombay State, Gujarat region was covered under the PDS system. The PDS as such was initiated as an ad hoc measure during the Second World War in the early 1940s. Over the years the system has stabilised as a permanent feature to contain rise in food grain prices and achieve food security for poor (for details see Jharwal M 1999 and Chakraborti M 2000). It continued to be responsible for organizing procurement and distribution of essential supplies including foodgrains up to 1980. In the 1960s, food production in the country as a whole was seriously short of the total requirement and hence various controls and rationing were in operation from time to time. In 1964, the Government of India introduced zone-based controls on rice, wheat and grams. In 1968, the export controls were relaxed in coarse grain surplus states of Punjab, Haryana MP, Bihar, UP and Rajasthan. But in 1969 due to famine conditions the controls were introduced in Rajasthan again and later withdrawn in October 1970. By 1970 control on wheat was also withdrawn and control over rice however remained.

The relaxation on controls had an impact on the local production in Gujarat and stocks improved in the open market. The pressure on fair price shops came down. There was a sudden drop in the allocation and lift of foodgrains in Gujarat in 1970-71. It appears as an exceptional year and there is hardly any satisfactory explanation in any document. 1972 was a drought year and once again reliance on PDS increased. It is difficult to trace the exact process and assess the quantum of dependence on the PDS for foodgrains because reliable and continuous data from all sources are not available. The State received supply from the Government of India and also procured its own supply of coarse grains and pulses from within the state. Procurement of edible oil also began in mid 1960s. Later, with the import of palmolen, soya bean and sunflower oils, the department began to handle its procurements and supplies. The Food and Civil Supplies department also handled sugar, kerosene, light and high-speed diesel oils quotas. In this paper I have restricted the scope to look at the foodgrains situation only. Allocation and lifting situation with respect to foodgrains in the 1960s is presented in Table 4.

An important observation that emerges from Table 4 is that there has been immense fluctuation in the PDS supplies during the period considered. The 1964-65 to 1967-68 periods show high allocation and lift. The period coincides with the zone-based controls over the movement of foodgrains and pulses. Mid sixties are also years of severe droughts in many parts of the country including Gujarat. Relaxation in controls and improvement in the production environment may have led to decline in the allocation and lift of PDS supplies in the late 1960s.

From 1972-73 onwards, another set of data is made available from the annual Socio-economic Review (SER) volumes of the Gujarat state, which is a time series data. Table 5 contains data on allocation and lift from the central pool between 1972-73 and 1997-98. The lift data are given as distribution. The lift and distribution data may have some discrepancy, as it will become evident when we look the central government data. The allocation and distribution data also does not give separate figures for rice and wheat. If one looks at the decadal pattern of allocation and lifting it may be observed that in the 1970s, 1973-74 and 1974-75 were bad years from the point of view of local production and more than 700 thousand tones of foodgrains had to be lifted from the central pool. In 1975, the domestic foodgrains output increased. The off take from the PDS declined substantially. The trend continued until 1987-88 the year in which Gujarat experienced one of the most serious droughts in the State after its formation. The

situation continued next year also and only in 1989-90 did the situation seem to have improved. In 1990s, the central pool quota has been generally higher and from 1997-98 the quantities have declined. Another important observation is that against the allocation of foodgrains the distribution of it has generally been lower and between 1975-85 and 1985-95, average distribution against the allocation has declined.

The Government of India's Ministry of Consumer Affairs and Public Distribution gives information for rice and wheat separately by states (Table 6). The first thing that strikes is that there is discrepancy in the figures quoted by the Government of India source and the state government source. Assuming that the data are generated centrally by the Ministry that is responsible for procuring and dispatching the supplies to states, the data may be taken to be more reliable. Secondly, the state level data are from the SER volumes and not directly from the state Civil Supply Corporation. Hence, one is not sure whether the SER is able to get comprehensive data. The Government of India figures suggest that the central pool allocation during 1985-95 was higher than the figures given in the SER volumes. Secondly, the lifting was lower than the state figures. On lifting of course, the figures are likely to differ because whereas the state figures are for distribution and the central figures are for lifting by the state government and which always has a lag. However, comparing the Gol data for 1985-95 and 1996-2000, it may be observed that both the allocation and lift have declined. If one looks at the annual figures in both, the Gol data or SER volumes, one can notice fluctuations in allocation as well as lift. During drought years the allocation and lift are higher.

Government of India mainly handles the procurement and distribution of rice and wheat, but the state governments also procure and distribute coarse grains such as maize (Corn), Jowar (Sorghum) and Bajri (Pearl Millet). The SER volumes report about the procurement of these items for some years, but after 1991-92 one does not find any information on it. It can also be seen from Table 5 that the total quantity handled is very small. The PDS therefore, is largely distribution of wheat and rice. It has been argued by a number of scholars and organizations working with poor and socially backward sections of population that people do not find rice and wheat as useful as coarse grains because it does not constitute their staple diet. I shall come back to this point later when I discuss the relevance of the programme.

### 3.1 Fair Price Shops and Storage Capacity

The final unit with which the user of PDS deals is the fair price shop. Historically, PDS in India has come up as a result of scarcity of food supplies that arose in the Second World War (Chakraborty, 2000) and the concept of ration shops came up first. The present day fair price shops are the old ration shops and they have grown in number.

The PDS supply is lifted from the central government warehouses and godowns managed by the Food Corporation of India. The Government of Gujarat has to lift the stock and store it in its own warehouses. It handles the storage in two ways. The department of Food and Civil Supplies and now the GSCS Corporation has its own capacity created for storage and also hires in space from private owners. The SER volumes contain information on the storage facility and capacity with the GSCSC. Table 7 contains time series data on the fair price shops and the storage capacity.

Between 1960 and 1997 the year up to which time series data are available, the number of fair price shops (FPS) have increased by more than three times. The compound average annual growth rate was 3.5 per cent, which is high. Since population has also increased *pari pasu*, it would be useful to look at the FPS per unit of population. Table 8 shows the population coverage by an FPS over time. By 2001, an FPS covered an average of 3548 persons in the state.

The macro level figures clearly suggest that the number of FPS have been growing faster than the population because population covered per FPS has come down sharply between 1961 and 2001. It is obvious because the compound average annual growth rate of population has been lower than the growth rate of the fair price shops. However, it will be further useful to look at the rural-urban and district level distribution fair price shops to understand the dispersal in coverage. Table 9 contains the district level and rural urban distribution of FPS in Gujarat.

Gujarat is traditionally divided into five regions, which also broadly conforms to the agro-climatic regions. Kachchh, with its desert like land known as Rann, is the largest district covering almost one fourth of the area of the state, but has the lowest population density. The population density was 35 persons per square Km in 2001. The rural and urban coverage of population per FPS respectively were

2463 and 4022 persons. Kachchh has the best coverage in Gujarat. However, this is consistent with the scatter of villages in Kachchh.

Rural spread of the FPS is second best in the districts in Saurashtra. It also has large area and third lowest density of population after Dangs. It was 208 persons per sq. km. as per 2001 population. On an average one FPS covered 2779 persons in rural areas. In urban areas the coverage was 4478 persons, which was higher than North Gujarat region but lower than the remaining two regions Central and South Gujarat. Coverage in rural areas of remaining three regions North Gujarat, Central Gujarat and South Gujarat, is almost uniform. One FPS on an average covers 3100 to 3200 persons in rural areas. In urban areas, South Gujarat and central Gujarat, one FPS on an average covers between 5000 and 6000 persons. Closer examination of the data reveals that this is due to four large mega cities Ahmedabad, Surat, Vadodara, and Rajkot where the average population covered is higher than other urban areas.

The district level distribution suggests that perhaps there hasn't been any strategic planning for opening FPS. It is likely that pulls and pressures work rather than criteria. In rural areas for instance the average state level figure is 3020 persons per FPS. If we take figures that are 500 less or more than the state average, following districts get covered. In '500 below average' category, Porbandar, Kachchh, Rajkot and Jamnagar get qualified in that order. In '500 above average' category Dang and Dahod get qualified. Both Dangs and Dahod are tribal districts, and Dang has higher scatter. The village settlements in hilly and remote areas are generally small and even with one fair price shop for more than 3500 persons may mean travelling a distance of more than 15 to 20 Kms in some cases. The distance may act as a deterrent in availing the PDS facility by rural poor. While Kachchh and Saurashtra appear to be well covered at least two of the tribal districts are not adequately covered. It is relevant to note that in Gujarat poverty is high in the tribal regions compared with the Kachchh and Saurashtra regions. In 1987-88 NSS data for instance showed that 56 per cent of households in eastern tribal region (NSS region) in Gujarat were below poverty line where as the incidence was less than 41 per cent in Dry areas (Kachchh and North Gujarat) and 20 per cent in Saurashtra (Iyengar 2000). It should also be noted that 1987-88 was the worst drought year in Gujarat during which the cattle casualty was highest in dry areas and Saurashtra.

At the time of analysis the district level rural urban fair shops data for 1987-88 were not available and hence it is not possible to compare the FPS figures for the regions during that time. However, when even in 2001 the poorer regions show relatively lower coverage one may assume that the situation in 1987-88 could not have been better. There seems to clear case to strategise the setting up of FPS in poorer areas.

The Government of Gujarat appears to have been sensitive over this issue particularly with respect to availability of grains to poor tribals in critical period. Hence a Grain Bank scheme was introduced under the Tribal Sub Plan in 1996-97. "Member families of the grain-bank will be entitled to take loan of food grains in four instalments of up to 25 kilos each during the rainy season or in any other period of scarcity." (Rai, 2003: 4). The scheme until 2002-03 had benefited over one lakh families in Kachchh and other tribal dominated villages where the village population was more than 50 per cent of the total with about 225 grain banks. The scheme is of course more to grant food security than to strengthen the PDS network.

### **3.2 Ration Cards**

Related to the location and number of FPS are the ration cards. Without a ration card FPS supplies cannot be availed. Time series data from 1977 onwards are available for the number of ration cards and the annual growth in them (Table 10), which is uneven. It does not seem to have any straight relationship with the increase in population. The most known complaint is that there are ghost ration cards, which means that the household in reality does not exist but a ration card is issued under some phoney name.

It may be also observed that after 1992, data on ration cards are not available from the SER volumes. This is because since July 1992, a new scheme was introduced for ration cards. The consumers were categorized into income tax payers, sales tax payers, persons earning more than Rs 28,000 per annum and farmers other than small and marginal ones. This category was identified as affordable category and hence a Red Card was issued to them, which gave entitlement for Sugar and kerosene only. Yellow cards were issued to all those who were small and marginal farmers or earned less than Rs 28,000 annually. Green cards were issued to all those who earned less than Rs 15000 annually,

benefited from Food for Work scheme, were infirm or were covered under old age pension scheme and were workers of closed textile mills.

Surprisingly, the number of cardholders in each of these categories has not been specified. However for the year 2001 we have data on number of cards by district and by poverty category. Under the instruction from the GoI, all the states have conducted a survey, identifying households living below poverty line (BPL), popularly known as BPL survey. In Gujarat latest survey was conducted in 1997. The State Civil Supplies Corporation have classified the ration cards into BPL and APL (above poverty level) categories. Table 11 contains district level data on it.

The problems in the population and poor population data as estimated by the Corporation are obvious. Even by 1993-94, 50<sup>th</sup> NSS round estimates poverty in Gujarat was not more than 25 per cent. Gujarat has experienced continuous decline in poverty over time (Appendix Table 1). In the data the population below poverty line (BPL) is shown to be 33 per cent. The interregional variations are also high and not believable because Kachchh shows very high population below poverty. In order to indicate more firmly the problem in ration card based population and poverty data for Gujarat, we have re-tabulated the ration card data with the 2001 population estimates for Gujarat by district in Table 12.

The population estimates based on the ration cards as on September 1, 2001 are higher by at least 7 per cent at the state level compared with the 2001 Census figures including the estimates for Kachchh where Census could not be conducted due to earthquake devastations. This is clear when we look at the figures of total population given in Tables 11 and 12. It is still an underestimate because in reality not all families in rural and urban areas hold ration cards. If one assumes that the average size of the family per card was the same in reality and also assume that all families hold ration cards then using the Census 2001 district population it should be possible to work out the number of cards that should have been there, which is presented in Table 12. At the state level the ghost cards are at least 7 per cent. But the inter regional and inter district variations draw attention. Saurashtra region has perhaps the highest ghost cards (14.4 per cent) followed by Kachchh with 11.9 per cent and Central Gujarat with 8.2. North Gujarat has low excess of about 2 per cent and South Gujarat has a short fall of about 2 per cent. It is interesting to note that both North and South Gujarat have tribal population who are poorer than the most. In 1987-88 NSS

regional classification, the poverty estimates suggested more poverty among the tribals. Appendix Table 2 contains the data. Banaskantha, Sabarkantha, Surat, Valsad, Dangs are the districts that form part of the eastern tribal region and it is clear from the Table that poverty was relatively higher in this NSS region. The implication is that while generally there is a tendency to have more ration cards in the state than the population, the poor and needy areas are not adequately covered by the PDS network.

Admitting the existence of the problem of ghost cards the Secretary, Food and Civil Supplies, Government of Gujarat says, "One of the major problems that affect the efficient distribution of goods to the low income consumers is the concept of ghost ration card. It happens because of the collusion of the tehsil staff and the unscrupulous traders, also because of the improper survey done by the tehsil staff. Because of this problem, sizeable amount of essential commodity reaches open market or wrong hands" (Dash, 2003: 13). There has been an argument about proper targeting of PDS towards the population that deserves. Both overestimation and underestimation distort the supplies. For instance overestimation of BPL families in Kachchh and Saurashtra districts would mean siphoning of supplies by relatively non-poor and underestimation of BPL families in tribal districts would mean insufficient coverage. Vepa (2003) has quoted a Table generated in a study by Tata Economic Consultancy Services in which diversions of food grains from PDS have been estimated. In case of Gujarat 23 per cent of wheat, 21 per cent of rice and 18 per cent of sugar were diverted from PDS to other outlets. The highest figure for wheat was 69 in Punjab, and lowest was 15 per cent in Andhra Pradesh. In case of rice the highest diversion was 54 per cent in Orissa and 18 per cent in Himachal and Karnataka. In case of Sugar diversion of 47 per cent in Bihar and lowest was 8 per cent in Himachal Pradesh. Awareness among people, strengthening of Panchayati Raj institutions such as Gram Sabha and efficient administration with vigilance may correct some of the distortions by way of ghost cards and diversion of essential supplies.

### **3.3 Gujarat State Civil Supplies Corporation (GSCSC)**

The State Government set up Gujarat State Civil Supplies Corporation in October 2, 1980. The objectives have been to procure essential commodities and to arrange its distribution especially to the vulnerable sections of the society. It is also intended to remove the bottlenecks in public distribution systems and see that adivasis and farmers get reasonable return to their produce at the same time

consumer's interests are protected. The corporation is also acting as the Government nominee for purchase, storage and issue of imported edible oil to the fair price shops. Soya bean and Palmolein oils are imported under the GSCSC umbrella. With effect from November 1, 1980 distribution of foodgrains was transferred to the corporation along with the storage facilities. The Corporation also introduced mobile fair price shops in tribal areas. Time series data on the Corporation's activities are available from 1986-87, which is presented in Table 13.

In a way it is fascinating to see a total of thirty-two schemes including PDS being operated by the Corporation. It should be mentioned that almost all new schemes get started by the Centre. In 1986-87 the year from which time series data for corporation are available there were 9 schemes. These grew into thirty-two by 2000. It can be clearly seen that the total grains supplied under various schemes have not increased over time on a continuous basis. In fact, in the late 1980s and early 1990s the supplies touched maximum and then in the middle and late 1990s it declined and touched the mid 1980s level. It is also noteworthy that the schemes just do not go on adding over time. Some schemes are also discontinued. It is evident from the Table that in a given year the number of schemes in operation ranged between 9 and 17. Thus, it is difficult to look for any systematic logic in introducing new schemes under the PDS programme.

Does increase in number of scheme imply better targeting? One is not certain. In some scheme particular population section is targeted and in some schemes it is the area. But without any firm and consistent increase in the new schemes the entire exercise appears to be completely *ad hoc*. The setting up of Corporation also does not seem to have helped in any significant way at least as far as the quantity of grains handled in PDS is concerned. The department of Food and Civil Supplies handled the PDS supply practically in the same way. In case of Gujarat the corporation has experimented with having its own retail outlet for provisional stores including grains supply and named it as "Kalpataru". The performance is reportedly not very good uniformly at all the outlets. Corporatisation of PDS mechanism may have in a way led to more administrative and management expenses. This issue needs separate examination.

The national concern and criticism of the PDS prompted some important changes in PDS networking and programming. According to the Economic Survey 2002-03, PDS, as it stood earlier, was widely criticised for its failure to

serve the population below the poverty line, its urban bias, negligible coverage in the states with the highest concentration of the rural poor and lack of transparent and accountable arrangements for delivery. Realising this, the Government streamlined PDS by issuing special cards to families Below Poverty Line (BPL) and selling foodgrains to them at specially subsidised prices, with effect from June, 1997. The programme was named the Targeted Public Distribution System (TPDS), the States were required to formulate and implement foolproof arrangements for identification of the poor, for delivery of foodgrains to FPSs and for its distribution in a transparent and accountable manner at the FPS level. We have discussed above Gujarat's response with this respect while commenting upon the ration cards scenario. In fact, Gujarat took special initiative in 1992, much before the TPDS scheme was introduced.

The scheme, when introduced, was intended to benefit about 6 crore poor families for whom a quantity of about 72 lakh tonnes of foodgrains was earmarked annually. The Government of India used the Lakdawala Committee estimates for targeting poor. The identification of poor under the scheme was to be done by the states under the same Lakdawala Committee methodology for estimating state level poverty numbers. The allocation of foodgrains to the States/UTs was made on the basis of average consumption in the past, i.e., average annual off-take of foodgrains under PDS during the past ten years. Keeping in view the consensus on increasing the allocation of foodgrains to BPL and to better target food subsidy, the Government of India increased the allocation to BPL families from 10 kg to 20 kg per family per month at 50 per cent of economic cost and allocation to APL at economic cost from April 2000. The allocations were further revised in July 2001 to 25 kg per family per month and again in April 2002 to 35 kg per family per month for BPL and Antyodaya families. The allocation for APL was initially retained at the same level as at the time of introduction of TPDS, but it was also changed to 35 kg per family per month from April 2002.

The 50<sup>th</sup> Round of the National Sample Survey exercise had brought out that about 5% of the total population in the country sleeps without two square meals a day. The Government of India termed this group as struck by hunger. For TPDS to target still better towards this category of population, the Prime Minister launched the "Antyodaya Anna Yojana" (AAY) on 25th December 2000. Of the 6.52 crore persons under BPL at all India level, one crore were to be further identified under AAY. These identified families are currently being provided 35 kg

foodgrains per family per month at highly subsidized rates of Rs. 2 a kg for wheat and Rs.3 a kg for rice. This incidentally was a scheme that was already introduced by the Government of Gujarat before the Government of India introduced AAY.

The national level concerns appear very reasonable and genuine. Attempt to target the poorest and vulnerable should undoubtedly be a cherished goal of the State. However, when one looks at the State level PDS programme one finds reallocation of the foodgrains from one scheme to the other. Even when there was earthquake in January 2001 and riots in February 2002, distribution through PDS has not registered any unusual rise in the total foodgrains distributed in State. During 2000-2001, earthquake related PDS distribution was about 64 thousand tonnes and in 2001-02, it was 34 thousand tonnes. During the riot period that is 2001-02 and 2002-03, the PDS distribution was 163 thousand tonnes, which was substantial. However, the total PDS distribution between April-October 2002 was around 382 thousand tonnes. It can be expected that for the next six months i.e. November 2002 and March 2003, the total PDS distribution would not exceed 750 thousand tonnes. Table 13 does not provide data for 2002-03 because only April-October data have been published.

One can argue that introducing specific schemes for PDS is an attempt to do better targeting, lack of which has given rise to major criticism. However, one fails to see any state government initiative in understanding the poverty profile, need assessment in different geographical areas with Gujarat and tailoring the schemes according to them. Most of the 30 odd schemes that have been attempted by the government of Gujarat have been initiated at the instance of the Government of India. And there is fair amount of ad hocism in starting and closing schemes or increasing and decreasing allocation and distribution under different schemes. Table 13 (A) gives percentage distribution of total PDS foodgrains supply in Gujarat under different programmes every year beginning 1986-87.

Let us look at the first decade and a year that is between 1986-87 and 1996-97 since during these ten years of the existence of the state civil supplies corporation, targeting was not on agenda of the central government. No less than 25 schemes were implemented to channelise the PDS supplies in Gujarat. Integrated Tribal Development Programme (ITDP) was the first major claimant of the PDS supply. Food for All (FFA) was another programme that received

importance. In 1987-88 scarcity was a major claimant and rightly so because it was one of the worst droughts experienced by Gujarat in about 90 years after the 1900 famine. Similarly, in 1991-92 Mid Day Meal (MDM) schemes got importance. For the next four years Drought Prone Areas Programmes (DPAP) got importance. 1997-98 onwards allocation under ITDP got discontinued. In the last five years it is largely TPDS-BPL and APL. Programmes such as DPAP, ITDP, Scarcity, etc. are area programmes. MDM, FFA etc. are population specific programmes. What was the government trying to target, poor areas or poor people or poor people in poor areas? And if a priority was once fixed, for what reasons was it altered? There are hardly any answers to these questions. Should one believe that under TPDS-BPL, tribal received priority? Do the drought and scarcity hit areas and people get priority? If so how? The ration card game that we have shown earlier, suggests that areas with low poverty have larger share of ghost cards. Does targeting help? If Gujarat has specific problem related to tribal area and people, the ITDP channel should have continued and the targeting in it should have been more focussed. The basic problem is that the state government does not make its own assessment and is guided by the centre's instruction and schemes. The centralised top-down mindset is also witnessed in the welfare schemes. Grassroots and local assessment of the situation and plan formulation according to the local situation is hardly attempted. Thus, if there be a problem in targeting, there would be a problem in addressing the nutrition issue as well. Mid Day Meal is a programme that directly addresses the children's nutrition. It receives about 5 to 6 per cent of PDS supplies. If the state government had continued to support it under MDM scheme, why it had to reduce the allocation once the Central Mid Day Meal (CMDM) started? The total allocation to MDM did not change with central special assistance. If the earlier allocation was enough, the state government should have said no to central assistance under the CMDM and demanded allocation under some other programme? If it was not sufficient, then there was no point in reducing the allocation under MDM. In any case, in all these allocation shuffle game total PDS quantities have been widely fluctuating. The average handling of foodgrains in first 11 years of Corporation beginning 1986-87 was 909 thousand tonnes with 601 thousand tonnes lowest value and 1343 thousand tonnes highest value. In the next five years, i.e. after the TPDS-BPL, APL scheme started the average handling was 670 thousand tonnes with lowest of 520 thousand tonnes and highest of 797 thousand tonnes. Interestingly, once the national policy to target the specific groups was formulated and implemented, the foodgrains handling by Gujarat government fell by about 27 per cent on an average. Was Government of

Gujarat wasting foodgrains by subsidising non-poor? One does not have an answer.

It should now be relevant to know how poor utilise the PDS. NSS Rounds have some information on this aspect. The next section contains a brief review.

#### **4. Who Utilises and Benefits and How Much from PDS in Gujarat?**

There is no state specific comprehensive analysis of the performance of PDS in the context of basic issues that have been raised in the national level analysis. At the national level the PDS reviews examine among other things issues relating to food subsidy, regional distribution, income distribution, PDS as an anti-poverty measure, implications of PDS supply on the caloric intake of the general and poor population, PDS and economic reforms, universal application versus targeting and international experiences. However, some studies have done All India analysis covering major states and one gets some insights into the working of PDS in the states. Subbarao in his 1988 work (as referred by Jharwal 1999) showed that barring Kerala and Gujarat, people living below the poverty line in rural areas did not benefit much from the procurement, stocking and public distribution. Kerala and Gujarat could do better because of better coverage under PDS network. Tyagi in his 1990 work (as referred by Jharwal 1999), found that large part of PDS benefits accrued to Maharashtra, Gujarat, Kerala and West Bengal and states such as Madhya Pradesh, Bihar, Orissa that have extensive poverty had PDS only at modest scale. Earlier, in 1986, the Indian Institute of Public Administration conducted a major study across the states (Jharwal 1999). The study found that in MP, Gujarat, Haryana, Punjab and Karnataka, the wheat requirement met by the PDS was negligible whereas it was between 50 to 80 per cent in West Bengal, Tamil Nadu, Delhi and Kerala. Similarly, in case of rice, good proportion of contribution came from PDS in West Bengal, J&K, UP, Delhi and Arunachal Pradesh. The study also brought out a clear bias in favour of urban areas. Incidentally, most scholars have brought out the urban bias in PDS.

Jharwal (1999) has undertaken a comprehensive study of PDS in India covering most important issues raised in the literature. The study also provides at many places state level analysis. It should be stated at the outset that Jharwal's analysis of the state level performance is mainly based on the 42<sup>nd</sup> Round of the

NSS conducted in 1986-87. Vepa (2003) has analysed PDS scene in Gujarat using the 55<sup>th</sup> Round of NSS. Both these studies together provide useful insights.

It should also be recognised at the outset that the PDS story in India is essentially a story of rice, wheat, oil and sugar. The last two items are on quota basis. Sugar is maximum 400 grams per capita per month. Oil quota fluctuates but does not exceed 500 ml per capita per month. The large part of the PDS story is thus reduced to rice and wheat. This point needs to be highlighted in the context of the food security debate in which it is argued that not only the quantity of the food consumed is important in food security, but also the nutritive value of the food eaten. The ICMR norms for balanced diet, as stated earlier, contains ten items such as cereals, tubers, pulses, sugar, edible oil, fruits, vegetables, milk, eggs and fish. A daily consumption of 982 grams is prescribed. Cereals alone have a weight of 43 per cent and if one adds sugar and edible oil, the weight increases to 48 per cent. Thus, PDS with its multiple objectives can help the poor and vulnerable only in gaining access to a maximum of about 50 per cent of the nutritive diet that an average person is supposed to take. Further analysis below shows that with problems in targeting the poor precisely, the chances of providing 50 per cent of food security to poor through PDS is further reduced.

At the country level, India is still dominated by rural people and most persons depend upon homegrown supplies. Table 14 below shows the percentage of people who purchase selected items from any source. The figures show that in case of rice a higher percentage of population buy both in rural and urban areas. This is because Gujarat is not a major rice growing state and the consumption of rice is also less. In case of wheat, percentage of people buying in rural Gujarat is higher than the all India rural population. Wheat is one of the staple foods and it is also first substitute to the staple food that is either bajri or jowar. Thus, in Gujarat larger proportion of rural population was reportedly buying wheat from any source in 1986-87. About similar situation is likely to obtain even today. It has been shown in the first section already that Gujarat is food deficit state and hence generally the proportion of population buying food is higher.

Subbarao's finding that Gujarat is a better utiliser of PDS is borne out by the share of PDS in total purchase of rice and wheat as reflected in Tables 15 and 16. Gujarat is not a major rice eater and hence in the total rice purchased in the country, Gujarat's share is small with 2.84 per cent. But the share of PDS in total purchase is way above the national average. Nearly 50 per cent of all rice

purchased in rural Gujarat in 1986-87 came from PDS and 26 per cent of all rice purchased in urban areas came from PDS. The national averages are below 20 per cent both in rural and urban areas.

After we know that relatively higher proportion of people buy rice and wheat from PDS in Gujarat, let us look at the position of the poor in it. Table 17 contains data on percentage of poor among all buyers of rice and wheat from any source. Here, Gujarat seems to take a back seat. Consistently both in rural and in urban areas proportion of poor among all buyers is lower than the national average. The situation with respect to rice is almost comparable to that of All India, but in case of wheat participation of poor is poor. I have made a point earlier that wheat is not the staple food in Gujarat. Obviously, poor do not eat much wheat. If they have to buy they would buy bajri or jowar and since they are not covered in the PDS, they buy them from open market. It is further interesting to observe that although 37 per cent of all wheat consumed was purchased in rural Gujarat, poor purchasers constituted a very small portion and less in proportion than their urban counterparts. Thus, open purchase of rice and wheat by poor in Gujarat in 1986-87 was highly restricted.

The next obvious inquiry would be to look for the proportion of poor buying from PDS from among all poor who buy. It is interesting to find that relatively less proportion among poor buy rice and wheat in Gujarat but among those who do, a very large majority buy from PDS (Table 18). It is possible to hypothesise that in Gujarat the better off among the poor buy and they do it largely through PDS. However, they do not end up buying very large quantities from PDS. In Table 19 data about the share of purchase by poor PDS purchasers to total PDS purchase is given. Gujarat's position is much below the All India average. Thus poor in Gujarat buy rice and wheat largely from PDS but their share in total PDS purchase of rice and wheat by all population is low. PDS in Gujarat is well utilised but more so by the non-poor.

Although poor buy less from PDS compared with all PDS buyers, still the weight it has in the total purchase by poor by any source needs to be ascertained (Table 20). Since rice is not staple food, poor hardly buy it from the open market in rural Gujarat. 84 per cent of the total rice bought came from PDS. In urban areas the situation is different. In case of wheat too as much as 55 per cent of all purchase in rural Gujarat came from PDS. All India figures are fairly low both in rural and urban areas and in case of wheat and rice. In large number of states therefore,

poor have to rely on market and other sources for buying rice and wheat and PDS contributes only between 11 and 22 per cent. It has been brought out by other scholars as well that poor are left out in many states and hence better targeting has been advocated (Parikh 1994).

The central question in PDS while it is aimed at providing food security to the poor is: what is the contribution of PDS in the total food that is consumed by the poor? If poor show that most of the supplies come from the PDS, then it may be said that PDS is effective. Jharwal has analysed and tabulated the contribution of PDS and market in the total consumption. However, the exercise is not carried out for poor. Nevertheless, even for the total population the data are interesting. The share of PDS and market in the total per capita rice, wheat and total cereal consumption per annum is presented in Table 21. A further limitation of the data is that it is not computed separately for rural and urban areas.

In case of all India, purchased cereals in 1986-87 constituted only about 16 per cent of the total annual per capita consumption. Rice and wheat's shares were higher between 23 and 26 per cent. PDS share of rice and wheat was between 13 and 16 percent. In case of Gujarat 45 per cent of all cereals were purchased and share in wheat was very high (63 per cent). Interestingly, in case of rice and wheat share of PDS was high. But the most interesting point in Gujarat's case is that the cereal composition in consumption is significantly different. At all India level rice and wheat constituted about 85 per cent of all cereals, whereas, in case of Gujarat they constituted 59 per cent only. The average consumer in Gujarat eats less rice and wheat and eats more of Jowar and Bajri and other coarse cereals. Therefore even during drought, PDS comes to help but it is the open market, which helps more. Table 22 contains data on the drought year and normal year share of PDS and market in the consumption of cereals. In case of Gujarat it is clear that both in normal and drought year the share of market purchase is higher. At all India level, PDS appears more effective during drought year although the share of market purchase goes up. This is because in Gujarat rice and wheat are consumed less. For an effective PDS therefore, cereal basket needs to be examined and focussed upon.

Vepa's analysis for the NSS 55<sup>th</sup> Round also does not give any drastically different picture. The average monthly per capita consumption of foodgrains (rice and wheat) was 0.93 kg against the all India average of 1.02 kg. The lowest four Monthly Per Capita Expenditure (MPCE) classes together in Rural Gujarat

constituted 16 per cent of the total sample and their average monthly consumption of foodgrains from PDS was 1.15 kg, which was 24 per cent higher than all expenditure classes and the share of wheat in it was 63 per cent (Based on Vepa 2003, Table 6). In urban areas of Gujarat share of PDS was fairly higher for the lowest four MPCE classes. The average monthly consumption was 0.91 kg, which was lower than the rural figure, but compared with the average figure of 0.49 kg for urban MPCE classes taken together, it was higher by 86 per cent.

Cereal consumption of the lowest ten percent of NSS sample in Gujarat was 8.73 kg per month per capita. The average for the total sample was 11.37 kg, which was slightly lower than the national average of 12.72 kg per month per capita. The poorest ten percent consumed about 24 per cent less than all. In case of all India the poorest 10 per cent consumed 18 per cent less than all. In terms of caloric intake the poorest 10 per cent consumed 1400 calories per day compared with 1986 calories for the state sample as a whole (Vepa 2003, Table 9). This means that the poorest ten percent people got 30 per cent less calories than average for all. Thus, the poor ate less of cereals and other food items.

The PDS in Gujarat is thus effective to some extent in as much as it helps poor buying more of wheat and rice out of total purchase they make, but still it is not sufficient for them to get the total caloric requirement from the grains they buy in general and what they buy from PDS in particular. If the NSS inquiry on per capita consumption expenditure imputes value for the meal consumed by children in school under mid day meal programme then the deficit in average caloric content is more serious. However, if the Mid Day meal is not considered in the NSS inquiry, children of poor families who attend school and are covered under Mid Day Meal programme would have relatively better nutrition than those who do not attend school. The under six population among the poor are more likely to be undernourished because 0-6 age group children among the poorest are also not likely to attend Anganwadis, the pre school institution. We have already seen in Table 13 (A) that the share of MDM and CMDMS (state and central mid day meal schemes) in the total PDS allocation has not been more than 6 to 7 per cent. With full attendance in pre school Anganwadis and regular schools, the share is not likely to go beyond 9 per cent.

As the all India analysis reflects that Gujarat is one of the better users of PDS and poor in Gujarat use PDS more than non-poor for wheat purchase, the TPDS

or allocation under special programmes is not likely to improve targeting further. There appears to be a need for fresh assessment of the situation and planning.

## **5. Suggestions for Improving Effectiveness of PDS in Gujarat**

The state level review of PDS should mainly be in the context of food and nutrition security to poor and vulnerable population sections. At the national level PDS may have multiple objectives, but at the state level, it is largely effective targeting, distribution and providing nutritional security to poor regularly, during drought and other natural disasters and to vulnerable sections. The relevance and usefulness of the PDS in the larger context of regulating market behaviour to provide support prices and maintain buffer stocks etc. are being questioned seriously. The Economic Survey 2002-03 has found that the economic cost of procuring and transporting rice and wheat was very high. Even with substantially revised central issue prices, food subsidy is mounting. Between 1996-97 and 2002-03, food subsidy increased from Rs 6,066 crore to Rs 21,200 crore (Budget estimate, Table 5.15, Economic Survey 2002-03). If the issue prices are raised further, the target population may find it economical to buy from the open market. In yet another significant observation, the Economic Survey comments that the minimum support prices in case of most crop items were virtually ceiling prices. Thus, in Indian case food subsidy at present has a component of subsidy to producers and subsidy to consumers both. Rising issue prices may have adverse impact on the performance of the state level PDS programmes as well. Since, the food subsidy issue is to be settled at the national level, we continue to focus only on improving the effectiveness of the state level PDS programmes assuming the given central policy.

Irrespective of the data sets used, poverty in Gujarat has declined over time. Hence, for an effective PDS programme, the sub regional level assessment of the potential PDS beneficiaries should be attempted first. The BPL surveys were supposed to provide this regional and village level picture of poor. Unfortunately, the BPL survey leaves a lot to be desired in terms of reliability of data generated. We have shown that using the BPL data, the ration card manipulation can be of substantial magnitude.

For better targeting it is not enough to have only poverty estimates at the state and lower levels. The nature of vulnerability and poverty should also be

understood. The exercise is also necessary to address the nutrition issue. Although it must be stated again that the major items that the PDS handles are rice, wheat, edible oil, sugar and kerosene. The poorest tend to use rice and wheat and only occasionally draw on the sugar, oil and kerosene quota. Thus, of the total nutritional requirement PDS at best can take care of 48 per cent if consumed in a balanced fashion. Since poor do not normally have access to other items such as milk, eggs, vegetables and fruits etc in desired quantities that contribute to the total nutritional requirements, they may be consuming more of foodgrains subject to their income constraint. In this context, nature of poverty has to be understood first.

Writing on economic reforms and poverty alleviation, Lal (1998) distinguishes between different types of poverty. Lal states that there are three types of poverty, mass structural poverty, destitution and conjunctural poverty that may have some usefulness in the present analysis. Lal goes on to argue and prove that there was historical evidence as well as strong theoretical base to conclude that mass structural poverty can be reduced substantially and sustainably only through liberalised market governed economies. Mass poverty meant that the headcount ratio of poor is large in an economy. Growth is the only major powerful engine that can make a dent on the mass poverty. The shift of organic agrarian economies to industrialised economies is an example that has potential to be carried forward. Destitution poverty is one where an individual is lacking in labour power for physical and social reasons. Society has always tackled this with charity both public and private. Conjunctural poverty arises due to seasonal and unpredictable fluctuations affecting normal production environment. The extreme form of such poverty manifests at the time of famines. Income transfer by State has been the dominant strategy. There has been considerable debate whether such income transfer should be under the welfare state mode or safety net mode. The latter seem to be the preferred one in the liberal economic approach. Lal too favours the targeted safety net approach.

PDS as it is conceived and implemented is part of the welfare state approach to income transfer. The present PDS programme besides addressing the destitution and conjunctural poverty also aims to make dent on structural poverty and many scholars may not approve of it. This approach of universalising the income transfer has all potentials of getting vitiated. The actual beneficiaries are different than the intended beneficiaries. As noted, studies have shown that there are serious lags and leaks in the delivery system. Safety net approach implies better

and accurate targeting as stated earlier. I have shown elsewhere that in Gujarat more than the number, the groups and geographical locations where poor are located are more relevant in exploring ways and means to alleviate poverty in the State (Iyengar 2000). Thus, poverty can be traced in Gujarat among few groups. It is among tribal people in eastern belt of the state, schedule castes (some sections) in North and Central Gujarat and parts of Saurashtra, saltpan workers in Kachchh, North Gujarat and Saurashtra, livestock herders and similar occupation specific groups in North Gujarat, Saurashtra and Kachchh. Put together, they would constitute around 20 per cent of the total State population. The staple diet of most of these groups does not have large proportions of rice and wheat, which is the mainstay of PDS in India and therefore also in Gujarat. Only in years of acute drought, when the local crops fail totally, do they resort to consuming wheat as main diet. Even in such cases the market purchase of grains other than rice and wheat are substantial as reflected in the data presented by Jharwal (1999). While one cannot immediately shift the procurement and distribution in favour of other foodgrains it may be useful to carry out an analysis using latest NSS data first and tracing and describing the poor in each state, their food grains basket needs to be examined. This exercise will help the states in targeting the PDS better.

Proper identification of the potential beneficiaries is the second most important step. The ghost ration cards have to be eliminated completely. The Gujarat Government has initiated an experiment of involving cooperatives as fair price distribution shops. These efforts need to be strengthened further. The Gram Sabha that has been reactivated now again under the Panchayati Raj administration and implementation of development schemes, should be involved thoroughly. The list of BPL families, list of different colour card holders (signifying their economic status) and the ration quota of all the items must be displayed in public and the records should be made available to any village resident upon request. The transparency and public knowledge of the entitlement of different families in a village would act as a check on the people, officer and traders who indulge in manipulation. The central government has recognised two categories BPL and APL. The state government should also reduce all the categories into two and target the allocation and distribution. More the number of categories, higher would be the chance of manipulation.

In any given year the PDS is channeled through 10 or more schemes. Although intended for better targeting, it fails to do so. Further, the total supply is not

related to the number of schemes. It is not necessary for instance, that higher the number of schemes, higher was the PDS quantities distributed and vice versa. There is an urgent need to rationalise the schemes. Allocation and distribution aimed at BPL, APL should be enough. If employment programmes are to be run, it means increase in quota for the BPL families during particular months. Such quota allocation should be made public. The Panchayat office must display the monthly quota by category and scheme, if any on a notice board at a prominent public place. Similarly, the fair price shops should also declare in public the quota received and display the changing stock on daily basis.

Non-government organisations have in some cases come forward by assisting in planning better distribution of the PDS supply and in general keep vigil on the malpractices. Some of them have also found that the programmes for children such as Integrated Child Development Scheme (ICDS) and Anganwadi are very useful in utilizing PDS supplies to improve the nutritional levels of children. The off take of the PDS supplies in ICDS via mid day meal scheme as reflected in Table 13, is not very high and is fluctuating. Unfortunately, NGOs are not present in more than 10000 out of 18000 villages, to run the nutrition programme well. The leakages in mid day meal scheme is also known. There is also the issue of children not attending school in 0-4 and 5-14 age groups. In many tribal areas the irregularities is so high that people have stated their clear preference for increased allocation for families with school going children instead of the mid day meal programme (ARCH-Vahini, 1991). For effective implementation of supplementary nutrition programmes, mobilization of communities, sensitization of parents and checks and balances on the implementing machinery are sufficient conditions.

In view of the facts that (a) safety net approach is still not being adopted as a strategy for helping poor, and (b) income transfer is not affected only by way of providing cash wage employment and other income generating activity in drought and scarcity areas, it is necessary that people in the communities are involved to make the entitlement (BPL, APL), allocation and distribution of PDS supplies, as public and transparent. Gujarat government is partly successful in putting morsels in the mouth of poor but it should also avoid the spillage of the larger quantities outside the deserving mouths by making the system open, participatory and transparent.

**Table 1: Area Sown and Irrigated in Gujarat, 1960-96**

<b>Year</b>	<b>Net Area Sown in 000 Hectares</b>	<b>Area Irrigated in 000 Hectares</b>	<b>Percentage Area Irrigated</b>	<b>Percentage area Cultivated to Total Area Reported Under Land Use</b>
1960-61	9401	683	7.26	52.45
1970-79 <sup>#</sup>	9490	1519	16.01	50.43
1980-89 <sup>#</sup>	9265	2147	22.62	50.40
1990-96 <sup>#</sup>	9483	2704	28.51	50.39

Note: <sup>#</sup> Average for 1970-79, 1980-89 and 1990-96 respectively.

Source:

1. Agricultural Statistics Gujarat, Directorate of Economics and Statistics, Government of Gujarat, Gandhinagar
2. Socio-economic Review 1998-99 and 2000-2001, Directorate of Economics and Statistics, Government of Gujarat, Gandhinagar

**Table 2: Percentage Area under Cereals and Pulses in Gujarat, 1960-96**

<b>Year</b>	<b>Net Area Sown in 000 Hectares</b>	<b>Gross Cropped Area in 000 Hectare</b>	<b>Percentage Area Under Cereals and Pulses</b>	<b>Percentage Area Under all Other Crops</b>
1960-61	9401	9972	47.43	52.46
1970-79 <sup>#</sup>	9490	10337	47.84	52.16
1980-89 <sup>#</sup>	9265	10476	48.04	51.96
1990-96 <sup>#</sup>	9483	10897	42.96	57.04

Note: <sup>#</sup> Average for 1970-71 to 1979-80, 1980-89 and 1990-96

Source:

1. Agricultural Statistics Gujarat, Directorate of Economics and Statistics, Government of Gujarat, Gandhinagar
2. Socio-economic Review 1998-99 and 2000-2001, Directorate of Economics and Statistics, Government of Gujarat, Gandhinagar

**Table 3: Per Capita Foodgrains Production in Gujarat, 1960-1996**

<b>Year</b>	<b>Production of Foodgrains ('000 Tones)</b>	<b>Population in Million</b>	<b>Per Capita Food Grains Production in kgs.</b>
1960-61 <sup>@</sup>	1888	20.6	92
1970-79 <sup>#</sup>	3847	30.4	127
1980-89 <sup>#</sup>	4518	37.7	120
1990-98 <sup>#</sup>	5112	45.9	111
1990-91 <sup>*</sup>	5083	41.3	123
1991-92	3839	41.6	92
1992-93	5941	42.2	147
1993-94	4151	42.7	97
1994-95	5760	43.3	133
1995-96	4774	43.8	109
1996-97	6089	45.7	133
1997-98	5710	46.4	123
1998-99	5567	47.0	118

- Note: <sup>@</sup> Production is for 1960-61 and population is 1961 Census Population  
<sup>#</sup> Production is average for 1970-71 to 1979-80 and population is average of 1971 and 1981 Census Populations. Similar averages have been given for 1980s and 1990s.  
<sup>\*</sup> From here onwards production figures are annual production and population for 1990-91 is from 1991 Census Population and rest of the population figures are estimates.

Source:

1. Agricultural Statistics Gujarat, Directorate of Economics and Statistics, Government of Gujarat, Gandhinagar
2. Socio-economic Review 1998-99 and 2000-2001, Directorate of Economics and Statistics, Government of Gujarat, Gandhinagar

**Table 4: Allocation and Lifting of PDS Supply by Gujarat, 1963-64 - 1970-71**  
(In '000 Tones)

Year	Rice		Wheat		Pulses/Coarse Grains from 1968-69		Total Foodgrains	
	Allocation	Lift	Allocation	Lift	Allocation	Lift	Allocation	Lift
1963-64	71	78	198	152	-	-	269	230
1964-65	188	182	696	652	62	5	1059	930
1965-66	99	82	518	495	17	37	829	795
1966-67	45	48	378	369	7	4	699	688
1967-68	35	32	301	302	16	16	616	593
1968-69	57	45	148	134	139	136	344	315
1969-70	104	65	48	40	30	40	182	145
1970-71	11	5	10	5	-	-	21	10

Source: Annual Volumes of Socio-economic Review, Gujarat State, Directorate of Economics and Statistics, Government of Gujarat, Gandhinagar

**Table 5: Allocation and Distribution of PDS Supply by Gujarat, 1972-73 - 1997-98**  
(in '000 tonnes)

Year	Foodgrains			
	Allocation	Distribution	Coarse Grains Distributed	Distribution as % of Allocation
1972-73	389.9	228.80	N.R.	58.68
1973-74	828.56	747.13	N.R.	90.17
1974-75	721.00	769.84	N.R.	106.77
1975-76	N.A.	N.A.	N.A.	-
1976-77	171.21	172.08	N.R.	100.51
1977-78	176.73	176.71	N.R.	99.99
1978-79	N.A.	N.A.	N.A.	-
1979-80	162.29	130.14	N.R.	80.19
1980-81	185.12	125.86	N.R.	67.99
1981-82	202.43	204.16	N.R.	100.85
1982-83	185.00	224.73	25.73	121.48
1983-84	175.00	130.44	40.7	74.54
1984-85	175.00	81.59	30.03	46.62
<b>Average 1972-84</b>	<b>306.52</b>	<b>272.22</b>	-	<b>88.81</b>
1985-86	160.17	162.53	14.86	101.47
1986-87	414.15	432.19	33.71	104.36
1987-88*	950.00	885.4	14.55	93.20
1988-89	725.00	507.1	23.47	69.94
1989-90	1083.00	833.33	N.R.	76.95
1990-91	702.00	400.00	N.R.	56.98
1991-92	647.00	648.00	12.80	100.15
1992-93	651.00	568.45	NR	87.32
1993-94	528.00	255.86**	N.R.	48.46
1994-95	1056.00	633.09	N.R.	59.95
1995-96	1244.50	711.45	N.R.	57.17
<b>Average 1985-95</b>	<b>763.27</b>	<b>578.15</b>	-	<b>75.74</b>
1996-97	1066.90	969.00	N.R.	90.82
1997-98	541.65**	449.91**	N.R.	83.06

Note: \* 1987-88 was a severe drought year and hence a special allotment was made for 300000 tonnes under scarcity and 256500 tonnes were distributed besides the normal allotment and distribution.

\*\* April-September figures only

NA – Not Available; NR – Not Reported

Source: Annual Volumes of Socio-economic Review, Gujarat State, Directorate of Economics and Statistics, Government of Gujarat, Gandhinagar

**Table 6: Allocation and Lifting of PDS Supply by Gujarat**

(In '000 Tones)

Year	Rice		Wheat		Foodgrains	
	Alloca- tion	Lift	Alloca- tion	Lift	Alloca- tion	Lift
<b>Average 1985-95</b>	<b>354.31</b>	<b>258.30 (72.90)</b>	<b>714.51</b>	<b>497.38 (69.61)</b>	<b>1068.82</b>	<b>755.68 (70.71)</b>
1996-97	376.00	276.40 (73.51)	690.90	624.10 (90.33)	1066.90	900.50 (84.40)
1997-98	308.00	178.75 (58.04)	741.65	519.31 (70.02)	1049.65	698.06 (66.50)
1998-99	356.00	251.36 (70.61)	490.00	403.54 (82.35)	850.00	654.89 (77.04)
1999-2000 Up Feb 2000	288.00	161.26 (55.99)	674.50	265.37 (39.34)	962.50	426.64 (44.33)
<b>Average 1996-2000</b>	<b>332</b>	<b>216.94 (65.34)</b>	<b>649.26</b>	<b>453.08 (69.78)</b>	<b>982.26</b>	<b>670.02 (68.21)</b>

Note: Figures in bracket indicate percentage to allocation

Source: Ministry of Consumer Affairs and Public Distribution, Government of India,  
New Delhi 2001

**Table 7: Fair Price Shops in Gujarat, 1960-1997**

Year	No of Fair Price Shops in the State	Percentage Change Over Previous Year	Department's Storage Capacity (000 Tones)	Percentage Change Over Previous Year
1960	3969	-	-	-
1969	6620	-	-	-
1970	6285	-5.06	144.00	-
1971	N.R.	-	159.00	10.42
1972	7462	-	153.03	-3.75
1973	8337	11.73	186.03	21.56
1974	8504	2.00	202.95	9.10
1975	N.R.	-	245.02	20.73
1976	9351	-	239.95	-2.88
1977	9273	-0.83	196.92	-17.93
1978	8956	-3.42	191.25	-2.88
1979	8700	-2.86	191.95	0.37
1980	9544	9.70	235.22	22.54
1981	9928	4.02	193.12	-17.90
1982	10103	1.76	224.15	16.07
1983	10525	4.18	256.43	14.40
1984	10456	-0.66	233.61	-8.90
1985	10602	1.40	243.32	4.16
1986	10843	2.27	226.86	-6.76
1987	11468	5.76	237.94	4.88
1988	11980	4.46	250.30	5.19
1989	12133	1.28	235.70	-5.83
1990	12099	-0.28	247.83	5.15
1991	12462	3.00	250.00	0.88
1992	12934	3.79	250.00	0.00
1993	13253	2.47	234.00	-6.40
1994	13230	-0.17	221.00	-5.56
1995	13296	0.50	221.00	0.00
1996	13348	0.39	221.00	0.00
1997	13936	4.41	221.00	0.00

Source: Annual Volumes of Socio-economic Review, Gujarat State, Directorate of Economics and Statistics, Government of Gujarat, Gandhinagar

**Table 8: Population per Fair Price Shop in Gujarat**

Year	Population in Million	FPS	Population per FPS
1961	20.6	3969	5190
1971	26.7	6285	4248
1981	34.1	9928	3435
1991	41.3	12462	3314
2001	49.97	14263	3503

Source: Different Volumes of Socio-economic Review, Gujarat State, Directorate of Economics and Statistics, Government of Gujarat, Gandhinagar

**Table 9: Distribution of Population and Fair Price Shops by District in Gujarat, 2001**

Region/ District	Rural Pop	Fair Price Shops	FPS/ '000 R Pop	Urban Pop	Fair Price Shops	FPS/ '000 U Pop	Total Pop	Total Fair Price Shops*	FPS/ '000 T Pop
<b>Kachchh</b>	<b>1108.20</b>	<b>450</b>	<b>2463</b>	<b>474.56</b>	<b>118</b>	<b>4022</b>	<b>1582.76</b>	<b>568</b>	<b>2786</b>
Amreli	1080.42	403	2681	312.87	23	13603	1393.29	426	3271
Bhavnagar	1534.59	496	3094	934.68	221	4229	2469.27	717	3444
Jamnagar	978.32	405	2416	837.71	131	6395	1816.03	536	3388
Junagadh	1737.10	525	3309	711.33	207	3436	2448.43	732	3345
Porbandar	275.45	137	2011	261.41	67	3902	536.86	204	2632
Rajkot	1165.32	520	2241	1406.61	313	4494	2571.93	833	3088
Surendranagar	1112.47	351	3169	402.68	125	3221	1515.15	476	3183
<b>Saurashtra</b>	<b>7883.67</b>	<b>2837</b>	<b>2779</b>	<b>4867.29</b>	<b>1087</b>	<b>4478</b>	<b>12750.96</b>	<b>3924</b>	<b>3249</b>
Banaskantha	2227.42	650	3427	275.42	87	3166	2502.84	737	3396
Gandhinagar	867.57	270	3213	467.16	88	5309	1334.73	358	3728
Patan	944.13	338	2793	237.81	76	3129	1181.94	414	2855
Mahesana	1426.07	456	3127	411.63	114	3611	1837.7	570	3224
Sabarkantha	1856.55	644	2883	226.87	68	3336	2083.42	712	2926
<b>North Gujarat</b>	<b>7321.74</b>	<b>2358</b>	<b>3105</b>	<b>1618.89</b>	<b>433</b>	<b>3739</b>	<b>8940.63</b>	<b>2791</b>	<b>3203</b>
Ahmedabad	1156.34	447	2587	4652.04	819	5678	5808.38	1256	4625
Anand	1349.12	441	3059	507.59	121	4195	1856.71	562	3304
Dahod	1478.99	384	3852	156.38	55	2843	1635.37	439	3725
Kheda	1617.23	519	3116	406.12	86	4722	2023.35	605	3344
Panchmahals	1771.53	546	3245	253.35	93	2724	2024.88	639	3169
Vadodara	1992.46	603	3304	1647.32	348	4734	3639.78	951	3827
<b>Central Gujarat</b>	<b>9365.67</b>	<b>2940</b>	<b>3186</b>	<b>7622.80</b>	<b>1522</b>	<b>5008</b>	<b>16988.47</b>	<b>4462</b>	<b>3807</b>
Bharuch	1017.39	327	3111	352.72	90	3919	1370.11	417	3286
Dangs	186.712	53	3523	-	6	0	186.71	59	3165
Narmada	461.98	145	3186	52.11	17	3065	514.09	162	3173
Navsari	893.03	272	3283	336.22	95	3539	1229.25	367	3349
Surat	2000.74	636	3146	2995.65	504	5944	4996.39	1140	4383
Valsad	1029.294	334	3082	381.39	49	7783	1410.68	383	3683
<b>South Gujarat</b>	<b>5589.15</b>	<b>1767</b>	<b>3163</b>	<b>4118.09</b>	<b>761</b>	<b>5411</b>	<b>9707.023</b>	<b>2528</b>	<b>3840</b>
<b>Gujarat</b>	<b>31268.43</b>	<b>10352</b>	<b>3020</b>	<b>18701.63</b>	<b>3911</b>	<b>4782</b>	<b>49970.06</b>	<b>14263</b>	<b>3503</b>

Source: Gujarat State Civil Supplies Corporation, Gandhinagar and Census 2001

**Table 10: Number of Ration Cards in Gujarat**

<b>Year</b>	<b>Number of Ration Cards</b>	<b>% Increase Over Previous Year</b>
1977	5541342	-
1978	5578793	0.68
1979	5658709	1.43
1980	5686065	0.48
1981	6046207	6.33
1982	6313392	4.42
1983	6312601	-0.01
1984	6419876	1.70
1985	6495700	1.18
1986	6734828	3.68
1987	7122427	5.76
1988	7487271	5.12
1989	7856381	4.93
1990	6362716	-19.01
1991	6219000	-2.26
1992	4975200	-20.00

Source: Annual Volumes of Socio-economic Review, Directorate of Economics and Statistics, Government of Gujarat, Gandhinagar

**Table 11: Number of Ration Cards and Population Covered by Poverty Criterion by District in Gujarat as on September 1, 2001**

Region/ District	Ration Cards						
	BPL Cards	BPL Pop.	APL Cards	APL Pop.	Total Cards	Total Pop	BPL Pop as % of Total Pop
<b>Kachchh</b>	<b>169347</b>	<b>823121</b>	<b>234867</b>	<b>949087</b>	<b>404304</b>	<b>1772208</b>	<b>46.45</b>
Amreli	113431	582427	218464	1072500	331895	1654927	35.19
Bhavnagar	167524	856574	407927	1895659	575181	2752233	31.12
Jamnagar	88739	428765	336920	1500998	425659	1929763	22.22
Junagadh	162767	825115	354519	1629239	517286	2454354	33.62
Porbandar	35659	172074	90218	409180	125877	581254	29.60
Rajkot	160257	784901	670068	2928339	830325	3713240	21.14
Surendranagar	124134	576989	213697	936018	337831	1513007	38.14
<b>Saurashtra</b>	<b>852511</b>	<b>4226845</b>	<b>2291813</b>	<b>10371933</b>	<b>3144054</b>	<b>14598778</b>	<b>28.95</b>
Banaskantha	176782	950885	271279	1414586	448061	2365471	40.20
Gandhinagar	75163	375695	183029	918249	258192	1293944	29.03
Patan	89163	451322	166911	880101	256704	1331423	33.90
Mahesana	76569	401640	327760	1690803	404329	2092445	19.19
Sabarkantha	172681	936178	212944	1087351	385625	2023529	46.26
<b>North Gujarat</b>	<b>590358</b>	<b>3115720</b>	<b>1161923</b>	<b>5991090</b>	<b>1752911</b>	<b>9106812</b>	<b>34.21</b>
Ahmedabad	231683	1202028	1144971	5646543	1376654	6848571	17.55
Anand	160984	814532	212450	1142815	373434	1957347	41.61
Dahod	79107	569821	105568	781126	184675	1350947	42.18
Kheda	184700	985695	208847	1086622	393547	2072317	47.56
Panchmahals	153020	973162	171593	1064116	324613	2037278	47.77
Vadodara	206770	1103007	576827	3016645	783597	4119652	26.77
<b>Central Gujarat</b>	<b>1016264</b>	<b>5648245</b>	<b>2420256</b>	<b>12737867</b>	<b>3436520</b>	<b>18386112</b>	<b>30.72</b>
Bharuch	130615	643686	157985	756646	288600	1400332	45.97
Dangs	18887	95869	11083	59903	29970	155772	61.54
Narmada	64551	351666	30120	157566	94671	509232	69.06
Navsari	143127	706072	113873	564008	257000	1270080	55.59
Surat	303791	1544588	686175	3423617	989966	4968205	31.09
Valsad	103194	523757	159368	755770	262562	1279527	40.93
<b>South Gujarat</b>	<b>764165</b>	<b>3865638</b>	<b>1158604</b>	<b>5717510</b>	<b>1922769</b>	<b>9583148</b>	<b>40.34</b>
<b>Gujarat</b>	<b>3392450</b>	<b>17679571</b>	<b>7267447</b>	<b>35767487</b>	<b>10659897</b>	<b>53447058</b>	<b>33.08</b>

Note: BPL = Below Poverty Line defined as the family that earns less than Rs 11,000 per annum  
APL = Above Poverty Line defined as family that earns more than Rs 11,000 per annum.

Source: Gujarat State Civil Supplies Corporation

**Table 12: Discrepancy in 2001 Population based Cards and Ration Cards as per Records by District**

Region/ District	2001 Pop	Total Cards as per Records	Members per Card as per Total Card Pop.	Cards as per 2001 Pop 2/4	Difference between Record Cards and Cards as per 2001 Pop.	BPL Card Pop as % of Total Card Pop
1	2	3	4	5	6	7
<b>Kachchh</b>	<b>1582.76</b>	<b>404304</b>	<b>4.38</b>	<b>361361</b>	<b>42943 (11.88%)</b>	<b>46.45</b>
Amreli	1393.29	331895	4.99	279216	52679	35.19
Bhavnagar	2469.27	575181	4.78	516584	58597	31.12
Jamnagar	1816.03	425659	4.53	400890	24769	22.22
Junagadh	2448.43	517286	4.74	516546	740	33.62
Porbandar	536.86	125877	4.62	116203	9674	29.60
Rajkot	2571.93	830325	4.47	575376	254949	21.14
Surendranagar	1515.15	337831	4.48	338203	-372	38.14
<b>Saurashtra</b>	<b>12750.96</b>	<b>3144054</b>	<b>4.64</b>	<b>2748052</b>	<b>396002 (14.41%)</b>	<b>28.95</b>
Banaskantha	2502.84	448061	5.28	474023	-25962	40.2
Gandhinagar	1334.73	258192	5.01	266413	-8221	29.03
Patan	1181.94	256704	5.19	227734	28970	33.90
Mahesana	1837.7	404329	5.18	354768	49561	19.19
Sabarkantha	2083.42	385625	5.25	396842	-11217	46.26
<b>North Gujarat</b>	<b>8940.63</b>	<b>1752911</b>	<b>5.20</b>	<b>1719352</b>	<b>33559 (1.95%)</b>	<b>34.21</b>
Ahmedabad	5808.38	1376654	4.97	1168688	207966	17.55
Anand	1856.71	373434	5.24	354334	19100	41.61
Dahod	1635.37	184675	7.32	223411	-38736	42.18
Kheda	2023.35	393547	5.27	383937	9610	47.56
Panchmahals	2024.88	324613	6.28	322433	2180	47.77
Vadodara	3639.78	783597	5.26	691973	91624	26.77
<b>Central Gujarat</b>	<b>16988.47</b>	<b>3436520</b>	<b>5.35</b>	<b>3175415</b>	<b>261105 (8.22%)</b>	<b>30.72</b>
Bharuch	1370.11	288600	4.85	282497	6103	45.97
Dangs	186.71	29970	5.20	35906	-5936	61.54
Narmada	514.09	94671	5.38	95556	-885	69.06
Navsari	1229.25	257000	4.94	248836	8164	55.59
Surat	4996.39	989966	5.02	995297	-5331	31.09
Valsad	1410.68	262562	4.87	289667	-27105	40.93
<b>South Gujarat</b>	<b>9707.02</b>	<b>1922769</b>	<b>4.98</b>	<b>1949201</b>	<b>-26432 (-1.36%)</b>	<b>40.34</b>
<b>Gujarat</b>	<b>49970.06</b>	<b>10659897</b>	<b>5.01</b>	<b>9974064</b>	<b>685833 (6.88%)</b>	<b>33.08</b>

Source: Compiled from 2001 Census Population and GSCSC records on Ration cards.

**Table 13: Handling of Foodgrains by the GSCSC under Various Programmes and Schemes**

(Quantity in '000 tones)

Scheme	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
PDS	366.10	219.80	636.15	361.56	367.03	538.58	401.63	56.06	126.81	36.36	153.20	36.26	-	-	-	-
RLEGP	72.40	28.10	21.82	7.47	1.29	-	-	-	-	-	-	-	-	-	-	-
NREP	15.30	64.58	47.68	9.36	12.00	-	-	-	-	-	-	-	-	-	-	-
FFA	37.30	176.03	212.31	192.54	199.02	224.65	183.03	139.55	110.19	-	-	-	-	-	-	-
ITDP	107.50	300.67	352.53	199.08	227.70	250.13	168.07	132.06	238.18	162.23	193.61	30.47	-	-	-	-
CME	0.39	0.08	0.13	0.16	0.62	0.32	0.45	0.56	0.32	0.56	0.75	0.14	-	-	-	-
INPEN	0.14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Flour Mill	1.07	-	-	-	11.89	4.51	8.60	9.49	-	-	-	-	-	-	-	-
Sukhdi	0.91	-	4.45	-	-	-	-	-	-	-	-	-	-	-	-	-
Sattu	-	-	0.11	1.04	1.15	106	0.47	0.25	-	-	-	-	-	-	-	-
MDMS	-	22.64	20.46	20.71	-	174.59	32.43	30.01	39.17	18.99	14.24	7.86	1.83	1.02	2.68	4.04
ICDS	-	0.33	1.12	1.03	0.74	0.08	0.15	0.63	0.96	8.80	7.70	18.36	13.60	3.46	3.61	16.35
Scarcity	-	304.11	45.86	-	-	-	-	-	-	-	-	-	-	-	70.25	64.45
DNP	-	-	0.42	3.55	5.57	-	-	-	-	-	-	-	-	-	-	-
FFE	-	-	-	-	173.32	-	-	-	-	-	-	-	-	-	-	-
FLR	-	-	-	-	0.01	-	-	-	-	-	-	-	-	-	-	-
DDP	-	-	-	-	-	-	38.13	35.20	23.28	12.63	26.45	4.81	-	-	-	-
DPAP	-	-	-	-	-	-	81.08	141.70	143.27	92.53	138.08	24.02	-	-	-	-
WFP	-	-	-	-	-	3.28	4.97	5.84	0.33	1.93	7.37	5.79	2.01	4.42	3.54	1.69
JRY	-	-	-	-	-	-	0.06	28.22	14.97	19.54	10.04	6.07	0.05	-	-	-
FFP/FFW	-	-	-	-	-	-	-	-	-	337.68	386.92	58.27	-	-	21.35	125.62
EAS	-	-	-	-	-	-	-	-	-	0.88	10.75	0.44	0.01	-	-	-
CMDMS	-	-	-	-	-	-	-	-	-	12.16	18.04	25.60	-	34.61	33.42	27.16
RPDSMV	-	-	-	-	-	-	-	-	-	3.99	4.68	-	-	-	-	-
SSIE	-	-	-	-	-	-	-	-	-	1.61	2.55	0.13	0.60	0.15	-	-
TPDS APL	-	-	-	-	-	-	-	-	-	-	-	285.15	295.65	89.61	2.31	15.89
TPDS BPL	-	-	-	-	-	-	-	-	-	-	-	196.81	224.40	243.19	391.58	372.61
APL to BPL	-	-	-	-	-	-	-	-	-	-	-	96.72	141.59	130.05	-	-
(Malaria)	-	-	-	-	-	-	-	-	-	-	-	1.99	2.66	-	0.12	-
Earthquake	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64.56	33.85
Adijati Kanya	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.13	1.56
(AAY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.28	44.20
Riot Relief	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.22
Total	601.11	1131.15	1343.04	810.69	989.72	1203.63	955.10	579.62	697.96	712.88	974.28	796.97	709.90	520.16	617.57	708.68

Note: PDS = Public Distribution System, RLEGP=Rural Labour Employment Programme, NREP=National Rural Employment Programme, FFA= Food for All, ITDP=Integrated Tribal Development Project, CME=Closed Mill Employees, INPEN=, MDMS= Mid Day Meal Scheme, ICDS= Intensive Child Development Programme, FFE= Food for Education, DNP=Drought Nutrition Programme, FLR= Flood Relief, DDP, Desert Development Programme, DPAP, Drought Prone Areas Programme, WFP=World Food Programme, JRY=Jawahar Rojgar Yojna, FFP=Food for Poor, EAS=Employment Assurance Scheme, CMDMS=Central Mid Day Meal Scheme, RPDSMV=Revamped PDS through Mobile Vans, SSIE=Special Scheme for Issue to Establishments, TPDS=Targeted PDS, APL=Above Poverty Level, BPL=Below Poverty Level, AAA= Antyodaya Anna Yojna

Source: Compiled from various Socio Economic Review Volumes

**Table 13A: Handling of Foodgrains by the GSCSC under Various Programmes and Schemes**

(Percentage to total)

Scheme	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
PDS	60.90	19.43	47.37	44.60	37.08	44.75	42.05	9.67	18.17	5.10	15.72	4.55	-	-	-	-
RLEGP	12.04	2.48	1.62	0.92	0.13	-	-	-	-	-	-	-	-	-	-	-
NREP	2.55	5.71	3.55	1.15	1.21	-	-	-	-	-	-	-	-	-	-	-
FFA	6.21	15.56	15.81	23.75	20.11	18.66	19.16	24.08	15.79	-	-	-	-	-	-	-
ITDP	17.88	26.58	26.25	24.56	23.01	20.78	17.60	22.78	34.13	22.76	19.87	3.82	-	-	-	-
CME	0.06	0.01	0.01	0.02	0.06	0.03	0.05	0.10	0.05	0.08	0.08	0.02	-	-	-	-
INPEN	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Flour Mill	0.18	-	-	-	1.20	0.37	0.90	1.64	-	-	-	-	-	-	-	-
Sukhdi	0.15	-	0.33	-	-	-	-	-	-	-	-	-	-	-	-	-
Sattu	-	-	0.01	0.13	0.12	8.81	0.05	0.04	-	-	-	-	-	-	-	-
MDMS	-	2.00	1.52	2.55	-	14.51	3.40	5.18	5.61	2.66	1.46	0.99	0.26	0.20	0.43	0.57
ICDS	-	0.03	0.08	0.13	0.07	0.01	0.02	0.11	0.14	1.23	0.79	2.30	1.92	0.67	0.58	2.31
Scarcity	-	26.89	3.41	-	-	-	-	-	-	-	-	-	-	-	11.38	9.09
DNP	-	-	0.03	0.44	0.56	-	-	-	-	-	-	-	-	-	-	-
FFE	-	-	-	-	17.51	-	-	-	-	-	-	-	-	-	-	-
FLR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DDP	-	-	-	-	-	-	3.99	6.07	3.34	1.77	2.71	0.60	-	-	-	-
DPAP	-	-	-	-	-	-	8.49	24.45	20.53	12.98	14.17	3.01	-	-	-	-
WFP	-	-	-	-	-	0.27	0.52	1.01	0.05	0.27	0.76	0.73	0.28	0.85	0.57	0.24
JRY	-	-	-	-	-	-	0.01	4.87	2.14	2.74	1.03	0.76	0.01	-	-	-
FFP/FFW	-	-	-	-	-	-	-	-	-	47.37	39.71	7.31	-	-	3.46	17.73
EAS	-	-	-	-	-	-	-	-	-	0.12	1.10	0.06	0.00	-	-	-
CMDMS	-	-	-	-	-	-	-	-	-	1.71	1.85	3.21	-	6.65	5.41	3.83
RPDSMV	-	-	-	-	-	-	-	-	-	0.56	0.48	-	-	-	-	-
SSIE	-	-	-	-	-	-	-	-	-	0.23	0.26	0.02	0.08	0.03	-	-
TPDS APL	-	-	-	-	-	-	-	-	-	-	-	35.78	41.65	17.23	0.37	2.24
TPDS BPL	-	-	-	-	-	-	-	-	-	-	-	24.69	31.61	46.75	63.41	52.58
APL to BPL	-	-	-	-	-	-	-	-	-	-	-	12.14	19.95	25.00	-	-
(Malaria)	-	-	-	-	-	-	-	-	-	-	-	0.25	0.37	-	0.02	-
Earthquake	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.45	4.78
Adijati Kanya	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.94	0.22
(AAY)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.05	6.24
Riot Relief	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.17
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Computed from Table 13

**Table 14: Percentage of Persons Purchasing Selected Items from any Source**

Item	Region	All India	Gujarat
Rice	Rural	57.19	66.48
	Urban	82.35	64.20
Wheat	Rural	30.20	36.84
	Urban	57.73	49.24
Edible Oil	Rural	87.19	93.02
	Urban	93.72	86.83
Sugar	Rural	77.74	95.56
	Urban	93.70	97.43

Source: Compiled from Table 6.1 of S.M. Jharwal's Public Distribution System in India Reassessed, Manak Publications Pvt. Ltd. Delhi 1999.

**Table 15: Quantity of Rice Purchased from PDS by All Classes**

State/Country	Region	Purchase in 000 tonnes	% Share to total purchase	Share of PDS in all purchase
All India	Rural	4360	100.0	16.76
	Urban	1850	100.0	19.02
	Total	6210	100.0	17.43
Gujarat	Rural	141	3.23	46.53
	Urban	36	1.95	26.21
	Total	177	2.84	42.39

Source: Compiled from Table 6.4 of S.M. Jharwal's Public Distribution System in India Reassessed, Manak Publications Pvt. Ltd. Delhi 1999.

**Table 16 Quantity of Wheat Purchased from PDS by All Classes**

State/Country	Region	Purchase in 000 tonnes	% Share to total purchase	Share of PDS in all purchase
All India	Rural	1580	100.0	12.64
	Urban	1230	100.0	19.33
	Total	2810	100.0	15.57
Gujarat	Rural	172	10.86	37.02
	Urban	74	5.98	19.63
	Total	246	8.72	31.80

Source: Compiled from Table 6.5 of S.M. Jharwal's Public Distribution System in India Reassessed, Manak Publications Pvt. Ltd. Delhi 1999.

**Table 17: Proportion of Poor Purchasers to Total Purchasers of Selected Items from any Source (%)**

Country/State	Region	Rice	Wheat
All India	Rural	35.33	34.76
	Urban	19.49	16.60
	Total	30.61	28.21
Gujarat	Rural	34.76	7.28
	Urban	16.60	12.15
	Total	28.21	9.04

Source: Compiled from Table 6.13 of S.M. Jharwal's Public Distribution System in India Reassessed, Manak Publications Pvt. Ltd. Delhi 1999.

**Table 18: Proportion of Poor PDS Purchasers to the Poor Purchasing the Selected Items from any Source**

Country/State	Region	Rice	Wheat
All India	Rural	40.16	28.79
	Urban	46.27	35.00
	Total	41.32	30.11
Gujarat	Rural	82.26	76.64
	Urban	70.65	45.53
	Total	78.58	61.49

Source: Compiled from Table 6.14 of S.M. Jharwal's Public Distribution System in India Reassessed, Manak Publications Pvt. Ltd. Delhi 1999.

**Table 19: Proportion of PDS Purchase by Poor to Total PDS Purchase of Selected Items**

Country/State	Region	Rice	Wheat
All India	Rural	35.71	31.80
	Urban	23.19	15.83
	Total	32.03	25.47
Gujarat	Rural	15.29	11.16
	Urban	19.31	18.22
	Total	16.25	12.97

Source: Compiled from Table 6.15 of S.M. Jharwal's Public Distribution System in India Reassessed, Manak Publications Pvt. Ltd. Delhi 1999.

**Table 20: Proportion of Quantity Purchased from PDS by Poor to Quantity Purchased from any Source**

Country/State	Region	Rice	Wheat
All India	Rural	16.60	11.07
	Urban	22.21	14.07
	Total	17.46	11.71
Gujarat	Rural	84.30	54.78
	Urban	28.76	22.93
	Total	63.38	36.52

Source: Compiled from Tables 6.16 and 6.17 of S.M. Jharwal's Public Distribution System in India Reassessed, Manak Publications Pvt. Ltd. Delhi 1999

**Table 21: Share of PDS and Market in the Per Capita Consumption per Annum (Average 1986-87 to 1989-90)**

Country/State	Quantity and Share	Rice	Wheat	Total Cereals
All India	Quantity in Kgs.(%)	80.3	58.6	164.1 (84.6)
	PDS Share	12.81	16.62	12.20
	Market Share	10.62	9.17	3.57
	<b>Total Purchase</b>	<b>23.43</b>	<b>25.79</b>	<b>15.77</b>
Gujarat	Quantity in Kgs.(%)	24.0	55.8	135.0 (59.11)
	PDS Share	32.27	31.73	18.86
	Market Share	12.69	31.60	26.43
	<b>Total Purchase</b>	<b>44.96</b>	<b>63.33</b>	<b>45.29</b>

Source: Compiled from Table 7.1. of S.M. Jharwal's Public Distribution System in India Reassessed, Manak Publications Pvt. Ltd. Delhi 1999.

**Table 22: Share of PDS and Open Market Purchase in Cereals Consumption in 1987-88<sup>@</sup> and 1989-90<sup>@@</sup>**

Country/State	Share in %	Rice		Wheat		Total Cereals	
		1987-88	1989-90	1987-88	1989-90	1987-88	1989-90
India	PDS	13.90	12.03	17.66	13.87	13.14	10.93
	Market	17.47	6.23	9.64	15.84	9.32	0.00*
	<b>PDS+Market</b>	<b>31.37</b>	<b>18.26</b>	<b>27.30</b>	<b>29.71</b>	<b>22.46</b>	<b>---</b>
Gujarat	PDS	41.47	27.55	36.31	23.17	23.59	14.98
	Market	32.15	3.11	50.34	35.58	55.68	17.64
	<b>PDS+Market</b>	<b>73.32</b>	<b>30.66</b>	<b>86.65</b>	<b>58.75</b>	<b>79.27</b>	<b>32.62</b>

Note: \* This figure is incorrect but this is the figure quoted by Jharwal

@ Drought Year; @@ Normal Year

Source: Compiled from Table 7.2 of S.M. Jharwal's Public Distribution System in India Reassessed, Manak Publications Pvt. Ltd. Delhi 1999

## References

- ARCH- Vahini. 1991, "An assessment of Mid Day Meal Programme in Bharuch and Vadodara Districts." Mimeo ARCH Mangrol, Rajipla.
- Chakraborty M.2000, "Public Distribution System", in *Anveshak*, 30(1), January-June 2000, 79-95.
- Dash H. K. 2003, "The Role and Rhyme of Public Distribution in India," background paper for State Level Consultation on Food and Nutritional Security and the Role of Food Assistance Schemes Including Community Food Banks. Held during April 10-11, 2003 at Ahmedabad. M.S. Swaminathan Research Foundation, SEWA, Emergency Food Security Network and United Nations World Food Programme.
- Government of India, 2003, Economic Survey 2002-03. Economic Division, Ministry of Finance and Company Affairs, GoI, New Delhi.
- Iyengar S. 2000, "Locating and Describing Poverty in Gujarat: An Exploration" Mimeo, Gujarat Institute of Development Research, Ahmedabad, August 2000.
- Jharwal S.M. 1999, *Public Distribution System in India Reassessed*, Manek Publications Pvt. Ltd. New Delhi.
- Kabra K.N. and Ittyerah Anil Chandy, 1992, *The Public Distribution System in India*, Eastern Books, New Delhi.
- Lal Deepak, 1998, "Economic Reforms and Poverty Alleviation," in Isher Judge Ahluwalia and I.M.D. Little (eds) *India's Economic Reforms and Development: Essays for Manmohan Singh*. Oxford University Press, New Delhi, 231-252.
- Patel Arun S. 2001, "Agricultural Development in Gujarat-Performance and Future Strategy", in *Gujarat-2010: Challenges and Opportunities*, Seminar Volume, Sardar Patel Institute of Economics and Social Research, Ahmedabad. March.
- Parikh Kirit S. 1994, "Who Gets How Much From PDS- How Effectively Does It Reach the Poor?" in *Sarvekshan* 17(3) January-March, 1-15.
- Ramji Rai, 2003, "Grain banks in Tribal Areas of Gujarat", paper presented in State Level Consultation on Food and Nutritional Security and the Role of Food Assistance Schemes Including Community Food Banks. Held during April 10-11, 2003 at Ahmedabad. M.S. Swaminathan Research Foundation, SEWA, Emergency Food Security Network and United Nations World Food Programme.
- Vepa Swarna, 2003, "Food Security in Gujarat," paper presented in State Level Consultation on Food and Nutritional Security and the Role of Food Assistance Schemes Including Community Food Banks. Held during April 10-11, 2003 at Ahmedabad. M.S. Swaminathan Research Foundation, SEWA, Emergency Food Security Network and United Nations World Food Programme.

**Appendix Table 1**

**Poverty Indices - Gujarat**

Number and Percentage of Population Below Poverty Line (Officially Released Estimates)						Gujarat State
Year		INDIA		GUJARAT		Remarks
		Population (In lakh)	%	Population (in lakh)	%	
1		2	3	4	5	6
1972-73	Rural	2442.2	54.1	86.9	43.9	Related to the Population As on 1st Oct 72
	Urban	473.3	41.2	26.6	34	
	Combine	2915.5	51.5	113.5	41.1	
1977-78	Rural	2531	51.2	94.6	43.1	Related to the Population As on 1st Mar 78
	Urban	537	38.2	27.5	29.8	
	Combine	3068	48.3	122.1	38.9	
1983-84	Rural	2215	40.4	67.7	27.6	Related to the Population As on 1st Mar 84
	Urban	495	28.1	19.9	17.3	
	Combine	2710	37.4	87.6	24.3	
1987-88	Rural	1959.7	33.4	56.2	21.2	Related to the Population As on 1st Mar 88
	Urban	417	20.1	17.1	12.9	
	Combine	2376.7	29.9	73.3	18.4	
1993-94	Rural	2440.31	37.27	62.18	22.18	Related to the Population As on 1st Mar 94
	Urban	763.37	32.36	43.02	27.89	
	Combine	3203.68	35.97	105.20	24.21	

Source: Department of Rural Development, Government of Gujarat available at  
[www.ruraldev-gujarat.com](http://www.ruraldev-gujarat.com)

**Appendix Table 2**

**Percentage of Poor (Households and Population) in Gujarat  
by Region, Caste/Tribe and by Household Type**

Characteristics of Household	Rural				Urban			
	1983		1987-88		1983		1987-88	
	HHs	Pop	HHs	Pop	HHs	Pop	HHs	Pop
<b>1. Region</b>								
Eastern (Tribal)	56.0	61.4	41.5	49.9	28.3	39.3	38.3	39.0
Northern Plains	30.2	35.7	33.2	38.2	24.9	31.3	28.5	33.2
Eastern Plains	31.7	36.6	27.5	32.6	37.6	41.7	25.9	32.5
Dry Areas	41.1	46.8	54.3	59.8	40.2	51.1	48.1	53.1
Saurashtra	19.7	23.5	27.4	31.6	38.5	41.5	45.2	54.8
Total	34.8	39.0	36.0	41.4	32.5	39.0	33.7	40.7
<b>2. Caste/Tribe</b>								
Scheduled Tribes	59.8	65.4	50.6	60.3	62.4	64.2	53.5	60.0
Scheduled Caste	41.5	48.8	42.3	50.2	56.3	63.3	51.7	60.4
Others	25.8	29.8	30.0	34.4	29.6	37.0	26.0	33.0
Total	34.8	39.0	36.0	41.4	33.0	40.3	29.3	36.5
<b>3. Household Type</b>								
Self employed in Agricultural	29.6	32.7	23.7	27.2	-	-	-	-
Self employed in non-Agri.	23.0	27.5	21.6	27.0	36.7	41.0	34.9	39.7
Agricultural Labour	49.1	55.1	51.9	60.3	-	-	24.8	31.0
Other Labour	52.3	60.8	47.4	55.4	-	-	61.1	71.0
Other HHs	14.7	17.4	14.1	17.4	30.8	37.8	25.6	32.8
Total	34.8	39.0	36.0	41.4	32.5	39.0	33.7	40.2

Note: HHs and Pop denote households and population respectively.

Source: Visaria, Pravin. (1995), "Levels of Living in India: Correlates and Determinants", (Mimeo), Ahmedabad: Gujarat Institute of Development Research.