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# **PDS: A Review of its Functioning and Effectiveness, Since Independence**

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## *Abstract*

*There is too much criticism of PDS came in the recent times. This paper is basically focused to examine the effectiveness of PDS on the front of price rise, poverty alleviation and hunger. Some critical issues related to PDS are discussed in the later sections. The malfunctioning of PDS is really a critical issue and there is urgent need to check these leakages in order to save public money, and provide exclusive benefit to the people who deserve it.*

*Keywords: PDS, Prices, Poverty, Hunger, Biasedness, Diversion and Targeting Error*  
*JEL Classification codes: I38, O13*

## **1. Introduction**

The public distribution system (PDS) ensures the distribution of essential items to the economically weaker section of society at a subsidized rate. The department of food and civil supply (DFCS) manages PDS in different states and union territories. It is the duty of DFCS to provide subsidized food grain to poor people - through fair price shop, and control inflation of food grain in the open market by checking demand and supply of food grain.

The objective of this paper is to review the effectiveness of public distribution system on the front of price rise, poverty alleviation and hunger. Some critical issues related to PDS are discussed in the later sections. Rising food prices and diversion of huge amount of food grain from PDS bought concern among the people to think functioning of PDS in particular and present food policy of India in general. My present study basically examines the functioning and effectiveness of PDS with special reference to post independence period. The section 2.1 deals with the brief history of PDS which traces back to pre-independence era. The objective of PDS in pre and post-independence - which is related to the rationale of the government, has been discussed in the section 3. The section 4 covers the larger portion of my study. In sub section 4.1, I have discussed about prices and PDS, poverty and PDS in sub section 4.2 and in the last subsection 4.3, I have discussed about hunger and PDS. Section 5 deals with some critical issues related to PDS, in subsection 5.1, I have discussed about biasedness in PDS, and diversion of food grain has been dealt in subsection 5.2 and at last the section 5 ends with subsection 5.3 that deals with targeting errors in PDS.

## **2. Brief history of PDS**

The rationale of PDS in modern times can be traced back with the ancient idea of providing relief to the people in the time of distress like famines, scarcity and crop failure. The concept of “grain reserve” in colonial period came firstly, in the Famine commission of 1880 but abandoned due to lack of finance and management issues. After 2<sup>nd</sup> world war, large urban centers like Calcutta and Bombay bought grains under statutory rationing. In lieu of rising prices, first rationing system was introduced in Bombay (1939) and 6<sup>th</sup> price control conference was held in Bombay in year 1942. Famines of 1943 forced government to form food grain policy (1943) which basically focused over the procurement and rationing of food grain.

The first food grain policy post-independence was introduced in 1947. It recommended abolition of food control and rationing, but this policy failed and food control was again introduced in 1948. Food grain procurement commission of 1950 suggested rationing in the towns in entire country which have population higher than 50,000. It also recommended monopoly of food grain trade in the hands of government. Again government came with policy of decontrol (1953, 1954) which showed positive effect in the early phase but failed in the later phase (1956). In the year 1956, Indian government

signed agreement for the import of food grain from US and in the very next year Food Grain Enquiry Committee was formed to give final confirmation to the policy. This committee is also known as Ashok Mehta committee which suggested indirect flexible control, opening of new fare price shops (FPS) and the most importantly, import of food grain from US under the PL-480 which ended in the year 1965. Due to crop failure (1963,64), the prices again began to rise and the demand for FPS increased, and even import of 4 million tonnes of food grain per annum failed to lower the prices. In midst of such peculiar circumstances, the government appointed Food Grain Policy committee (1966) to review the food situation in India and formed Food Corporation of India (1965). The committee suggested national management of food, in which it recommended partial control over the market-coexistence of free market and PDS, procurement and distribution of food grains. In sixth five year plan (1980-85), government increased the number of FPS (2.30 to 3.02 lakhs) in order to cover larger number of people and took responsibility of supplying essential commodities- wheat, rice, sugar, kerosene and edible oils. Ministry of Food and Civil supply was created in 1984 with two departments, viz, Department of Food and Department of Civil Supply. The department of civil supply was made in-charge of PDS.

In 1991, large number of hunger death was reported in remote and tribal areas after which government came with the scheme of Revamped Public Distribution System (RPDS) targeting these vulnerable peoples. Finally in 1997, the era of Universal Public Distribution System (UPDS) ended and government came with Targeted Public Distribution System (TPDS) with benefits intended exclusively for the poor people.

### **3. Objective of the government in pre and post-independence period**

The objective of government behind building rationing system in the colonial period as well as after independence was quite similar. In both the periods the main objective of the government was to control inflation and maintain adequate supply of food grain, but perception of government was different in both the periods. Colonial rulers thought maintaining grain reserve for the time of distress and other welfare measures were considered part of unproductive expenses (Bhattacharya, 2009)<sup>1</sup>. On the other hand, welfare measure of the government in post-independence period was considered to be the part of directive principle of the state. Even that perception of the government (pre-independence) was very much responsible for government belief in *lassiez faire*<sup>2</sup>. After independence primary focus of the government was to ensure appropriate supply of food grain in the market – in particular, the successive years after independence was full of crop failures and famines which led government to follow this policy. But there was always debate regarding the supply of food grains maintained by government in the context of free market at the policy level. Government tried many times to decontrol the system but it failed all the time. At last government came with rationale of a mix of both the system. The mix strategy of government was an attempt to maintain the price of food grain in the open market, and save poor people from open market prices and inflation in order to increase their real income so they do not fall into the poverty trap due to price rise. The mix of open market and PDS gave rise to the idea of TPDS, which I will discuss in the later sections and will also discuss the problem aroused after implementing this system.

### **4. Functioning and effectiveness of PDS**

In this section I am going to examine the effectiveness of PDS in particular and food policy in general, on the front of price rise, poverty alleviation and hunger. The government policies have been clubbed into two broad periods in first subsection in order to check the effectiveness of PDS on the front of price rise. This classification has been done because government's objective was quite different in both the periods and there was also huge gap in budget outlay on social services in both the periods. Even there is huge difference in per capita PDS off take figures in both the periods. In subsection two, I have discontinued with the same classification because the reference period which I have used for this

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<sup>1</sup> Sabyasache Bhattacharya ,Lecture on “Famines in Bengal” at BHU, Varanasi (2009)

<sup>2</sup> Acharya,1983,page37

period is very small (1978-2005). I have not included data from the period before 1978 because large number of data is missing in this period and self-generated data can lead to misleading results.

#### 4.1 Prices and PDS

Macroeconomics is a living organism which changes with respect to change in space and time. Inflation has both positive and negative effects on economic activity which is acknowledged by all the scholars. As I pointed out in the previous sections, the preceding year after independence was full of crop failures and famines. Government's primary objective was firstly to provide food to the people. But it was always matter of debate that provision of food supply will be made by itself or by free market. In this subsection we are going to study the prices and PDS with special reference to UPDS (1947-1990) and RPDS plus TPDS (1991 onwards).

In the UPDS government primary focus was to ensure food to the people through open market as well as by government agencies. But the role of PDS was very poor on the front of controlling inflation. Only success of government policies in UPDS which we can see is that it managed to save poor people from hunger in the time of crop failures and famines, but failed to address price rise in the open market. Table: 2 shows the per capita PDS off take figures which was very low in the early days, increased in the latter phase but always below 20 million tons in the whole regime of UPDS. It was the green revolution which increased the production of food grain and paved way for the government to increase its PDS off take. Hence, it was responsible for controlling prices in the open market up to some extent.

##### 4.1.1 Data and methodology

The data collected for the model is structured annual time series for the reference period 1970 to 2007. WPI data is taken as an average on weeks with base year 1993-94 for all commodities and food articles separately. Per capita PDS off take figure is generated by dividing PDS off take from total population. The annual data of PDS off take is taken from Economic Survey and population data is collected from World Bank.

In order to check the effectiveness of PDS on the front of controlling rise in the general price level, I have estimated the following log linear model:

$$\text{Log (WPI)}_t = b_1 + b_2 \text{log (PERPDS)}_t * D_1 + b_3 \text{Log (PERPDS)}_t + b_4 D_1 + U_t$$

Where,

WPI refers to whole sale price index,

PERPDS refers to per capita PDS off take,

D1=Dummy,

D1=1, RPDS+TPDS (1991 onwards),

D1=0, UPDS (1947-1990)

The rationale behind dividing the period into two parts because the PDS off take increased substantially in the latter period and government also came with the objective to give access to the most vulnerable in the later phase. The above model represents indirectly an inverse demand function between WPI (price level) and per capita PDS off take. The rise in price level is inevitable but government policies should be in a manner which has control on prices and it should not increase frequently.

The first model which I have estimated in order to check the effectiveness of government policies on the front of price rise is following. All variables are same as mentioned above only in place of WPI; WPI for all commodities is used.

$$\text{Log (WPI-AC)} t = -2.102 - 1.222\text{Log (PERPDS)} t^*D1 + 1.919\text{Log (PERPDS)} t + 4.784D1$$

T-value	(-1.859)	(-2.717)	(4.994)	(3.476)
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P-value	(0.071)	(0.010)	(0.000)	(0.001)
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Adjusted R square = 0.87

DW = 1.096

The above empirical result shows that per capita PDS off take elasticity for UPDS (1970-1990) is 1.919 with respect change in price level. On the other hand per capita PDS off take elasticity for RPDS plus TPDS (1991-07) is found to be 0.696. The per capita PDS off take elasticity of UPDS is more than one which shows prices are rising faster in this period. In contrast, the per capita PDS off take elasticity for later period is less than one, which shows prices are more stable and slowly rising in this period. The above empirical result shows clearly that PDS was more effective on the front of controlling prices for all commodities in the RPDS and TPDS. The performance of PDS was better in the latter phase because the per capita PDS off take and social services expenditure increased substantially in the later period.

In my second model I have used WPI for food articles in order to check the same inference which I made in the first model for the same periods.

$$\text{Log (WPI-FA)} t = -1.969 - 1.178\text{Log (PERPDS)} t^*D1 + 1.860\text{Log (PERPDS)} t + 4.753D1$$

T-value	(-1.745)	(-2.267)	(4.850)	(3.462)
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P-value	(0.089)	(0.012)	(0.000)	(0.001)
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Adjusted R square = 0.88

DW=1.087

The above result is also quite similar to the first one. Per capita PDS off take elasticity for UPDS with respect to price level is again found to be higher as compared to RPDS plus TRPDS. The per capita PDS off take elasticity for food articles is 1.860 for control period (1970-90) and 0.678 for reconstruction period (1991-07). Again this shows that the performance of PDS was quite better in reconstruction period (RPDS and TRPDS) as compared to control period (UPDS). The result shows the prices are quite more stable in later period as compared to earlier period.

In the recent years many studies came with lots of criticism of PDS, regarding its malfunctioning and huge diversion of food grain (Khera, 2011). Some studies even suggest biasedness of PDS (Dev and Suryanarayana, 1991; Howe's and Jha, 1992) and targeting error in TPDS (Khera, 2011). All these issues are matter of great concern which we will discuss in our later sections. As we can see table 1 shows the trends in the diversion of food grain from 1999 to 2007. In particular it is quite exact period of TPDS. The table 1 is taken from the study of Khera (2011) which is generated by her based on the report of Monthly Food grain Bulletin, Government of India.

Table 1: Trends in Diversion of Food Grain.

Year	PDS off take(mil ton)	Diversiion(%)	Net entitlement(mil ton)
1999-00	23.05	23.9	18.44
2001-02	31.3	39	19.09
2004-05	41.47	54	19.07
2006-07	36.77	46.7	19.59
2007-08	37.43	43.9	21.15

Source: Reetika Khera (2011), Trends in Diversion of PDS grain, Table: 2

The fourth column in the above table shows the trends in the net PDS off take after diversion. The trend is even rising against huge diversion reported in the TPDS. This is really a crucial factor which is responsible for better performance of PDS in this period. One can imagine if there would be less diversion in this period the result would be expected better in this period. The high per capita PDS off take was later supplemented by huge increase in per capita social services expenditure (Fig. 1) which showed its positive impact on inflation, poverty and hunger in later phase. Even many states started performing well after 2005 (Khera, 2011). The per capita purchase from PDS rose substantially in Chattisgarh (3.2kg/month/capita, 2007-08). There has also been improvement in functioning of PDS in many already functioning states, viz, Kerala and Tamil Nadu after 2005 (Khera, 2011).

## 4.2 Poverty and PDS

The very objective of planning is to liberate human being from all the evils of un-freedom. Poverty is the biggest evil which penetrates people and creates hurdle in its economic, political, and social development. There is a long debate in India and all over the world regarding giving identity to poverty. Nevertheless, government of India after a long debate and submission of reports by many committees defined poverty in terms of food intake. Separate poverty line was defined for rural and urban India – in particular 2100 kilo calorie for urban and 2400 kilo calorie for rural India. The poverty estimates which are based on food intake, measures absolute poverty and it is really matter of shame, even after six decade of independence we are defining poverty on same grounds.

### 4.2.1 Data and methodology

The time series annual data is used for the reference period 1978 to 2005. The per capita PDS off take data are same as used in the previous subsection. The poverty data is collected from NSSO thick and thin rounds on head count ratio separately for rural and urban India. The per capita food grain production variable is generated after dividing food grain production from total population. Food grain production data is collected from Economic Survey and population statistics is collected from the same source which we used in previous section. It is expected that per capita rise in PDS off take and growth in per capita food grain production will help in eradicating poverty and there will be negative relationship between poverty and per capita PDS off take and per capita food grain production.

In order to check the effectiveness of PDS, which is supplemented by other social services plan, in particular on the front of poverty alleviation, I have estimated the following log linear model:

$$\text{Log (PHCR}_i)_t = b_1 + b_2 \text{Log (PERPDS)}_t + b_3 \text{(PERFDGR)}_t + U_t$$

Where,

- PHCR<sub>i</sub> refers to poverty at head count ratio,
- i* =1 for rural India and *i*=2 for urban India,
- PERPDS is per capita PDS off take,
- PERFDGR is per capita food grain production.

The sample range is not extended because there is no poverty data available between the years 1974 to 1977 and as I mentioned earlier self-generated data can lead to misleading results. In order to check the effectiveness of PDS on the front of poverty alleviation in rural India, following model is estimated:

$$\text{Log (PHCR1)}_t = 14.582 - 0.971\text{Log (PERPDS)}_t - 1.529\text{Log (PERFDGR)}_t$$

T-value (4.286) (-6.404) (-2.434)

P-value (0.000) (0.000) (0.002)

Adjusted R square = 0.597

DW = 1.288

The above estimated result shows PERPDS elasticity is inelastic and PERFDGR elasticity is perfectly elastic. The sign of both the variables are negative which shows they performed positively up to some extent on the front of eradicating poverty. The value of elasticity of PERFDGR is higher than PERPDS which shows the role of “Green Revolution” is quite impressive on the front of poverty alleviation. It is the “Green Revolution” which made possible that even most vulnerable got access to fine cereals like wheat and rice.

The second model which I have estimated in order to check the same inference and effectiveness of PDS on the front of poverty alleviation in urban India is as follows:

$$\text{Log (PHCR2)}_t = 15.251 - 0.795\text{Log (PERPDS)}_t - 1.776\text{Log (PERFDGR)}_t$$

T-value (5.413) (-6.331) (-3.416)

P-value (0.000) (0.000) (0.002)

Adjusted R square = 0.610

DW = 1.408

The result is quite similar to the first model. PERFDGR played again very important role in eradicating poverty on head count ratio in rural India. PDS too performed well up to some extent but its performance is not up to the mark.

It was the year 1978 in which 20 area integrated programme launched, which is well known as Integrated Rural Development Programme (IRDP) with special emphasis over poverty alleviation. The performances of social services plans are quite impressive after 90’s, both in rural and urban India. Per capita PDS off take, per capita NNP and per capita social services expenditure rose substantially after 1990 (Table 2 and 3). We can see its impact on the front of poverty alleviation both in rural and urban India. The poverty declined faster in 1990s (Table: 1). Even Government’s concern increased on social services that can be seen after 1995, in particular, we can understand this through massive rise in social services expenditure (Fig. 1).

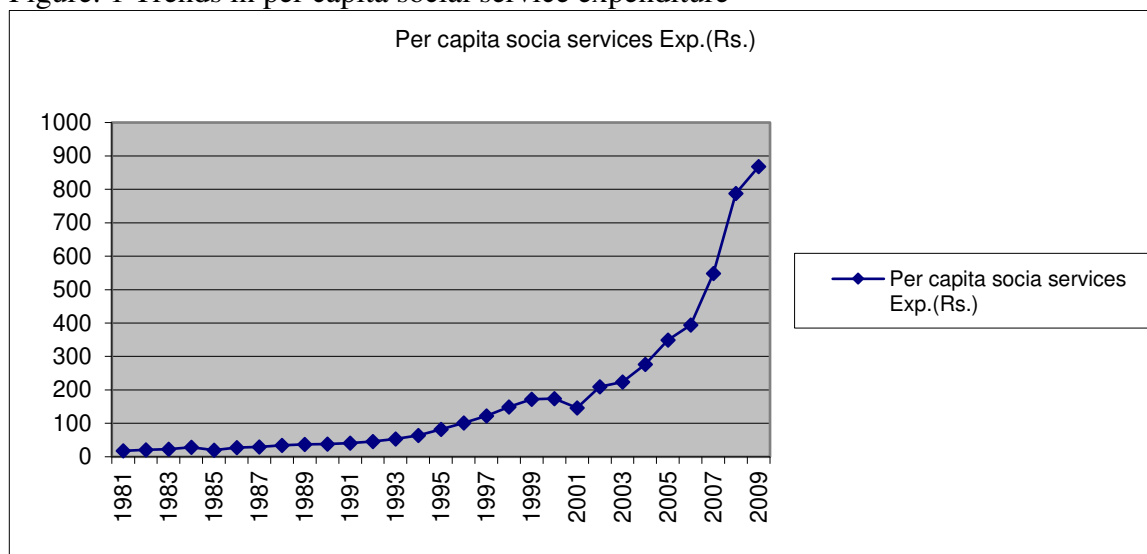
These social services expenditure helped significantly on the front of poverty alleviation. Many employment generation schemes were launched like Jawahar Rojgar Yojna (JRY) was started in 1989. The modern employment schemes like National Rural Employment Guarantee Act (NREGA) have its origin in JRY – in particular this scheme was also providing 100 days job to one family member living below poverty level in a year. The area of JRY was extended in the later years and finally renamed as Jawahar Grammen Samridhi Yojana (JGSY) in 1999. Employment Assurance Scheme (EAS) came into existence in 1993 in order to serve marginalized people in desert, mountains and tribal region.

Table: 2 Trends in India's poverty alleviation

year	Per capita PDS off take (kg)	Poverty Rural (%)	Poverty Urban (%)	Per capita NNP(Rs.)
1980	19.48	52.06	48.83	8306.8
1985	24.98	43.81	40.07	9510.63
1990	19.41	36.66	35.35	11555.88
1995	26.12	38.68	31	13521.21
2001	30.315	29	25.09	17086.51
2005	38.59	13.29	18.41	21255.4

Source: Same as used in above model, Per capita NNP CSO.

Figure: 1 Trends in per capita social service expenditure



Source: Budget document of Government of India.

Table: 3 Trends in per capita Social services expenditure

Years	Per capita Social services Exp.(Rs.)
1981	17.7
1985	19.55
1990	38.53
1995	82.11
2000	174.019
2005	349.57
2009	868.18

Source: Budget document of the Government of India.

JGSY and EAS were merged and given new name Sampoorna Grameen Rojgar Yojana (SGRY) in 2001 and finally NREGA came into existence in 2005. The budget outlay given to these programs particularly which was started after 1990 was possible only with rapid growth of Indian Economy. The rural poverty was quite high in the early days till 1995 (Table 2), that is why huge amount of social services expenditure was diverted to rural areas and large number of employment generation scheme was initiated firstly in rural areas. Nevertheless, government got success up to some extent to eradicate poverty by its social services schemes (Table 2 and value of elasticity for rural area). We can ignore the role of PDS on the front of poverty alleviation. Even many studies suggest PDS help people to save their consumption expenditure particularly in rural area. The rural poor saved 6% of their consumption expenditure from PDS, whereas urban poor saved 3% of their consumption expenditure<sup>3</sup>. Whatever

<sup>3</sup> Bruno Dorin and Frederic Landy, Agriculture and Food in India: A Half-century review, from independence to Globalization, 2002, page 160.



may be the structure of poverty alleviation in rural and urban India but as we can see our empirical result and result of other studies (Bruno and Landy, 2002), show impact of PDS as significant on the front of poverty alleviation.

### 4.3 Hunger and PDS

Hunger and starvation death is not new for India. In pre independence India millions of death reported due to hunger in the time of crop failures. Even the scenario was not improved till 70's; it was the green revolution which saved millions of poor people who were living below absolute poverty line from hunger and starvation. Many people sold there tracts of land only for kg's of food grain to save themselves from starvation. India performed well on many social indicators but this achievement is not remarkable (Table: 5). India is still lagging behind from many poor country, viz, Bangladesh and Srilanka, in terms of many social indicators.

Table: 4 India's social indicators

years	Proportion of undernourished (%)	years	Prevalence of underweight<5(%)
1990-92	24	1988-92	59.5
2003-05	21	2002-07	43.5

years	Mortality rate<5(%)	year	GHI
1990	11.7	1990(88-92)	31.7
2007	7.2	2009(02-07)	23.9

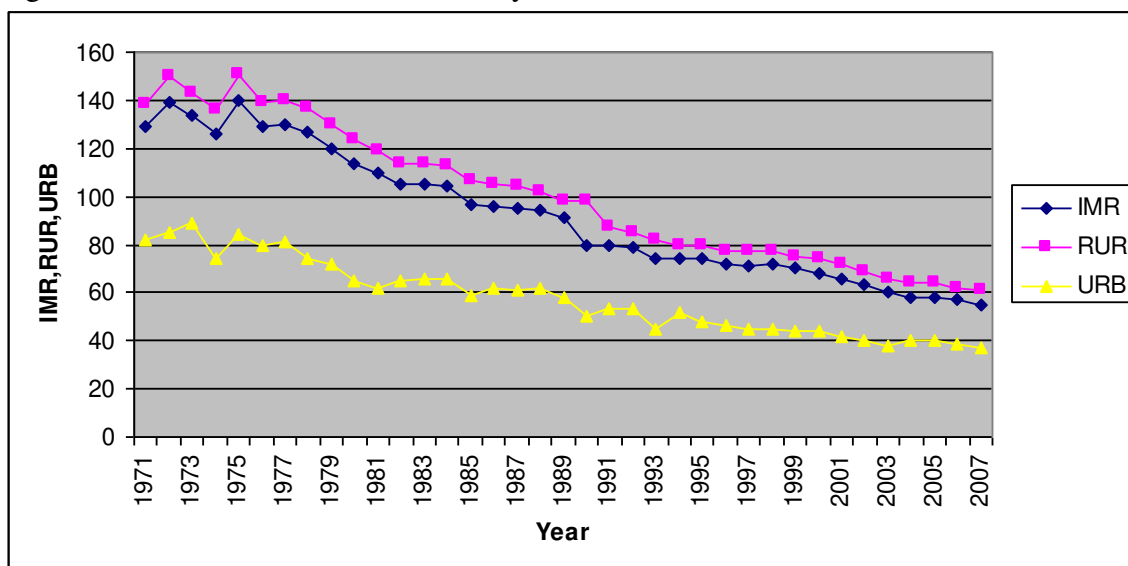
Source: International Food Policy Research Institute (IFPRI)

Table: 5 Trends in India's social indicators

year	IMR (%)	IMR Rural (%)	IMR Urban (%)	Death rate (%)	Death rate Rural (%)	Death rate Urban (%)
1971	129	138	82	14.9	16.4	9.7
1975	140	151	84	15.9	17.3	10.2
1980	114	124	65	12.4	13.5	8
1985	97	107	59	12.5	13.7	7.8
1990	80	98	50	9.7	10.5	6.8
1995	74	80	48	9	9.8	6.6
2000	68	74	44	8.5	9.3	6.3
2005	58	64	40	7.6	8.1	6
2007	55	61	37	7.4	8	6

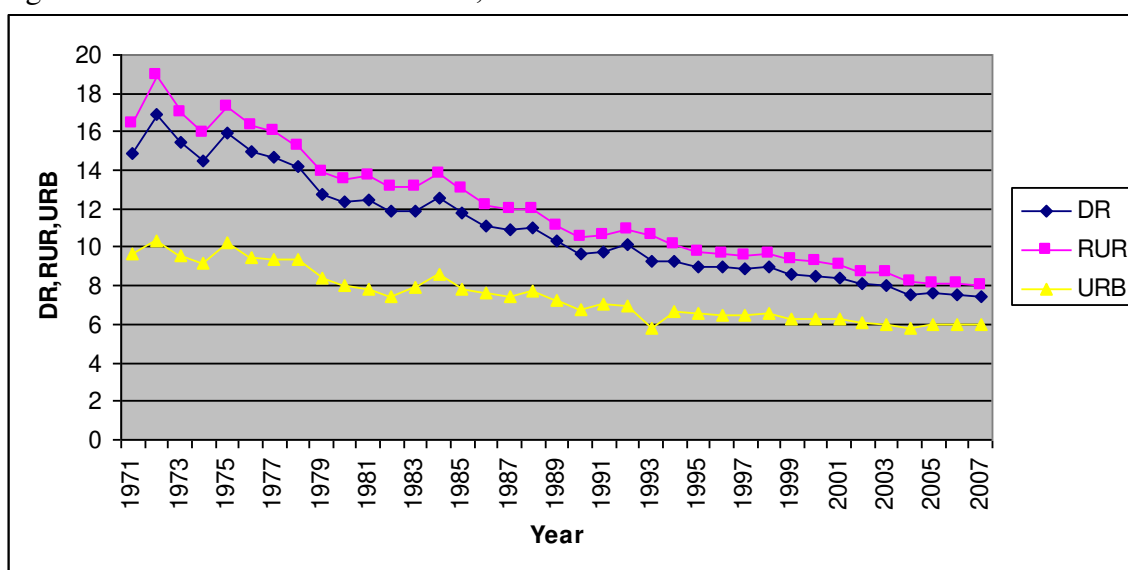
Source: Ministry of Home Affairs Government of India.

Figure: 2 Trends in India infant mortality rate, rural and urban



Source: Ministry of Home Affairs Government of India

Figure: 3 Trends in India's death rate, rural and urban



Source: Ministry of Home Affairs Government of India.

Only thing which managed India to improve its condition compared to its neighboring countries is its availability of food stock, which was possible only with its green revolution (IFPRI). I have used the above indicator to correlate hunger and PDS because as we know infant mortality rate, maternal mortality rate and death rate is very much related to nutrition. Other nutrients cannot give better result if there is lack of carbohydrates in the body. If there is hunger death reported in the country it's a strong sign of nutritional deficiency among the peoples and particularly availability of carbohydrate food grain which is provided by PDS in India. Infant mortality, maternal mortality and death are not a day process. It is a long process in which people fall due to nutritional deficiency. Irrespective of rise in social services expenditure (Fig. 1), India's performance is not satisfactory particularly on the front of social indicators. Since independence government has taken many initiatives in order to overcome malnutrition, infant mortality rate and maternal mortality rate, though the success has been very minimal. Hygiene Program (HP) was introduced in 1960 to prevent deficiencies among women and

small children. Special Nutrition Program (SNP, 1970) was initiated to provide protein and calorie. Massive Dose of Vitamin A Distribution (MDVAD, 1970) was introduced to combat deficiency of vitamin A. Iron and Folic Acid Distribution Program (IFAID, 1961), Iodized Salt Distribution Program (ISDP, 1992), Integrated Child Development Program (ICDP, 1992), National Social Assistance Program (NSAP, 1995), Mid Day Meal Scheme (MDMS, 1960) etc were started in 70's, 80's and 90's but they got very limited success (Table 5) because of very small budget outlay on social services (Fig. 1) and lack of carbohydrate food to the people. Some success on social indicator can be seen after in 90s due to rise in per capita social service expenditure and rise in per capita PDS off take. As I mentioned above we can't expect better result even after implementing such exclusive plan if there is still lack of food-grain in the country particularly among the poor people. The majority of people, who fall in to these social evils, belong to very poor families who do not have access even to proper food every day. It is really matter of shame and failure of planning yet after six decades of independence and planning still starvation deaths are reported in our country. In the recent case Gangia and Vishwanath died of starvation in Kuberdihi village of Chandauli district in eastern UP, in July 2002 (Kripa Shankar, 2002). Many starvation deaths were reported in Murshidabad district of West Bengal (The Milli Gazette/ Charity Alliance, 2009). The high numbers of malnourishment cases have been reported in the Rewa and Panna district of Madhya Pradesh. It is really a true fact that PDS have no relevance if people have no money even to purchase food grain (Shaker, 2002). Government has initiated many plans even to target poorest among the poor in the recent time. If still starvation deaths are reported, it is a sign of targeting error by the government agencies to reach the poorest. The issues related to targeting errors have been dealt briefly in later sections because it is beyond the scope of our study but it really requires great deal of attention.

## **5. Some critical issues related to PDS**

In this section, very briefly, I will discuss some of the very important critical issues related to PDS. There is no social welfare scheme or any plan in India which is free from criticism. As we know PDS is used as one of the very important tool of poverty alleviation by government, so its performance is really matter of great concern for everyone. The three very important critical issues related to PDS which are covered in this study, are its biasedness to particular area, diversion of food grain and very importantly, targeting error by the government agencies (TPDS). I have dealt with all these issues separately in later sections.

### **5.1 Biasedness and PDS**

There are many studies which suggest biasedness in PDS. Some studies suggest PDS as urban biased and pro-rich (Howe's & Jha, 1992). On the other hand some studies also came with result of rural biasedness in PDS (Dev & Suryanarayan, 1991). It is really matter of great concern to review the benefit of PDS in particular and other welfare plan in general. It should not be exclusive to any particular section of society. In particular, if there are large numbers of deprived people in our country then there should be inclusive benefit given to everyone.

The study of Dev & Suryanarayan (1991) shows, at all India level the 60% commodities consumed from PDS – rice, coarse cereal, sugar and cloth, the PDS is found to be rural biased. The nature of biasedness varies from state to state and commodity to commodity. It is also found that relative dependence of rich is greater than poor for some commodities. Only in West Bengal PDS is found to be urban biased. The study also suggests the PDS does not give exclusive benefit to rich but more or less it supports all income people uniformly, but it fails to serve vulnerable in eastern states and MP.

On contrary some studies suggest highest off take in urban areas particularly in Kerela, West Bengal and Delhi (Singh, 2005). In the recent consumer survey, urban biased ness found in PDS in Tamil Nadu, Meghalaya and Goa and marginal biased found in UP and Assam (Taimini, 2001).

The study of Howe's and Jha (1992) based on methodology of quantity consumed, implicit subsidy and accessibility to ration shop, found PDS to be urban biased. It is found that average urban dweller

gains more than average rural dwellers from PDS. The major findings of the study suggest, on an average, greater amount of subsidy is given to urban dwellers through PDS as compared to rural dwellers. Even accessibility to ration shop is found better in urban areas as compared to rural areas. The study also came with the same result that nature of biasedness varies from state to state and commodity to commodity.

In India, more than three-fourth of population lives in rural areas. As we know the rural poverty was greater in the early days (Table 2), that is why most of the social services plan was meant for rural areas. On the same rationale, government has also diverted huge amount of PDS grain to rural areas, which helped rural poor to save their 6% of consumption expenditure, whereas urban poor only managed to save 3% of their consumption expenditure (Bruno & Landy, 2002). Consequently, the more exclusive benefits given to rural poor were responsible for rise in urban poverty in the later phase (Table 2). Even my empirical results in subsection 3.2 shows that the per capita PDS off take elasticity is higher for rural area with respect to poverty on head count ratio. This shows that PDS worked well on the front of poverty alleviation in rural area on head count ratio. Hence, this shows, on an average, PDS is found to be rural biased but further decomposition of biasedness can give mix picture for nature of biasedness across the states.

### **5.2 Diversion of food grain**

Diversion of food grain from PDS has always been a serious problem. Since independence, diversion has been reported in PDS. The only difference which we can see between early and recent time, is that diversion was less early but diversion is very high in recent time. It was the era of TPDS when diversion was at peak and many study came with their result on how huge amount of diversion reported in the TPDS. The survey conducted by the Tata Economic Consultancy Services in 1998, found at all India level there is 36% wheat and 31% rice is diverted from PDS. The study also found, high level of diversion in northern, eastern and north eastern states.

The recent study of Khera (2011) shows the diversified picture of diversion among the state and commodities. In her study, she classified states into three broad categories, viz, languishing, functioning and performing states. Her classification was based upon functioning of states on per capita PDS entitlement. It is also found that diversion of wheat is higher than rice and there was a decline in PDS system till 2004-05. In the table 1, we can see huge diversion reported substantially after 1997 and that reached up to 54% in year 2004-05. Only after 2005 we can see there is a sign of decline in diversion (Table 1). Even in the time of huge diversion, only positive thing which we can see is that there is always rising trend in net PDS off take after diversion (Table 1). As I pointed out in the earlier sections, the rising trend in net PDS off take was one of the reasons, that even against huge diversion, PDS performed well in RPDS and TPDS. The success of PDS was possible only because the rise in net PDS off take was supplemented by huge increase in per capita social expenditure. The purpose of my study is not to appreciate diversion but I want to make a note that on an average, PDS was more successful in RPDS and TPDS. But there is need to acknowledge the huge leakages from PDS. If we will be able to stop these huge diversions, the effectiveness of PDS will be more impressive.

### **5.3 Targeting error in PDS**

In earlier sections, I pointed out the targeting error reported by government agencies to reach poorest among the poor. The hunger death reported in Murshidabad, Chandauli, and many tribal areas of MP, Chattisgarh, Jharkhand and Orissa are crude example of targeting errors.

The targeted PDS came with rationale to provide exclusive benefit to the most vulnerable, but due to malpractices, there are two types of major targeting error committed by the government agencies, viz, Type-1 Error and Type-2 Error.

Type-1 Error refers to when any poor people excluded from BPL list. On the other hand Type-2 Error refers to when any unauthorized person is wrongly or due to malpractices included in the BPL list to

get benefit from social services scheme of the government. The large number of studies conducted based upon different methodology, show different picture of targeting errors. The study of Hirway (2003) which is based upon list of five consumer durables, conducted in six different villages from different zones in Gujarat, found that 34% people were wrongly included in the BPL list. However on the basis of productive asset, she found 24% of people were wrongly included in the BPL list. Hirway concludes with the findings that 24% to 34% of people does not deserve BPL card. On the other hand, she found Type-1 Error was very small – around 14% people were excluded from BPL list. The study also suggests that many of excluded people due to Type-1 Error are either migrants or very poor people at bottom level.

In the different study of Swaminathan and Mishra (2001), based upon type of house and operational landholdings separately, Type-1 Error is found to be as high as 85%. Even in my recent field work in Amerali district of Gujarat, I found that the owners of 12 acres of land were having BPL cards. There is huge difference in proportion of Type-1 and Type-2 Errors in the different study based upon different methodology but nobody can deny the fact that there is no error in the system. The problem becomes grim when Type-1 Error is high, because they are the people who actually deserve the benefit. The rationale to give access to poorest among the poor will be not achieved till we overcome these errors totally.

## **6. Conclusion**

The empirical result shows the performance of PDS was better in the later phase (1991 onwards) on the front of controlling inflation and poverty alleviation. PDS and green revolution helped people to save themselves from starvation and hunger, which were later supplemented by other social services expenditure. The role of PDS was better in the rural India on the front of poverty alleviation. There were large number of welfare plans initiated before 90's but there performance was not quite impressive because there was small proportion of budget outlay given for those programs.

Too many criticisms came against PDS in all regimes of PDS - UPDS, RPDS and TPDS. The huge amount of diversion of grain has been reported in the TPDS, in particular, diversion reached to 54% in 2004-05. Even biasedness of PDS was reported in 90's and most importantly, targeting error was reported in PDS in the TPDS.

After going through empirical findings of the study, there is no doubt that PDS performed well in the later period relatively compared to early period. But one can conclude if we are able check all the critical issues related to PDS we can think of better results. No one can deny the fact that the growth of Indian economy after 1991 paved the way for government to increase its budget outlay for social services expenditure and per capita PDS off take, but there is also sign of huge corruption that started in this period. There is a need of checking these leakages from PDS and from other social services programs in order to save public money, and to alleviate all the social evils from the society.

There is very famous quote by 18<sup>th</sup> century poet William Cowper on freedom:

Freedom has a thousand charms to show,  
That slaves howe'er contended, never know.

If government wants to liberate people from all the evil of unfreedom and show different charms of development it will have to work more efficiently and more effectively.

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