

# SOCIO-ECONOMIC PROFILE OF PUBLIC DISTRIBUTION SYSTEM (PDS) BENEFICIARIES

LIGE SORA  
Ph.D Scholar  
Department of Economics  
Rajiv Gandhi University, Itanagar

## ABSTRACT

Public Distribution System is a programme through which the food grains and non-food grains are being provided to the underprivileged households at subsidized rate. Under this programme the beneficiaries are identified into four categories viz; Above Poverty Line (APL), Below Poverty Line (BPL), Antyodaya Anna Yojana (AAY) and Annapurna. However, since inception lots of the scholars has put forwarded their concerned about the methodology being applied during enumeration of beneficiaries list for Public Distribution System. For instances, *Mehrotra & Mander (2009)* question the methodology used in BPL census 2002 and suggested newer methodology; *Jain, (2004)* revealed the co-existence of inclusion and exclusion error in enumeration of BPL households; *Alkire & Seth, (2013)* compares three identification methods. In addition of those, *Mane (2006)* have suggested to taking in to account such as household occupation, land owned, housing conditions, numbers of earners and possession of various types of durable goods like TV, refrigerators, motor cycles, tractors and so on. Therefore, the present study analyzed the households characteristics of Public Distribution System beneficiaries by taken care of the criteria been suggested while enumerate beneficiaries list. The study is based on the primary data and the same was collected from West Siang District of Arunachal Pradesh with the help of structured questionnaire. The study found presence of huge inclusion error in the identification of PDS beneficiaries.

***Key words- Public Distribution System, Identification, Beneficiaries, Error***

## I. INTRODUCTION

World over countries have harped on food security programme to eradicate hunger and poverty. A country is truly food secure only when it is able to provide adequate food to all its citizens as a matter of right, 'without inflicting any humiliation on the poor' (Parikh, 1998). India, planners too realized the necessity of achieving self-sufficiency in food grains production and food security thereof. Thus priority has been given in every five year plans to maximize the welfare of its denizens.

*The deceleration is the root cause of rural distress and that has surfaced in many parts of the country and lead to farmers committing suicides* (Bright, 2010). Thus, increasing the agricultural production and ensuring proper distribution of food grains was the sole objectives of Targeted Public Distribution System which ultimately led to Food Security Act, 2013.

Each year thousand tons of food grains at subsidized rates are distributed to identified denizens all over the country through Public Distribution System. However, the eligibility for entitled on food grains has been questioned constantly for quite some time now. Therefore a complete error free enumeration of beneficiary list is of immense need for efficient implementation of Public Distribution System Programme. In fact, the beneficiary list is recognized and used by many of the state and central agencies in the implementation of different welfare programmes. It is in this regard that many researchers have contested and shown their concerns over the adapted methodology in the enumeration of beneficiary list. For instances, *Mehrotra & Mander (2009)* question the methodology used in BPL census 2002 and suggested newer approach; *Jain, (2004)* revealed the co-existence of inclusion and exclusion error in enumeration of BPL households; *Alkire & Seth, (2013)* compares three identification methods which use both exclusion-inclusions criteria and scoring method to identify the poor; *Mane (2006)* have suggested to taking in to account household occupation, land owned, housing conditions, numbers of earners and possession of various types of durable goods like TV, refrigerators, motor cycles, tractors and so on while enumerating beneficiaries list.

## II. Objectives of the Study

The objectives of this paper are of twofold:

1. To give a brief overview of the socio-economic profile of the households.
2. To cross examine at the backdrop of the first objective, the inclusion-exclusion errors.

## III. Research Methodology

The study is primarily a field based study. Hence, a structured questionnaire was used to generate data. The area of study is the West Siang District of Arunachal Pradesh. The district was divided into six sample areas wherein two villages, two blocks (semi-urban) and two urban areas were chosen for survey. From each sample area 20 PDS beneficiaries were selected. The enumeration and identification and also accounting of errors is based on the methodology as provided by the Planning Commission in their report on Targeted Public Distribution System, 1997.

## IV. Profile of Study Area

The district occupies an area of 8,325 sq.km and is the second largest district in the State in terms of area. It has a population of 112274 with density of population 17 persons per sq.km (census, 2011). Mostly, the people of West Siang area are dependent on Jhum cultivation along with settle cultivation, especially WRC.

The total working populations in district are 43085 of which 7.2 percent are cultivators, 2.0 percent are agricultural labourers, 1.6 percent are engaged in household industries and 35.2 are other workers<sup>1</sup>. Paddy, Maize, Millet and pulses are the main agricultural production of district.

## V. Analysis

Socio-economic profile of household plays vital role in determining the eligibility of a PDS beneficiary and many of the centrally sponsored schemes and also other welfare schemes. As such, our

---

<sup>1</sup> as per statistical abstract of Arunachal Pradesh-2013

attempt is to characterize the households based on the norms laid down by the expert group for demarcating APL, BPL and AAY households (TPDS, 1997).

### **Educational attainment Head of family**

The educational attainment is the vital predictor of an individual well-being. We could easily presume that higher the level of education attainment higher would be a earning of an individual and thereby higher would be economically viability. In this regard the present study has found out of 120 houses surveyed 30% of head of the families are illiterate and 0.8% each is literate without attended formal education and below primary education. This is followed by 15.80%, 14.20%, 10.00% and 8.30% attended primary, middle, secondary and higher education respectively. The 14.20% head of the households are graduate and only 2.50% each are post-graduation and above and diploma/certificate course respectively (table 1).

### **Family size**

The consumption demand of a family is directly related with family size. It is obvious that larger the size of a family, larger would be consumption demand. Therefore in this regard analyze household size is more imperative in the case of subsidize food grains program. And it has found that the family size of 5 to 6 members is the highest (48.3%) in the study area and average family size is 5.61 (table 1).

**Table 1**  
**SOCIO-ECONOMIC PROFILE OF PDS BENEFICIARIES (in %)**

Educational qualification	Illiterate	30.00
	Below Primary	0.00
	Primary	15.00
	Middle	14.00
	Secondary	10.00
	Higher Secondary	8.00
	Graduation	14.25
	Post-Graduation And Above	2.00
	Diploma/Certificate Course	2.00
	Literate Without Formal Education	0.00
Family size	1 to 2	5.00
	3 to 4	20.00
	5 to 6	48.00
	7 to 8	16.00
	9 to 10	5.00
	11 to 12	2.00
Head of the families employed in a year	7-8 month	40.80
	Employed whole year	59.20
Subsidiary economy activities	Household activities	81.70
	Casual labour in agriculture	0.00
	Casual labour in non-agriculture	17.90
	Member of NGO	0.00
Type of house	Changhachha	58.30
	Chang with Tin	27.50
	Pukka	14.20
Source of drinking water	General tap water	25.00
	Private tap water	75.00
	Stream water	0.00
Possessor of durable goods	Colour TV	80.00
	Refrigerator	57.00
	Cooker	86.00
	LPG	84.20
	Two wheeler	48.00
Income taxed families	Four wheeler	44.00
	Yes	1.70
Family members depend on head of family	No	98.30
	1 to 2	20.00
	3 to 4	50.00
	5 to 6	21.70
	7 to 8	8.70
	9 to 11	1.70

Source: field surveyed

### Head of the family employed in a year

The occupation of a family and the numbers of days employed is also an important determinant of family per capita income. In other words, larger the working days larger would be earning of a family thereby higher would be per capita income of a family. The study has found that 40.8% of the total households employed 7-8 month in a year and 59.2% employed whole year. The families employed 7-8 month in a year are employed in agricultural sector and those families employed whole year are engaged either in non-agricultural sector or else in public sector (table 1).

### Subsidiary Economic activities of head of the family

The subsidiary economic activities are also an important determinant of economic condition of a family in a society. Especially in rural areas the denizens are employing in subsistence agricultural sector for their lives. The subsistence agricultural sector just assures their consumption demands only but rest demands have to meet out from of subsidiary economic activities. Thus subsidiary economic activities are vital for the rural households. In this regard the present study has found that 81.7% head of the family are

engaged in household activities, 17.5% are in casual labour in non-agriculture and only 0.8% is engaged as casual labour in agriculture (table 1).

### **Type of house**

House type indicates the annual income and thereby financial status of the owner. This small section would give us some indication about our achievement in these 69 years of independence. And in this regards present study revealed that still 58.30 % of families are dwelled Chang/Kachha house, 27.50 % are in Chang with Tina and only 14.20 are in Pakkaa house (table 1).

### **Source of drinking water**

The study found that 75.00% of households are used private tape water and 25% are used general tape water. Regarding meal taken in a day 100% of the surveyed households are taken three times in a day. Further, in the case of sanitation 99.20% are used private latrine and only 0.80% is used open defecation (table 1).

### **Possession of durable goods**

Durable goods are also one to the significant determinant of economically under privilege families. The possession of anyone of the durable goods lists being prepared by the expert group liable to direct exclusion of family from the BPL list.

The field survey data revealed that 90.80% of surveyed households possessed *colour TV*, 57.50% possessed *refrigerator*, 85.80% possessed *cooker*, 84.20% possessed *Two Wheeler* and 44.00% possessed *Four Wheeler* (table 1).

### **Income tax**

The income tax is the key source of the government income. Every individual have to pay a proportion of their earned income to the government. It was first introduced in America during the war of 1812 and which is further continue till today. The present study found that only 1.70% of households are paying income tax among the surveyed households (table 1).

### Total family members depends on head of the family

The present study found that at-least 3 to 4 members are depends on the head of the family and which are the highest (50%). The next is 5 to 6 family members are depends on head of the family and which accounted 21.7% to the total. Further, 1 to 2 family members depends on the head of the family are accounted 20.0%, 7 to 8 are 6.7% and 9 to 11 are 1.7% to the total members depends on head of the family (table 1).

### Land possession

The land possession symbolized the economic and social status of an owner. The independent India had gone through various changes in land owner system started from Zamindari system to land ceiling system and so on. The core objectives of these changes were to improve the conditions of cultivators.

The table 2 revealed that out of 120 respondents 47.67 % possess Jhum land and 44.33 % have irrigated plain land. The marginal families are possessed plain and un-irrigated plain land with 4.67 and 2.33 % respectively.

If we compare the land possession in block, village and urban areas than the families domicile in block areas have highest land and which is followed by village and then urban areas.

**Table 2**  
**Land possession (in %)**

TYPE OF LAND	Total	DOMICILE (A)			BENEFICIARY (B)		
		BLOCK	VILLAGE	URBAN	APL	BPL	AAY
Jhum land	47.67	31.67	26.34	0.83	9.93	42.54	80.23
Plane land	4.67	1.67	1.39	0	2.13	4.48	3.49
Irrigated plain land	44.33	30	25	10	14.90	37.31	73.26
Un-irrigated plain land	2.33	2.5	2.08	0	1.42	0.75	5.81

Source: - Field surveyed

Further, if we see on the basis of PDS beneficiaries than AAY families possessed highest Jhum, irrigated and un-irrigated plain land as compared to BPL and APL families. The AAY families are followed by BPL families in possession of Jhum, irrigated and un-irrigated plain land and also plain land.

## Annual income

The economic and social condition of a family is closely associated with the annual income of household. Annual income of a family is extensively use by the government to determine the eligibility to be included in BPL list. As per Union Government, the upper income limit for qualifying as a beneficiary under the BPL list has been fixed at about Rs 27000 (twenty seven thousand) per annum in the year 2011 as well as calorie intake of 2400 for rural and 2100 for urban dweller.

The table 3 shown that highest annual income group (33.30%) is in between 20000 to 40000 (twenty to forty thousand) per annum. This is followed by the annual income group in between 0 to 20000 (zero to twenty thousand) with 16.70% to the total. The next in queue is annual income group is in between 40000 to 60000 (forty to sixty thousand) with 13.30%.

**Table 3**  
**Annual income of family (in %)**

INCOME	TOTAL	DISTRICT
		WEST SIANG
0 < > 20000	16.40	16.70
20000 < > 40000	20.80	33.30
40000 < > 60000	15.80	13.30
60000 < > 80000	9.40	5.80
80000 < > 100000	2.20	0.80
100000 < > 120000	14.20	10.80
120000 < > 140000	1.40	2.50
140000 < > 160000	4.20	5.00
160000 < > 180000	0.30	0.80
200000 & Above	15.30%	10.80%

Source: - Field surveyed

## Occupation of head of family

The occupation of head of the family is one of the desire characteristic to be enrolled in the subsidized food program. In other words selection of beneficiary for APL, BPL, AAY and Annapurna category are done on the basis of head of the family occupation. In this regard, the table 4 revealed that out of 120 households surveyed the highest (42.10 %) are self-employed in agricultural sector and followed by 33.10 % are regular wage earner and then 24 % self-employed in non-agricultural sector.

Table 4  
OCCUPATION OF HEAD OF THE FAMILY

Beneficiary	(IN %)			
	Self-employed in non-agricultural sector	Regular wage earner	Employed in agricultural sector	Other
APL	24.20	66.70	9.10	0.00
BPL	32.30	26.20	40.00	1.50
AAY	0.00	4.30	95.70	0.00
Total	24.00	33.10	42.10	0.80

Source: field surveyed

In the case of APL families the 66.70 % are regular wage earner, 24.20 % are self-employed in non-agricultural sector and marginal 9.10 are employed in agricultural sector. One of the basic reasons behind this variation in occupation is that most of the APL families are settled in urban and semi-urban areas where agricultural do not practice.

Inverse of APL families, BPL and AAY families are settled in rural areas and where the practice of agriculture is very common. Therefore, 40.00 % of BPL and 95.75 % of AAY head of the family occupation are employed in agricultural sector and 32.30 % and 0.00 % are engaged in non-agricultural sector respectively.

#### **Error in selection of PDS beneficiaries**

As stated earlier, the presence of error in selection of PDS beneficiaries are been discussed by different scholars. The present study also through a light on the error is selection of right person in a beneficiary list based on “the report of Expert Group to advise the Ministry of Rural Development on the Methodology for conducting the Below Poverty Line (BPL) Census for 11<sup>th</sup> Five year Plan”. While calculate inclusion error the possession of durable goods like Colour TV, Refrigerator, Cooker, LPG, Two Wheeler and Four Wheeler in a house has been taken as variables to identify PDS beneficiary. Further, the possession of each goods has been decorated with 1 (one) and then sum the total possession. If a family do not possessed any of the durable goods then it is remarked as error free or valid family to be PDS beneficiary. However, possession of any one of the following goods direct lead to rejection from the beneficiary list. Therefore different level of error has been marked as per intensity of durable goods possession in a house.

**Table 5**  
**ERROR IN SELECTION OF PDS BENEFICIARIES (in %)**

STATUS OF ERROR	BENEFICIARIES		Total
	AAY	BPL	
ERROR FREE	17.4	4.7	8.0
PRESENCE OF VERY LOW ERROR	26.1	1.6	8.0
PRESENCE OF LOW ERROR	8.7	3.1	4.6
PRESENCE OF MODERATE ERROR	17.4	21.9	20.7
PRESENCE OF HIGH ERROR	26.1	23.4	24.1
PRESENCE OF VERY HIGH ERROR	0.0	35.9	26.4
PRESENCE OF VERY-VERY HIGH ERROR	4.3	9.4	8.0
Total	100.0	100.0	100.0

Source: - Field surveyed

The table 5 shows the error in selection of PDS beneficiary. The table 5 revealed that only 17.4% are eligible beneficiaries and rest 82.6% are not eligible to be PDS beneficiaries out of 23 AAY households surveyed. Further, in the case BPL households only 4.7 % are eligible beneficiaries out of 64 households surveyed and rest are indicate presence of inclusion error.

### Conclusion

If we see the educational attainment of Head of family than it is very sad to know that highest illiterate members were found in the rural and followed by semi urban areas. In these regards the state government should come up with appropriate remedies to neutralize these problems.

The experts committee clearly stated that the possession of assets which include television set, refrigerator, fan, two or four wheeler, thresher, tractor, power tiller and more than five (5) acres of operational landholdings, in a family someone has regular job or who live in *pukka* house is automatically disqualified from the BPL list. However negligence in identification of beneficiaries has found in present studied.

The main causes of this inclusion error are negligence of implementing authorities. The families settled in urban areas are directly included in APL list and families reside in semi-urban and rural areas are included in either BPL or else AAY beneficiary list without analyze family economy strength.

## Bibliography

- Kripa Shankar (1997) *“Revamped Public Distribution System: Who Benefits and How Much?”* Economic and Political Weekly, Vol. 32, No. 13 (Mar. 29 - Apr. 4, 1997), pp. 629-630 <http://www.jstor.org/stable/4405218>
- Madhura Swaminathan and Neeta Misra (2001) *“Errors of Targeting: Public Distribution of Food in a Maharashtra Village, 1995-2000”* Economic and Political Weekly, Vol. 36, No. 26 (Jun. 30 - Jul. 6, 2001), pp. 2447-2454
- Mooij Jos (2001) *“Food and Power in Bihar and Jharkhand PDS and its Functioning”* Economic and Political Weekly, August 25, Pp 3289-3298
- K Sundaram (2003) *“On Identification of Households below Poverty Line in BPL Census 2002 Some Comments on the Proposed Methodology”* Economic and Political Weekly March 1, Pp 897-901
- Kripa Shankar (2004) *“How Efficient Is TPDS in Tribal Areas?”* Economic and Political Weekly May 22, Pp 2093-2096
- Mane, R.P (2006), *Journal of Asian and African Studies*, SAGE Publications, [www.sagepublications.com](http://www.sagepublications.com) (London, Thousand Oaks, and New Delhi) Vol 4(4): 299–37 DOI: 0.77/002909606065788
- Parikh, k. (998) ‘Food security: Individual and National’, in I.J. Ahluwalia and I.M.D Little (eds) *India’s Economic Reform & Development*: Oxford University Press
- Khera Reetika (2011), *“Revival of the Public Distribution System: Evidence and Explanations”*, VOL XLVI NO 44& 45 Economic & Political Weekly, Pp 36-50
- Nagavarapu et al (2011) *“Who is Targeted by India's Targeted Public Distribution System? (Preliminary; Under Revision)”* Economic & Political Weekly
- Mihika Chatterjee (2014) *“An Improved PDS in a ‘Reviving’ State Food Security in Koraput, Odisha”* Economic & Political Weekly November 8, 2014 VOL XLIX NO 45, Pp 49-59
- Jean Drèze and Reetika Khera (2013) *“Rural Poverty and the Public Distribution System”* Centre for Development Economics, Department of Economics, Delhi School of Economics, website: [cdedse.orgpdfwork235.pdf](http://cdedse.orgpdfwork235.pdf)