

PDS and Errors in Targeting: A Case Study of Khowang Development Block in Dibrugarh District

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Introduction :

Since independence, the Government of India (GOI) has been aiming at alleviation of poverty in different plan periods via various programmes. On a broad basis, poverty alleviation strategies undertaken by the GOI can be classified into three categories:

- (i) Rapid economic growth
- (ii) Various poverty alleviation schemes
- (iii) Minimum basic requirement programmes.

In this paper we are going to discuss about the Public Distribution System (PDS), one of the major programmes launched by the GOI to provide minimum basic requirements to the poor along with a noble objective to achieve food security.

What is PDS ?

PDS is a process through which the GOI procures the marketable surplus of some selected commodities from the open markets and then distribute these to the vulnerable sections at subsidized price through a network of fair price shops or use them in building up Buffer Stock. In 1997, the GOI implemented a new public distribution system having dual price structure named TPDS (Targeted Public Distribution System). In this system the issue prices for BPL families were fixed at half of the economic cost, while for APL families it was economic cost.

Objectives of the Study :

The main objectives of the paper are to analyze

- i) The present status of PDS in Assam.

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- ii) Is PDS pro-poor?
- iii) Is there any error in targeting?
- iv) Benefits obtained by the beneficiaries.

Hypothesis :

No error in inclusion and no error in exclusion exist in PDS. The error in inclusion means the covering of non-poor households by the scheme, while the error in exclusion occurs due to exclusion of poor households in the scheme.

Methodology :

To conduct our study we use both primary and secondary data. Primary data are collected through a sample survey from four villages of Khowang Development Block under Dibrugarh district. In the first stage, we have selected four Gaon Panchayat(GP) and then choose one village from each Panchayat. These are Bor-Ghugulani (Tinithengia GP), Phatika-Chowa-Chakalia (Tiloi Nagar GP), Natun Sologuri (Nakhat GP), and Kololuwa Gaon (Kololuwa GP). Both household and fair price shop survey was done in the sample villages. We observe ten households from each villages to collect relevant information. Secondary data are collected from different books, journals and Government Reports.

To test the hypothesis we use two Target Ratios (The formula of Target ratios TR_1 and TR_2 are taken from Dev, S Mahendra(2000): "Food Security with Emphasis on PDS vs EGS: A Tale of Two States"):

$$(a) TR_1 = (N^{RP} / N^R) \times 100 \text{ with } 0 < TR_1 < 100;$$

where N^{RP} = Number of poor people using the PDS
 N^R = Total number of people using the PDS

This ratio captures the error in inclusion. If TR_1 approaches to 100, it implies existence of less inclusion error. If it is 100, it is an ideal situation.

$$(b) TR_2 = (N^{RP} / N^P) \times 100 \text{ with } 0 < TR_2 < 100$$

where N^P = total number of poor.

This ratio is applied to justify the error in exclusion. If TR_2 deviates from 100 and approaches to zero, magnitude of exclusion error will be more.

Present Scenario of PDS in Assam :

In Assam, PDS has been performing a vital role in ensuring food accessibility to a good number of population with a network of more than 34,536 fair price shops covering 39 lakh families under APL category, 12.02 lakh families under BPL, 7.04 lakh households under Antodaya Anna Yojana (AAY) and 13 lakh under Mukhya Mantrir Anna Suraksha Yojana (MMASY).

But, the real picture of the PDS in Assam is not very much appreciable. This is because of high targeting errors, leakages, irregular arrival of grains to fair price shops, underdeveloped transportation facilities in rural areas which in turn compels the FPS agents to impose extra charge on the consumers etc. So far as the targeting errors is concerned, a very high exclusion error is observed in Assam as compared to other states. The following Table-1 shows a comparative scenario of errors in some states:

Table-1
A Comparative Scenario of Errors in Some State
(% of households)

States	Exclusion error	Inclusion error
Assam	47.29	17.16
West Bengal	31.74	10.23
Bihar	29.81	12.20
Uttar Pradesh	26.75	13.25
Punjab	7.75	12.33
Andhra Pradesh	3.20	36.39

Source: PEO Report (2005)

Moreover, a very high leakage (25%-50%) is found in Assam accompanied by Gujarat, Himachal Pradesh, Karnataka, Maharashtra and Rajasthan. However, Bihar and Punjab have recorded abnormal leakage (more than 75%).

Targeting Errors Observed in Sample Survey :

The observed sample villages are mainly agrarian and they follow traditional type of cultivation. Since Kololuwa and Sologuri villages are situated

on the bank of the Burhidihing River, sometimes they are affected by flood. For several reasons economic condition of most of the farmers is not sound. Large number of the people highly depend on PDS commodities. However, the demand for PDS food grain (rice) is seasonable. After harvesting season (generally December to April), demand for PDS rice is comparatively low than the other seasons.

Some important problems related with PDS observed in these villages are: targeting errors, overcharging on PDS commodities by the FPS agents to cover transportation costs, variation in the issue amount among the villages, inability of the FPS agents to bring the whole allotted amount, inability of the beneficiaries to purchase the total issued amount at a point of time.

From the survey we draw the following results (Table-2):

Table-2
Errors in the Sample Villages

Villages	Total Households using PDS	Non-Poor	Poor Beneficiaries			Inclusion of Non-poor Households	Exclusion of poor Households
		APL	BPL	MMASY	AAY		
Phatika Chowa Chakalia	160	54	13	73	10	7	16
Bor-Ghugulani	162	34	42	62	24	4	15
Natun Sologuri	126	39	21	53	13	3	12
Kololuwa	135	41	35	40	19	13	22

Source: Sample survey

- Note: i) For our convenience we broadly categorize total PDS beneficiaries as Non-poor (APL) and Poor beneficiaries where the latter includes BPL, MMASY and AAY beneficiaries.
- ii) AAY is a Centrally launched scheme to provide food grains to the poorest section at highly subsidized price.
- iii) MMASY is a scheme launched by the Govt. of Assam to cover the poor who deserved, but excluded from the BPL list of Centrally launched TPDS.

To know the magnitude of the errors we have computed targeting ratios for each sample villages as follows (Table-3):

Table-3
Target Ratios of the Sample Villages

Villages	TR ₁	TR ₂
Phatika Chowa Chakalia	60.00	85.71
Bor-Ghugulani	79.01	89.51
Natun Sologuri	69.04	87.87
Koluluwa	69.62	81.03

Source: Sample Survey

Benefits Earned by Each Household of the Sample Villages From PDS :

To analyze the benefits earned by each households of the sample villages from the PDS we adopt the following formula (This equation to measure the benefit due to PDS was used by Suryanarayana (1985) in his book *Public Distribution in India*) :

$$B = pq$$

where B= Income benefits due to rationing

p= Difference between open market and fair price

q= Quantity of off-take under the public distribution system.

Table-4
Benefits Earned from Different PDS Commodities
(in rupees)

Village	Benefit from Different Commodities						
	Rice				Sugar	Kerosene	Atta
	APL	BPL	MAY	AAY			
Phatika chowa chakalia	90	400	260	543	69	28	—
Bor-ghuguloni	90	384	280	560	46	32	20
Notun Sologuri	100	442	280	578	44	32	30
Koluluwa	100	429	280	544	62.5	36	-----

In the above Table-4 some differences regarding the benefit earned by

each household of different sample villages has been observed. These are due to the overcharge by the FPS agents on the PDS commodities and variation in the issued amount of these commodities.

Findings :

1. Both error in inclusion and error in exclusion are present in our sample villages.
2. Error in exclusion is higher than the error in inclusion. This finding is similar to the all Assam level result estimated by PEO (2005).
3. Theoretically error in exclusion is more severe than the errors in inclusion. Because the large number of poor are deprived by the scheme. So we can say that PDS is less pro-poor in rural areas of Assam. Hence the goal of poverty alleviation by PDS is partially achieved.
4. Main causes of exclusion error –
 - A. Division of joint families.
 - B. Migration of (poor) households from one place to another.
5. Main causes of inclusion error –
 - A. Some of the households were initially poor. But with the passage of time they have come across the poverty line. But they are still in the BPL lists.
 - B. Some households illegally included their names in BPL lists inspite of being non-poor.
Moreover some kinds of political interventions also stimulates the inclusion and exclusion error.
6. In the village areas the demand for PDS commodities (specially rice) is seasonal. Generally the demand for PDS rice is low after harvesting.
7. Sometime the FPS agents are incapable to purchase total amount of PDS commodities allotted to them so as to fulfill the demand of all beneficiaries due to financial constraint.

Policy Implication :

1. The problem of exclusion of poor can be reduced to some extent if the system of issuing new cards become simple so that the new poor households formed due to division of joint families and migration can obtain new ration cards immediately.
2. Frequent revision of the BPL lists is very essential to minimize the

problem of inclusion of the non-poor. Political unbiasedness will help in effective implementation of this policy.

Conclusion :

Though targeting errors, leakages etc are a big issue of PDS, but it plays an important role in providing food subsidy to the poor. Government should give more importance on Employment Generation Schemes(EGS) along with PDS. It will provide more food accessibility and enlarge the choices of the beneficiaries. Besides, regarding viability of PDS, emphasizing EGS becomes need of the hour. It is expected that errors in inclusion and exclusion will be less in EGS as compared to PDS. Because, under EGS generally the poor people prefer to work for their livelihood, but the rich do not like to do so since they have other means of livelihood.

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