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Two Decades of Geographical Targeting in Food Distribution: Drawing Lessons from an Indian State

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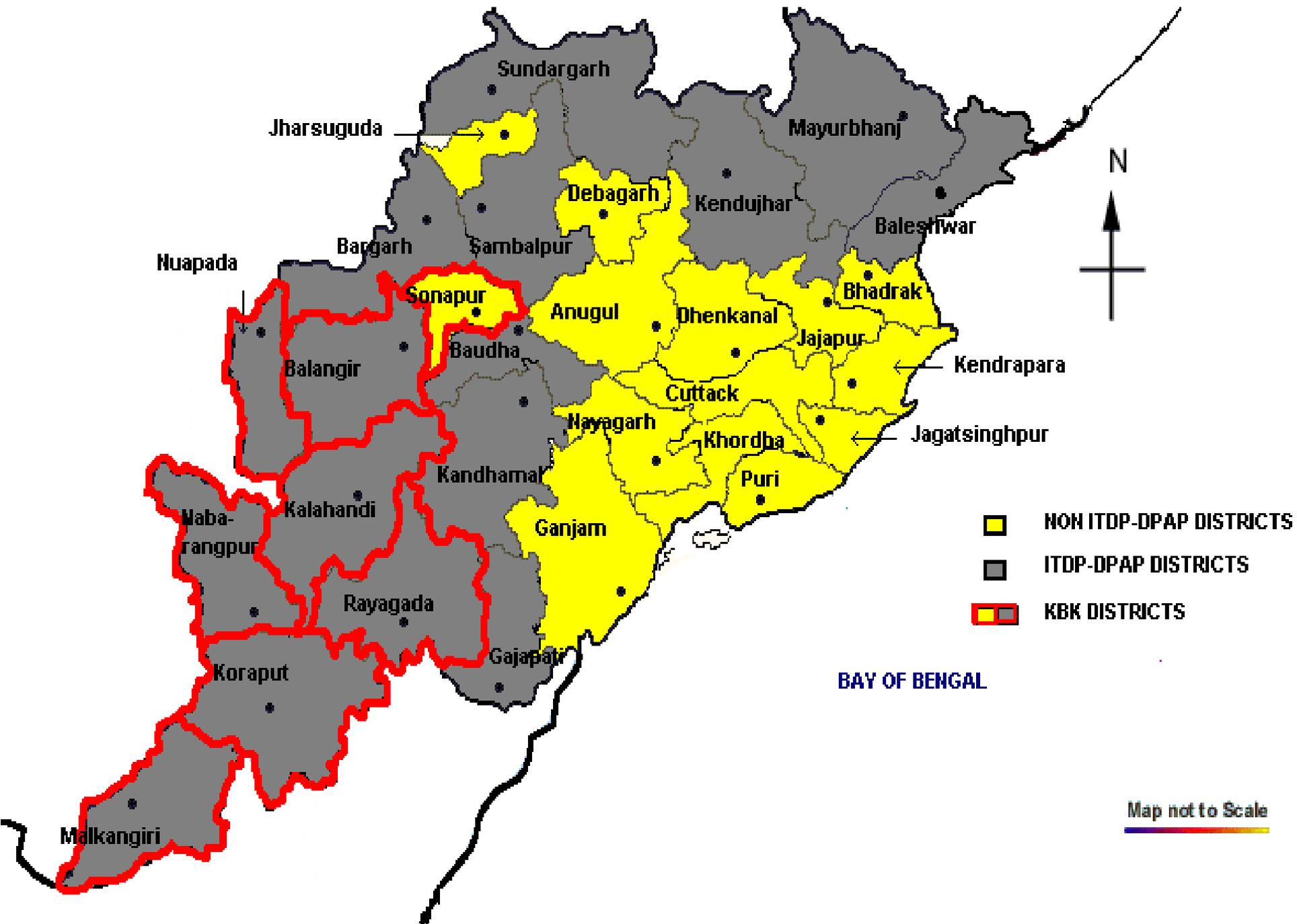
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Table 1 *Classification of districts based on PDS policy of the State government, Odisha*

ITDP-DPAP districts	KBK districts	Non-ITDP-DPAP districts
Balasore	Kalahandi	Angul
Baragarh	Nuapada	Bhadrak
Boudh	Bolangir	Cuttack
Gajapati	Sonepur	Deogarh
Kandhamal	Koraput	Dhenkanal
Keonjhar	Nabarangpur	Ganjam
Mayurbhanj	Malkangiri	Jagatsinghpur
Sambalpur	Rayagada	Jajpur
Sundargarh		Jharusguda
		Kendrapara
		Khurda
		Nayagarh
		Puri

Note: KBK districts also fall under the ITDP-DPAP districts; however, pricing policies under PDS have been framed separately for the KBK districts.



Geographical targeting: A complex picture

Pre 1992-93

Universal PDS in all districts

1992-93 to 1996-97

Revamped PDS in ITDP-DPAP districts
Universal PDS in non-ITDP-DPAP districts

1997-98

(first stage of targeting)

Division into BPL and APL families in all districts

1997-98

(second stage of targeting)

Additional State government subsidy to BPL families in ITDP-DPAP and KBK districts

August 2000

(third stage of targeting)

Central government subsidy to APL families in KBK districts

December 2001

(fourth stage of targeting)

AAV families – new group of cardholders



Table 3 *Quantity entitlements of foodgrains during RPDS and TPDS in Odisha, 1992 onwards, in kg*

Years	ITDP-DPAP districts		Non-ITDP-DPAP districts	
	<i>Revamped Public Distribution System</i>			
1992-97	20+5		20	
	<i>Targeted Public Distribution System</i>			
	BPL	APL	BPL	APL
1997-99	10	10	10	10
1999 till date	16+9	25	25	25

Source: 1. Economic Survey, Government of Odisha, various issues.
2. Department of Food and Civil Supplies, Government of Odisha.

RPDS	CIP		SIP (ITDP-DPAP)		SIP (KBK)		SIP (Non-ITDP-DPAP)		Average retail price of common rice
1991-1992	3.77		3.27		3.27/2.00*		4.32		4.84
1992-1993	3.77		3.27		3.27/2.00*		4.98		5.18
1993-1994	4.37		5.12		5.12/2.00*		6.22		6.37
1994-1995	5.37		5.12		5.12/2.00*		6.22		7.14
1995-1996	5.37		5.12		5.12/2.00*		6.22		7.63
1996-1997	5.37		5.12		5.12/2.00*		6.22		8.22
TPDS	BPL	APL	BPL	APL	BPL	APL	BPL	APL	
1997-1998	3.50	7.00	2.00	4.00	2.00	4.00	4.00	10.05	8.67
1998-1999	3.50	9.05	2.00	4.00	2.00	4.00	4.00	10.05	9.97
1999-2000	3.50	9.05	2.00	4.00	2.00	4.00	6.50	10.05	8.77
April 2000 - August 2000	5.65	11.30	5.00	6.50	5.00	6.50	6.30	10.05	7.97
August 2000 – April 2001	5.65	8.30	4.75/6.30#	9.25	4.75/6.30#	6.30	6.30	9.25	7.95
April 2002 – July 2002	5.65	7.30	4.75/6.30#	8.20	4.75/6.30#	6.30	6.30	8.20	7.98
July 2002 onwards	5.65	8.30	4.75/6.30#	9.30	4.75/6.30#	6.30	6.30	9.30	7.98
2002-03	5.65	8.30	4.75/6.30#	9.30	4.75/6.30#	6.30	6.30	9.30	7.78
2003-04	5.65	8.30	4.75/6.30#	9.30	4.75/6.30#	6.30	6.30	9.30	8.63
2004-05	5.65	8.30	4.75/6.30#	9.30	4.75/6.30#	6.30	6.30	9.30	8.79

Retail price of PDS rice in Odisha from
1997-98 to 2013

Figure 1 CIP and SIP of rice for BPL families in Orissa at 1986-87 constant prices, 1991-92 to 2004-05

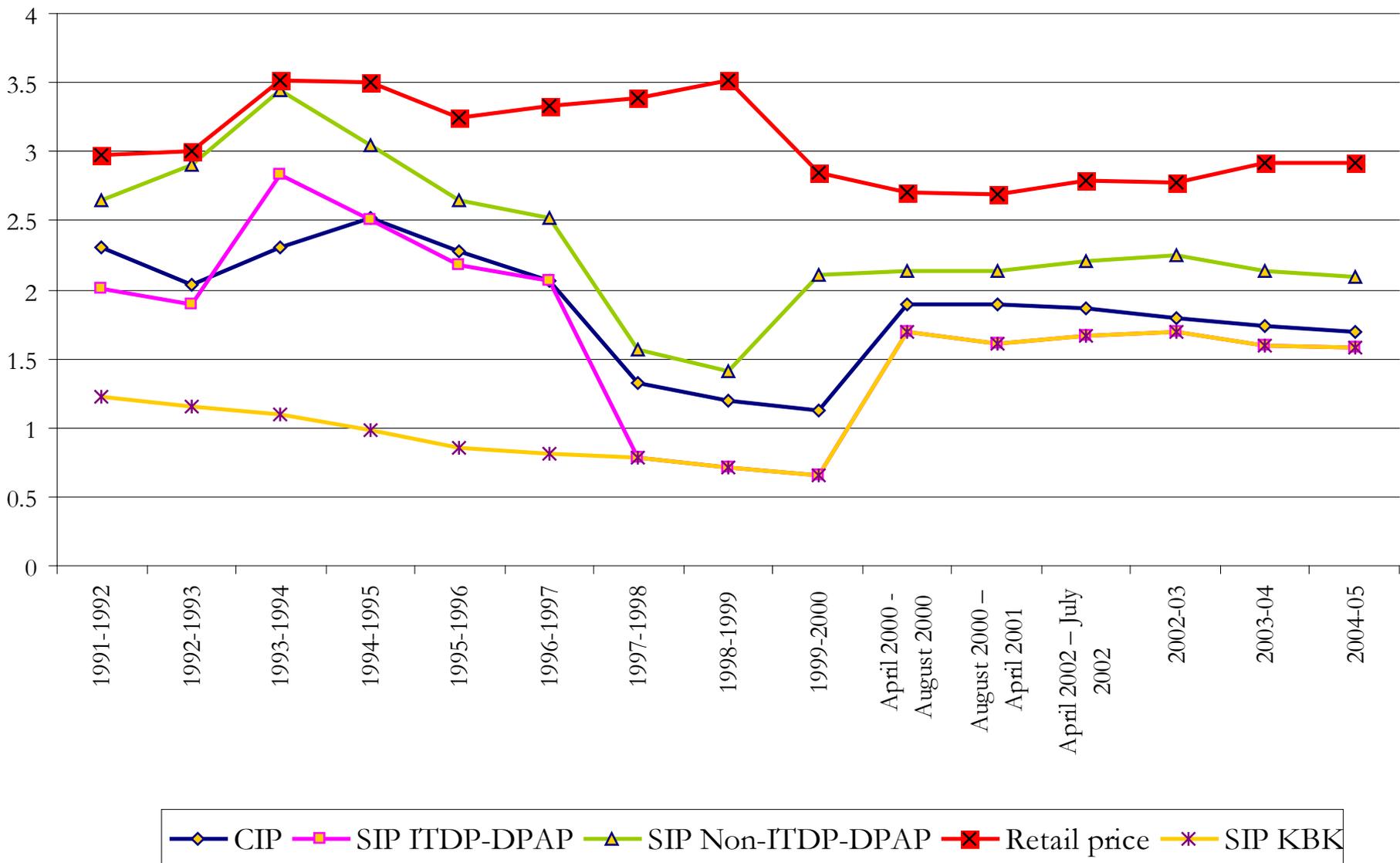


Table 5 *Implicit subsidy per household for the total quantity entitled from PDS in Odisha, (in Rs. per month) at 1986-87 constant prices*

KBK district	BPL family	APL family
1991-92 (UPDS)	34.8*	19.2*
1998-99 (TPDS first phase)	28.1	21.1
2002-2003 (TPDS second phase)	22.05	8.48
Non-ITDP-DPAP district		
1991-92 (UPDS)	6.4**	6.4**
1998-99 (TPDS first phase)	21.1	-0.3
2002-2003 (TPDS second phase)	13.25	-13.5

* Under the differential price mechanism

** No targeting

Amount of subsidy given by

$$(P_1 - P_2) \times Q$$

P_1 = Open market price

P_2 = SIP

Q = Quantity entitled from PDS

Policy reversal in August 2008

- Retail price of BPL rice reduced to Rs 2 per kg across all BPL households in all the districts
- Retail price of APL rice reduced to Rs 2 per kg in the KBK districts

Policy reversal in February 2013

- Retail price of BPL rice reduced to Re 1 per kg across all BPL households in all the districts
- Retail price of APL rice reduced to Re 1 per kg in the KBK districts

The study villages: Taraput revenue village (Koraput) and Kalabhera revenue village (Nuapada)

- **16 ITDP-DPAP districts ranked in order of share of BPL families to total rural families as per the 1997 BPL survey. Selected: Koraput (83.8 per cent) and Nuapada (85.7 per cent).**
- **Blocks in each district ranked on the basis of share of rural agricultural workers to total rural workers. Selected: Kundura (60.6 per cent) from Koraput district and Nuapada (51 per cent) from Nuapada district.**
- **A shortlist was prepared in which only villages that had benefited from some government wage employment programme during the agricultural year of 2004-05 were included. One revenue village chosen by simple random sampling. They were Taraput (Kundura block, Koraput district) and Kalabhera (Nuapada block, Nuapada district).**
- **Houselisting based on census enumeration of all households – 40 per cent chosen as sample by the method of simple random sampling. Detailed village survey conducted in April and May 2005.**

Table 2 *General characteristics of Taraput and Kalabhera villages, 2004-05*

Revenue village	Taraput	Kalabhera
Block	Kundura	Nuapada
District	Koraput	Nuapada
Distance from nearest town	15 Kms (approx.)	3 Kms (approx.)
Agriculture	Single crop of paddy and some ragi	Double crop of paddy
Number of households	274	142
Literacy status (All persons)		
Literacy rate (%)	31.7	44.3
Male literacy (%)	35.6	56.8
Female literacy (%)	28.3	32.2
Social group (All persons)		
Scheduled caste (%)	19.8	20.5
Scheduled tribe (%)	36.7	30.5
Other backward class (%)	25.6	47.2
Other (%)	5.1	1.8
Activity status (working age group, 15-59 years)		
Cultivators (%)	9.7	13.2
Hired manual labour in agriculture and non-agriculture (%)	65.1	63.0
Other (%)	25.2	23.8
Landless households (%)	44	22.6

Exclusion in the study villages, 2005

Number and share of households owning ration cards, Taraput and Kalabhera villages, April – May, 2005, (in per cent)				
Type of card	Taraput		Kalabhera	
	Number	Per cent	Number	Per cent
AAY card	21	8	6	4
BPL card	142	51	71	50
Annapurna card	0	0	1	1
No card	111	41	64	45
All households	274	100	142	100

Note: A repeat study of the two villages was done in February 2008. No APL or additional BPL cards had been distributed amongst the households.

Following Cornia and Stewart (1993) the total number of included and excluded households can be expressed as:

$$N = MVHi + LVHi + MVHe + LVHe$$

$$\text{Error of exclusion} = MVHe/N = MVHe'$$

$$\text{Error of inclusion} = LVHi/N = LVHi'$$

Table 8 Targeting errors of exclusion and inclusion of Most Vulnerable Households (MVH) and Less Vulnerable Households (LVH) in Taraput and Kalabhera villages, April – May 2005

	MVHi'	MVHe'	LVHi'	LVHe'	N
Criteria	%	%	%	%	%
<i>Taraput village</i>					
Social group	57.2	35.9	1.8	5.1	100
Main Occupation of head of household	43.8	26.8	15.2	14.1	100
Operational holdings	51.4	21.5	12.1	15.0	100
Household assets	56.1	30.8	8.4	4.7	100
<i>Kalabhera village</i>					
Social group	50.3	32.9	4.9	11.9	100
Main occupation of head of household	47.6	21.7	7.7	23.1	100
Operational holdings	41.5	22.6	9.4	26.4	100
Household assets	39.6	13.2	9.4	13.2	100

Source: Survey data, 2005

Extent of exclusion: NSSO, 2007

State	AAY card	BPL card	Other card	No card
Rajasthan	3	16	78	4
Himachal Pradesh	6	11	76	7
West Bengal	3	27	61	8
Tamil Nadu	2	19	69	11
Punjab	0.1	12	76	12
Gujarat	1	36	50	13
Haryana	3	16	68	13
Kerala	2	28	57	13
Maharashtra	4	31	46	19
Uttar Pradesh	3	14	65	19
Bihar	2	15	60	23
Jharkhand	3	23	51	23
Karnataka	10	42	26	23
Assam	0.6	12	63	25
Andhra Pradesh	3	54	16	28
Madhya Pradesh	3	31	38	28
Chhattisgarh	4	35	32	29
Odisha	2	42	23	33
India	2.9	26.5	51.8	18.7

Who are the excluded?

NSSO, 2007

Percentage of households by household characteristics and by type of ration card, Odisha, rural

Household characteristics	Households in each category	By land category			
		AAY and BPL	APL	No card	All
< 0.4	36	37.3	22.0	40.7	100
0.41-1	41	52.5	20.3	27.2	100
1.01-2	16	45.0	25.1	29.9	100
2.01-4	4	36.0	28.2	35.8	100
> 4.01	1	15.1	37.4	47.5	100
All	100	44.4	22.5	33.1	100

Who are the excluded?

NSSO, 2007

By occupation category

Household characteristics	Households in each category	AAY and BPL	APL	No card	All
Self-employed in non-agriculture	18	38.8	25.4	35.8	100
Agricultural labour	30	59.8	13.5	26.7	100
Other labour	10	46.1	19.8	34.2	100
Self employed in agriculture	30	42.8	26.4	30.8	100
Others	12	16.8	32.9	50.3	100
All	100	44.4	22.5	33.1	100

Who are the excluded?

NSSO, 2007

By social group category					
Household characteristics	Households in each category	AAy and BPL	APL	No card	All
ST	28	54.8	11.5	33.7	100
SC	18	54.9	16.7	28.4	100
OBC	38	38.6	27.7	33.6	100
Others	16	28.1	35.7	36.3	100
All	100	44.4	22.5	33.1	100

The PDS policy in the backdrop of number of 'poor' in Odisha

- More than 80 per cent of rural households continue to consume less than the calorific requirements (NSSO, 2004-05)
- Official head count ratio of poverty (49.8 per cent in 1993-94; 46.9 per cent in 2004-05)
- Percentage of BPL households in Odisha (66.37 per cent): 1997 BPL survey
- Wide inter-district disparity (ranges between 49.02 per cent in Jharsuguda to 85.7 per cent in Nuapada)

Implications of the policy in Odisha

- Two decades of geographical targeting has created multiple categories of consumers and multiple prices for the same categories of consumers
- While revamped PDS in the form of geographical created multiple categories of consumers with different retail price of PDS rice, narrow targeting in the form of targeted PDS completely removed a section of consumers from the PDS who could otherwise be classified as 'poor' without the faulty design of BPL surveys
- The inherent limitations of repeated BPL surveys and narrow targeting has created a group of 'new BPL families' who do not have the entitlement to access cheap and subsidized food

Implications of the policy in Odisha

- The recent policy reversals of August 2008 and February 2013 does not take care of the 'new BPL consumers' in the KBK districts of the State who do not yet have ration cards
- Scholars like Dreze and others have shed light on revival of PDS in Odisha. While the revival may be happening, there are large numbers of "chronically poor" households that are still out of the fold of PDS.