

Dynamics of Poverty and Food Insecurity In Orissa: Macro Analysis and Case studies

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Background

POVERTY IN INDIA

- ❑ 1947: 60 percent of the population living below the poverty line.
- ❑ Today, came a long way its drive towards struggle against **chronic poverty, faster economic growth and human capitals.**

As per planning Commission estimates

- ❑ **population** grew from 350 million to 1.20 billion,
- ❑ **food production** went up from 55 to 230 million tones;
- ❑ **literacy** increased from 18 to 65 percent and
- ❑ **life expectancy** improved from 32 to 67 years .

Poverty... in recent years has declined substantially. The steady decline from mid-1960s to early 1980s was strongly associated with **agricultural growth**

- Since then, the causes for the decline are attributed more to the increasing **non-farm wages and employment,**
- Govt.spending on poverty alleviation program has also registered phenomenal increase and thus benefited the poor and the marginalized to a large extent

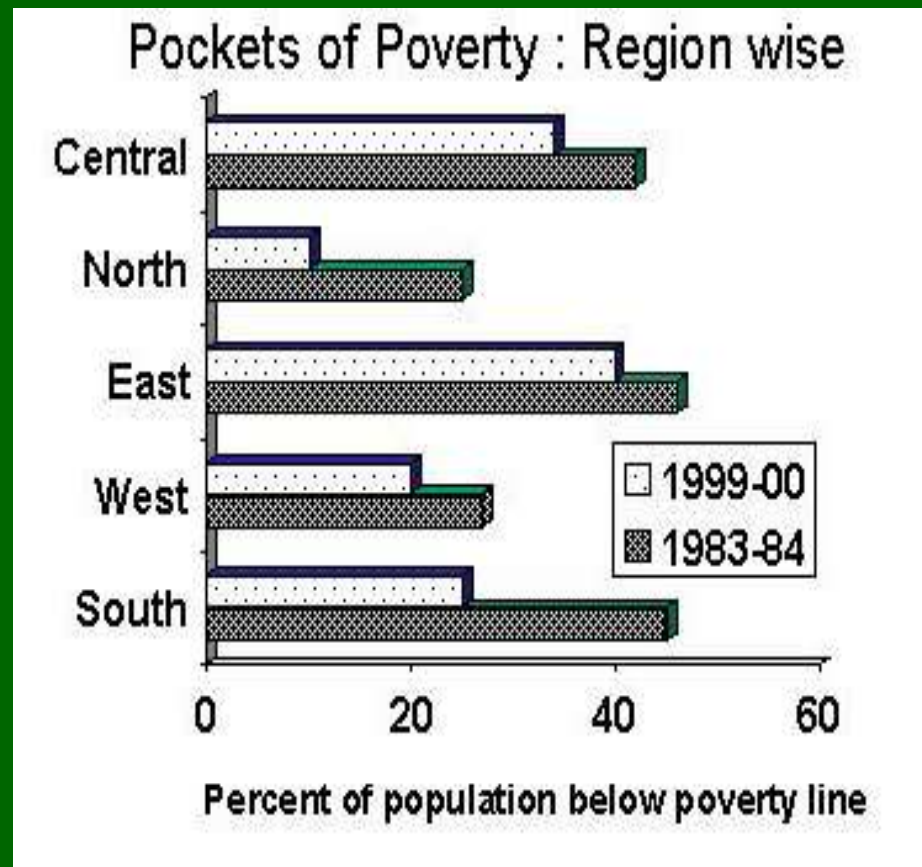
Poverty Estimate approach

TWO approaches:

- ❑ head count ratio that quantifies income poverty and
- ❑ poverty line concept based on minimum calorie intake.
- However, both have their own merits- eg.
- ✓ poverty line is closely connected to **food insecurity and depth of hunger**
- ✓ while head count ratio is interpreted more in terms of **livelihood opportunity**.
- And these two approaches, have been providing **valuable insights** for overall **dynamics of poverty**

Extent of Poverty and Regional Spread

Period	Rural	Urban	Total
1973-74			
Million	261.0	60.0	321.0
Ratio	50.4	49.0	54.9
1983			
Million	262.0	71.0	323.0
Ratio	46.7	40.8	44.5
1993-94			
Million	244.0	75.0	320.0
Ratio	37.3	32.4	38.0
1999-00			
Million	193.0	67.0	250.0
Ratio	21.1	23.6	26.1
2004-05			
Ratio	21.80	21.70	21.80



Orissa

- ❑ Poor most state of Indian Union, located in the East Coast of India.
- ❑ Economically backward though resourceful in many fields.
- ❑ Frequently attacked by multifarious disasters like flood, drought and cyclone due to its geo-physical locations.
- ❑ Agriculture is the mainstay of the people with involvement of about 85% population.



Data used for analysis

- ❑ Various Rounds of NSS data used for Macro Analysis
- ❑ Published and Unpublished state Govt. data were also used
- ❑ Micro data from the VLS Project spread over two districts has used.
- ❑ Dhenkanal from central Table Land
- ❑ Balangir district From the KBK poverty Pockets used for the study

50 th	July 1993 - June 1994
55 th	July 1999 - June 2000
56 th	July 2000 - June 2001
57 th	July 2001 - June 2002
58 th	July 2002 - Dec 2002
59 th	Jan 2003 - Dec 2003
60 th	Jan 2004 - June 2004
61 st	July 2004 - June 2005
62 nd	July 2005 - June 2006
63 rd	July 2006 - June 2007
64 th	July 2007 - June 2008
65 th	July 2008 - June 2009
66 th	July 2009 - June 2010

Districts of Orissa



Incidence of Poverty in Orissa and India 1973-74 to 2004-05

Year	Orissa (%)			India (%)		
	Rural	Urban	Total	Rural	Urban	Total
1973-74	67.28	55.62	66.18	56.44	49.01	54.88
1977-78	72.38	50.92	70.07	53.07	45.24	51.32
1983	67.53	49.15	65.29	45.65	40.79	44.48
1987-88	57.64	41.53	55.58	39.09	38.20	38.36
1993-94	49.72	41.64	48.56	37.27	32.36	35.97
1999-00	48.01	42.83	47.15	27.09	23.62	26.10
2004-05*	39.80	40.30	39.90	21.80	21.70	21.80

* Based on MRP Consumption.

Incidence of poverty by NSS Regions, Rural Orissa: 2004-05, 1999-00, 1993-94



	to Poverty	MPCE	Sample Households (number)
2004-05*			
01		475.84	3518
30		333.25	1520
39		404.04	2635
00		423.88	7673
1999-2000			
44		425.18	1795
40		246.29	575
15		368.59	1107
00		372.95	3477
1993-94			
03		226.57	1590
26		179.22	638
71		232.04	1110
00		219.80	3338

Social group wise Poverty Incidence in Orissa 1973-74 to 2004-05

Social Group	HCR	Contribution to Poverty	MPCE	Sample Households (numb
2004-05*				
ST	64.30	44.88	307.89	1750
SC	38.60	20.59	382.11	1415
OBC	24.50	27.20	454.99	3042
OTHERS	15.60	7.33	556.74	1466
Total	35.53	100.00	398.91	7673
1999-2000				
ST	73.10	41.01	284.55	861
SC	52.30	22.74	351.10	747
OBC	39.70	26.02	394.96	1069
OTHERS	24.01	10.23	477.80	800
Total	48.14	100.00	372.95	3477
1993-94				
ST	71.31	35.98	175.10	816
SC	49.79	18.51	212.02	628
OTHERS	40.23	45.51	242.30	1894
Total	49.81	100.00	219.80	3338

* Tentative Analysis of Pooled NSS data using MRP Method.

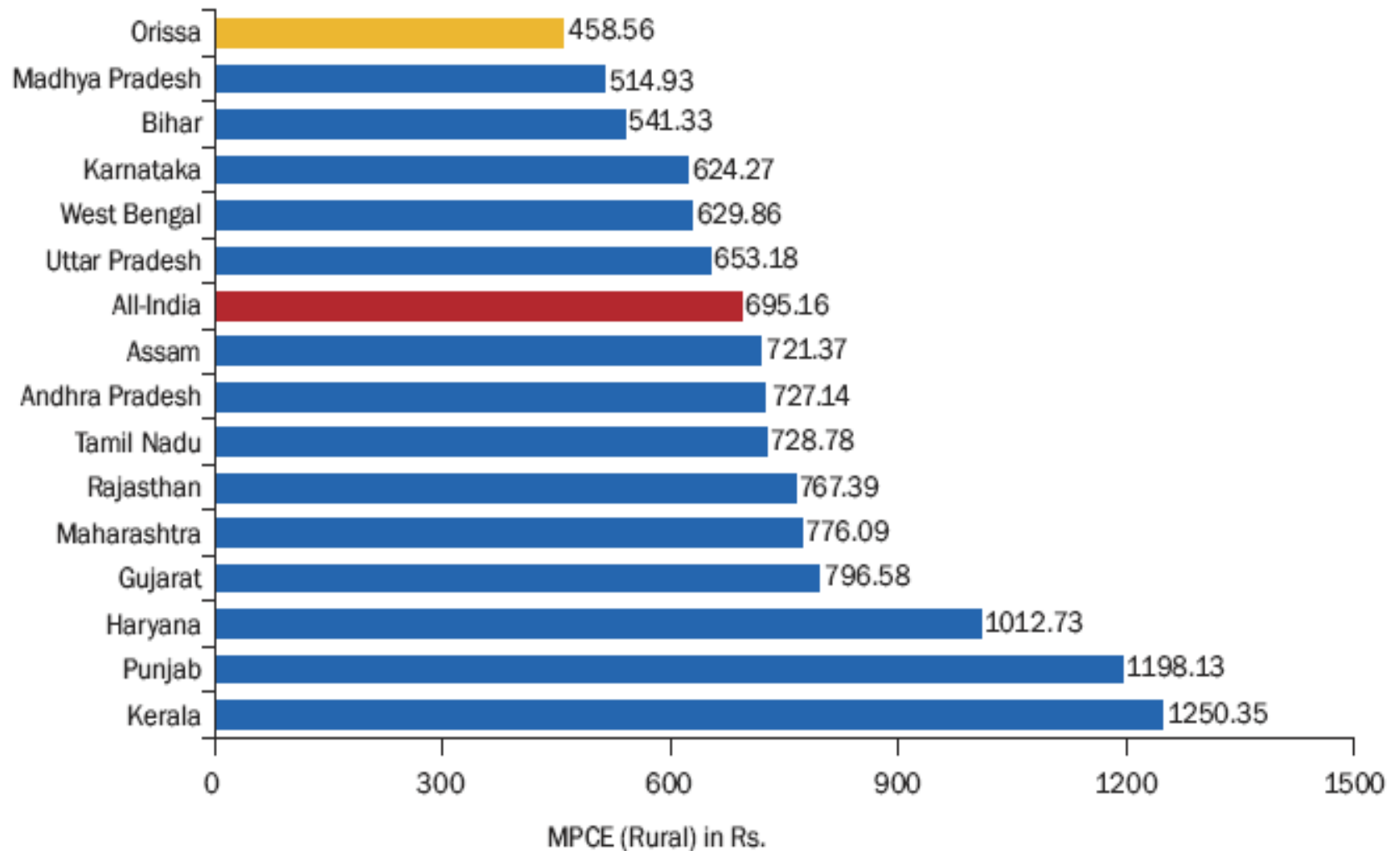
Incidence of Poor and Calorie Poor across Regions in Orissa, 2004-05

Region	Rural					Urban				
	Head count		Share			Head count		Share		
	Poor (%)	Cal poor (%)	Popula tion (%)	Poor (%)	Calorie Poor (%)	Poor (%)	Cal poor (%)	Popula tion (%)	Poor (%)	Calorie Poor (%)
Coastal	27.4	64.6	46.4	27.1	40.1	44.1	40.5	49.8	49.1	40.9
Southern	72.7	91.5	18.6	28.9	22.8	55.0	64.4	10.0	12.4	13.1
Northern	59.1	79.1	35.0	44.0	37.0	42.9	56.5	40.1	38.5	46.0

Poor: Monthly per capita exp below poverty line

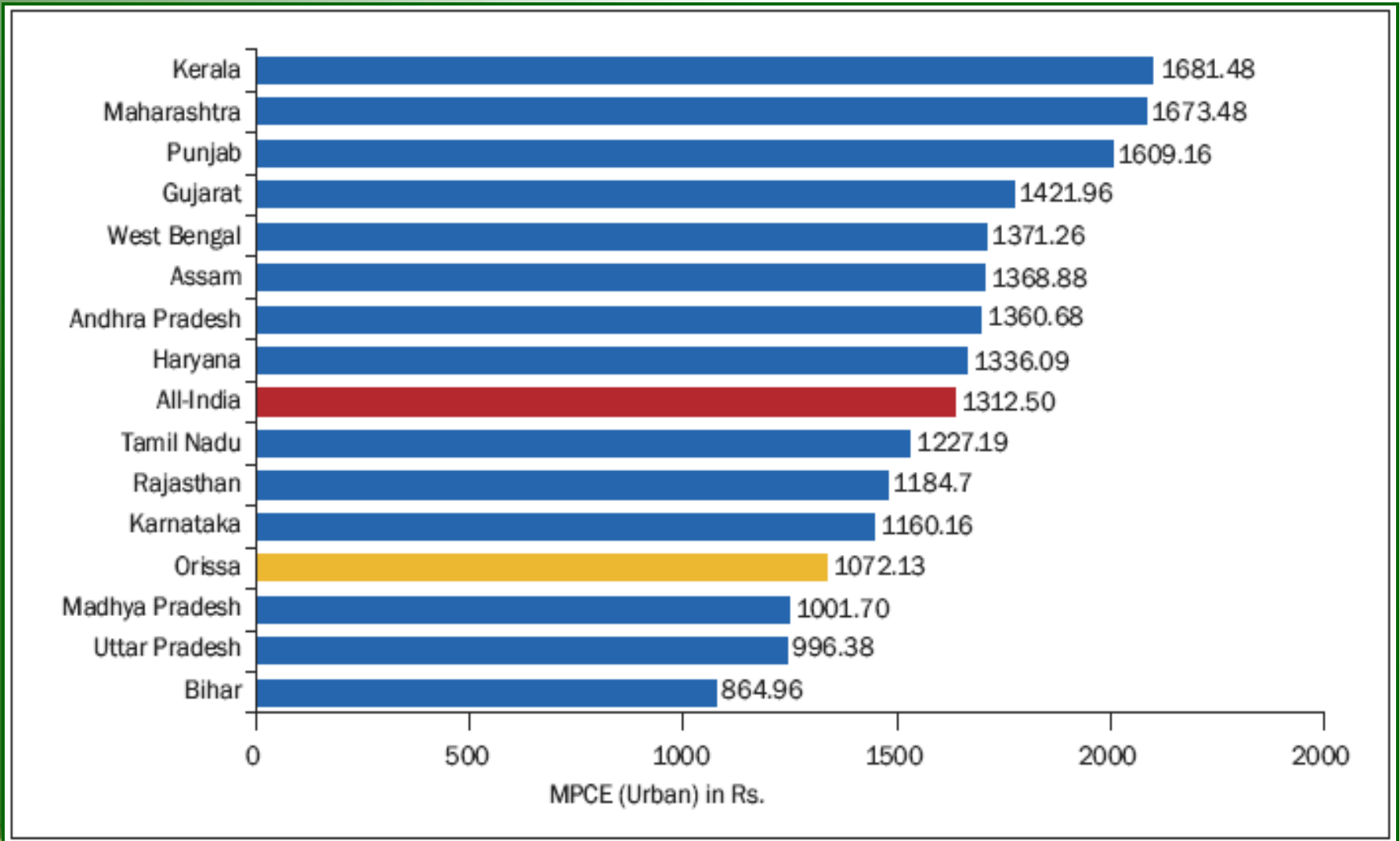
Cal Poor: Below 2400 cal per capita in rural area and 2100 cal in urban area

State wise monthly per capita expenditure (NSS 63rd round)

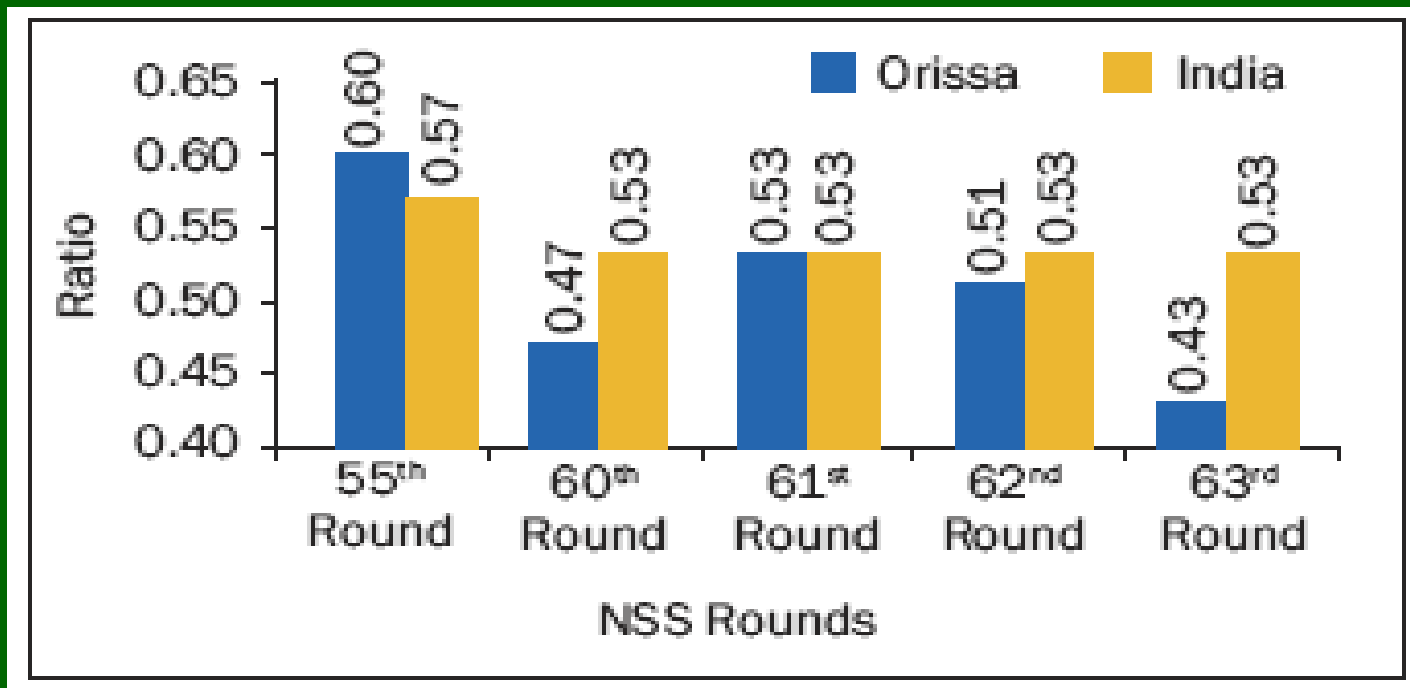


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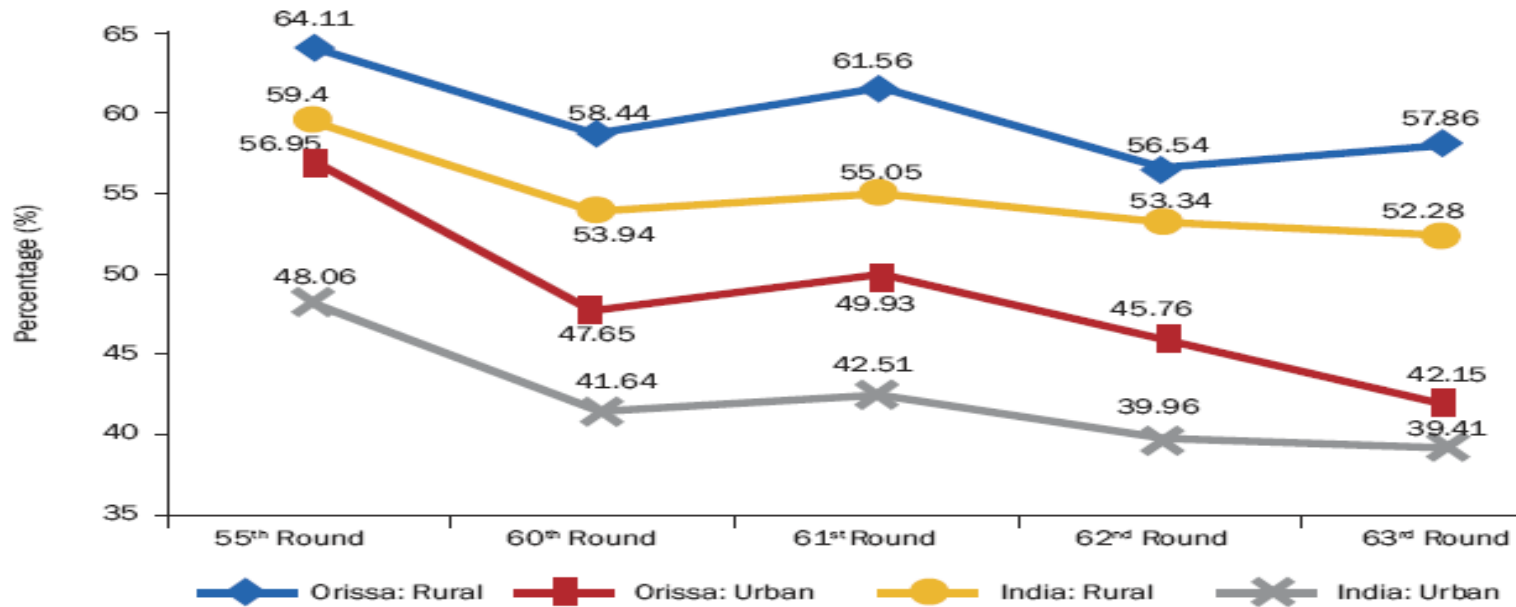
Figure 2.21, State-Wise Monthly Per Capita Consumer Expenditure (Urban) as per 63 Round of NSS



Rural Urban Gap with respect to per capita expenditure

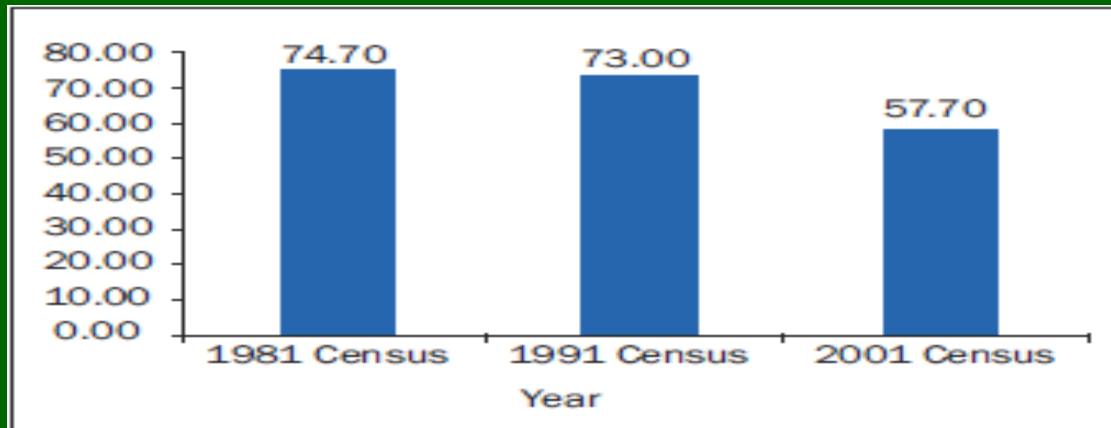
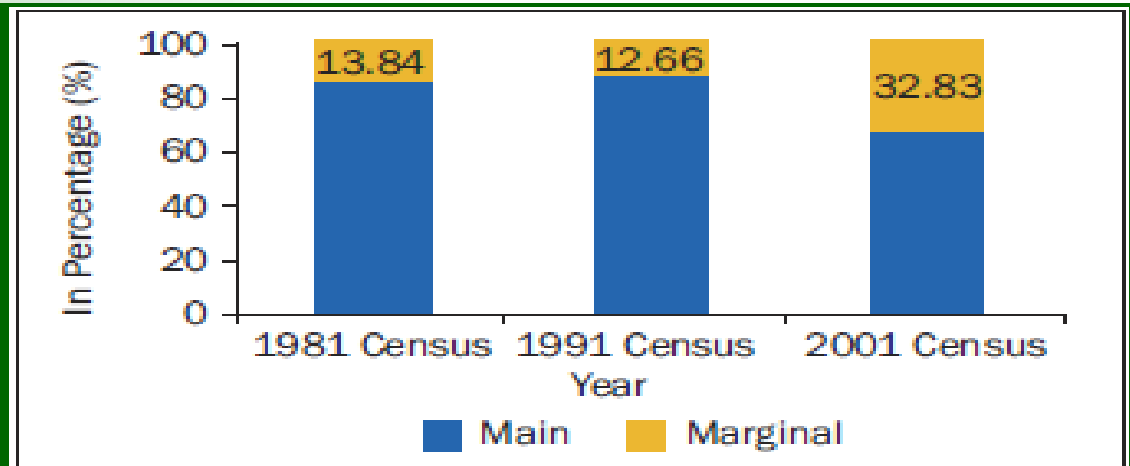


Engel's Ratio, Orissa Versus All India



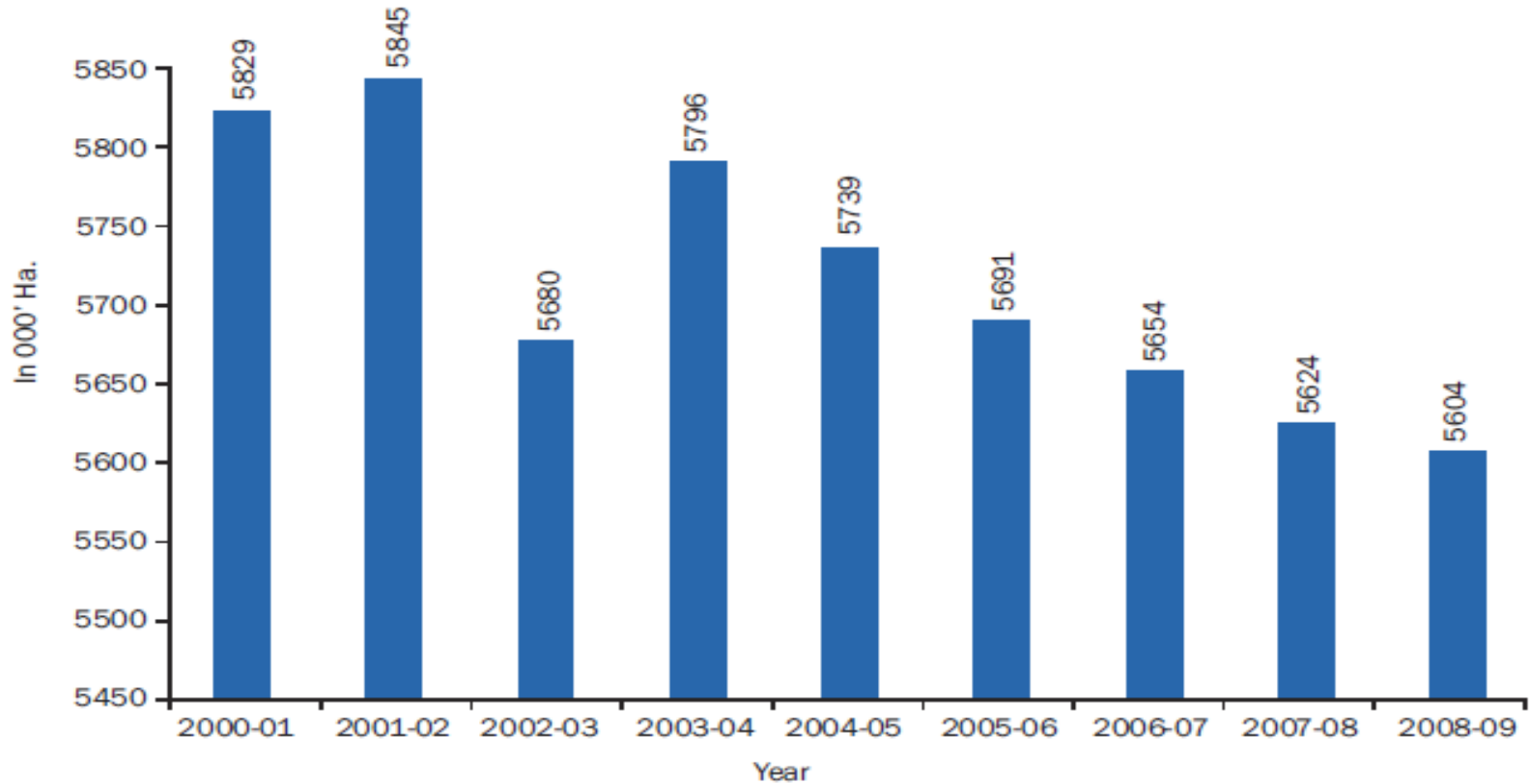
- ❑ Share of Food to total expenditure: Indicator for Standard of Living
- ❑ Table Reveals that Ratio of Urban and Rural Orissa is higher than national level

Status of main and marginal workers



Share of Cultivators/ ag. Workers have sharply declined in main worker, appears to shift from ag/allied activities

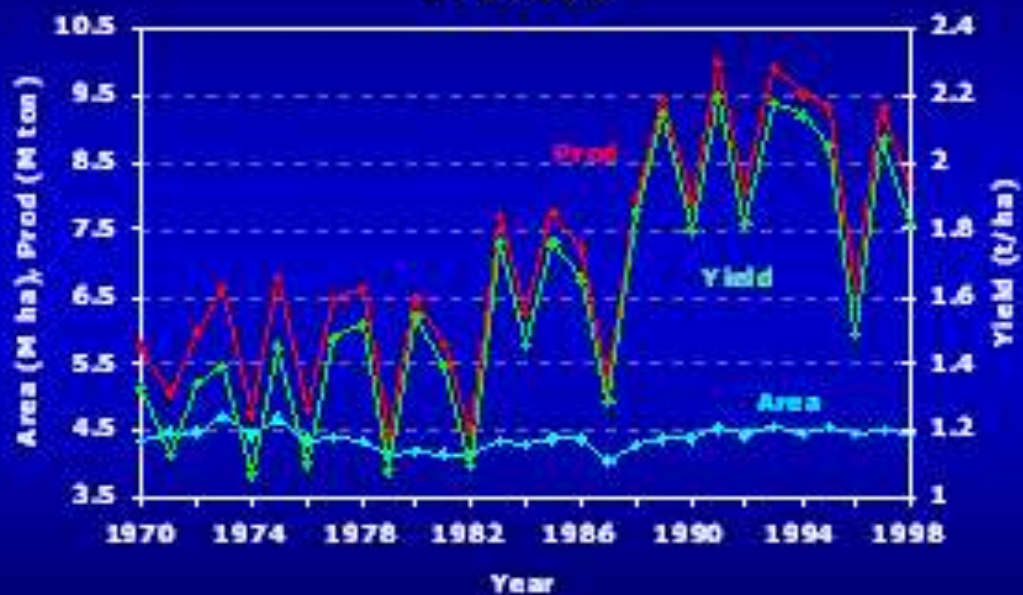
Net Area Sown in Orissa 2001-09



Yield Gap in Rice Production



Trend in rice area, yield and production in Orissa



Agricultural Productivity Indicator for India and Orissa

AGRI. Indicators	Orissa	India
Per capita food production in Kg	164	209
<i>Per capita food production (kg)</i>	164	209
<i>Rice yield (kg/ha)</i>	1210	1930
<i>Food grain yield (qt/ha)</i>	10.8	16.2
Rice Yield Kg/ha	1210	1930
<small>Source: Directorate of Food Production and Statistics, Orissa and Directorate of Statistics, Orissa and Directorate of Economics and Statistics, Ministry of Agriculture, Government of India</small>		
Food Grain Yield Qt/ha	10.8	16.2
<small>Source: Directorate of Food Production and Statistics, Orissa Directorate of economics and statistics, MOA,GOI</small>		

Health and Nutrition Indicators for Women and Children in orissa

Indicator	Orissa	India
Infant mortality (per 1000 live births)	65	57
% Children 0 to 3 underweight	44	46
% Infants 12 to 23 months who are fully vaccinated	52	44
% households using piped drinking water	10.2	42.0
% households with toilet facilities	19.3	44.5

Source: Ministry of Health and Welfare (2006)

Social Categories classified Extremely Food Insecure

Specified Population and Group	Proportion of Extremely Food Insecure
Coastal	3.4
Northern	9
Southern	14.8
Agricultural Labourer	11.8
Non Agricultural Labourer	10.9
Cultivator	8.7
Other Labourer	5.8
Self Employed	3.4
Regular Salary Earner	1.6
Male Head of Household	8.6
Female Headed Household	9.7
Scheduled Caste	7.8
Scheduled Tribes	16.5
Orissa as a whole	8.6

Source: Poverty Task Force, Govt. of Orissa 2004

Livelihood groups in Orissa

Region / Livelihood Group	Northern Plateau	Central Table Land	Coastal Plain	Eastern Ghats
Agriculture Labourer	17.87	24.39	24.86	29.10
Marginal Farmer	25.59	20.66	18.55	26.48
Small Farmer	14.56	10.62	6.73	10.72
Rural Artisan	9.68	1.45	2.22	2.14
Other Groups	32.30	42.88	47.64	31.56

Natural Disasters and Frequency

CYCLONE	FLOOD	DROUGHT
1990	1992	1993
1994		1996
1996	1995	1998
1999	2003	2000
	2005	2001
	2008	2002
		2008
	2011	2011

Poverty indicators of the study districts

Particulars	Health Index	Income Index	Education Index	Human D. Index	HDI Rank
Bolangir	0.468	0.504	0.666	6.546	21
Dhenkanal	0.468	0.534	0.773	0.541	12
Orissa	0.468	0.545	0.723	0.579	30

Major Agriculture indicators in Study Area

Particulars	Rain fall (mm)	Cropping Index (%)	Poverty ratio (percent)
Bolangir	1289.8	140	48.79
Dhenkanal	1428.8	161	47.53
Orissa	1451.2	158	46.46

Agro economic indicators of Orissa (area in 000'ha)

Districts	Normal rainfall (mm)	Geographical Area	Cultivated Area	GCA Area	Cropping Intensity (%)	Net Irr. Area	Gross Irrigated Area	Poverty Ratio
Dhenkanal	1421.1	460	227	293	147	35.75	50.22	47.53
Bolangir	1443.5	655	338	449	136	41.75	75.95	48.79
Total Orissa	1502.6	15571	6420	141	152	2231	3318.15	46.40

Distribution of Operational Holdings

Size-Class	1990-91		2000-2002	
Farmer class category	Operational Holdings (%)	% targe Area	Operational Holdings (%)	%targe Area
Marginal	53.6	19.7	56.4	22.7
Small	26.2	26.9	27.4	30.4
Semi Medium	15.2	29.5	12.3	26.5
Medium	4.7	19.1	3.6	16.1
Large	0.4	4.8	0.3	4.3
Total	100	100	100	100
Gini Coeff	0.4456		0.4318	

Source: Govt. Of Orissa, 2007

Farm size landholding in the study village

Particulars	Sogar	CPur	Ainlatunga	Bilaikani
Size of land holding (acre)	1.45	1.82	2.09	3.16
Operated land (acre)	1.03	1.23	1.80	3.14
% irrigated area	6.87	0.00	27.08	27.74
% permanent fallow	18.44	28.43	11.66	4.42

Total population by livestock species (no.)

Farm Animal	Sogar	CPur	Ainlatunga	Bilaikani
Cattle	500	495	255	241
Buffalo	26	50	52	20
Goat	79	124	113	198
Sheep	0	0	56	11
Poultry	1	300	74	303
Other	20	2	0	6

Average size of livestock holding (no.)

Particulars	Sogar	CPur	Ainlatunga	Bilaikani
Cattle	1.17	1.64	0.83	1.41
Buffalo	0.06	0.17	0.17	0.12
Goat	0.18	0.41	0.37	1.16
Sheep	0.00	0.00	0.18	0.06
Poultry	0.00	0.99	0.24	1.77
Other	0.05	0.01	0.00	0.04

Ownership of livestock across household class

Land holding	Cattle	Buffalo	Sheep and Goat	Pig	Poultry
Land Less	8.62	0.0	25.08	0.0	44.66
Marginal	64.79	22.75	51.04	25.49	39.49
Small	17.73	28.57	11.37	31.37	8.01
Semi Medium	5.83	14.29	8.26	31.37	4.53
Medium	2.64	33.33	3.43	11.76	2.49
Large	0.22	1.06	0.47	0.00	0.82

Average number of farm implements (no.)

Particulars	Sogar	CPur	Ainlatunga	Bilaikani
Tractor	0.01	0.01	0.00	0.02
Harvester & Threshers	0.00	0.00	0.00	0.00
Irrigation motor	0.11	0.05	0.04	0.15
Sprinkler and drip irrigation	0.03	0.00	0.00	0.00
Bore well	0.00	0.01	0.00	0.02

Age wise demographic distribution among sample household (no.)

Age group	Sogar	CPur	Ainlatunga	Bilaikani
Below 5 years	162		153	80
6 to 16 years	379		240	127
17 to 30 years	596		301	209
31 to 60 years	780		404	285
Above 60 years	131		98	65

Incidence of tenancy in the sample household

Particulars	Sogar	CPur	Ainlatunga	Bilaikani
Percent household leasing land (%)				
Lease-in	14.95	14.57	1.30	4.09
Lease-out	17.06	11.92	1.95	2.92
Share in operated land				
Lease-in	26.75	18.94	0.56	3.43
Lease-out	43.00	25.62	2.89	4.19

Percentage Occupation diversification

Particulars	Sogar	CPur	Ainlatunga	Bilaikani
% working population	35.7	41.28	48.66	35.23
Share of particulars in total working population				
Cultivator	20.96	40.44	65.00	58.09
Agricultural worker	6.89	13.11	10.89	16.18
Non-Farm worker	47.54	32.60	21.07	21.69
Government Job	11.39	13.11	1.25	2.94
Other	13.22	0.73	1.79	1.10

Incidence of migration (%)

Particulars	Sogar	CPur	Ainlatunga	Bilaikani
% people living outside the village	14.67	12.57	1.84	10.88
Purpose of living outside the village				
Education	19.77	16.77	4.55	10.71
Salaried job	49.81	49.10	13.64	5.95
Daily wage Employment	6.08	13.17	81.82	55.95
Own business	13.69	1.20	0.00	2.38
Searching job	0.00	0.60	0.00	0.00
Other	10.65	19.16	0.00	25.00

Debt credit schedule (Finacial Position)

	Ailatunga	CPUR	Sogar	Bilaikani
Borrowing	302400	743800	1270878	412878
Lending	25000	700	20500	150000
saving	101600	297010	1212313	42000
Grand Total	429000	646878	1814634	604878

Sources of borrowing

Institutional sources	Ainlatunga	Bilaikani	Sogar	CPur
Commercial bank	107400	0	693000	420000
Co-operative bank	13000	1000	205000	107000
Self help groups(SHG)	0	30228	81000	0
Finance companies	22000	0	77000	26000
Grameen Bank(RRB)	54000	200000	48000	20000
			110400	
Total(Rs)	196400	231228	0	573000

Non-Institutional sources

Non-Institutional sources	Ainlat unga	Bilaikan i	Sogar	CPur
Input supplier	0	0	2000	0
Employer	0	10000	0	0
chit fund	0	0	0	0
Landlord	4000	15000	0	0
Moneylender	30000	134500	237500	122600
Other (Specify)	0	0	107000	200
Friends & relatives	47000	10000	187000	28000
Shopkeeper	25000	12150	18000	0
Commission agent	0	0	0	0
TRADERS	0	0	0	20000
Total	106000	181650	551500	170800
Grand Total	302400	412878	1655500	743800

Many things are moving around, but the paradox is....



Malnutrition still exists

Communication is far from satisfactory

Health problem acute

Education is yet to be manifested

Sebati Pradhan, Ainlatunga

But dreams in eyes and
.....hope in mind...

**Thank you
for your attention !**