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# **ESTIMATION AND DETERMINANTS OF CHRONIC POVERTY**

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# OBJECTIVES

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- **CP Estimates -- Social & Occupational Groups in rural and urban areas of major states (in the absence of panel data)**
  - **Determinants of CP -- Demographic, Economic and Social**
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# **ISSUES :**

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- 1. Importance of Household ( HH ) Income as a Determinant of CP**
  - 2. Factors Inhibiting CP to Move out**
  - 3. Differences Between Chronic Poor (CP) Other Poor (OP) and Non-poor (NP)**
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## MALNUTRITION ( MN ) – CP LINKAGES

- **CP & MN == > Low Productivity == > Few Economic Opportunities == > Low Nutrition**
- **MN Children of Poor – High Risks of Morbidity and Mortality == > Non-attainment of Full Genetic Potential == > Chronically ill and disabled adults**

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- **Children of CED Mothers == > Higher Risks of MN**

**Childhood Nut. Status == > Nut. Status of Mother**

- **Mother--- Child--- Mother MN == > Intergenerational Transmission of Poverty**
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# **DATA SOURCES :**

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**1. National Sample Surveys: (1999-2000)  
Expenditure and Other Variables**

**2. National Family Health Surveys: (1998-99)**

**Nutrition Status of Children (0-3 Years), Standard of Living Index (SLI) and Other Variables**

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$$P = F_{nss}^{-1}(Z) - Z : \text{Poverty line}$$

$$SLI_z = F_{nfhs}(P)$$

## Link between SLI and MPCE

$$L_n SLI_{ij} = f(\text{MPCE}_{ij}, \text{State dummies}_j)$$

Logistic Regression Dep. CP (NFHS)

Ind. vars.: Caste, Literacy, Dep. Ratio, HH size, SLI, State Dummies)

Dep. CP function with PCE and other variables (NSS)

HHs → CPHHs for probability exceeding specified values

# Incidence of CP in India

<b>Incidence (%)</b>	<b>Rural</b>	<b>Urban</b>
<b>Other Poor (OP)</b>	<b>15</b>	<b>11.5</b>
<b>CHRONIC POOR</b>		
<b>All</b>	<b>13.6</b>	<b>11.3</b>
<b>SC</b>	<b>21</b>	<b>19</b>
<b>OC</b>	<b>9.9</b>	<b>8.0</b>
<b>Ag. Lab / Casual Lab.</b>	<b>19</b>	<b>24</b>
<b>Cultivators / Regular Emp/.</b>	<b>9</b>	<b>7</b>



# Composition of CP

	Rural	Urban
<b>Social</b>	1/3 – SC / OBCs	1/3 OBC, 1/5 – SC and ST
<b>Occupation</b>	45% Ag. Lab.	50% CL
<b>Regional Concentration</b>	UP, Bihar, AP, Orissa, MP, Maharashtra (60%)	UP, MP, AP Maharashtra, Tamil Nadu, Bihar (66%)

## Level of Development and CP

	RURAL	URBAN
Orissa*	28%	26%
UP*	21%	18%
Bihar*	19%	19%
MP*	19%	25%
Punjab	4.8%	3.2%

\* : Backward States

# Characteristics of CP and OP

	RURAL		URBAN	
	CP	OP	CP	OP
<b>MPCE (Rs.)</b>	<b>241</b>	<b>280</b>	<b>328</b>	<b>387</b>
<b>Wage Ear. (Rs. / week)</b>	<b>320</b>	<b>412</b>	<b>570</b>	<b>622</b>
<b>Dependency ratio</b>	<b>3.08</b>	<b>1.19</b>	<b>4.1</b>	<b>1.9</b>
<b>No. of children</b>	<b>3.2</b>	<b>2.1</b>	<b>3.15</b>	<b>1.61</b>
<b>Age of Head (years)</b>	<b>40.7</b>	<b>44.3</b>	<b>41.3</b>	<b>43.7</b>
<b>% of landless</b>	<b>46.8</b>	<b>41.3</b>		
<b>% HHs with child lab.</b>	<b>3.2</b>	<b>8.6</b>	<b>1.7</b>	<b>6.8</b>
<b>% Aged - workers</b>	<b>6.3</b>	<b>14.1</b>	<b>4.2</b>	<b>12.2</b>
<b>% of 40 years +</b>	<b>15.3</b>	<b>22.3</b>		
<b>HH size</b>	<b>6.1</b>	<b>5.6</b>	<b>6.5</b>	<b>5.1</b>

CP: More 'Young' HHs – Demographic Structure

: Beginning of the family life cycle

# Labour Market Participation

	CP	OP	NP
<b>% Workers</b>	<b>Low</b>	<b>High</b>	<b>Less (less HH size and dep. ratio)</b>
<b>Wage</b>	<b>No discrimination</b>		<b>High wages</b>
<b>Emp. opportunity</b>	<b>Less</b>	<b>High</b>	<b>Very high</b>
<b>% Child Workers</b>	<b>Less</b>	<b>More</b>	<b>Less</b>
<b>Dependency on CL</b>	<b>High</b>	<b>High</b>	<b>Less</b>

CP → OP : Higher Participation in Labour Market

OP → NP : Higher Wages and not on more Employment Per Se

$\ln CP = f(\ln GESPC, \ln SDPPC, / \ln MPCE)$

[SDPPC → MPCE → CP]

Immediate Determinants – PCE

Basic Determinants: SDP and GES

Other Determinants : Social, Demographic

PCE Elasticity of CP is 2.26

CP: 13.6% → 5% ⇒ 28% increase in PCE

## Information relating to Core CP groups

	Rural Ag. Lab.	Urban CL
Dominant groups	More SCs	SCs and OBCs
Wage levels	Low	High
Labour participation	More	Less
PCE	Low	High

## Key results of Logistic Regressions

	+ ve Significant	- ve Significant
<b>R &amp; U</b>	<b>HH Size, Dependence ratio, Presence of Child / Aged / Under Employed Labour</b>	<b>PCE , No. of Workers  [Land Ownership (R)]</b>
	<b>RURAL</b>	<b>URBAN</b>
<b>Regional Effect</b>	<b>Haryana, HP, J&amp;K, UP, WB, Maharashtra</b>	<b>Kerala, Maharashtra, Orissa, Punjab, Tamil Nadu, UP</b>

# Effect of 10% increase in PCE

▲ Prob. [HH in CP] : 0.02 (R) and 0.05 (U)

		Rural			Urban		
Poverty group	Base	CP	OP	NP	CP	OP	NP
CP	100	68	16	16	71	15	14
OP	100	-	59	41	-	68	32



## CONCLUSIONS

- Estimation of CP based on income poverty and malnutrition accounts for 50 per cent of the overall poverty.
- Most of CP are young HHs and are at the lower end of family life cycle.
- Demographic pressure, low wage rates, social factors (literacy) are significant factors of CP, probability of HH falling in CP increases with HH size, No. of children and dependency ratio and decreases with number of days of work and HH expenditure.

- While demographic structure has influence on CP, shifting of CP to OP is not automatic as children grow and become earners overtime. Demand for malnourished children in labour market is the barrier.
- CP → OP if state targets the malnourished children and encourages small family norm and assures employment opportunities to adults
- OP → NP if OP can be enabled to get higher wages given to NP (skills).