

Poverty Reduction in Rural India during 2004-05 to 2011-12: Role of Growth, Redistribution, and Population-Shifts

Karthikeya Naraparaju, Indian Institute of Management, Indore
S Chandrasekhar, Indira Gandhi Institute of Development Research, Mumbai

OBJECTIVE

- Quantify relative contribution of the growth vis-à-vis the redistribution components to rate of poverty reduction.
- Quantify the importance of the population-shifts across land size classes.

POPULATION-SHIFTS

- Demographic changes also affect the pace of poverty reduction. Instead of rural-urban migration, we offer an alternative population-based explanation
- Uneven reduction in TFR across land size classes and Indian states. Higher TFR in states with fewer non-farm opportunities
- Smaller land holders have higher TFR (India – DHS)

LITERATURE

- Datt and Ravallion 1992 (India, Brazil), Ravallion and Huppi 1991 (Indonesia), Shorrocks 2013, Son 2003

CENTRALITY OF LAND

- 1991-2011: Average land holding size declined from 1.55 to 1.15 hectares
- Large variations across states and agro-climatic zones, in the structures and patterns in source of income, viz. wages, cultivation, livestock and non-farm business, in agricultural households.
- Small land holders eke out a marginal existence.

DATA

Survey of Consumption Expenditure 2004-05 & 2011-12

Consumption: MPCE-MRP

Land Groups: <0.01, 0.01-0.4, 0.41-1 and greater than 1 hectare

Poverty Line: For 2004-05, 2011-12, Expert Group Report 2009

Metric: FGT 0,1,2

WHY: 2004-05 to 2011-12

- Rapid growth.
- Number of poor declined by 110 million to 216.6 million.
- Increase in annual rate of reduction in poverty to 2.3 percentage points (0.75 percentage points 1993-2005)
- Yet rural India accounted for 83 percent of India's poor.

REGIONAL DIFFERENCES

- Population Growth:** Over 2001-11, in eight (EAG) states it was 3 times that of other states
- Concentration of Poor:** Share of EAG states increased from 57.7 percent in 2004-05 to 64.4 percent in 2011-12.
- Growth in Income:** Bihar and West Bengal decline in real terms
- TFR 2015-16:** In Bihar TFR across the four land size classes mentioned earlier was 3.93, 3.02, 2.66 and 2.87 respectively while in Uttar Pradesh it is 3.42, 2.81, 2.60 and 2.41 respectively.
- North-South Divide**

FINDINGS

$\Delta P = (\Delta P)_m + (\Delta P)_I = \text{Growth} + \text{Redistribution Component}$

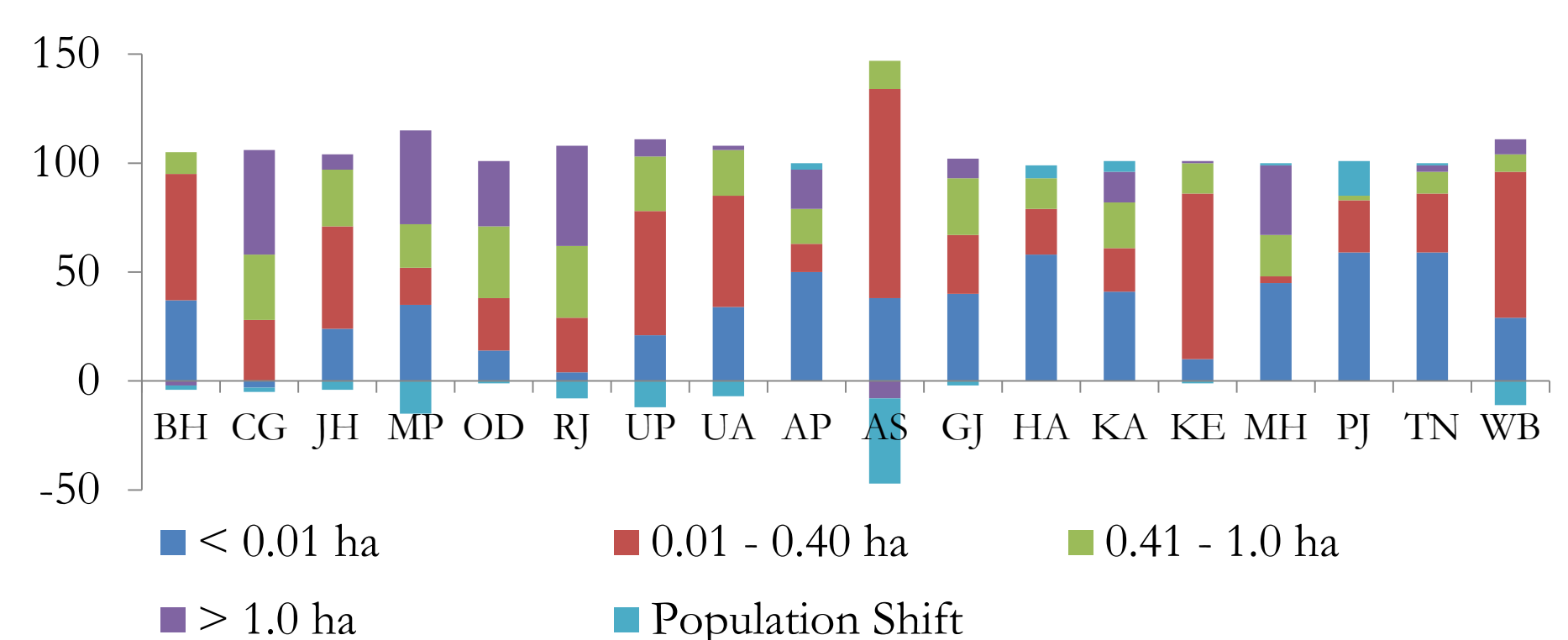
- Inequality reduced pace of poverty reduction during 2004-05--2011-12. Result is opposite of what Datt and Ravallion (1992) find for the pre-reform decade (1977-78 - 88)

$$\Delta P = \sum_{g=1}^4 \left[\left(\frac{v_{gt} + v_{gt+1}}{2} \right) \Delta P_g \right] + \sum_{g=1}^4 \left[\left(\frac{P_{gt} + P_{gt+1}}{2} \right) \Delta v_g \right]$$

$$\Delta P = \sum_{g=1}^4 [\bar{v}_g \Delta P_g] + \sum_{g=1}^4 [\bar{P}_g \Delta v_g]$$

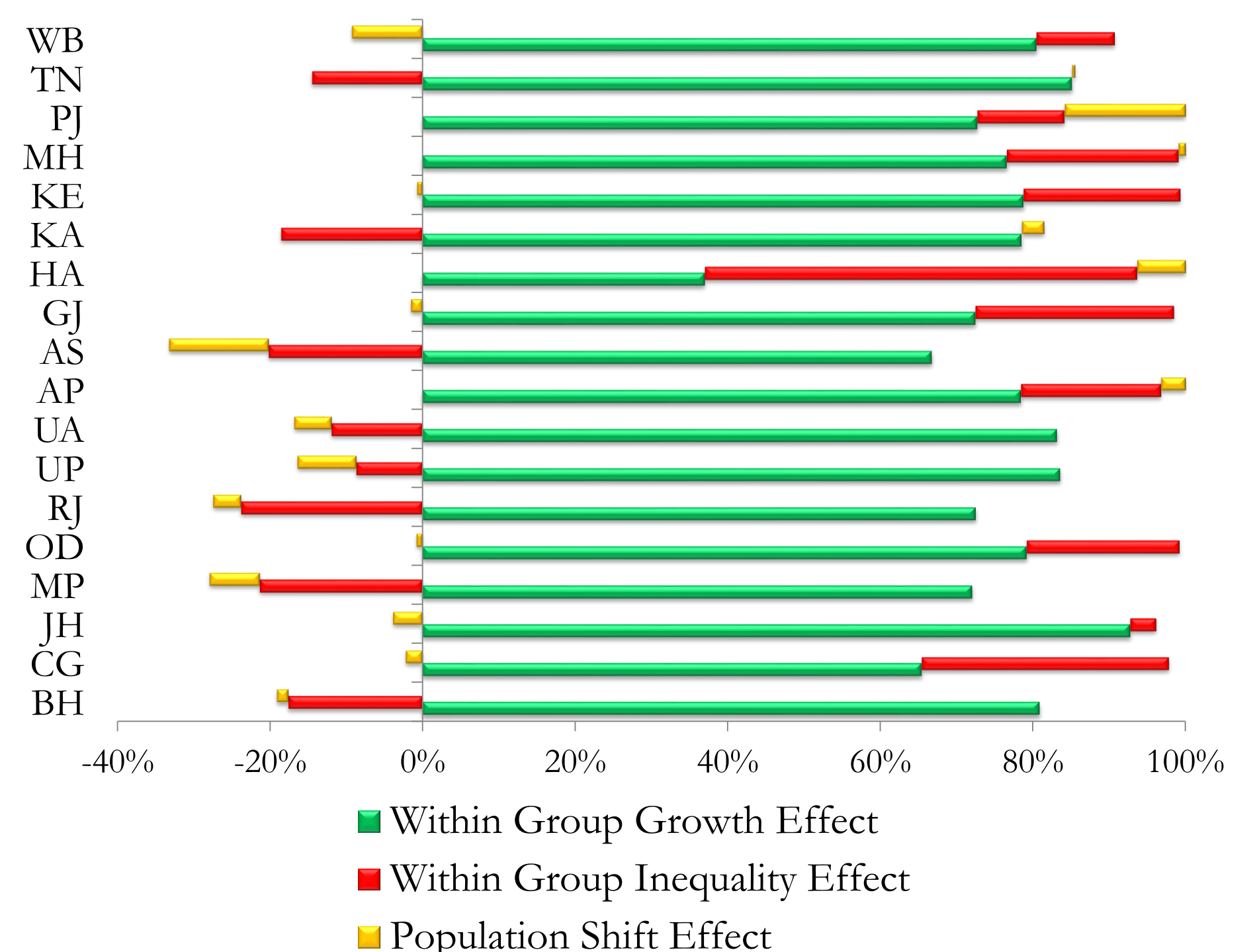
v_{gt}, P_{gt} are pop share & poverty in land size group g in time t.

- Largest Effect in Land Size Class 0.01-0.4 Hectares**



$$\Delta P = \sum_{g=1}^4 [\bar{v}_g \Delta P_{gm}] + \sum_{g=1}^4 [\bar{v}_g \Delta P_{gl}] + \sum_{g=1}^4 [\bar{P}_g \Delta v_g]$$

- Relative Importance of the Three Components Varies**



INFORMING CURRENT DEBATE

- Formula for apportioning divisible pool of taxes between the centre and states decided by Finance Commission (FC).
- Incentives to be given to states that are far from the replacement rate of fertility. (ToR: XVth FC). Southern states objected to this.
- In the past some states have argued those with higher HCR poverty be given additional resources.
- Our findings support the idea of incentivizing states for population reduction.

