## **Income Inequality and Polarization in India: The Role of Caste**

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The story of rising inequality has captured global attention in recent times. Renewed interest in inequality has produced highly influential work on this topic recently (Piketty, 2013; Milanovic, 2016). In spite of this rising interest, the literature on income inequality in India is scarce. Rawal and Swaminathan (2011) examined income inequality with survey data from eight villages across four states, and found high levels of income inequality. Our paper would provide national-level estimates of income inequality to give a macro picture. Historically, caste has been an important factor in explaining disparities in social and economic well-being in India. We intend to study the role of caste in determining inequality outcomes. Given the unprecedented growth of the Indian economy in recent times, we would examine whether the growth process has been inequality-inducing, or whether it has helped to bridge the gap between the historically marginalized and the better-endowed.

Studies based on household consumption expenditure have reached the conclusion that India is a low-inequality country (Ahluwalia, 2011). However, Anand and Thampi (2016) considered wealth inequality between 1991 and 2012, and found a sharp increase in the same during this period, and particularly after 2002. It is therefore of interest to see the trends in income inequality and consider the patterns, alongside those in wealth and consumption expenditure.

Further, we would undertake an analysis of polarization by the dimensions of caste and income. Wolfson (1994) noted that polarization is different from inequality. There are different strands of polarization. Bipolarization conceptualises the process as "the disappearing middle class" (Wolfson, 1994). Another strand is the "identification-alienation framework" (Esteban and Ray, 1994), whereby polarization captures the extent to which individuals identify with others in their group, and are alienated from other groups. The third strand is multidimensional polarization, which aligns most with our paper. This strand deals with multiple dimensions, caste and income in our case. Motiram and Sarma (2014) found that polarization by caste and consumption expenditure has increased since the 1990s. By studying the trends in income inequality and polarization, we would be able to compare and contrast them effectively.

## Data and Methodology

This paper would use the India Human Development Survey (IHDS) datasets. This is a nationally-representative panel survey which collected data in two rounds. IHDS-I surveyed 41,554 households in 2004-05; IHDS-II re-interviewed these households in 2011-12. The IHDS survey collected detailed information on income from various sources. This data makes it

possible to study inequality and polarization in income by caste groups over this time period.

We would begin by constructing various indicators of inequality such as the Gini and Generalised Entropy indices, as well as absolute and relative Lorenz curves. This would give a general picture of the changes in income inequality between 2004-05 and 2011-12. After showing the general trends, we would decompose these trends by social group. As in the case of the Gini and Generalised Entropy indices, there are methodological challenges to implementing decomposition with negative incomes; we would adjust for these issues. In addition, as Kanbur (2006) has noted, between-group inequality is usually very low. To adjust for this, we would also conduct the decomposition by the Elbers, Lanjouw, Mistiaen and Özler (ELMO) (2008) method, and see the between-group inequality as a proportion of maximum between-group inequality. We would study disaggregated trends by social group at various levels – by state and by sector.

Thereafter, we would construct bipolarization and multidimensional polarization indices, as well as the relative bipolarization curve. For multidimensional polarization, we would use the Zhang-Kanbur index (2001), which takes the ratio of the between-group and within-group components of inequality as the measure of polarization. We would then compare the trends in inequality and those in polarization by social group. This would give a clearer understanding of various trends that have been identified, such as the emergence of a "creamy layer" within disadvantaged groups, particularly the Scheduled Tribes (Zacharias and Vakulabharanam, 2011). Finally, we would explain the disparity between social groups by exploring the asset ownership structure and market and non-market forms of caste-based discrimination.

Our paper would be an important contribution towards understanding the trends in income inequality and comparing them with the trends in polarization over the high growth period in the last decade. It would be able to explain whether growth has been inclusive or uneven. Besides contributing to the scarce literature on income inequality in India, this paper will also be, to our knowledge, the first attempt to understand the trends in income polarization among social groups.

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