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Demographic Change, Poverty and Income Inequality in India

Our contribution is twofold. First, we establish that the results markedly differ depending on whether the analysis is based on data from different rounds of survey of consumption expenditure or survey of incomes. The salience of land in explaining differences in income is more pronounced than in case of consumption expenditure. In a forthcoming paper (Chakravorty et al forthcoming) we establish that inequality in rural income as measured by Gini coefficient (0.58) is at least twice that of inequality in rural consumption (0.28). Unlike estimates of consumption inequality which do not vary substantially either across the states, there are large variations in income inequality across the Indian states. The richness of the story that emerges from income data is absent when we analyse data on consumption expenditure. The difference is stark when we explore how differences in the rate of demographic change and distribution of population across land size classes affected the income and consumption distribution across the 17 major Indian states. Further, we examine how the pressure on land in states where fertility rates have not declined at a faster rate has contributed to stickiness in poverty ratio and also affected inequality dynamics.

For more reasons than one, there is a need to focus on impact of demographic changes on poverty and inequality. One finding in the poverty literature on India is that population growth has made it difficult to reduce poverty at a rapid pace (World Bank 2011). As per National Family Health Survey, although the total fertility rate (TFR) in rural India declined from 3.0 in 2005-06 to 2.4 in 2015-16, the reduction was uneven across the Indian states (TFR was higher in the poorer states than the more industrialised states) and also across land size classes. The second finding relates to fact that declining size of land holding has constrained growth in incomes and hence poverty reduction. India continued to see a further reduction in the average size of landholding to 1.15 hectares in 2010-11. The small and marginal farmers, whose share in agricultural households has steadily increased, lead a 'marginal existence' in the sense that their monthly income is lower than their monthly consumption expenditure. Third, the age of the Indian farmer has increased, i.e. the age pyramid of workers engaged in agriculture has changed (Census of India tables).

In this paper, we analyse the survey of consumption expenditure conducted by India's National Sample Survey Organisation (NSSO) in 2004-05 and 2011-12 and the two cross sectional surveys of farmer / agricultural households in India also conducted by NSSO in 2003 and 2013. In addition to revisiting the issue of inclusive growth, we argue that the poverty dynamics at the

sub-national level are driven by differences in the growth of four main sources of income (wages, cultivation, livestock and non-farm business) over the period 2003-13. This aspect is missed in analysis based on data from survey of consumption expenditure. We use the approach suggested by van der Weide and Milanovic (2018) in order to address the unexplored issue in the Indian context: in regions of high income inequality among cultivator households, the small and marginal farmers did not benefit from the overall growth observed in the period 2003-13.

We then build on Chakravorty et al who use the method proposed by Mookherjee and Shorrocks (1982) in order to decomposes the change in mean log deviation at two points in time into changes in inequality within land size groups, changes that can be attributed to change in the population share in each land size group, and changes due to shifting relative incomes between land size groups. They find that, in the period 2003-13, inequality declined by 9 per cent. While within-group inequality contributed to a -14.2% reduction in the overall inequality, the between-group component increased by 7.4% and the change that can be attributed to change in the population share in each land size group was -2.24%.

We find in this paper that the all India picture masks the relative importance of the three components at the sub-national level. In regions with pressure on land, increase in population combined with lack of enough avenues outside of agriculture, inequality could fall as a result of growth in population. This is evident in the relative less industrialised states like Bihar, Madhya Pradesh and Uttar Pradesh, although we find results contrary to this expectation in other poorer states. We quantify the extent to which the income and consumption distributions are driven by the sub-national differences in the distribution of population by land size, average income across land size classes, and higher fertility rates of those with lower land holdings.

References

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