

Poverty Mapping at the Local Government Level in India

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Over the next few years, the Government of India is committed to reduce poverty and deprivation, achieve the millennium development goals (MDGs) and reduce regional disparities, by initiating various programs that are targeted to the poorest districts. In India, significant amounts of fiscal budget are devoted to poverty alleviation and other social programs. However, the experience shows that locating the poor and implementation of programs aimed at targeting the poor are the most difficult task. In India the reliable poverty statistic is available only up to the state level. So the geographic targeting of poor and allocating budget becomes crucial for strengthening the impact of expenditures on social welfare programs.

Many of these programs are centrally funded but implemented at the level of district governments and village panchayats. A daunting challenge however, is to ensure that tools for monitoring how money is spent and what impact that has are available, so that these programs can be improved in mid course to achieve the stated objectives. However the biggest constraint is often that data sources in the country do not readily support the ability to monitor poverty and other outcomes at the district level or below.

Recently developed techniques such as Small Area Estimation can help fill this data gap. This is a methodology to identify areas with high levels of poverty at the local government level i.e village panchayats or urban local bodies. The local administrative levels in India go from the 'District panchayats' all the way down to the 'Village panchayat' in rural areas and Municipal corporations to Nagar panchayats in urban areas. The village/town level information of economic welfare can be found by carrying out a household survey, which is representative of all villages/towns in India. The current poverty estimates in India are based on the consumption survey of the National Sample Survey Organization (NSSO), which has a sample size of around 120,000 households. On the other hand, the Census data provides a complete coverage of all households. Small area estimates provide a statistical procedure to combine these data.

Elbers, et al.(2002) extend the literature on small area estimation (Ghosh and Rao (1994); Rao (1999) by developing estimators of population parameters which are non-linear functions of the underlying variable of interest, and by deriving them from the full unit level distribution of that variable. Essentially, the technique combines existing census and survey data to estimate poverty incidence at lower levels of disaggregation than the sample sizes of surveys such as National Sample Survey in India permit – to identify lagging regions/areas within a state/district, depending on how well the GIS map performs in terms of precision. A critical challenge, therefore, is to identify the regions and populations that are most vulnerable poverty pockets. The importance of systematic data collection for monitoring indicators at disaggregated level and evaluating the impact of our interventions cannot be over-emphasized. Promising new methodologies based on merging of household survey and population census data are being

experimented with, for identifying specific local government having the worst human development outcomes.

For the paper, we have taken State of Orissa under this study. The State of Orissa was chosen because it is one of the poorest states of India (46.4 percent BPL population). Further, the study is based on secondary data as well as a detailed household survey covering (approximately) 51,000 villages and 138 urban towns in India. These villages/towns are further aggregated at the local government level.