

## Report on Economics-1490-1-manuscript:

### Regional Estimates of Multidimensional Poverty in India

In this paper, the authors propose to highlight regional disparities of multidimensional poverty using data from Indian Human Development Survey 2004-05. The methodology used is based on Alkire and Foster's counting approach (namely the M0 Alkire-Foster poverty index) and follows the same methodology of the MPI published by the UNDP. In contrast with the UNDP's MPI, multidimensional poverty measures include five dimensions: education, health, consumption expenditure, work and employment and household environment represented by ten indicators. The application of the decomposition property of their MPI by regions (84 in this case) and by dimensions provides several results. First, the authors highlight great disparities among regions and also among the regions within the states of India. Their findings show that the top contributors to multidimensional poverty are economic deprivation followed by deprivation in household environment. The main conclusion of these findings is that intervention addressing poverty should be targeted at a more disaggregated level (district level).

**General comments:** India provides a good example to illustrate the complementary information that can be drawn from the factor and sub-group decomposability of the M0 Alkire-Foster poverty index. Given the large size of India, the paper makes it possible to show wide disparities that are not captured by the MPI published by the UNDP. According to the authors, their main contribution is of two kinds. First, it lies in the inclusion of a direct economic indicator (consumption expenditure) to capture standard of living, employment and household environment dimensions that are not directly included in the MPI. Second, it provides estimates of multidimensional poverty at the smallest geographical or administrative units.

However, at this stage, this study can be viewed as a purely illustrative exercise that could have been performed using data from another country. The authors do not provide convincing arguments for the rationale of their study (see comments below).

- In **introduction** of the paper, the authors provide a short review of several studies taking a multidimensional approach to poverty. In particular, they mention the findings of some studies carried out on various countries (Battiston et al. 2013 on Latin American countries, Batana, 2013 on Sub-Saharan countries, etc). It is not easy to understand what the criteria used by the authors are for the selection of these studies.
- In my opinion, I think that the authors should have been more critical of the poverty estimates published in India and of the MPI estimates from UNDP Human Development Report. The latter provides concise and comparable poverty measures for a large number of countries that do not take into account the contextual situation of each country. This explains why several countries may want to design their own MPI including different or additional dimensions, using different weights based on national priorities (see for example innovations introduced in Mexico or in Columbia). The **aim and the rationale** of the study should be more contextualized with references to the official approach to poverty and to the poverty alleviation strategy adopted by central government. This would serve to justify the inclusion of the additional dimensions that are not currently sufficiently justified.

### **Comments on the results:**

- The household environment dimension which includes three indicators is defined here as a single dimension whereas they are combined in the global UNDP's MPI to define deprivation in living standards. What is the justification of this choice?
- The results indicate that the top contributor to multidimensional poverty is deprivation in economic dimension. However, one may wonder whether this finding is due to the increased weight on this dimension. Since there is only one indicator in that dimension, anyone deprived in economic dimension is automatically multidimensional poor.
- The findings indicate high correlation with the global MPI which is not very surprising since the two indices include several common indicators.
- It is not easy to appreciate the contribution of these empirical findings since no comparison is made with an alternative measure of poverty. In order to illuminate the usefulness of their study, it would have been interesting to separate the economic (based on monetary approach) and non-monetary (related to direct indicators of well-being) spaces rather than combining them. It would certainly provide contrasting results that could have important implications for policy that goes beyond the need for monetary support to focus on a more territorialized approach to poverty alleviation programs.

### **Minor comments:**

Page 3. With respect to measurement, some researchers considered the union (poor in any dimension) approach (Bourguignon and Chakravarty, 2003) while others have used the intersection approach (poor in two or more dimensions) (Gordon et al., 2003) or relative approach (Wagle, 2008) in defining the poverty line. This sentence creates confusion between different concepts.

Page 7. Typo errors in Table 1 regarding Household environment weights.

References to studies on multidimensional poverty in India that could be mentioned:

Dotter C. and S. Klasen (2014), "The concept of relative Multidimensional Poverty: An illustration using Indian DHS data", IARIW 33<sup>rd</sup> conference, Rotterdam, Netherlands, August 24-30.

Jayaraj, D. and S. Subramanian (2009) "A Chakravarty-D'Ambrosio View of Multidimensional Deprivation: Some Estimates for India," *Economic and Political Weekly*, 45(6): 53–65.

Mishra, A. and R. Ray (2013), "Multi-Dimensional Deprivation in India During and After the Reforms: Do the Household Expenditure and the Family Health Surveys Present Consistent Evidence?" *Social Indicators Research*, 110(2): 791–818.