

Oxford Poverty and Human Development Initiative (OPHI)

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Country Briefing: India

Multidimensional Poverty Index (MPI) *At a Glance*

July 2010

This Country Briefing presents the results of the Multidimensional Poverty Index (MPI) and explains key findings graphically. Further information as well as international comparisons are available at www.ophi.org.uk/policy/multidimensional-poverty-index/.

The MPI was constructed by OPHI for the UNDP's 2010 Human Development Report (<http://hdr.undp.org/en/>).

Citation: Alkire, Sabina & Maria Emma Santos. 2010. India Country Briefing. Oxford Poverty & Human Development Initiative (OPHI) Multidimensional Poverty Index Country Briefing Series. Available at: www.ophi.org.uk/policy/multidimensional-poverty-index/mpi-country-briefings/.

For more information on the MPI please see Alkire, Sabina & Maria Emma Santos. "Acute Multidimensional Poverty: a new index for developing countries" OPHI Working Paper 38 and UNDP Research Paper Series.

Country Profile

India-DHS-2005

Country: India ▼ Year: 2005 Survey: DHS
Region: South Asia

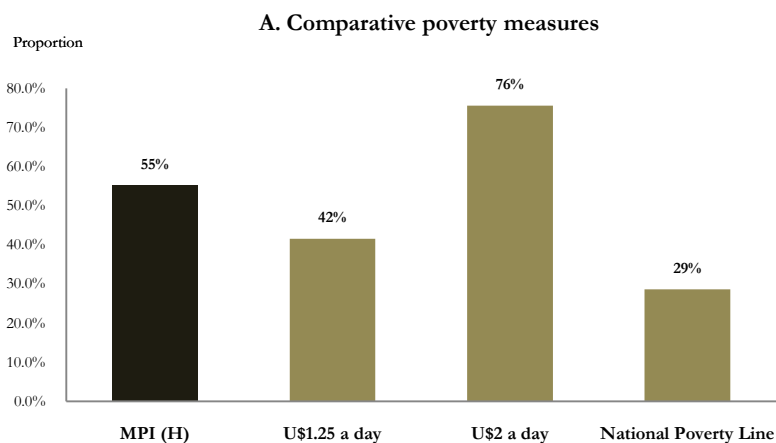
Multidimensional Poverty Index (MPI)

The MPI reflects both the incidence (H) of poverty – the proportion of the population that is multidimensionally poor – and the average intensity (A) of their deprivation – the average proportion of indicators in which they are deprived. The MPI is calculated by multiplying the incidence of poverty by the average intensity across the poor. A person is identified as poor if he or she is deprived in at least 30 percent of the weighted indicators. The following table shows the multidimensional poverty rate (MPI) and its two components: incidence of poverty (H) and average intensity of deprivation faced by the poor (A). The first and second columns of the table report the survey and year which was used to generate the MPI results.

| Survey | Year | Multidimensional Poverty Index (MPI = H×A) | Incidence of Poverty (H) | Average Intensity Across the Poor (A) |
|--------|------|--|--------------------------|---------------------------------------|
| DHS | 2005 | 0.296 | 55.4% | 53.5% |

Comparing the MPI with Other Poverty Measures

Column chart A. compares the poverty rate using the MPI with three other commonly used poverty measures. The height of the first column denotes the percentage of people who are MPI poor (also called the incidence or headcount). The second and third columns denote the percentages of people who are poor according to the \$1.25 a day poverty line and \$2.00 a day poverty line, respectively. The final column denotes the percentage of people who are poor according to the national poverty line. The table on the right hand side reports various descriptive statistics of the country.



Summary

| | |
|--|--------|
| Multidimensional Poverty Index | 0.296 |
| Percentage of MPI Poor (H) | 0.554 |
| Average Intensity of Deprivation (A) | 0.535 |
| Number of MPI Poor People (in millions) | 645.0 |
| Percentage of Income Poor (\$1.25 a day) | 42% |
| Percentage of Income Poor (\$2.00 a day) | 76% |
| Percentage of Poor (National Poverty Line) | 29% |
| Population* (in millions) | 1164.7 |
| Human Development Index | 0.612 |
| HDI rank (104 countries) | 37 |
| HDI category | Medium |

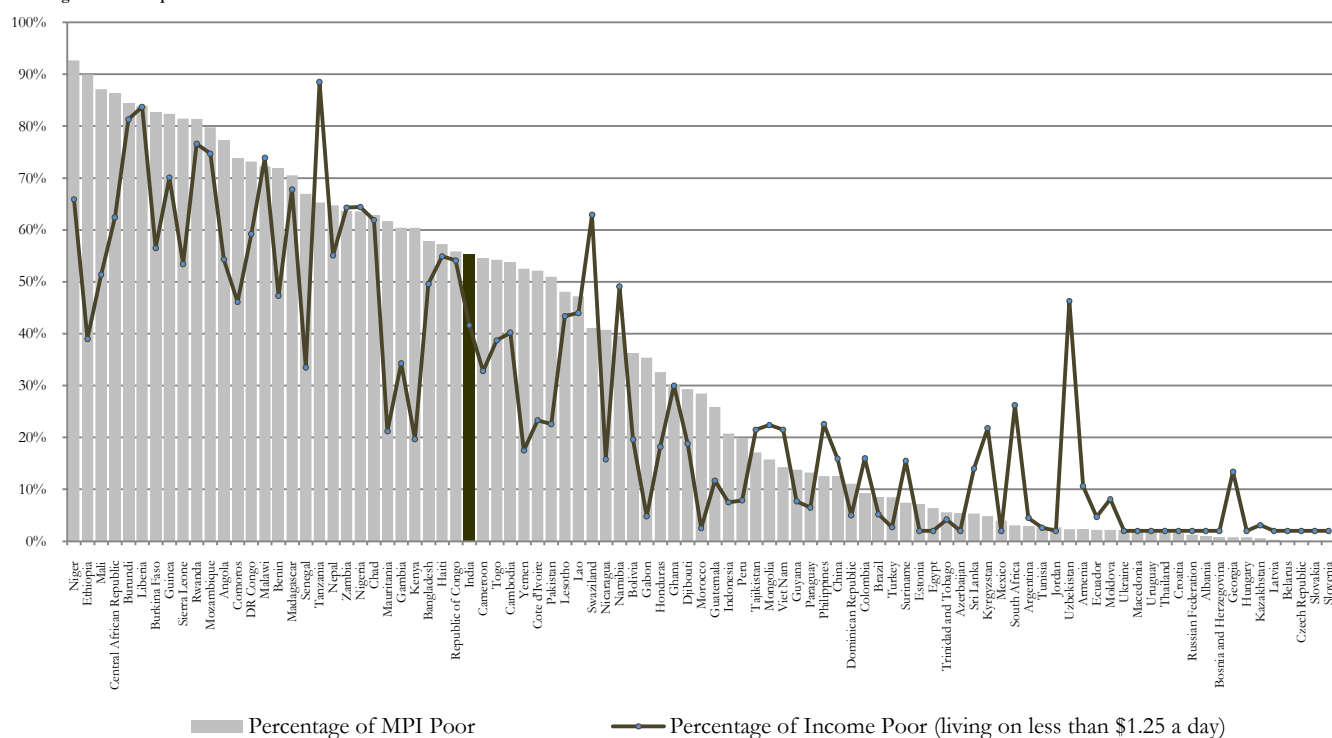
* Human Development Report 2009, Statistical Annex I.

Comparing the MPI with Other Poverty Measures

Columnchart B. shows the percentage of people who are MPI poor (also called the incidence or headcount) in the 104 developing countries analysed. The column denoting this country is dark, with other countries shown in light grey. The line across the column chart denotes the percentage of people who are income poor according to the \$1.25 a day poverty line in each country.

Percentage of Poor People

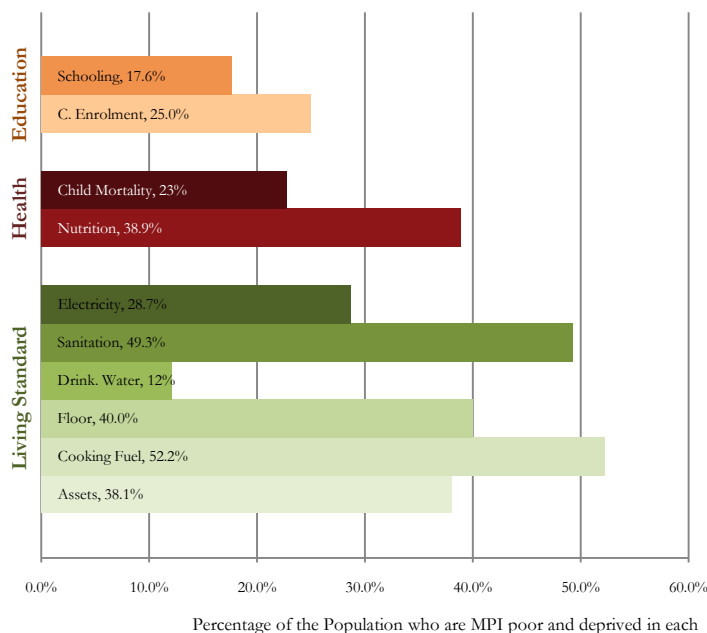
B. Headcounts of MPI poor and \$1.25/day Poor



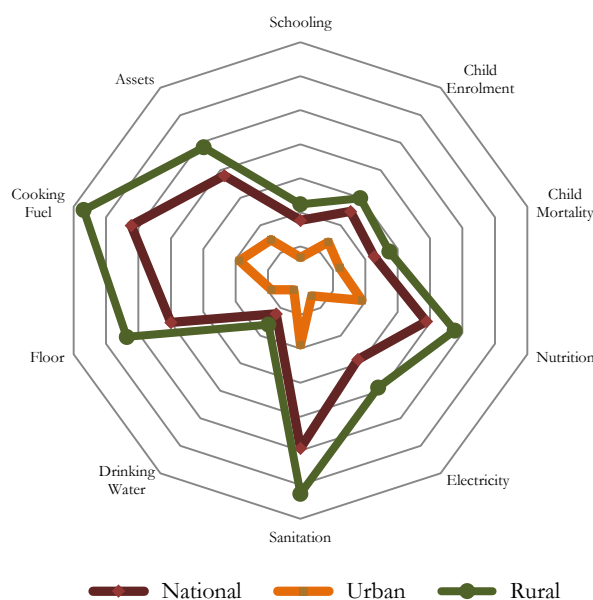
Incidence of Deprivation in Each of the MPI Indicators

The MPI uses 10 indicators to measure poverty in three dimensions: education, health and living standard. The bar chart to the left reports the proportion of the population that is poor and deprived in each indicator. We do not include the deprivation of non-poor people. The spider diagram to the right compares the proportions of the population that are poor and deprived across different indicators. At the same time it compares the performance of rural areas and urban areas with that of the national aggregate. Patterns of deprivation may differ in rural and urban areas.

C. Deprivations in each Indicator

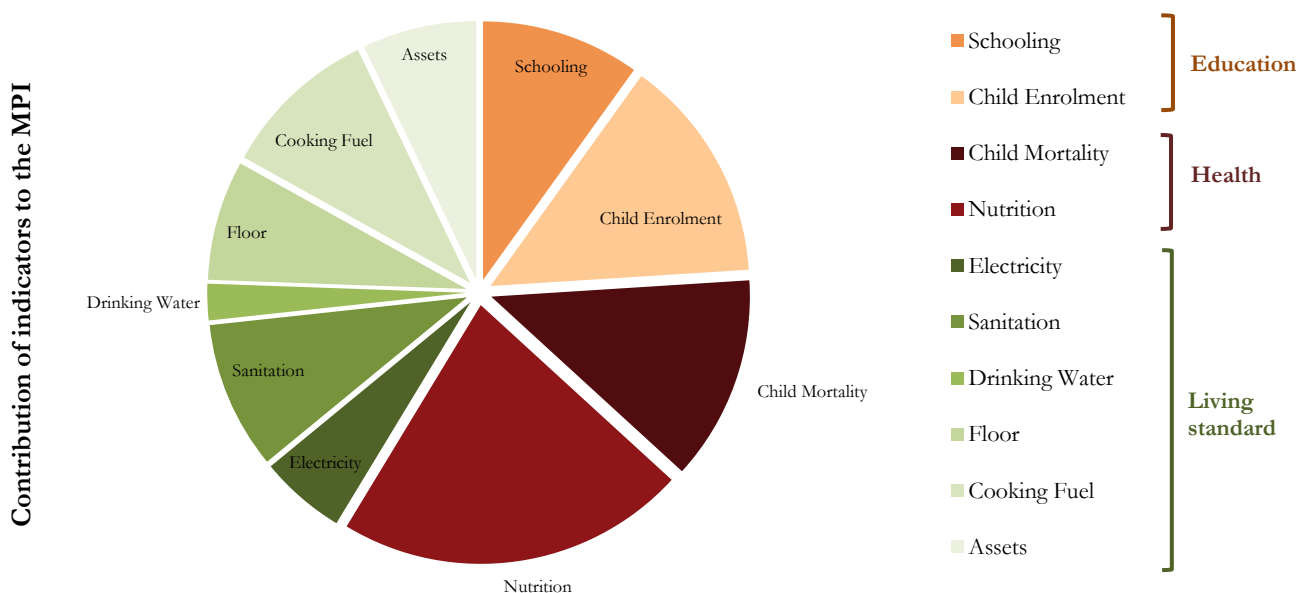


D. Percentage of the Population MPI poor and Deprived



Composition of the MPI

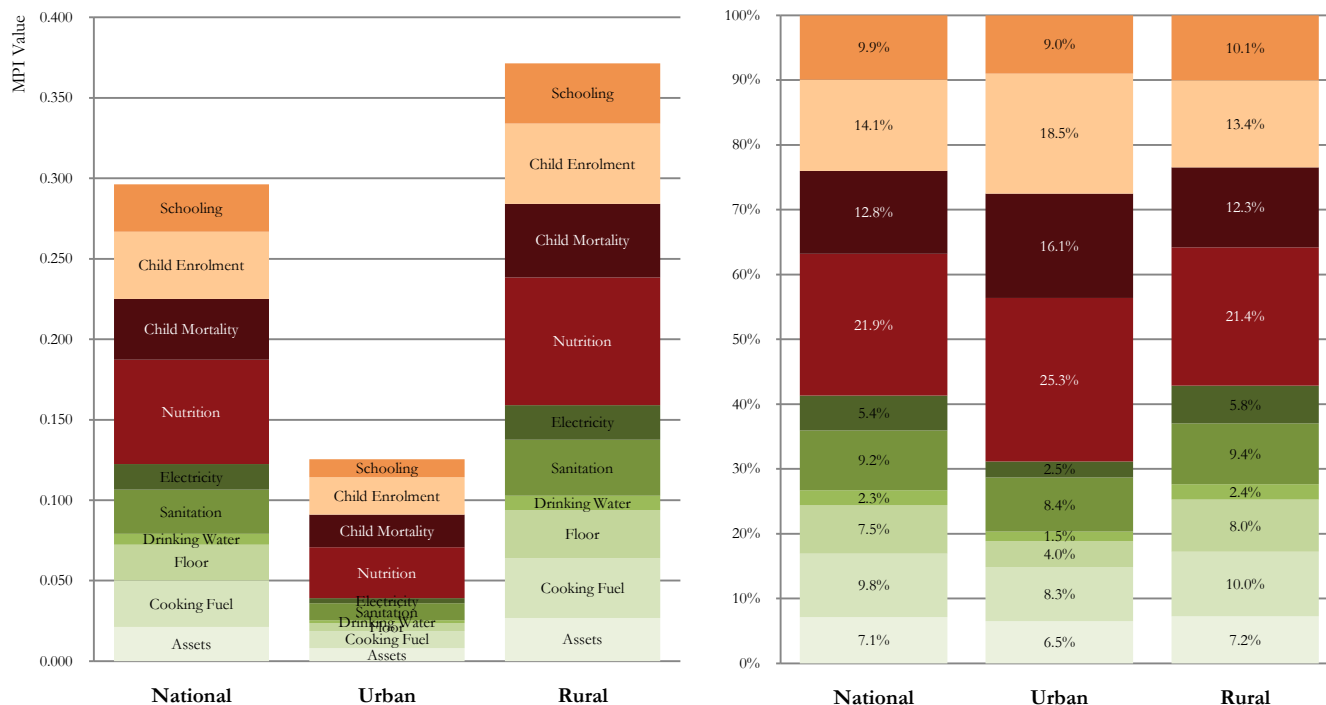
The MPI can be broken down to see directly how much each indicator contributes to multidimensional poverty. The following figure shows the composition of MPI using a pie-chart. Each piece of the pie represents the percentage contribution of each indicator to the overall MPI of the country. The larger the contribution, the bigger is the weighted share of the indicator to the overall poverty.



Decomposition of MPI by Region

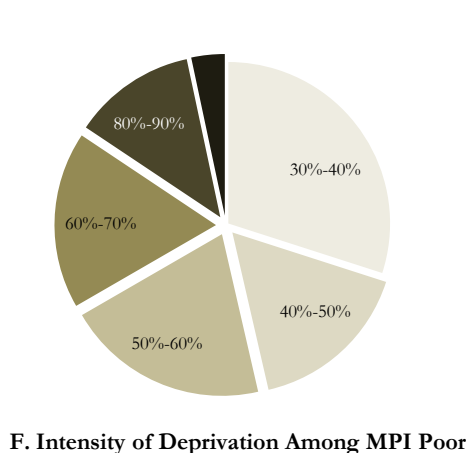
The MPI can be decomposed by different population subgroups, then broken down by dimension, to show how the composition of poverty differs between different regions or groups. In the column chart to the left, the height of each of the three bars shows the level of MPI at the national level, for urban areas, and for rural areas, respectively. Inside each bar, different colours represent the contribution of different indicators to the overall MPI. In the column chart to the right the colours inside each bar denote the percentage contribution of each indicator to the overall MPI, and all bars add up to 100%. This enables an immediate visual comparison of the composition of poverty across regions.

E. Contribution of Indicators to the MPI at the national level, for urban areas, and for rural areas



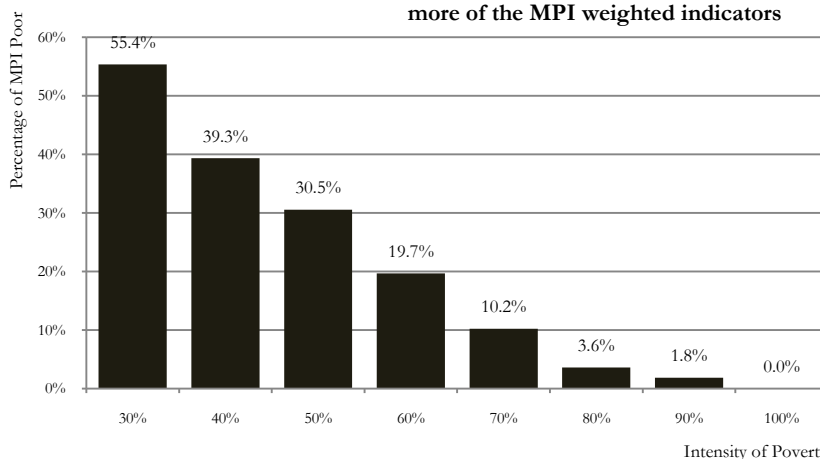
Intensity of Multidimensional Poverty

Recall that i) a person is considered poor if they are deprived in at least 30% of the weighted indicators and ii) the intensity of poverty denotes the proportion of indicators in which they are deprived. A person who is deprived in 100% of the indicators has a greater intensity of poverty than someone deprived in 40%. The following figures show the percentage of people who experience different intensities of poverty. The pie chart to the left breaks the poor population into seven groups based on the intensity of their poverty. It shows the proportion of poor people whose intensity (the percentage of indicators in which they are deprived) falls into each group. The column chart to the right, reports the proportion of the population in a country that is poor in that percentage of indicators or more. For example, the number over the 40% bar represents the percentage of people who are deprived in 40% or more indicators.



F. Intensity of Deprivation Among MPI Poor

G. Percentage of people deprived in X% or more of the MPI weighted indicators

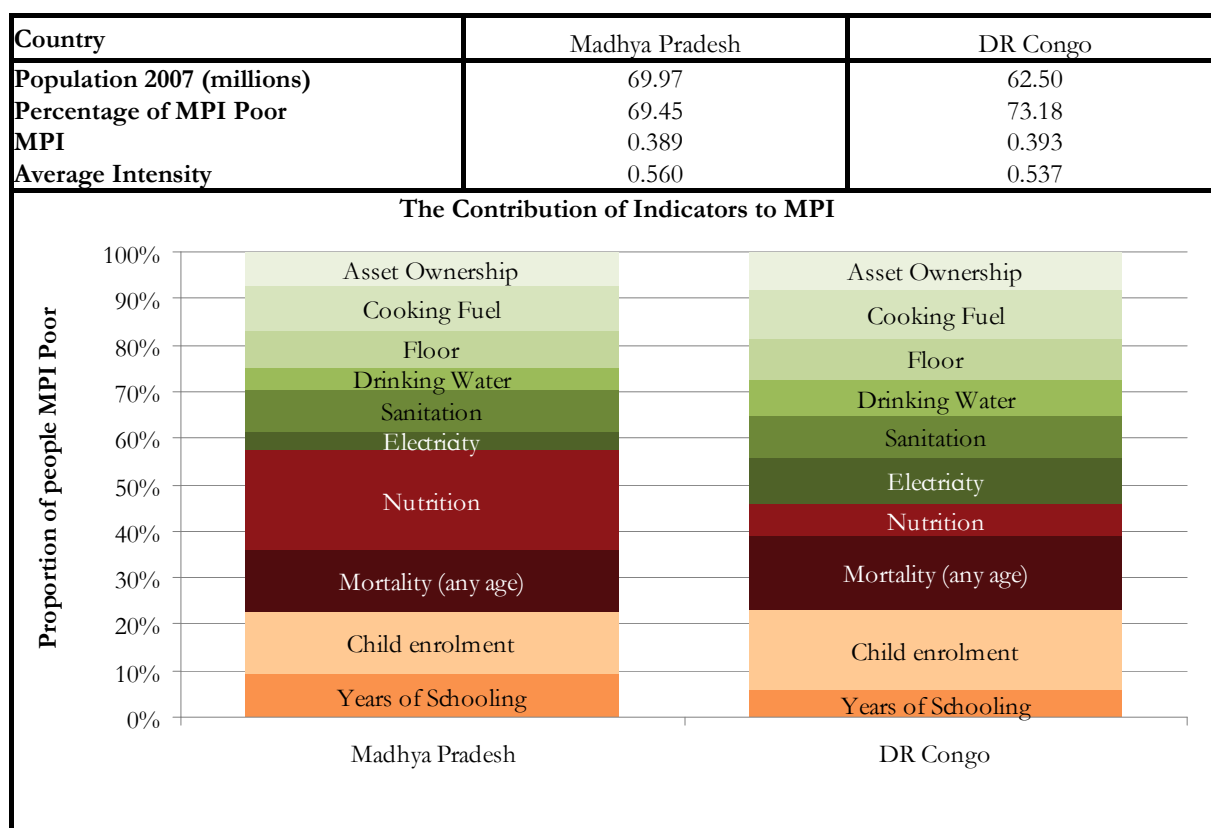


Comparison of Multidimensional Poverty Between Madhya Pradesh and DR Congo

Usually we compare countries, but because of India's size it can be informative to compare a country with a state. Here we compare Madhya Pradesh (MP), an Indian state, with DR Congo (DRC), an African country. The population of DRC is 62.5 million and the population of MP is 69.97 million, thus they have a similar population. Furthermore, their Multidimensional Poverty Index (MPI) is nearly the same at 0.39. The percentage of people who are multidimensionally poor is slightly higher in DRC, while in MP, poor people experience a higher average intensity of poverty – they are poorer in more dimensions in the same time.

We are also interested to know how the shape of poverty differs. In MP, malnutrition contributes more to multidimensional poverty than any other indicator; in DRC it is child enrolment. Also, a lack of electricity and drinking water are more acute in DRC than that in MP. Thus, these two regions have similar overall poverty but the analysis shows us a different story.

It is these kinds of stories that the MPI can help us to seek and analyse in order to understand and respond to human suffering more powerfully. However, we should consider the fact that people of MP do not suffer from the same level of horrific violence that people in DRC do, but it is still useful to compare indicators for which we have data.



Breakdown of Multidimensional Poverty across Hindu Castes and Tribes

The table below shows the breakdown of MPI across four social groups among Hindus in India. It can be seen that 81.4 percent of the Scheduled Tribes are poor, compared with 33.3 percent for the general population. The intensity of poverty is also very high among Scheduled Tribes, who are deprived in 59.2 percent of weighted indicators on average.

| States | MPI | Percentage of MPI Poor | Average Intensity |
|----------------------|-------|------------------------|-------------------|
| Scheduled Caste | 0.361 | 65.8% | 54.8% |
| Scheduled Tribe | 0.482 | 81.4% | 59.2% |
| Other Backward Class | 0.305 | 58.3% | 52.3% |
| General | 0.157 | 33.3% | 47.2% |

Decomposition of Multidimensional Poverty across Indian States¹

The following table decomposes multidimensional poverty across twenty-eight Indian states.² We see that 81 percent of people are multidimensionally poor in Bihar - more than any other state. Also, poverty in Bihar and Jharkhand is most intense – poor people are deprived in 60 percent of the MPI's weighted indicators. Uttar Pradesh is the home of largest number of poor people – 21 percent of India's poor people live there. West Bengal is home to the third largest number of poor people. On the other hand, the multidimensional poverty is lowest for Kerala. The top five states home only 4.5 percent of the poor, whereas, the five poorest states home more than 50 percent of the poor people.

| MPI Rank | States | Population (in millions) 2007 | MPI | Proportion of Poor | Average Intensity | Contribution to Overall Poverty | Number of MPI Poor ³ (in millions) |
|----------|------------------------------------|-------------------------------|--------------|--------------------|-------------------|---------------------------------|---|
| 1 | Kerala | 35.0 | 0.065 | 15.9% | 40.9% | 0.6% | 5.6 |
| 2 | Goa | 1.6 | 0.094 | 21.7% | 43.4% | 0.0% | 0.4 |
| 3 | Punjab | 27.1 | 0.120 | 26.2% | 46.0% | 1.0% | 7.1 |
| 4 | Himachal Pradesh | 6.7 | 0.131 | 31.0% | 42.3% | 0.3% | 2.1 |
| 5 | Tamil Nadu | 68.0 | 0.141 | 32.4% | 43.6% | 2.6% | 22.0 |
| 6 | Uttaranchal | 9.6 | 0.189 | 40.3% | 46.9% | 0.5% | 3.9 |
| 7 | Maharashtra | 108.7 | 0.193 | 40.1% | 48.1% | 6.0% | 43.6 |
| 8 | Haryana | 24.1 | 0.199 | 41.6% | 47.9% | 1.3% | 10.0 |
| 9 | Gujarat | 57.3 | 0.205 | 41.5% | 49.2% | 3.4% | 23.8 |
| 10 | Jammu And Kashmir | 12.2 | 0.209 | 43.8% | 47.7% | 0.7% | 5.4 |
| 11 | Andhra Pradesh | 83.9 | 0.211 | 44.7% | 47.1% | 5.1% | 37.5 |
| 12 | Karnataka | 58.6 | 0.223 | 46.1% | 48.3% | 4.2% | 27.0 |
| 13 | Eastern Indian States ⁴ | 44.2 | 0.303 | 57.6% | 52.5% | 4.0% | 25.5 |
| 14 | West Bengal | 89.5 | 0.317 | 58.3% | 54.3% | 8.5% | 52.2 |
| 15 | Orissa | 40.7 | 0.345 | 64.0% | 54.0% | 4.3% | 26.0 |
| 16 | Rajasthan | 65.4 | 0.351 | 64.2% | 54.7% | 7.0% | 41.9 |
| 17 | Uttar Pradesh | 192.6 | 0.386 | 69.9% | 55.2% | 21.3% | 134.7 |
| 18 | Chhattisgarh | 23.9 | 0.387 | 71.9% | 53.9% | 2.9% | 17.2 |
| 19 | Madhya Pradesh | 70.0 | 0.389 | 69.5% | 56.0% | 8.5% | 48.6 |
| 20 | Jharkhand | 30.5 | 0.463 | 77.0% | 60.2% | 4.2% | 23.5 |
| 21 | Bihar | 95.0 | 0.499 | 81.4% | 61.3% | 13.5% | 77.3 |
| | India | 1,164.7 | 0.296 | 55.4% | 53.5% | - | 645.0 |

¹ The decompositions were performed by Suman Seth, OPHI.

² Our calculation and total population of the poor includes Delhi but in this table we focus on Indian states.

³ Note that the estimation of the number of state-wise poor population is based on the actual population in 2007, as these are the figures we have used for international comparisons across 104 countries. However, the proportion of MPI poor population is estimated using the DHS dataset 2005-6 which has a slightly different distribution of population across states. Therefore, the total number of poor people in the last column may not sum up exactly to 645 million; however it is a lower bound.

⁴ Eastern Indian states include Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura.