Measuring Regional Backwardness: Poverty, Gender, and Children in the Districts of India

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Abstract

This paper examines regional disparity in India from the perspective of the smallest geographical unit for which a consisent set of data is available: the district. By doing so, we are able to focus on pockets of deprivation rather than viewing deprivation as a phenomenom affecting a state or a region in its entirety: "forward" states have deprived districts while "backward" states have districts which are not deprived. Consistent with the United Nations' Human Development Index, it examines deprivation from a broader perspective than that of simply income. More specifically, it looks at six indicators of district-level deprivation: the poverty rate; the food scarcity rate; the (gender-sensitive) literacy rate; the infant mortality rate; the immunisation rate; and the sex ratio for 0-6 year olds. The central conclusion that emerges from this study is that different districts were "most backward" on different metrics. Districts in Orissa were the poorest; districts in Arunchal Pradesh had the highest rates of food scarcity; districts in Bihar and Jharkhand had the lowest rates of literacy, tribal districts in the North-East, along with districts in Bihar and Jharkhand, had the lowest rates of immunisation; districts in Orissa, Madhya Pradesh and Uttar Pradesh had the highest rates of infant mortality; and districts in Punjab and Haryana had the lowest (0-6 years) sex ratios.

Keywords: Districts, Povery, Gender, Children, Equality

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1. Introduction

In the wake of the high rates of GDP growth in both China and in India over the past 15 years or so – which have followed the progressive liberalisation of their respective economies and the economic and structural reforms which they have undertaken to secure this - an issue that is of growing concern in both countries is that of regional disparities. The disparity between Northwest China and the Southern Coastal Provinces has received much attention (Fujita and Hu, 2001; Bao et. al, 2002; Demurger et. al., 2001; Cai et. al., 2002)) while, in India, it is the disparity between its "forward" and "backward" states and between its broad geographical areas (East versus West; North versus South) which is often emphasised (Misra, 2001; Kurian, 2001). Moreover, in measuring these inter-regional disparities in China and India, most commentators have emphasised regional (per-capita) income to the exclusion of other, broader, indicators of welfare.

It is now fairly widely accepted that income is not an end in itself but, instead, a means to achieving the much broader goal of "human development" and that, towards achieving this goal, non-economic factors - such as levels of crime, the position of women, respect for human rights etc. – may, in addition to income, make an important contribution. In order to breathe life into this perspective, the UNDP regularly publishes, as part of its annual *Human Development Report*, a ranking of over 100 countries in terms of their values of the Human Development Index (HDI). This index, while having GDP performance as one of its components, also takes into account countries' "achievements" with regard to educational (for example, literacy rates) and health-related (for example, infant mortality rates) outcomes[1]. 'Well being', so conceived, may be related to income but it is also quite distinct from it.

Against this background, this study's first point of departure from existing work on regional disparities in India is that unlike most studies, which focus on states and configurations of states, it examines such disparity from the perspective of the *smallest* geographical unit for which a consisent set of data is available: *the district*[2]. By doing so, it is able to focus on pockets of deprivation rather than viewing deprivation as a phenomenom affecting a state or a region in its entirety: "forward" states have deprived districts while "backward" states have districts which are not deprived.[3]

Second, consistent with the United Nations' Human Development Index, this study examines deprivation from a broader perspective than that of simply income. More specifically, we look at six indicators of district-level deprivation the data. The first of these indicators is taken from Bhandari and Dubey (2003) and remaining five were obtained from Debroy and Bhandari (2004).:

1. The *poverty rate*: the proportion of households in a district who are below the poverty line.

[1] In the Human Development Index devised by the United Nations Development Programme, China, with a score of 0.745 (out of a possible 1), comes 94th out of 177 countries. India, with 0.595, comes 127th (The *Economist*, March 3rd, 2005).

[2] There are 593 districts in India with a District Commisioner (or District Collector) acting as the administative head of each district. The median and mean populations of these 593 districts were, respectively, 1.47 and 1.73 million persons: the most and the least populous districts were Medinipur in West Bengal (population: 9,638,473) and Yanam in Pondicherry (population: 31,362)

[3] There are alternative ways in which one could classify a district as backward. For example a list of most backward districts could be prepared based on propotion of Scheduled Tribe and Scheduled caste population who are arguably the most deprived groups. In this paper we have chosen a more objective critierion which is based on measurements of development outcomes. e.g. poverty incidence used by the Planning Commission, Government of India earlier (Debroy and Bhandari, 2004), literacy rates etc.

2. The *food scarcity rate*: the proportion of households in a district which, at some point in the year, did not have enough food.for all its members[4].
3. The *literacy rate*: the percentage of persons in a a district, seven years of age or above, who were literate[5].
4. The *imminisation rate*: the proportion of 0-6 year olds in a district who were immunised against disease[6].
5. The *infant mortality rate*: the number of deaths within a year per 1,000 live births[7],
6. The *sex ratio*: among 0-6 year olds, the number of females per 1,000 males[8].

For each indicator of deprivation we defined a component index whose values were the ratio of the indicator values in the districts to the national mean value for that component and we ranked the districts according to their component index scores. The six component index scores were then aggregated to form a backwardness index and the districts were also ranked to their overall index scores.

2. Constructing a Deprivation Index

We regard "backwardness" as having M attributes (for example, high rates of poverty, illiteracy, infant mortality), indexed $j=1...M$. Suppose that a country is subdivided into K mutually exclusive districts (indexed, $k=1...K$) and that there are N_k persons in district k of whom M_k possess an attribute (for example, they are poor). We refer to the ratio $X_k = M_k / N_k$ as the incidence for that attribute in the district and

[4] The district level food scarcity rates are based on National Sample Survey (NSS) household level data. The information was obtained from a "yes/no" answer to the question: did every member of your household have 'two square meals' every day in the past week?
[5] Obtained from the 2001 Census. The literacy rate was made "gender sensitive", as described in the following section, by adjusting for differences in male and female literacy rates.
[6] Complete immunisation involves vaccination of children, within the first year of life, against six diseases: diphtheria; pertussis; tetanus; tuberculosis; poliomyelitis; and measles.
[7] The infant mortality rates are from the Registrar General of India.
[8] 2001 Census for India.

the national incidence for that attribute (X) can be written as a weighted average of the district incidence:

$$X = \sum_{k=1}^{K} v_k X_k, \text{ where: } v_k = N_k / N \tag{1}$$

The definition of N_k depends upon the context: if the attribute is poverty, X_k and X refer to the *head count ratio*, the proportion of the *total population* which is poor; if it is illiteracy, X_k and X refer to the *illiteracy rate*, the proportion of the *adult population* which is illiterate; if it is infant mortality, X_k and X refer to the *infant mortality rate*, the proportion of *live births* who die within 12 months.

For each attribute j, we can define a *component index* that takes the value for district k ($k=1...K$) as: $I_j^k = X_k^j / X^j$. If $I_k^j = 1$, the incidence of attribute j in district k (X_k^j) is the same as it is nationally (X^j); if $I_k^j > (<) 1$, its incidence is larger (smaller) in district k, compared to the national level, by the relevant proportion. From this, we obtain a *backwardness index* which takes the value for district k ($k=1...K$) as a weighted average of the individual indices:

$$I_k = \sum_{j=1}^{M} w^j I_k^j \tag{2}$$

for weights $w^j, \sum_j w^j = 1$.

Gender Equality

Suppose that the value of an attribute differs between men and women. Specifically, suppose that the attribute is literacy and that the average male and female literacy rates in district k (respectively, X_k^M and X_k^F) are not equal. Therefore, in assessing the "achievement" of a district with respect to literacy, we should reduce its overall literacy rate to take account of inequality in literacy rates between men and women. The question is: by how much?

The answer to this question depends on how *averse we are to inequality*. In his seminal paper on income inequality, Atkinson (1970) argued that we (society) would be prepared to accept a reduction in average income, *provided the lower income was equally distributed*, from a higher average income which was unequally distributed[9].

As Anand and Sen (1997) have shown, these ideas can, equally well, be applied to gender differences in literacy. We can reduce the average literacy rate, $\bar{X}_k$, of a district by the amount of inter-gender inequality in literacy rates to arrive at X^e, a "gender sensitive" literacy rate for the district, $X_k^e \leq \bar{X}_k$. When literacy rates for men and women in a district are equal ($X_k^M = X_k^F = X_k^e$), then social welfare is the same as a situation in which a higher literacy rate, $\bar{X}_k$, is distributed unequally between men and women ($X_k^M \neq X_k^F$). The method of computing the gender sensitive literacy rate is as follows:

$$X_k^e = \left[\sum_{j=M}^{F} n_k^j \left(X_k^j \right)^{1-\varepsilon} \right]^{1/(1-\varepsilon)}$$

Where: n_k^j is the proportion in the population, X_k^j is the literacy rate, of men (*j=M*) and women (*j=F*) in district *K*. So, from the above equation, X_k^e is what Anand and Sen (1997) term, a "$1-\varepsilon$" average of the $X_k^j, j = M, F$.

The size of this reduction (as given by the difference: $\bar{X}_k - X_k^e$ depends upon our aversion to inequality: the lower our aversion to gender inequality, the smaller will be the difference. In the extreme case, in which there is no aversion to inequality ($\varepsilon = 0$), there will be no difference between the average ($\bar{X}_k$) and the gender

[9] Atkinson (1970) measured inequality aversion by the value of a parameter, ε≥0. When ε=0, we are *not at all* averse to inequality implying that we would not be prepared to accept even the smallest reduction in average income in order to secure an equitable distribution. The degree of inequality aversion increased with the value of ε: the higher the value of ε, the more averse we would be to inequality and, in order to secure an equitable distribution of income, the greater the reduction in average income which we would find acceptable.

sensitive (X_k^e) literacy rate. Three special cases, contingent upon the value assumed by ε, may be distinguished:[10]

1. When $\varepsilon = 0$ (no inequality aversion), X_k^e is the *arithmetic mean* of male and female literacy rates in the district and $X_k^e = \bar{X}_k$.
2. When $\varepsilon = 1$, X_k^e is the *geometric mean* of male and female literacy rates in the district and $X_k^e < \bar{X}_k$.
3. When $\varepsilon = 2$, X_k^e is the *harmonic mean* of male and female literacy rates in the district and $X_k^e(\varepsilon = 2) < X_k^e(\varepsilon = 1) < \bar{X}_k$.

3. The 100 Most Backward Districts

Tables 1-6 rank the 100 districts which perform most badly in terms of each of the six indicators of backwardness, discussed earlier. These tables show that: nine of the 10 districts in India with the highest poverty rates were from Orissa **(Table 1)**; six of the 10 districts with the highest rates of food scarcity were from Arunachal Pradesh **(Table 2)**; four of the 10 ten districts with the lowest literacy rates were from Bihar (**Table 3)**; five of the 10 districts with the lowest immunisation rates were either from Bihar or from Jharkhand[11], and three were from tribal areas in the North-East[12] **(Table 4)**; the seven districts with the highest infant mortality rates were from Orissa[13] **(Table 5)**; and, all the 10 districts with the lowest sex ratios were from Punjab or Haryana **(Table 6)**.

The message that emerges from these tables is that different districts were "most backward" on different metrics. Districts in Orissa were the poorest; districts in

[10] ε is the measure of inrequality aversion: the greater its value the greater the distance between average achievement and inequality-adjusted achievement.
[11] Which was part of Bihar before becoming a state.
[12] Tuensang in Nagaland, Karbi Anglong in Assam, and Upper Siang in Arunachal Pradesh.
[13] With districts from Madhya Pradesh occupying positions 8-36 and districts from Uttar Pradesh occupying positions 37-72

Arunchal Pradesh had the highest rates of food scarcity; districts in Bihar and Jharkhand had the lowest rates of literacy, tribal districts in the North-East, along with districts in Bihar and Jharkhand, had the lowest rates of immunisation; districts in Orissa, Madhya Pradesh and Uttar Pradesh had the highest rates of infant mortality; and districts in Punjab and Haryana had the lowest (0-6 years) sex ratios.

Table 7 ranks the districts according to the backwardness index (see equation (2)) when the six indicators were assigned *equal weights*, $w_1 = w_2 = ... = w_6 = 0.167$; Table 8 ranks the districts according to the backwardness index when the six indicators were assigned *unequal weights*, with: poverty and food scarcity rates obtaining the highest weights ($w_1 = w_2 = 0.25$); the (gender-sensitive) literacy rate the next highest weight ($w_3 = 0.2$); and the immunisation rate, the infant mortality rate, and the (0-6 years) sex ratio the lowest weights ($w_4 = w_5 = w_6 = 0.1$).

On the basis of equal weights (Table 7), the 10 most backward districts in India were:Upper Subansisri, Tirap, Lower Subansiri, West Kameng, Papum Pare (all from Arunachal Pradesh); Rayagada and Baudh (both from Orissa); Sahibganj and Kodarma (both from Jharkhand); and Champawat (Uttaranchal). On the basis of unequal weights (Table 8), Changlang (from Arunachal Pradesh) was added to, and Sahibganj (Jharkhand) was deleted from, the list of the 10 most backward districts in India were.

The reason that districts in Arunachal Pradesh came out so badly in the backwardness ratings is because of the high incidence of food scarcity in these districts compared to the Indian average: while less than 3 percent of households in India did not have enough food for all their members, the mean incidence of food scarcity in the 10 districts where food scarcity was most acute was 31.6 percent, implying a mean value of I_j^k of 1185 for these 10 districts. By constrast, while the all-India poverty rate was 25.6 percent, the mean poverty rate in the 10 poorest districts was 74 percent, implying a mean value of I_j^k of 286 for these 10 districts.

Table 9 shows the distribution of the 100 most backward districts by state. When "backwardness" was measured by a district's poverty rate, 77 districtss were contained in just seven states (Assam; Bihar; Chattisgarh; Jharkhand; Madhya Pradesh; Orissa; and West Benga) and 45 districts were in just three states (Bihar; Jharkhand; and Orissa). In terms of food scarcity, 77 districts were in just seven states (Arunachal Pradesh; Assam; Bihar; Chattisgarh; Jharkhand; Orissa; and West Bengal). In terms of (il)literacy, five states (Bihar, Jharkhand; Rajasthan; Orissa and Uttar Pradesh) contributed 75 districts. In terms of immunisation rates, seven states (Arunachal Pradesh; Assam; Bihar; Jharkhand; Madhya Pradesh; Rajasthan; and Uttar Pradesh) contributed 85 districts. In terms of infant mortality rates, four states (Madya Pradesh; Orissa; Rajasthan; and Uttar Pradesh) contributed 96 districts. Lastly, in terms of the sex ratio of 0-6 year olds, five states (Gujarat; Haryana; Punjab; Rajasthan; and Uttar Pradesh) contributed 72 districts.

4. Inequality Decomposition by Region

Suppose that the sample of K districts is grouped as R mutually exclusive "regions" (indexed, $r=1. ..R$) with K_r districts in each region. For a specific attribute, let $\mathbf{x}=\{X_k\}$ and $\mathbf{x_r}=\{X_k\}$ represent the vector of its incidence in, respectively, all the districts in sample ($k=1...K$) and the districts in region r ($k=1...K_r$) for $r=1. ..R$. Then an inequality index, $J(\mathbf{x};K)$, defined over the vector $\mathbf{x}$ is said to be additively decomposable if:

$$J(\mathbf{x};K)=\sum_{r=1}^{R}J(\mathbf{x}_r;K_r)w_r+\mathbf{B}=\mathbf{A}+\mathbf{B} \quad (3)$$

where: $J(\mathbf{x};K)$ represents the *overall* level of inequality; $J(\mathbf{x_r};K_r)$ represents the level of inequality *within* region *r*; **A** – expressed as the weighted sum of the inequality in each region, w_r being the weights – and **B** represent, respectively, the *within-group* and the *between-group* contribution to overall inequality.

If, indeed, inequality can be 'additively decomposed' along the lines of equation (3) above, then, as Cowell and Jenkins (1995) have shown, the proportionate contribution of the between-group component (**B**) to overall inequality is the income inequality literature's analogue of the R^2 statistic used in regression analysis: the size of this contribution is a measure of the amount of inequality that can be 'explained' by the factor (or factors) used to subdivide the sample (gender; maternal literacy status etc.).

Only inequality indices which belong to the family of *Generalised Entropy Indices* are additively decomposable (Shorrocks, 1980). These indices are defined by a parameter θ and, when $\theta=0$, the weights are the population shares of the different groups; since the weights sum to unity, the within-group contribution **A** of equation (3) is a weighted average of the inequality levels within the groups. When $\theta=0$, the inequality index takes the form:

$$J(\mathbf{x};K)=\left(\sum_{k=1}^{K}\log(X_k/X)\right)/K \quad (4)$$

The inequality index defined in equation (4) is known as the Theil's (1967) Mean Logarithmic Deviation (MLD) and, because of its attractive features in terms of the interpretation of the weights, it was the one used in this study to decompose inequality in attribute incidence between the districts in India.

The analysis of inequality decomposition focues on the 18 major states in India and the initial division of districts was by districts which belonged to the "forward states" (Andhra Pradesh, Gujarat, Haryana, Karnataka, Kerala, Maharashtra, and Tamil Nadu) and and those which were in the "backward states" (Assam, Bihar, Chattisgarh, Jharkhand, Himachal Pradesh, Madhya Pradesh, Orissa, Rajasthan, Uttar Pradesh, Uttaranchal, and West Bengal).[14] Table 10 shows the results of decomposing inter-district inequality, first on the basis of the values of the component indices, I_k^j, for the six components and, second, on the basis of outcomes of the composite backwardness index, I_k under both equal and unequal weighting.

Table 10 shows, under the column displaying the values of Theil's MLD index, that the highest degree of inter-district inequality was in the distribution of the index of food scarcity values (MLD=0.811). This was followed by the distribution of the poverty index values (MLD=0.207) and this was followed by the distribution of the index of immunisation values (MLD=0.189). Conversely, the lowest degree of inter-district inequality was in the distribution of the index of sex ratio values (MLD=0.001).

The next two columns of Table 10 show the within and between group contributions to overall inequality where, of course, the two groups were "forward" and "backward" states. Inequality *within* forward and backward states in the distrct-wise distribution of poverty rates (term **A** in equation (3)) contributed 77 percent, and inequality *between* forward and backward states (term **B** in equation (3)) contributed 23 percent, to *overall* (i.e. all-India) inter-district inequality in the distribution of poverty rates.

[14] The division of states is one that is generally accepted in India and is based on indicators like per-capita income, literacy etc.

In other words, even if all the districts in the forward and backward states had the same poverty rates, H_1 and H_2 respectively (so that $J(\mathbf{x}_1; K_1) = J(\mathbf{x}_2; K_2) = 0$), there would still exist all-India inequality in the inter-district distribution of poverty rates ($J(\mathbf{x}; K) > 0$) simply because the mean poverty rate in forward states was lower than that in backward states ($H_1 = 15.8 < H_2 = 33.4$). To put it differenty, 23 percent of overall inter-district inequality in poverty rates could be attibuted to the fact that the mean poverty rate in forward states (15.8 percent) was lower than that in backward states (33.4 percent).

Table 10 shows that the between group ("forward" versus "backward" states) contribution to inequality was greatest for the values of the backwardness index with equal weights (when 41 percent of overall inter-district inequality in these values was due to differences in mean values between "forward" and "backward" states) and next greatest for the values of the backwardness index with unequal weights (when 34 percent of overall inter-district inequality in these values was due to differences in mean values between "forward" and "backward" states).

Table 11 shows the within- and between-group contributions to inequality when the districts are grouped by four regions: "northern forward states" (Gujarat, Haryana, Maharashtra, and Punjab); "southern forward states" (Andhra Pradesh, Karnataka, Kerala, and Tamil Nadu); "eastern backward states" (Assam, Orissa, and West Bengal); "central backward states" (Bihar, Chattisgarh, Jharkhand, Himachal Pradesh, Madhya Pradesh, Rajasthan, Uttar Pradesh, and Uttaranchal)). The most significant change, over the earlier "forward" versus "backward" states grouping", was the large contribution that differences between the four regions, in the mean values of their sex ratios, made to overall inter-district inequality in the distribution of the sex ratio: nearly half of inequality in the inter-district distribution of the sex ratio could now be attributed to differences between regions compared to ony 2 percent when a two-region grouping was adopted.

When the division was between "forward"and "backward" states, the northern "forward" states, with low sex ratios, were grouped with southern "forward" states, with high sex ratios: consequently, the average sex ratio for the "forward" states (909) was not very different from that of the "backward" states (936) **(see Table 10)**. However, when, under a four-region grouping, the northern and southern "forward" states were considered separately, there was a considerable difference between the mean sex ratio of northern "forward" states and that of the other regions.

5. Inequality Decomposition by Backwardness Component

The fact that the values of the backwardness index (equation (2)) with equal weights can be represented as the sum of the values of the component indices means that it is possible to answer the following question: how much of the overall inequality between districts in the distribution of the backwardness index values can be attributed to inter-district inequality in the distribution of the values of the different component indices (poverty rates, illiteracy rates, etc.)? This gives rise to two obvious questions (Shorrocks, 1982):

1. How much inequality would be observed if component *j* was the *only* source of inequality?
2. By how much would inequality fall if inequality in the distribution of component *j* were to be eliminated?

If $\mathbf{y}$ and $\mathbf{y^j}$ represent the values of, respectively, the (equallly weighted) backwardness index and index for component *j*, across all the districts in the sample, then a formal representation of questions (1) and (2) above would be, respectively:

$$C_1^j = J(\mathbf{y^j} + (\mu - \mu^j)\mathbf{u}) \text{ and } C_2^J = J(\mathbf{y}) - J(\mathbf{y} - \mathbf{y^j} + \mu^j\mathbf{u}) \qquad (5)$$

where **u**=(1,..,1) is the *K*-component unit vector and *J(.)* is the inequality measure.

Under C_1^j we compute the inequality associated with a *hypothetical* distribution in which the inter-district distribution of component *j* is unchanged but the values of all the component indices are the same in every district: if C_1^j is high (small) relative to the value of *J(**y**)*, then component *j* makes a large (small) contribution to overall inequality.

Under C_2^j, we compare observed inequality (as given by the value of *J(**y**)*) with the inequality associated with a *hypothetical* distribution in which inter-district inequality in the distribution of the the values of component *j* is eliminated (by setting them at the mean value for that component in every districy), the distribution of the the values of the other components remaining unchanged. If C_2^j is large (small), so that equalising the distribution of component *j* causes a substantial (insubstantial) reduction in inequality, then component *j* makes a large (small) contribution to overall inequality.

Suppose S^j is the *absolute* contribution of the j^{th} component to overall inequality so that $\sum_{j=1}^{M} S^j = J(\mathbf{y})$. Then Shorrocks (1982) showed that if the chosen inequality measure, *J(.)*, was the square of the coefficient of variation, the *proportionate* contribution of component *j* to overall inequality was:

$$s^j = \frac{S^j}{J(\mathbf{y})} = \frac{\text{cov}(\mathbf{y^j}, \mathbf{y})}{\text{var}(\mathbf{y})}, \text{ where: } S^j = \frac{1}{2}(C_1^j + C_2^j) \qquad (6)$$

Components with with a positive value for s^j make a disequalizing contribution to inequality in the values of the backwardness index; factor components with negative s^j values make an equalizing contribution. Table 12 shows that inter-district inequality in poverty rates contributed 16.8 percent, and inter-district inequality in food scarcity rates contributed 63.3 percent, to inequality in the values of the backwardness index; on the other hand, inter-district inequality in the sex ratio reduced inequality in the values of the backwardness index by 0.7 percent.

6. Conclusions

In this paper we examined regional disparity in India from the perspective of the smallest administartive and geographical units, the district. We used comparable published data on six indicatorts for 593 districts. The six indicatirs of deprivation that we usd in our analysis are: the poverty rate; the food scarcity rate; the (gender-sensitive) literacy rate; the infant mortality rate; the immunisation rate; and the sex ratio for 0-6 year olds. This exrecise enabled us to focus on pockets of deprivation within states rather than viewing deprivation as a phenomenom affecting a state or a region in its entirety.

The central conclusion that emerges from this study is that different districts were "most backward" on different metrics. Districts in Orissa were the poorest; districts in Arunchal Pradesh had the highest rates of food scarcity; districts in Bihar and Jharkhand had the lowest rates of literacy, tribal districts in the North-East, along with districts in Bihar and Jharkhand, had the lowest rates of immunisation; districts in Orissa, Madhya Pradesh and Uttar Pradesh had the highest rates of infant mortality; and districts in Punjab and Haryana had the lowest (0-6 years) sex ratios. The analyses carried out in this paper, thus, provide important insight for policy and suggest that the effots could be more focussed on these states if Millenium Development Goals targets are to be met as stipulated.

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Table 1
The 100 Districts in India with the Highest Poverty Rates

Rank	State	District	HCR
1.	Orissa	Malkangiri	80.1
2.	Orissa	Nabarangapur	80.1
3.	Orissa	Rayagada	80.1
4.	Orissa	Koraput	80.1
5.	Orissa	Nuapada	74.9
6.	Orissa	Kalahandi	74.9
7.	Orissa	Kandhamal	68.5
8.	Orissa	Baudh	68.5
9.	West Bengal	Puruliya	66.7
10.	Orissa	Mayurbhanj	66.1
11.	Bihar	Samastipur	63
12.	Orissa	Kendujhar	62.8
13.	Bihar	Nalanda	62.1
14.	Bihar	Sheohar	60.6
15.	Bihar	Sitamarhi	60.6
16.	Tamil Nadu	Tiruvanamalai	60.2
17.	Madhya Pradesh	Balaghat	60.2
18.	Madhya Pradesh	Mandla	60.2
19.	Madhya Pradesh	Dindori	60.2
20.	Bihar	Muzaffarpur	59.7
21.	Jharkhand	Lohardaga	59.3
22.	Jharkhand	Pakaur	59.3
23.	Jharkhand	Palamu	59.3
24.	West Bengal	Bankura	58.8
25.	West Bengal	Murshidabad	55.9
26.	Madhya Pradesh	Seoni	55.6
27.	Jharkhand	Godda	55.3
28.	Jharkhand	Garhwa	55.3
29.	Jharkhand	Dumka	55.3
30.	Jharkhand	Sahibganj	55.3
31.	Bihar	Khagaria	55.1
32.	Bihar	Begusarai	55.1
33.	Uttar Pradesh	Rae Bareli	54.6
34.	Uttar Pradesh	Mau	53.4
35.	Himachal Pradesh	Bilaspur	53.1
36.	Chhattisgarh	Janjgir-Champa	53.1
37.	Chhattisgarh	Korba	53.1
38.	Chhattisgarh	Bilaspur	53.1
39.	Madhya Pradesh	Narsimhapur	52.9
40.	Madhya Pradesh	Chhindwara	52.9
41.	Chhattisgarh	Kanker	52.8
42.	Chhattisgarh	Dantewada	52.8
43.	Chhattisgarh	Bastar	52.8
44.	West Bengal	Birbhum	52.4
45.	Madhya Pradesh	Betul	51
46.	Jharkhand	Bokaro	49.4
47.	Jharkhand	Giridih	49.4
48.	Orissa	Sonapur	49.3
49.	Orissa	Balangir	49.3
50.	West Bengal	Jalpaiguri	49.1

HCR: Head Count Ratio, % of population below the poverty line

Table 1 (continued)
The 100 Districts in India with the Highest Poverty Rates

Rank	state	District	HCR
51.	Karnataka	Raichur	48.8
52.	Karnataka	Koppal	48.8
53.	Assam	Sonitpur	48.6
54.	Assam	Marigaon	48.6
55.	West Bengal	Maldah	47.8
56.	Bihar	Pashchim Champaran	47.8
57.	Orissa	Anugul	47.6
58.	Orissa	Dhenkanal	47.6
59.	Maharashtra	Amravati	47.6
60.	Madhya Pradesh	East Nimar	47
61.	Bihar	Bhojpur	46.7
62.	Bihar	Buxar	46.7
63.	Uttar Pradesh	Ballia	46.6
64.	Maharashtra	Buldana	46.6
65.	Jharkhand	Pashchimi Singhbhum	45.7
66.	Jharkhand	Gumla	45.7
67.	Madhya Pradesh	Dhar	45.5
68.	Maharashtra	Wardha	44.9
69.	Maharashtra	Bhandara	44.7
70.	Maharashtra	Gondiya	44.7
71.	Assam	Nagaon	44.4
72.	Bihar	Sheikhpura	44.2
73.	Bihar	Jamui	44.2
74.	Bihar	Lakhisarai	44.2
75.	Bihar	Munger	44.2
76.	Uttar Pradesh	Deoria	44.1
77.	Uttar Pradesh	Kushinagar	44.1
78.	Orissa	Ganjam	43.9
79.	Orissa	Gajapati	43.9
80.	Maharashtra	Nanded	43.9
81.	Madhya Pradesh	Tikamgarh	43.8
82.	Madhya Pradesh	Panna	43.8
83.	Madhya Pradesh	Chhatarpur	43.8
84.	Assam	Bongaigaon	43.3
85.	Assam	Dhubri	43.3
86.	Karnataka	Bellary	43.3
87.	Assam	Kokrajhar	43.3
88.	Tamil Nadu	Vellore	43.3
89.	Maharashtra	Washim	43.1
90.	Maharashtra	Akola	43.1
91.	Orissa	Bhadrak	42.9
92.	Chhattisgarh	Kawardha	42.9
93.	Orissa	Baleshwar	42.9
94.	Chhattisgarh	Rajnandgaon	42.9
95.	Uttar Pradesh	Unnao	42.8
96.	Maharashtra	Nashik	42.8
97.	Uttar Pradesh	Fatehpur	42.6
98.	Uttar Pradesh	Kanpur Dehat	42.6
99.	Bihar	Darbhanga	42.2
100.	Bihar	Saran	42.2

HCR: Head Count Ratio, % of population below the poverty line

Table 2
The 100 Districts of India with the Highest Rates of Food Scarcity

Rank	State	District	HNG
1.	Arunachal Pradesh	Upper Subansiri	47.3
2.	Arunachal Pradesh	Tirap	43.4
3.	Uttaranchal	Champawat	32.2
4.	Arunachal Pradesh	West Kameng	32.2
5.	Arunachal Pradesh	Papum Pare	31.2
6.	Arunachal Pradesh	Lower Subansiri	31.2
7.	Arunachal Pradesh	Changlang	25.3
8.	Orissa	Baudh	24.8
9.	Jharkhand	Kodarma	24.5
10.	Madhya Pradesh	Balaghat	23.4
11.	Orissa	Rayagada	23.4
12.	Uttar Pradesh	Barabanki	22.9
13.	West Bengal	Maldah	22.9
14.	Jharkhand	Purbi Singhbhum	22.4
15.	Jharkhand	Sahibganj	20.8
16.	Orissa	Sonapur	20.8
17.	Jharkhand	Chatra	20.7
18.	Jharkhand	Pashchimi Singhbhum	20.3
19.	West Bengal	Bankura	19.9
20.	West Bengal	Puruliya	19.6
21.	Jharkhand	Palamu	19.1
22.	Jharkhand	Bokaro	19.1
23.	West Bengal	Koch Bihar	18.6
24.	Assam	Nagaon	18.3
25.	Orissa	Dhenkanal	17.9
26.	Jharkhand	Dumka	17.5
27.	Arunachal Pradesh	East Kameng	17.3
28.	Assam	Dhubri	17
29.	Jharkhand	Giridih	16.2
30.	Assam	Bongaigaon	16.2
31.	Assam	Goalpara	15.4
32.	Orissa	Kalahandi	15.3
33.	West Bengal	Dakshin Dinajpur	14.8
34.	West Bengal	Uttar Dinajpur	14.8
35.	Andhra Pradesh	Khammam	14
36.	Bihar	Banka	14
37.	West Bengal	South Twentyfour Parganas	13.7
38.	Chhattisgarh	Bilaspur	12.7
39.	Himachal Pradesh	Bilaspur	12.7
40.	Chhattisgarh	Korba	12.7
41.	Chhattisgarh	Janjgir-Champa	12.7
42.	Orissa	Mayurbhanj	12.5
43.	Uttar Pradesh	Auraiya	12.5
44.	Assam	Nalbari	12.1
45.	Orissa	Jajapur	11.9
46.	Jharkhand	Godda	11.5
47.	West Bengal	Jalpaiguri	11.4
48.	Orissa	Anugul	11
49.	Orissa	Jagatsinghapur	10.9
50.	Assam	Barpeta	9.4

HNG: Percentage of households that did not have enough food for all its members

Table 2 (continued)
The 100 Districts of India with the Highest Rates of Food Scarcity

Rank	State	District	HNG
51.	West Bengal	Nadia	9.4
52.	Orissa	Jharsuguda	8.9
53.	Orissa	Balangir	8.7
54.	Uttaranchal	Almora	8.6
55.	Uttaranchal	Bageshwar	8.6
56.	Uttar Pradesh	Pilibhit	8.5
57.	Kerala	Thrissur	8.4
58.	Bihar	Sitamarhi	8.3
59.	Bihar	Sheohar	8.3
60.	Madhya Pradesh	Indore	8
61.	Bihar	Purba Champaran	7.9
62.	Bihar	Araria	7.8
63.	Orissa	Gajapati	7.8
64.	Jharkhand	Garhwa	7.8
65.	Jharkhand	Gumla	7.7
66.	Orissa	Kendrapara	7.6
67.	Pondicherry	Pondicherry	7.4
68.	Chhattisgarh	Dhamtari	7.3
69.	Chhattisgarh	Mahasamund	7.3
70.	Chhattisgarh	Raipur	7.3
71.	Bihar	Muzaffarpur	7.3
72.	Bihar	Bhagalpur	7.1
73.	Haryana	Yamunanagar	7.1
74.	Manipur	Chandel	7
75.	Jharkhand	Lohardaga	6.9
76.	Andhra Pradesh	Mahbubnagar	6.9
77.	Orissa	Sundargarh	6.7
78.	Goa	South Goa	6.7
79.	Orissa	Sambalpur	6.6
80.	Assam	Karimganj	6.5
81.	Arunachal Pradesh	West Siang	6.3
82.	Bihar	Supaul	6.1
83.	Bihar	Gopalganj	6.1
84.	Arunachal Pradesh	Lohit	6
85.	Orissa	Cuttack	5.9
86.	West Bengal	Medinipur	5.9
87.	Assam	Kamrup	5.7
88.	Andhra Pradesh	East Godavari	5.6
89.	Maharashtra	Kolhapur	5.6
90.	Maharashtra	Satara	5.5
91.	Karnataka	Gulbarga	5.5
92.	Orissa	Nuapada	5.4
93.	Bihar	Kishanganj	5.4
94.	West Bengal	Barddhaman	5.4
95.	Maharashtra	Sindhudurg	5.4
96.	West Bengal	Darjiling	5.3
97.	Assam	Cachar	5.3
98.	Tripura	West Tripura	5.3
99.	Orissa	Bargarh	5.3
100.	Uttar Pradesh	Kanpur Dehat	5.2

HNG: Percentage of households that did not have enough food for all its members

Table 3
The 100 Districts in India with the Lowest Literacy Rates

Rank	State	District	GSLTR	LTR
1.	Bihar	Kishanganj	26.1	31.0
2.	Chhattisgarh	Dantewada	27.0	30.0
3.	Jharkhand	Pakaur	27.3	30.5
4.	Uttar Pradesh	Shrawasti	27.9	34.3
5.	Orissa	Malkangiri	28.1	31.3
6.	Orissa	Nabarangapur	29.2	34.3
7.	Uttar Pradesh	Balrampur	30.1	34.7
8.	Bihar	Araria	30.5	34.9
9.	Bihar	Supaul	30.7	37.8
10.	Bihar	Madhepura	31.2	36.2
11.	Bihar	Purnia	31.9	35.5
12.	Uttar Pradesh	Bahraich	31.9	35.8
13.	Bihar	Katihar	31.9	35.3
14.	Orissa	Rayagada	31.9	35.6
15.	Orissa	Koraput	32.6	36.2
16.	Jharkhand	Garhwa	32.8	39.4
17.	Madhya Pradesh	Jhabua	33.4	36.9
18.	Bihar	Purba Champaran	33.7	38.1
19.	Bihar	Saharsa	34.6	39.3
20.	Bihar	Sheohar	34.7	37.0
21.	Jharkhand	Sahibganj	34.8	37.9
22.	Uttar Pradesh	Budaun	34.8	38.8
23.	Bihar	Pashchim Champaran	35.2	39.6
24.	Bihar	Sitamarhi	35.4	39.4
25.	Orissa	Nuapada	36.0	42.3
26.	Uttar Pradesh	Rampur	36.1	39.0
27.	Jammu & Kashmir	Kupwara	36.3	40.8
28.	Bihar	Madhubani	36.7	42.3
29.	Jammu & Kashmir	Badgam	37.2	40.9
30.	Bihar	Jamui	37.2	42.7
31.	Arunachal Pradesh	East Kameng	37.4	40.9
32.	Orissa	Gajapati	37.7	41.7
33.	Uttar Pradesh	Gonda	37.7	43.0
34.	Jharkhand	Giridih	37.9	45.2
35.	Rajasthan	Banswara	38.2	44.2
36.	Arunachal Pradesh	Tirap	38.3	42.0
37.	Jharkhand	Godda	38.4	43.7
38.	Bihar	Khagaria	38.4	41.6
39.	Uttar Pradesh	Siddharthnagar	38.6	44.0
40.	Arunachal Pradesh	Tawang	38.6	41.1
41.	Rajasthan	Jalor	38.9	46.5
42.	Madhya Pradesh	Barwani	39.0	41.3
43.	Bihar	Banka	39.0	43.4
44.	Jharkhand	Chatra	39.6	43.3
45.	Jammu & Kashmir	Doda	40.1	46.9
46.	Bihar	Darbhanga	40.2	44.3
47.	Orissa	Kalahandi	40.2	46.2
48.	Uttar Pradesh	Maharajganj	40.4	47.7
49.	Madhya Pradesh	Sheopur	40.4	46.6
50.	Jammu & Kashmir	Anantnag	40.7	44.1

GSLTR: Gender Sensitive Literacy Rate
LTR: Literacy Rate

Table 3 (continued)
The 100 Districts in India with the Lowest Literacy Rates

Rank	State	District	GSLTR	LTR
51.	Jharkhand	Palamu	40.9	45.7
52.	Jammu & Kashmir	Baramula	41.0	44.6
53.	Chhattisgarh	Bastar	41.1	44.6
54.	Gujarat	Dohad	41.4	45.6
55.	Nagaland	Mon	41.7	42.3
56.	Andhra Pradesh	Mahbubnagar	42.1	45.5
57.	Rajasthan	Dungarpur	42.1	48.3
58.	Uttar Pradesh	Kushinagar	42.2	48.4
59.	Bihar	Samastipur	42.2	45.8
60.	Uttar Pradesh	Kaushambi	42.4	48.2
61.	Uttar Pradesh	Moradabad	42.7	45.7
62.	Bihar	Nawada	43.0	47.4
63.	Bihar	Gopalganj	43.2	48.2
64.	Arunachal Pradesh	Lower Subansiri	43.3	45.0
65.	Jharkhand	Dumka	43.4	48.3
66.	Jharkhand	Deoghar	44.4	50.5
67.	Bihar	Lakhisarai	44.4	48.2
68.	Jammu & Kashmir	Pulwama	44.7	47.8
69.	Bihar	Sheikhpura	44.8	49.0
70.	Bihar	Muzaffarpur	44.9	48.2
71.	Uttar Pradesh	Lalitpur	44.9	49.9
72.	Uttar Pradesh	Bareilly	44.9	48.0
73.	Rajasthan	Tonk	45.0	52.4
74.	Rajasthan	Bhilwara	45.1	51.1
75.	Rajasthan	Jaisalmer	45.2	51.4
76.	Uttar Pradesh	Shahjahanpur	45.2	48.8
77.	Uttar Pradesh	Sonbhadra	45.4	50.0
78.	Uttar Pradesh	Barabanki	45.5	48.7
79.	Uttar Pradesh	Sitapur	45.6	49.1
80.	Bihar	Begusarai	45.6	48.6
81.	Jharkhand	Pashchimi Singhbhum	45.8	50.7
82.	Uttar Pradesh	Jyotiba Phule Nagar	46.0	50.2
83.	Gujarat	Banas Kantha	46.1	51.3
84.	Jharkhand	Kodarma	46.1	52.7
85.	West Bengal	Uttar Dinajpur	46.1	48.6
86.	Uttar Pradesh	Kheri	46.1	49.4
87.	Karnataka	Raichur	46.3	49.5
88.	Jammu & Kashmir	Punch	46.5	51.1
89.	Uttar Pradesh	Sant Kabir Nagar	46.6	51.7
90.	Uttar Pradesh	Pilibhit	46.9	50.9
91.	Bihar	Saran	47.0	52.0
92.	Orissa	Kandhamal	47.6	53.0
93.	Bihar	Gaya	47.6	51.1
94.	Bihar	Siwan	47.6	52.0
95.	Karnataka	Gulbarga	47.8	50.7
96.	Arunachal Pradesh	Upper Siang	47.8	49.8
97.	Bihar	Bhagalpur	48.0	50.3
98.	Madhya Pradesh	Sidhi	48.0	52.8
99.	Bihar	Vaishali	48.3	51.6
100.	Rajasthan	Chittaurgarh	48.6	54.4

GSLTR: Gender Sensitive Literacy Rate
LTR: Literacy Rate

Table 4
The 100 Districts in India with the Lowest Immunisation Rates

Rank	State	District	IMM
1.	Nagaland	Tuensang	1.6
2.	Uttar Pradesh	Muzaffarnagar	3.4
3.	Assam	Karbi Anglong	4.3
4.	Arunachal Pradesh	Upper Siang	5.3
5.	Jharkhand	Pakaur	7.2
6.	Jharkhand	Sahibganj	7.2
7.	Assam	North Cachar Hills	7.5
8.	Jharkhand	Giridih	8
9.	Bihar	Rohtas	8.4
10.	Bihar	Kaimur (Bhabua)	8.4
11.	Arunachal Pradesh	East Kameng	8.9
12.	Meghalaya	West Khasi Hills	9.2
13.	Madhya Pradesh	Panna	10.7
14.	Bihar	Lakhisarai	10.9
15.	Bihar	Sheikhpura	10.9
16.	Bihar	Munger	10.9
17.	Bihar	Jamui	10.9
18.	Bihar	Kishanganj	11.4
19.	Rajasthan	Barmer	11.5
20.	Jharkhand	Garhwa	11.9
21.	Jharkhand	Palamu	11.9
22.	Bihar	Bhojpur	12
23.	Manipur	Churachandpur	12.6
24.	Bihar	Nalanda	13.1
25.	Arunachal Pradesh	Upper Subansiri	14.3
26.	Bihar	Pashchim Champaran	14.3
27.	Bihar	Purba Champaran	15.4
28.	Bihar	Madhepura	15.7
29.	Nagaland	Wokha	15.8
30.	Bihar	Begusarai	16.4
31.	Bihar	Purnia	17.2
32.	Madhya Pradesh	Tikamgarh	17.3
33.	Madhya Pradesh	Jhabua	17.4
34.	Jharkhand	Deoghar	17.4
35.	Bihar	Madhubani	18.1
36.	Bihar	Aurangabad	18.3
37.	Maharashtra	Aurangabad	18.3
38.	Jharkhand	Dumka	18.5
39.	Madhya Pradesh	Morena	18.6
40.	Madhya Pradesh	Sheopur	18.6
41.	Arunachal Pradesh	Papum Pare	18.7
42.	Uttar Pradesh	Sonbhadra	18.8
43.	Bihar	Sheohar	19.3
44.	Bihar	Sitamarhi	19.3
45.	Assam	Cachar	19.8
46.	Bihar	Samastipur	20
47.	Bihar	Araria	20.4
48.	Uttar Pradesh	Budaun	20.6
49.	Bihar	Saharsa	20.7
50.	Bihar	Supaul	20.7

IMM: percentage of 0-6 year olds who are completely immunised

Table 4 (continued)
The 100 Districts in India with the Lowest Immunisation Rates

Rank	State	District	IMM
51.	Meghalaya	South Garo Hills	20.8
52.	Assam	Hailakandi	20.8
53.	Bihar	Saran	20.9
54.	Gujarat	Panch Mahals	20.9
55.	Gujarat	Dohad	20.9
56.	Bihar	Gopalganj	21.2
57.	Meghalaya	East Garo Hills	21.5
58.	Nagaland	Phek	21.9
59.	Uttar Pradesh	Shrawasti	22.1
60.	Uttar Pradesh	Bahraich	22.1
61.	Bihar	Darbhanga	22.2
62.	Bihar	Vaishali	22.6
63.	Assam	Karimganj	23
64.	Rajasthan	Banswara	23.1
65.	Rajasthan	Udaipur	23.1
66.	Rajasthan	Bharatpur	23.2
67.	Jharkhand	Pashchimi Singhbhum	23.6
68.	Rajasthan	Sawai Madhopur	24.2
69.	Rajasthan	Karauli	24.2
70.	Rajasthan	Jaisalmer	24.3
71.	Meghalaya	West Garo Hills	24.4
72.	Bihar	Gaya	24.5
73.	Bihar	Buxar	24.5
74.	Madhya Pradesh	Shajapur	24.8
75.	Arunachal Pradesh	Lohit	24.9
76.	Rajasthan	Churu	25.2
77.	Karnataka	Gulbarga	25.3
78.	Bihar	Banka	25.6
79.	Bihar	Bhagalpur	25.6
80.	Bihar	Katihar	25.6
81.	Nagaland	Mon	25.8
82.	Jharkhand	Hazaribag	26.4
83.	Jharkhand	Kodarma	26.4
84.	Jharkhand	Chatra	26.4
85.	Madhya Pradesh	Sehore	26.8
86.	Madhya Pradesh	Damoh	27.2
87.	Bihar	Jehanabad	27.2
88.	Bihar	Khagaria	27.9
89.	Uttar Pradesh	Banda	28
90.	Madhya Pradesh	Rajgarh	28
91.	Uttar Pradesh	Chitrakoot	28
92.	Orissa	Nabarangapur	28.1
93.	Rajasthan	Ajmer	28.2
94.	West Bengal	Uttar Dinajpur	28.5
95.	Arunachal Pradesh	Dibang Valley	29.1
96.	Rajasthan	Jhalawar	29.1
97.	Uttar Pradesh	Mirzapur	29.3
98.	Arunachal Pradesh	Lower Subansiri	29.5
99.	Madhya Pradesh	Chhatarpur	29.5
100.	Bihar	Nawada	29.6

IMM: percentage of 0-6 year olds who are completely immunised

Table 5
The 100 Districts in India with the Highest Infant Mortality Rates

Rank	State	District	IMR
1.	Orissa	Nabarangapur	125
2.	Orissa	Koraput	125
3.	Orissa	Kandhamal	125
4.	Orissa	Malkangiri	125
5.	Orissa	Nuapada	125
6.	Orissa	Kalahandi	125
7.	Orissa	Rayagada	125
8.	Madhya Pradesh	Panna	117
9.	Madhya Pradesh	Shahdol	117
10.	Madhya Pradesh	Rewa	117
11.	Madhya Pradesh	Chhatarpur	117
12.	Madhya Pradesh	Umaria	117
13.	Madhya Pradesh	Satna	117
14.	Madhya Pradesh	Tikamgarh	117
15.	Madhya Pradesh	Sidhi	117
16.	Madhya Pradesh	Vidisha	114
17.	Madhya Pradesh	Sagar	114
18.	Madhya Pradesh	Sehore	114
19.	Madhya Pradesh	Raisen	114
20.	Madhya Pradesh	Bhopal	114
21.	Madhya Pradesh	Damoh	114
22.	Madhya Pradesh	Katni	100
23.	Madhya Pradesh	Chhindwara	100
24.	Madhya Pradesh	Narsimhapur	100
25.	Madhya Pradesh	Mandla	100
26.	Madhya Pradesh	Seoni	100
27.	Madhya Pradesh	Jabalpur	100
28.	Madhya Pradesh	Balaghat	100
29.	Madhya Pradesh	Dindori	100
30.	Madhya Pradesh	Morena	98
31.	Madhya Pradesh	Bhind	98
32.	Madhya Pradesh	Datia	98
33.	Madhya Pradesh	Guna	98
34.	Madhya Pradesh	Shivpuri	98
35.	Madhya Pradesh	Gwalior	98
36.	Madhya Pradesh	Sheopur	98
37.	Uttar Pradesh	Kheri	97
38.	Uttar Pradesh	Mainpuri	97
39.	Uttar Pradesh	Saharanpur	97
40.	Uttar Pradesh	Rampur	97
41.	Uttar Pradesh	Unnao	97
42.	Uttar Pradesh	Budaun	97
43.	Uttar Pradesh	Firozabad	97
44.	Uttar Pradesh	Kanpur Dehat	97
45.	Uttar Pradesh	Hathras	97
46.	Uttar Pradesh	Kanpur Nagar	97
47.	Uttar Pradesh	Auraiya	97
48.	Uttar Pradesh	Jyotiba Phule Nagar	97
49.	Uttar Pradesh	Sitapur	97
50.	Uttar Pradesh	Etawah	97

IMR: Deaths per 1,000 live births

Table 5 (continued)

The 100 Districts in India with the Highest Infant Mortality Rates

Rank	State	District	IMR
51.	Uttar Pradesh	Gautam Buddha Nagar	97
52.	Uttar Pradesh	Agra	97
53.	Uttar Pradesh	Moradabad	97
54.	Uttar Pradesh	Lucknow	97
55.	Uttar Pradesh	Rae Bareli	97
56.	Uttar Pradesh	Barabanki	97
57.	Uttar Pradesh	Meerut	97
58.	Uttar Pradesh	Farrukhabad	97
59.	Uttar Pradesh	Ghaziabad	97
60.	Uttar Pradesh	Etah	97
61.	Uttar Pradesh	Muzaffarnagar	97
62.	Uttar Pradesh	Baghpat	97
63.	Uttar Pradesh	Mathura	97
64.	Uttar Pradesh	Fatehpur	97
65.	Uttar Pradesh	Bulandshahar	97
66.	Uttar Pradesh	Kannauj	97
67.	Uttar Pradesh	Shahjahanpur	97
68.	Uttar Pradesh	Bijnor	97
69.	Uttar Pradesh	Pilibhit	97
70.	Uttar Pradesh	Hardoi	97
71.	Uttar Pradesh	Bareilly	97
72.	Uttar Pradesh	Aligarh	97
73.	Rajasthan	Dausa	94
74.	Madhya Pradesh	Dhar	94
75.	Madhya Pradesh	Rajgarh	94
76.	Rajasthan	Karauli	94
77.	Rajasthan	Alwar	94
78.	Rajasthan	Tonk	94
79.	Madhya Pradesh	Indore	94
80.	Madhya Pradesh	Shajapur	94
81.	Rajasthan	Jhunjhunun	94
82.	Madhya Pradesh	Ujjain	94
83.	Rajasthan	Dhaulpur	94
84.	Rajasthan	Sikar	94
85.	Rajasthan	Ajmer	94
86.	Madhya Pradesh	Jhabua	94
87.	Rajasthan	Jaipur	94
88.	Madhya Pradesh	Mandsaur	94
89.	Rajasthan	Bharatpur	94
90.	Madhya Pradesh	Neemuch	94
91.	Madhya Pradesh	Ratlam	94
92.	Madhya Pradesh	Dewas	94
93.	Rajasthan	Bhilwara	94
94.	Rajasthan	Sawai Madhopur	94
95.	Orissa	Anugul	93
96.	Chhattisgarh	Surguja	93
97.	Orissa	Kendujhar	93
98.	Chhattisgarh	Mahasamund	93
99.	Chhattisgarh	Rajnandgaon	93
100.	Orissa	Sambalpur	93

IMR: Deaths per 1,000 live births

Table 6

The 100 Districts in India with the Lowest Sex Ratios

Rank	State	District	SXR
1.	Punjab	Fatehgarh Sahib	754.4
2.	Haryana	Kurukshetra	769.6
3.	Punjab	Patiala	770.4
4.	Punjab	Kapurthala	774.8
5.	Punjab	Gurdaspur	775.1
6.	Punjab	Mansa	779.3
7.	Punjab	Bathinda	779.5
8.	Punjab	Amritsar	782.9
9.	Haryana	Sonipat	783.2
10.	Haryana	Ambala	783.9
11.	Punjab	Sangrur	784.5
12.	Haryana	Kaithal	788.7
13.	Punjab	Rupnagar	791
14.	Haryana	Rohtak	795.8
15.	Punjab	Jalandhar	797.1
16.	Gujarat	Mahesana	797.9
17.	Haryana	Jhajjar	805
18.	Punjab	Faridkot	805.3
19.	Punjab	Muktsar	806.8
20.	Haryana	Panipat	806.9
21.	Haryana	Yamunanagar	807
22.	Haryana	Karnal	808.1
23.	Punjab	Nawanshahr	810
24.	Punjab	Hoshiarpur	810.3
25.	Gujarat	Ahmadabad	813.8
26.	Punjab	Ludhiana	814
27.	Haryana	Mahendragarh	814.4
28.	Haryana	Rewari	814.5
29.	Jammu & Kashmir	Jammu	815.6
30.	Gujarat	Gandhinagar	816.4
31.	Haryana	Jind	818.3
32.	Haryana	Sirsa	818.4
33.	Punjab	Moga	818.6
34.	Punjab	Firozpur	819.2
35.	Tamil Nadu	Salem	826.3
36.	Madhya Pradesh	Bhind	828.7
37.	Madhya Pradesh	Morena	829.3
38.	Haryana	Hisar	829.5
39.	Haryana	Fatehabad	830.5
40.	Himachal Pradesh	Kangra	836.1
41.	Haryana	Panchkula	837
42.	Haryana	Bhiwani	838
43.	Himachal Pradesh	Una	839.5
44.	Gujarat	Rajkot	844
45.	Delhi	South West	844.7
46.	Chandigarh	Chandigarh	845
47.	Uttar Pradesh	Baghpat	847.3
48.	Uttar Pradesh	Agra	849.1
49.	Madhya Pradesh	Gwalior	849.1
50.	Maharashtra	Sangli	849.9

SXR: Girls per 1,000 boys (0-6 years old)

Table 6 (continued)
The 100 Districts in India with the Lowest Sex Ratios

Rank	State	District	SXR
51.	Uttar Pradesh	Ghaziabad	850.9
52.	Jammu & Kashmir	Kathua	851.2
53.	Rajasthan	Ganganagar	852.2
54.	Uttaranchal	Hardwar	852.3
55.	Delhi	North West	854
56.	Uttar Pradesh	Meerut	854.2
57.	Uttar Pradesh	Gautam Buddha Nagar	855.5
58.	Haryana	Faridabad	855.8
59.	Uttar Pradesh	Muzaffarnagar	856.9
60.	Delhi	West	858.3
61.	Sikkim	West	858.3
62.	Rajasthan	Dhaulpur	859.1
63.	Maharashtra	Kolhapur	859.5
64.	Gujarat	Patan	862.4
65.	Haryana	Gurgaon	862.7
66.	Himachal Pradesh	Hamirpur	864.3
67.	Uttar Pradesh	Hamirpur	864.3
68.	Uttar Pradesh	Kanpur Nagar	865.1
69.	Uttar Pradesh	Shahjahanpur	865.5
70.	Maharashtra	Jalgaon	866.6
71.	Rajasthan	Jhunjhunun	866.6
72.	Rajasthan	Jaisalmer	866.7
73.	Delhi	North East	866.8
74.	Uttar Pradesh	Bulandshahar	867.8
75.	Delhi	East	868.5
76.	Sikkim	East	868.5
77.	Delhi	North	869.6
78.	Sikkim	North	869.6
79.	Gujarat	Surat	872.2
80.	Uttar Pradesh	Mathura	872.5
81.	Rajasthan	Hanumangarh	873
82.	Gujarat	Anand	873.6
83.	Rajasthan	Bharatpur	874.9
84.	Madhya Pradesh	Datia	874.9
85.	Gujarat	Vadodara	875
86.	Rajasthan	Karauli	876
87.	Tamil Nadu	Dharmapuri	877.6
88.	Gujarat	Sabar Kantha	878.3
89.	Gujarat	Kheda	880.1
90.	Uttar Pradesh	Hathras	881.3
91.	Delhi	New Delhi	881.8
92.	Rajasthan	Sikar	881.9
93.	Uttar Pradesh	Mainpuri	883.1
94.	Maharashtra	Satara	883.8
95.	Bihar	Darbhanga	885.2
96.	Uttar Pradesh	Jalaun	885.3
97.	Uttar Pradesh	Jhansi	885.9
98.	Gujarat	Bhavnagar	885.9
99.	Delhi	South	886.2
100.	Sikkim	South	886.2

SXR: Girls per 1,000 boys (0-6 years old)

Table 7
The 100 most "Backward" Districts in India
(equal weight scoring)

Rank	State	District	Score
1.	Arunachal Pradesh	Upper Subansiri	392
2.	Arunachal Pradesh	Tirap	374
3.	Orissa	Rayagada	290
4.	Arunachal Pradesh	Lower Subansiri	288
5.	Arunachal Pradesh	West Kameng	287
6.	Arunachal Pradesh	Papum Pare	280
7.	Orissa	Baudh	276
8.	Uttaranchal	Champawat	273
9.	Jharkhand	Sahibganj	260
10.	Jharkhand	Kodarma	256
11.	Uttar Pradesh	Barabanki	253
12.	West Bengal	Maldah	249
13.	Arunachal Pradesh	Changlang	248
14.	Jharkhand	Palamu	247
15.	Madhya Pradesh	Balaghat	243
16.	West Bengal	Puruliya	240
17.	Jharkhand	Pashchimi Singhbhum	240
18.	Jharkhand	Chatra	235
19.	Orissa	Kalahandi	231
20.	Jharkhand	Dumka	231
21.	Orissa	Sonapur	230
22.	Jharkhand	Giridih	226
23.	West Bengal	Bankura	222
24.	Jharkhand	Purbi Singhbhum	221
25.	Jharkhand	Bokaro	221
26.	Assam	Nagaon	219
27.	Arunachal Pradesh	East Kameng	210
28.	Assam	Dhubri	210
29.	Orissa	Dhenkanal	206
30.	West Bengal	Koch Bihar	201
31.	Assam	Goalpara	199
32.	Assam	Bongaigaon	199
33.	Bihar	Banka	199
34.	Orissa	Mayurbhanj	198
35.	Jharkhand	Godda	191
36.	West Bengal	Uttar Dinajpur	190
37.	Chhattisgarh	Bilaspur	184
38.	Chhattisgarh	Korba	184
39.	Chhattisgarh	Janjgir-Champa	183
40.	Bihar	Sitamarhi	182
41.	Bihar	Sheohar	182
42.	West Bengal	Dakshin Dinajpur	178
43.	Jharkhand	Garhwa	178
44.	Himachal Pradesh	Bilaspur	177
45.	Orissa	Koraput	174
46.	Orissa	Nabarangapur	173
47.	Orissa	Nuapada	173
48.	Uttar Pradesh	Auraiya	170
49.	Bihar	Muzaffarpur	166
50.	West Bengal	Jalpaiguri	164

Score: weighted average of six component scores, equal weights

Table 7 (continued)
The 100 most "Backward" Districts in India
(equal weight scoring)

Rank	State	District	Score
51.	Assam	Barpeta	163
52.	Orissa	Anugul	163
53.	Bihar	Purba Champaran	163
54.	Orissa	Jajapur	158
55.	Assam	Nalbari	158
56.	Bihar	Supaul	157
57.	West Bengal	South Twentyfour Parganas	157
58.	Orissa	Gajapati	156
59.	Orissa	Balangir	156
60.	Jharkhand	Gumla	155
61.	Bihar	Araria	155
62.	Jharkhand	Lohardaga	154
63.	Orissa	Kandhamal	154
64.	Andhra Pradesh	Khammam	153
65.	Bihar	Pashchim Champaran	151
66.	Bihar	Bhagalpur	151
67.	Jharkhand	Pakaur	149
68.	Orissa	Jagatsinghapur	148
69.	Uttar Pradesh	Pilibhit	147
70.	Madhya Pradesh	Tikamgarh	147
71.	Orissa	Malkangiri	146
72.	Karnataka	Gulbarga	145
73.	Bihar	Kishanganj	145
74.	Madhya Pradesh	Dhar	142
75.	Bihar	Gopalganj	141
76.	Orissa	Kendujhar	140
77.	Assam	Karimganj	140
78.	Orissa	Jharsuguda	139
79.	Bihar	Khagaria	139
80.	Bihar	Lakhisarai	137
81.	Bihar	Sheikhpura	137
82.	Arunachal Pradesh	Lohit	136
83.	Madhya Pradesh	Damoh	136
84.	Uttar Pradesh	Kanpur Dehat	136
85.	Bihar	Samastipur	136
86.	Madhya Pradesh	Shahdol	135
87.	Madhya Pradesh	Umaria	135
88.	Assam	Hailakandi	135
89.	Assam	Karbi Anglong	134
90.	Bihar	Nawada	134
91.	Assam	Cachar	133
92.	Bihar	Bhojpur	133
93.	Madhya Pradesh	Indore	132
94.	West Bengal	Nadia	132
95.	Bihar	Munger	132
96.	Andhra Pradesh	Mahbubnagar	132
97.	Bihar	Purnia	131
98.	Bihar	Nalanda	131
99.	Chhattisgarh	Mahasamund	130
100.	Bihar	Madhepura	130

Score: weighted average of six component scores, equal weights

Table 8
The 100 most "Backward" Districts in India
(unequal weights scoring)

Rank	State	District	Score
1.	Arunachal Pradesh	Upper Subansiri	529
2.	Arunachal Pradesh	Tirap	507
3.	Arunachal Pradesh	West Kameng	378
4.	Arunachal Pradesh	Lower Subansiri	378
5.	Orissa	Rayagada	370
6.	Uttaranchal	Champawat	369
7.	Arunachal Pradesh	Papum Pare	366
8.	Orissa	Baudh	358
9.	Arunachal Pradesh	Changlang	327
10.	Jharkhand	Kodarma	325
11.	Jharkhand	Sahibganj	323
12.	Madhya Pradesh	Balaghat	321
13.	West Bengal	Maldah	320
14.	Uttar Pradesh	Barabanki	318
15.	West Bengal	Puruliya	307
16.	Jharkhand	Palamu	306
17.	Jharkhand	Pashchimi Singhbhum	299
18.	Orissa	Sonapur	294
19.	Jharkhand	Chatra	292
20.	West Bengal	Bankura	290
21.	Jharkhand	Purbi Singhbhum	289
22.	Jharkhand	Dumka	285
23.	Orissa	Kalahandi	285
24.	Jharkhand	Bokaro	280
25.	Jharkhand	Giridih	272
26.	Assam	Nagaon	270
27.	Assam	Dhubri	260
28.	Orissa	Dhenkanal	260
29.	Arunachal Pradesh	East Kameng	255
30.	West Bengal	Koch Bihar	253
31.	Assam	Bongaigaon	247
32.	Orissa	Mayurbhanj	241
33.	Assam	Goalpara	241
34.	Bihar	Banka	236
35.	Jharkhand	Godda	228
36.	West Bengal	Uttar Dinajpur	227
37.	Chhattisgarh	Bilaspur	224
38.	Chhattisgarh	Korba	223
39.	Chhattisgarh	Janjgir-Champa	222
40.	West Bengal	Dakshin Dinajpur	215
41.	Himachal Pradesh	Bilaspur	215
42.	Bihar	Sheohar	209
43.	Bihar	Sitamarhi	208
44.	West Bengal	Jalpaiguri	201
45.	Jharkhand	Garhwa	201
46.	Orissa	Koraput	198
47.	Uttar Pradesh	Auraiya	198
48.	Orissa	Anugul	196
49.	Orissa	Nuapada	195
50.	West Bengal	South Twentyfour Parganas	194

Score: weighted average of five component scores, unequal weights

Table 8 (continued)
The 100 most "Backward" Districts in India
(unequal weights scoring)

Rank	State	District	Score
51.	Assam	Nalbari	193
52.	Bihar	Muzaffarpur	190
53.	Andhra Pradesh	Khammam	187
54.	Orissa	Nabarangapur	187
55.	Assam	Barpeta	186
56.	Orissa	Jajapur	185
57.	Orissa	Balangir	185
58.	Orissa	Gajapati	180
59.	Bihar	Purba Champaran	179
60.	Jharkhand	Lohardaga	179
61.	Jharkhand	Gumla	176
62.	Orissa	Kandhamal	172
63.	Bihar	Supaul	172
64.	Orissa	Jagatsinghapur	171
65.	Bihar	Araria	168
66.	Bihar	Bhagalpur	166
67.	Orissa	Jharsuguda	165
68.	Bihar	Pashchim Champaran	162
69.	Uttar Pradesh	Pilibhit	158
70.	Karnataka	Gulbarga	157
71.	Jharkhand	Pakaur	156
72.	West Bengal	Nadia	156
73.	Orissa	Malkangiri	154
74.	Orissa	Kendujhar	154
75.	Madhya Pradesh	Dhar	151
76.	Bihar	Kishanganj	151
77.	Bihar	Gopalganj	150
78.	Arunachal Pradesh	Lohit	150
79.	Madhya Pradesh	Indore	150
80.	Assam	Karimganj	149
81.	Andhra Pradesh	Mahbubnagar	149
82.	Madhya Pradesh	Tikamgarh	148
83.	Bihar	Khagaria	148
84.	Chhattisgarh	Mahasamund	147
85.	Chhattisgarh	Raipur	147
86.	Orissa	Sundargarh	146
87.	Orissa	Sambalpur	146
88.	Uttaranchal	Bageshwar	146
89.	Uttar Pradesh	Kanpur Dehat	145
90.	Uttaranchal	Almora	144
91.	Chhattisgarh	Dhamtari	143
92.	Orissa	Kendrapara	143
93.	Assam	Karbi Anglong	142
94.	Bihar	Nawada	142
95.	Bihar	Samastipur	142
96.	Bihar	Lakhisarai	140
97.	Bihar	Sheikhpura	140
98.	Madhya Pradesh	Shahdol	139
99.	Assam	Hailakandi	139
100.	Orissa	Bargarh	139

Score: weighted average of five component scores, unequal weights

Table 9
100 Most Backward Districts by State / Union Territory

State	Number of Backward Districts by:							
	POV	HNG	GSLTR	IMM	IMR	SXR	Score 1	Score 2
A & N Isl (2)	-	-	-	-	-	-	-	
An Prad (23)	-	3	1	-	-	-	2	2
Ar Prad (13)	-	9	5	7	-	-	8	8
Assam (23)	6	9		5	-	-	10	9
Bihar (37)	16	10	28	34	-	1	21	16
Chandigarh (1)	-	-	-	-	-	1	-	-
Chattisgarh (16)	8	6	2	-	4	-	4	6
D & NH (1)	-	-	-	-	-	-	-	-
Dam & Diu (2)	-	-	-	-	-	-	-	-
Delhi (9)	-	-	-	-	-	8	-	-
Goa (2)	-	1	-	-	-	-	-	-
Gujarat (24)	-	-	2	2	-	12	-	-
Haryana (19)	-	1		-	-	19	-	-
H Prad (11)	1	1		-	-	4	1	1
J &K (14)	-	-	7	-	-	2	-	-
J'kand (18)	11	13	11	11	-	-	14	14
Karnataka (27)	3	1	2	1	-	-	1	1
Kerala (14)	-	1	-	-	-	-	-	-
L'deep (1)	-	-	-	-	-	-	-	-
M Prad (45)	12	2	4	10	39	4	7	5
Maharashtra (35)	9	3	-	1	-	5	-	-
Manipur (9)	-	1	-	1	-	-	-	-
Meghalaya (7)	-	-	-	4	-	-	-	-
Mizoram (8)	-	-	-	-	-	-	-	-
Nagaland (8)	-	-	1	4	-	-	-	-
Orissa (30)	18	18	8	1	9	-	18	22
P'cherry (1)	-	1	-	-	-	-	-	-
Punjab (17)	-	-	-	-	-	17	-	-
Raj'stan (32)	-	-	7	10	12	8	-	-
Sikkim (1)	-	-	-	-	-	-	-	-
T Nadu (30)	2	-	-	-	-	2	-	-
Tripura (4)	-	1	-	-	-	-	-	-
U Prad (70)	8	4	21	8	36	16	4	4
Uttaranchal (13)	-	3	-	-	-	1	1	3
W Beng (18)	6	12	1	1	-	-	9	9

Score 1: Ranking accoeding to Equal Weighted Scores (Table 7)
Score 2: Ranking accoeding to Unequal Weighted Scores (Table 8)

Table 10
Inequality Decomposition by "Forward" and "Backward" States

	Mean Value: Forward States	Mean Value: Backward States	Value of Theil's MLD Index	Within Group Contribution (%)	Between Group Contribution (%)
HCR	**15.8**	**33.4**	**0.207**	**77**	**23**
HNG	**0.9**	**4.0**	**0.811**	**86**	**14**
GSLTR	**68.2**	**56.5**	**0.078**	**86**	**14**
IMM	**75.6**	**45.0**	**0.189**	**68**	**32**
IMR	**60.9**	**83.7**	**0.049**	**85**	**15**
SXR	**909**	**936**	**0.001**	**97**	**3**
Score 1	**70.1**	**122**	**0.072**	**59**	**41**
Score 2	**64.9**	**127**	**0.119**	**66**	**34**

For each attribute *j*, inequality is computed over the scores: $I_k^j = X_k^j / X^j$

"Forward states": Andhra Pradesh, Gujarat, Haryana, Karnataka, Kerala, Maharashtra, and Tamil Nadu.

"Backward states": Assam, Bihar, Chattisgarh, Jharkhand, Himachal Pradesh, Madhya Pradesh, Orissa, Rajasthan, Uttar Pradesh, Uttaranchal, and West Bengal.

Table 11
Inequality Decomposition by Four Regions

	Mean Value: Fwd States (nth)	Mean Value: Fwd States (sth)	Mean Value: Bwd States (east)	Mean Value: Bwd States (cen)	Value of Theil's MLD Index	Within Group Cont (%)	Between Group Cont (%)
HCR	**10.5**	**19.1**	**40.4**	**31.4**	**0.207**	**72**	**28**
HNG	**0.7**	**1.0**	**7.7**	**2.9**	**0.811**	**80**	**20**
GSLTR	**66.6**	**69.2**	**61.3**	**55.1**	**0.078**	**80**	**20**
IMM	**65.6**	**81.9**	**53.2**	**42.6**	**0.189**	**60**	**40**
IMR	**66.0**	**57.7**	**81.4**	**84.4**	**0.049**	**81**	**19**
SXR	**838**	**954**	**958**	**929**	**0.001**	**52**	**48**
Score 1	**72**	**69**	**145**	**115**	**0.072**	**57**	**43**
Score 2	**62**	**67**	**165**	**116**	**0.119**	**61**	**39**

For each attribute *j*, inequality is computed over the scores: $I_k^j = X_k^j / X^j$

"Northern forward states": Gujarat, Haryana, Maharashtra, and Punjab)

"Southern forward states": Andhra Pradesh, Karnataka, Kerala, and Tamil Nadu); "Eastern backward states": Assam, Orissa, and West Bengal)

"Central backward states": Bihar, Chattisgarh, Jharkhand, Himachal Pradesh, Madhya Pradesh, Rajasthan, Uttar Pradesh, and Uttaranchal

Table 12
Decomposition of Inequality By Deprivation Component

	% contribution*	C_1^j	C_2^j
POV	**16.8**	**0.101**	**0.065**
HNG	**63.3**	**0.311**	**0.209**
GSLTR	**7.4**	**0.059**	**0.028**
IMM	**9.6**	**0.082**	**0.035**
IMR	**3.6**	**0.044**	**0.013**
SXR	**-0.7**	**0.009**	**-0.003**
Total	**100**		

* The percentage contribution that inequality in the distribution of component *j* makes to inequality in the overall index.
C_1^j is the amount of inequality that would be observed if inequality in the distribution of the jth component was the only source of inequality.
C_2^j is the amount by which inequality would be reduced if inequality in the distribution of the jth component was eliminated.