

Social Protection in Districts of India: Evidence from NFHS-6

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Abstract

This paper constructs a social protection index (SPI) to assess the progress towards universal social protection in the districts of India based on the data available from the latest round of the National Family Health Survey, 2023-2024. The index combines six indicators into the three dimensions of social protection – social security, inclusion and enabling capacity, and life-cycle vulnerability. The SPI is found to be the lowest in Sukuma district of Chhattisgarh but the highest in Hamirpur district of Himachal Pradesh. In 248 districts of the country, the SPI is found to be very low. These districts may be termed as hotspot districts as far as universal social protection is concerned. The proposed SPI may be used as a basis for planning for universal social protection activities and interventions at the district level.

Introduction

Social protection is increasingly understood as a multidimensional policy system that combines income security, access to essential services and protection against life cycle and socio-economic risks. The International Labour Organization (ILO) emphasises that social-protection measurement involves several dimensions of coverage, including the population and contingencies covered and the adequacy of benefits (ILO, 2024). The ASPIRE framework of the World Bank similarly combines household-survey and administrative information to examine the performance of social protection and labour programmes (World Bank, nd).

At the district level, social protection activities are undertaken by different government departments and agencies. Therefore, information on the coverage of different social protection interventions and activities and adequacy of these interventions and activities in meeting the social protection needs of the people is often fragmented across different departments and various schemes. District level administrative information related to social protection activities is, therefore, not suitable for monitoring the progress towards universal social protection. An alternative is the information available through household-surveys which provides a useful complementary perspective to the administrative data. This study uses the district-level information available through the latest, 2023-2024 round of the National Family Health Survey (Government of India, 2026).

The proposed social protection index (SPI) is designed to answer a focused question: how do districts compare on a selected set of observable conditions associated with social-protection coverage, women economic and digital empowerment, and demographic advantage? It is different from indexes which focus on expenditure, primarily government expenditure, on social protection programmes and activities (Asian Development Bank, 2011; Chaurasia, 2021). Instead, the SPI focusses on the access to selected social protection programmes and activities in the district.

Conceptual Framework

The conceptual framework of the SPI follows the multidimensional measurement approach. Social protection is broader than cash transfer alone and includes income security and access to essential services across the life cycle. International monitoring frameworks also distinguish the coverage of social protection in terms of legal coverage, effective coverage, and adequacy. The index constructed in the present paper captures only the selected enabling-environment component of the broader social protection system.

The SPI proposed in this paper is conceptually aligned with the ILO approach to social protection (ILO, 2012), especially the life-cycle approach. The ILO framework emphasises universal access to essential health care and basic income security across the life course, with particular attention to children, persons of working ages and older persons. The SPI is based on these broad principles and is intended to serve as an analytical framework to monitor the progress towards universal social protection. This framework recognises that social protection is contingent upon not only the direct access to different social protection programmes and interventions but also the extent to which households and individuals are financially, socially, and digitally included and the demographic situation as social protection requirements of different population groups are essentially different.

Accordingly, the present paper conceptualises social protection as a three-dimensional construct comprising of three complementary dimensions: 1) Social Security, 2) Inclusion and Enabling Capacity, and 3) Life-cycle Vulnerability. The Social Security dimension captures the extent to which households have mechanisms that can reduce exposure to major economic and social risks. The Inclusion and Enabling Capacity dimension focuses particularly on the ability of women to independently access financial, digital, and human-capital resources. The Life-Cycle Vulnerability dimension, on the other hand, reflects the demographic groups that may have relatively greater or specific social protection requirements.

Since social protection is a multidimensional construct, any measure or index designed to monitor progress towards in social protection must be a composite measure or index that reflects the progress in different dimensions of social protection framework as proposed by ILO. It may also be recognised that each of the three dimensions that have been assumed to constitute the social protection framework is also multi-dimensional in their own context. The construction of any measure or index to

monitor the progress towards social protection, therefore, involves two steps. The first step is to select indicators reflecting the progress in different dimensions of social protection while the second step is to combine different indicators into a single measure or index through a statistically sound methodology. The selection of indicators is commonly constrained by the availability of the data related to the indicators and the very fact that no single indicator can reflect the progress in the three dimensions of social protection because of their multi-dimensional nature. In India, the problem of the availability of appropriate indicators to measure the progress in different dimensions of social protection and hence in social protection increases as one goes down the administrative hierarchy.

There are different approaches to combine different indicators into a single composite measure or index. A comprehensive review of these approaches is given elsewhere (OECD, 2008). The construction of the composite measure or index essentially involves mapping a set of normalised indicators of social protection or a vector quantity on a single scalar quantity using some mapping or aggregation function. This approach, however, always results in some loss of information because there is no mapping or aggregation function which can transfer the entire information embedded in a vector quantity into a scalar quantity (Anand and Sen, 1997). The selection of the mapping function, therefore, matters in the construction of the composite index. Another challenging problem in the construction of any composite measure or index is the assignment of weights to different indicators. The simplest approach is to assign equal weights to all indicators. However, this approach may not be appropriate when progress in different dimensions of social protection is not the same.

The latest round (2023-2024) of the National Family Health Survey in India provides estimates of selected indicators for 715 districts of the country. These estimates can be used to construct SPI to monitor the progress towards universal social protection at the district level. The SPI may be perceived as an analytical adaptation of the ILO social protection framework for district-level assessment of the progress in social protection. It translates key principles of the ILO social protection and life-cycle approach into a measurable district-level index based on a set of available indicators. It may be used to diagnostically interpret the social protection situation at the district level – the level at which all social protection activities are implemented, although they are planned at the national level and customised at the state/Union Territory level.

The Social Protection Index

The conceptual framework for constructing the social protection index (SPI) is presented in the figure 1. As discussed earlier, social protection is assumed to be the composite of three dimensions: 1) social security; 2) inclusion and enabling capacity; and 3) life-cycle vulnerability. Each dimension is further conceptualised as a multidimensional construct which is reflected in terms of two indicators relevant to the dimension. Construction of SPI, therefore, involves constructing a composite index for each of the three dimensions and then combining composite indexes of the three dimensions into SPI. The weighted average approach has been adopted to combine the

normalised values of the indicators representing different dimensions into the composite score of each dimension and then obtaining SPI based on the composite scores of the three dimensions. The data driven exploratory factor analysis technique has been adopted to estimate weights for indicators of different dimensions to construct the dimension-specific composite score and then weights for the three composite scores to construct SPI. These weights determine the relative importance of different indicators in deciding the level of SPI. The limitation of this data driven approach, however, is that the weights so obtained are data sensitive or they are specific to the specific dataset only. Any change in the dataset leads to the change in the weights of different indicators and hence different SPI. As such, the SPI constructed by following this approach is not universal but is specific to the dataset.

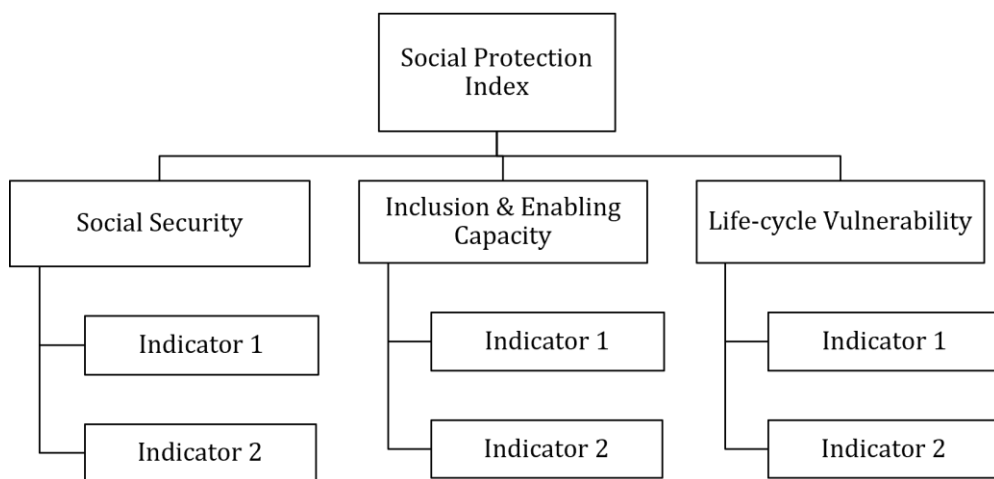


Figure 1: The conceptual framework of the social protection index (SPI).

Source: Author

The following set of six indicators has been selected for the construction of SPI:

1. Proportion of households in which at least one member has health insurance (HI)
2. Proportion of households in which at least one member has a bank/post-office account (BA)
3. Proportion of women having at least 10 years of schooling (WE)
4. Proportion of women having a mobile phone which they exclusively use (WM)
5. Support Ratio defined as the ratio of population aged 15-59 years to population aged <15 years and 60 years and above (SR)
6. Contraceptive prevalence rate (CP)

The proportion of households with at least one member covered by health insurance or a financial health protection scheme reflects the protection against health-related financial risks. The proportion of households having a bank or post-office

account represents basic financial inclusion and facilitates access to Direct Benefit Transfers (DBT), pensions, social assistance, and other government benefits. Together, these indicators provide an indication of the financial and economic protection available to households. In the factor analysis, health insurance was grouped with the contraceptive prevalence rate, which reflects access to and use of family-planning services as a component of reproductive health protection, to form the social security dimension. The bank or post-office account indicator was grouped with the support ratio in the life-cycle vulnerability dimension.

The proportion of women who have a mobile phone that they themselves use reflects digital inclusion and the potential ability to access information, government services, social protection programmes, and digital payment systems. The proportion of women with ten or more years of schooling is treated as a longer-term enabling indicator because education can strengthen access to employment, information, public services, and social protection mechanisms. These indicators therefore capture the broader enabling environment within which social protection can operate effectively.

The support ratio, defined as the ratio of the population aged 15-59 years to the population below 15 years and aged 60 years and above, captures the demographic structure of a district. A lower support ratio indicates a larger share of older persons, who potentially require old-age income security, health care, and social assistance, and of children and adolescents, who require investments in health, nutrition, education, protection, and development, relative to the working-age population. This indicator should be interpreted as a measure of potential social protection need or demographic pressure, rather than as a measure of poor programme performance.

Table 1: Weights for the construction of dimension scores and SPI.

Factor/ Dimension	Indicators	Indicator weight	Dimension weight
Social security	1. Proportion of households in which at least one member has health insurance (HI)	0.450033	0.420819
	2. Contraceptive prevalence rate (CP)	0.549967	
Inclusion and enabling capacity	1. Proportion of women having at least 10 years of schooling (WE)	0.513518	0.277669
	2. Proportion of women having a mobile phone which they exclusively use (WM)	0.486482	
Lifecycle vulnerability	1. Support Ratio defined as the ratio of population aged 15-59 years to population aged <15 years and 60 years and above (SR)	0.340664	0.301512
	2. Proportion of households in which at least one member has a bank/post-office account (BA)	0.659336	

Source: Author

The exploratory factor analysis technique was applied to data related to the six indicators for the 715 districts of the country available from NFHS 2023-2024 to estimate weights for the six indicators for constructing SPI. Application of the

exploratory analysis revealed that the six indicators can be grouped into 3 factors or dimensions, each having high factor loadings in two indicators and the three factors or dimensions, together explained almost 75 per cent of the total variation in the original data set. Based on the results of the exploratory factor analysis, weights of different indicators and different dimensions were estimated and composite scores for the three dimensions of social protection were computed as follows:

$$\begin{aligned} \text{SSC} &= 0.450033 \cdot \text{HI} + 0.549967 \cdot \text{CP} \\ \text{IEC} &= 0.513518 \cdot \text{WE} + 0.486482 \cdot \text{WM} \\ \text{LVC} &= 0.340664 \cdot \text{SR} + 0.659336 \cdot \text{BA} \end{aligned}$$

Finally, the social protection index (SPI) was calculated from SSC, IEC and LVC as follows:

$$\text{SPI} = 0.420819 \cdot \text{SSC} + 0.277669 \cdot \text{IEC} + 0.301512 \cdot \text{LVC}$$

Social Protection in Districts of India

Estimates of SPI for 715 districts along with district rank in SPI and estimates of composite scores of the three dimensions social protection are given in the appendix table. The distribution in SPI across the 715 districts is presented as choropleth map in the figure 2. The SPI varies from a minimum of 0.272 in district Sukma of Chhattisgarh to a maximum of 0.809 in district Hamirpur of Himachal Pradesh with a median of 0.597 and a mean of 0.587. The median SPI is greater than the mean SPI which indicates that the distribution of SPI across the districts is negatively skewed, that is, a long tail of districts with very low SPI pulls the mean below the median, and there are more districts (384) with above-average SPI than districts (331) with below-average SPI.

Based on the distribution of SPI across districts, social protection in a district may be classified as very low if $\text{SPI} < 0.550$; low if $0.550 \leq \text{SPI} < 0.600$; average if $0.600 \leq \text{SPI} < 0.650$; high if $0.650 \leq \text{SPI} < 0.700$; very high if $\text{SPI} \geq 0.700$. The classes are of equal width of 0.05, except for the open-ended lowest and highest classes. This classification suggests that there are 248 (34.7 per cent) districts in which social protection may be classified as very low. These districts may be termed as hotspot districts in the context of universal social protection and are located mainly in Bihar, Chhattisgarh, Gujarat, Jharkhand, Madhya Pradesh, Maharashtra, and Uttar Pradesh, with smaller numbers in Assam, Rajasthan, and Meghalaya. In all the 38 districts of Bihar, social protection may be classified as very low whereas it is very low in 60 of the 75 districts of Uttar Pradesh. Social protection may also be classified as very low in 8 of the 11 districts of Meghalaya. By contrast, there are 14 states and Union Territories in which there was no district where social protection was very low. On the other hand, there are only 72 (10.1 per cent) districts in which social protection may be classified as very high as $\text{SPI} \geq 0.700$ in these districts. There are 15 states and Union Territories in which there was no district where social protection may be classified as very high. By contrast, in 13 of the 14 districts of Kerala and 8 of the 12 districts of Himachal Pradesh, social protection may be classified as very high.

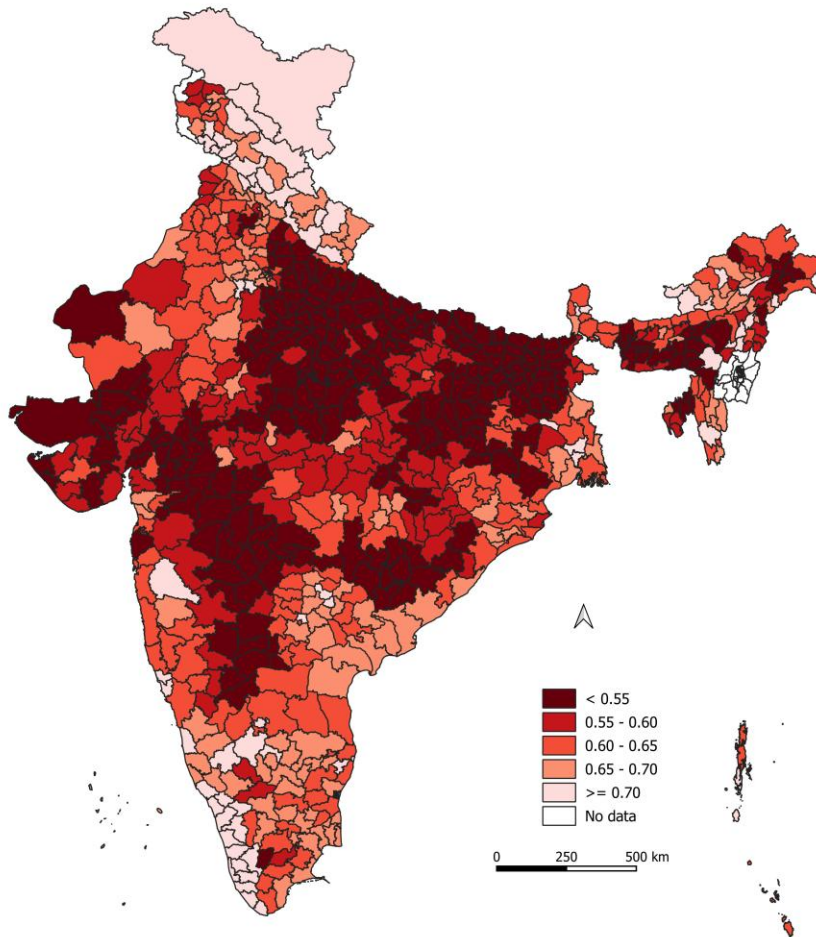


Figure 2: Variation in SPI across 715 districts of India.

Remarks: Estimates of SPI for two districts of Jammu and Kashmir and 16 districts of Manipur are not calculated as the NFHS-6 was not conducted in these districts, and Manipur is therefore not included in the tables.

Source: Author

The progress in the three dimensions of social protection is not the same but markedly different. Progress appears to be particularly poor in dimension 1 (social security) of social protection (Table 3). In almost two-third districts of the country, progress in this dimension of social protection appears to be very poor. In all districts of Bihar, Chhattisgarh and Jharkhand, in 50 of the 51 districts of Madhya Pradesh, 10 of the 11 districts of Meghalaya, 72 of the 75 districts of Uttar Pradesh and in 19 of the 23 districts of West Bengal, progress in this dimension appears to lag compared to the other two dimensions. There are, however, 94 districts including all districts of Kerala,

Chandigarh, Goa, and Lakshadweep, in 9 of the 12 districts of Himachal Pradesh, 8 of the 11 districts of National Capital Territory (NCT) of Delhi and 12 of the 38 districts of Tamil Nadu, progress in this dimension is well-advanced.

Table 2: Distribution of SPI across districts of different states and Union Territories.

State/UT	Social protection index (SPI)					Total
	Very low	Low	Average	High	Very high	
	<0.550	0.550-0.600	0.600-0.650	0.650-0.700	≥0.700	
Andaman and Nicobar Islands	0	0	2	0	1	3
Andhra Pradesh	0	0	5	8	0	13
Arunachal Pradesh	4	3	6	7	5	25
Assam	10	7	9	5	2	33
Bihar	38	0	0	0	0	38
Chandigarh	0	0	0	1	0	1
Chhattisgarh	15	7	3	3	0	28
Dadra & Nagar Haveli and Daman & Diu	0	1	1	1	0	3
Goa	0	0	0	0	2	2
Gujarat	17	10	4	2	0	33
Haryana	2	0	8	10	2	22
Himachal Pradesh	0	0	0	4	8	12
Jammu and Kashmir	0	3	5	5	7	20
Jharkhand	17	2	5	0	0	24
Karnataka	6	6	5	9	4	30
Kerala	0	0	0	1	13	14
Ladakh	0	0	0	0	2	2
Lakshadweep	0	0	0	1	0	1
Madhya Pradesh	26	20	2	3	0	51
Maharashtra	17	4	11	3	1	36
Meghalaya	8	3	0	0	0	11
Mizoram	0	0	3	4	1	8
Nagaland	1	4	1	1	4	11
NCT of Delhi	1	2	3	5	0	11
Odisha	6	8	12	4	0	30
Puducherry	0	0	1	1	2	4
Punjab	1	5	11	4	1	22
Rajasthan	9	9	10	5	0	33
Sikkim	0	0	2	0	2	4
Tamil Nadu	1	1	14	18	4	38
Telangana	4	1	15	10	3	33
Tripura	4	3	0	1	0	8
Uttar Pradesh	60	13	2	0	0	75
Uttarakhand	0	1	1	6	5	13
West Bengal	1	3	10	6	3	23
India	248	116	151	128	72	715

Source: Author

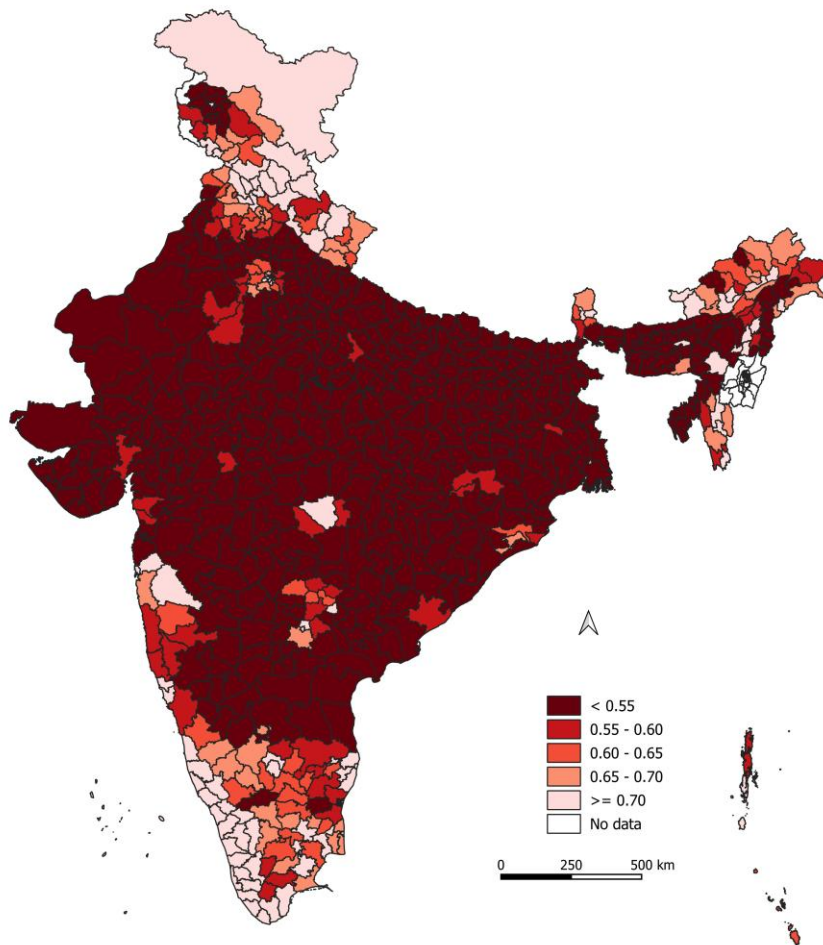


Figure 3: Variation in composite score of the dimension 1 across districts.

Remarks: Estimates of SPI for two districts of Jammu and Kashmir and 16 districts of Manipur are not calculated as the NFHS-6 was not conducted in these districts, and Manipur is therefore not included in the tables.

Source: Author

In contrast to the dimension 1, the progress appears to be fairly advanced in dimension 2 and dimension 3 of social in majority of the districts as may be seen from figures 4 and 5. There are 289 (40.4 per cent) districts in which the progress is well-advanced (composite score of 0.700 or more) in dimension 2 while there are 350 (49.0 per cent) districts in which the progress is well-advanced in dimension 3 of social protection. The primary challenge to universalising social protection in India is universalising social security. There are, however, 196 (27.4 per cent) districts in which progress in dimension 2 is very poor. These include all districts of Bihar and most of the

district of Uttar Pradesh and Jharkhand. By contrast, there are only 30 districts in which progress is very poor in dimension 3. These include 7 districts of Meghalaya, 4 districts each of Arunachal Pradesh and Tamil Nadu and 3 of Assam.

Table 3: Composite score of dimension 1 of social protection across districts.

State/UT	Composite score of dimension 1					Total
	Very low	Low	Average	High	Very high	
	<0.550	0.550-0.600	0.600-0.650	0.650-0.700	≥0.700	
Andaman and Nicobar Islands	0	1	1	0	1	3
Andhra Pradesh	11	2	0	0	0	13
Arunachal Pradesh	3	3	4	8	7	25
Assam	26	3	1	1	2	33
Bihar	38	0	0	0	0	38
Chandigarh	0	0	0	0	1	1
Chhattisgarh	28	0	0	0	0	28
Dadra & Nagar Haveli and Daman & Diu	1	1	1	0	0	3
Goa	0	0	0	0	2	2
Gujarat	30	3	0	0	0	33
Haryana	10	4	5	3	0	22
Himachal Pradesh	0	1	2	0	9	12
Jammu and Kashmir	10	3	1	3	3	20
Jharkhand	24	0	0	0	0	24
Karnataka	15	2	4	4	5	30
Kerala	0	0	0	0	14	14
Ladakh	0	0	0	1	1	2
Lakshadweep	0	0	0	0	1	1
Madhya Pradesh	50	1	0	0	0	51
Maharashtra	23	6	1	1	5	36
Meghalaya	10	0	0	1	0	11
Mizoram	0	2	0	3	3	8
Nagaland	6	1	0	0	4	11
NCT of Delhi	0	0	1	2	8	11
Odisha	25	3	1	1	0	30
Puducherry	0	0	1	0	3	4
Punjab	6	3	5	4	4	22
Rajasthan	30	3	0	0	0	33
Sikkim	0	0	1	1	2	4
Tamil Nadu	1	7	10	8	12	38
Telangana	22	4	3	1	3	33
Tripura	8	0	0	0	0	8
Uttar Pradesh	72	3	0	0	0	75
Uttarakhand	2	1	3	3	4	13
West Bengal	19	2	1	1	0	23
India	470	59	46	46	94	715

Source: Author

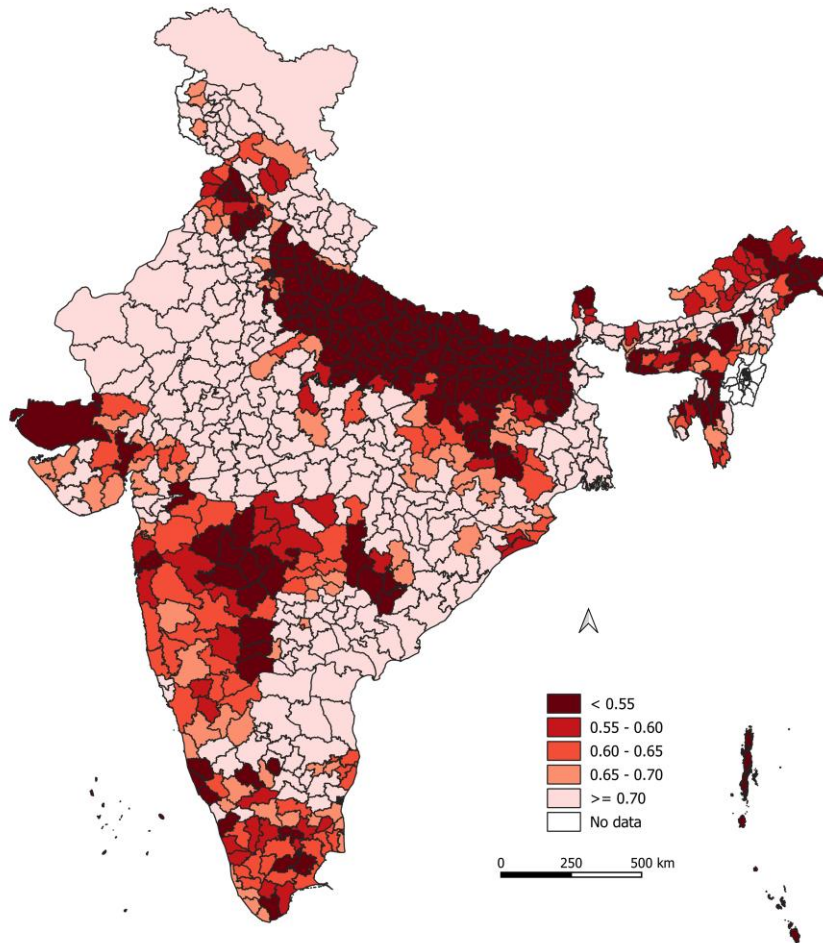


Figure 4: Variation in the composite score of the dimension 2 across districts.

Remarks: Estimates of SPI for two districts of Jammu and Kashmir and 16 districts of Manipur are not calculated as the NFHS-6 was not conducted in these districts, and Manipur is therefore not included in the tables.

Source: Author

In almost half of the districts, progress in dimension 3 is well advanced as the composite score of this dimension in these districts is at least 0.700. In all districts of Andaman & Nicobar Islands, Chandigarh, Dadra & Nagar Haveli and Daman & Diu, Goa and Ladakh, progress in this dimension of social protection is well-advanced. Bihar and Lakshadweep are the only two states and Union Territories in which progress in this dimension of social protection is not well-advanced in any of the district. A notable observation of table 5 is that the progress in this dimension of social protection is well-advanced in only 4 of the 14 districts of Kerala. Kerala is the only state/Union Territory of the country in which SPI is estimated to be at least 0.700 in 13 of the 14 districts. The

districts of the state have a low support ratio because the share of the old persons in the population is very high. The demographic transition is at an advanced stage in most of the districts of Kerala.

Table 4: Composite score of dimension 2 of social protection across districts.

State/UT	Composite score of dimension 2					Total
	Very low	Low	Average	High	Very high	
	<0.550	0.550-0.600	0.600-0.650	0.650-0.700	≥0.700	
Andaman and Nicobar Islands	3	0	0	0	0	3
Andhra Pradesh	0	0	0	0	13	13
Arunachal Pradesh	7	10	4	3	1	25
Assam	3	3	2	3	22	33
Bihar	38	0	0	0	0	38
Chandigarh	0	1	0	0	0	1
Chhattisgarh	3	1	3	6	15	28
Dadra & Nagar Haveli and Daman & Diu	1	0	1	1	0	3
Goa	0	0	0	0	2	2
Gujarat	2	0	6	12	13	33
Haryana	1	0	2	4	15	22
Himachal Pradesh	0	2	1	2	7	12
Jammu and Kashmir	0	0	0	3	17	20
Jharkhand	12	5	3	4	0	24
Karnataka	6	4	7	7	6	30
Kerala	3	2	4	4	1	14
Ladakh	0	0	0	0	2	2
Lakshadweep	1	0	0	0	0	1
Madhya Pradesh	0	0	2	5	44	51
Maharashtra	13	8	12	1	2	36
Meghalaya	6	1	2	2	0	11
Mizoram	2	2	1	2	1	8
Nagaland	0	0	2	3	6	11
NCT of Delhi	9	1	1	0	0	11
Odisha	0	2	3	6	19	30
Puducherry	1	1	2	0	0	4
Punjab	8	3	5	2	4	22
Rajasthan	0	0	0	0	33	33
Sikkim	1	2	0	0	1	4
Tamil Nadu	4	6	13	8	7	38
Telangana	0	0	5	6	22	33
Tripura	3	1	1	1	2	8
Uttar Pradesh	69	4	2	0	0	75
Uttarakhand	0	0	0	1	12	13
West Bengal	0	1	0	0	22	23
India	196	60	84	86	289	715

Source: Author

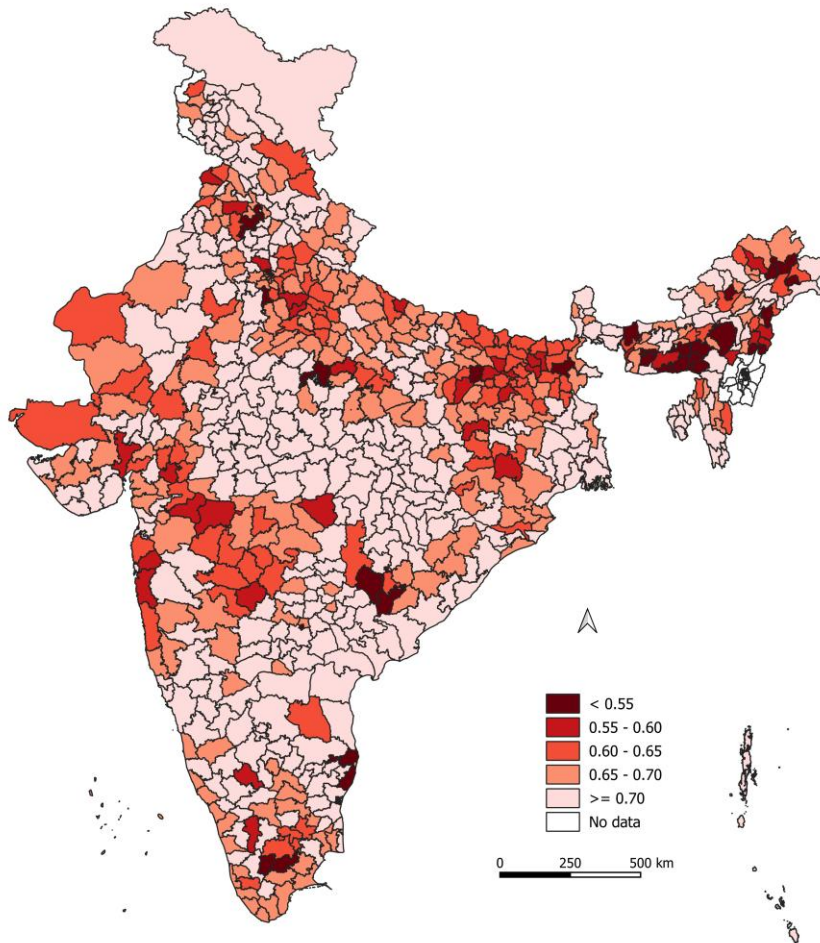


Figure 5: Variation in the composite score of the dimension 3 across districts.

Remarks: Estimates of SPI for two districts of Jammu and Kashmir and 16 districts of Manipur are not calculated as the NFHS-6 was not conducted in these districts, and Manipur is therefore not included in the tables.

Source: Author

Discussion

The results illustrate why a multidimensional approach is useful. Districts can obtain similar composite scores through different combinations of strengths and weaknesses. A district-level planning system should therefore use the composite index together with the indexes of the three dimensions and the score of six underlying indicators.

Table 5: Composite score of the dimension 3 of social protection across districts.

State/UT	Composite score of dimension 3					Total
	Very low	Low	Average	High	Very high	
	<0.550	0.550-0.600	0.600-0.650	0.650-0.700	≥0.700	
Andaman and Nicobar Islands	0	0	0	0	3	3
Andhra Pradesh	0	0	1	0	12	13
Arunachal Pradesh	4	1	4	6	10	25
Assam	3	1	5	9	15	33
Bihar	2	7	23	6	0	38
Chandigarh	0	0	0	0	1	1
Chhattisgarh	2	0	1	2	23	28
Dadra & Nagar Haveli and Daman & Diu	0	0	0	0	3	3
Goa	0	0	0	0	2	2
Gujarat	0	2	4	10	17	33
Haryana	1	1	1	7	12	22
Himachal Pradesh	0	0	2	2	8	12
Jammu and Kashmir	0	0	1	4	15	20
Jharkhand	0	2	8	9	5	24
Karnataka	0	1	0	5	24	30
Kerala	0	0	1	9	4	14
Ladakh	0	0	0	0	2	2
Lakshadweep	0	0	0	1	0	1
Madhya Pradesh	0	0	1	10	40	51
Maharashtra	0	6	12	10	8	36
Meghalaya	7	1	0	1	2	11
Mizoram	0	0	1	2	5	8
Nagaland	1	5	1	2	2	11
NCT of Delhi	2	0	2	5	2	11
Odisha	0	0	2	14	14	30
Puducherry	0	0	0	2	2	4
Punjab	2	2	3	8	7	22
Rajasthan	0	0	6	10	17	33
Sikkim	0	0	0	1	3	4
Tamil Nadu	4	1	3	14	16	38
Telangana	1	0	0	6	26	33
Tripura	0	0	0	1	7	8
Uttar Pradesh	1	4	17	36	17	75
Uttarakhand	0	0	0	4	9	13
West Bengal	0	0	1	5	17	23
India	30	34	100	201	350	715

Source: Author

The inclusion and enabling capacity dimension is relevant to social-protection access because women's education and digital access can affect the ability of women to receive information, use formal financial channels and access public programmes.

However, these variables are enabling conditions and should not be interpreted as direct measures of employment, income, or economic autonomy.

The life-cycle vulnerability dimension combines the support ratio with household bank or post-office account ownership and should likewise be interpreted with care. A lower support ratio, reflecting a higher share of children or older persons, represents a different social-service and income-security need profile; it does not by itself indicate weak or strong programme performance. A low score in this dimension may therefore indicate greater potential need rather than poor progress.

Policy Implications

Use the index as a diagnostic dashboard. Publish the composite index with dimension indexes and indicator-specific scores so that district teams can identify the specific source of variation.

Strengthen convergence. Use social security, inclusion and enabling capacity, and life-cycle vulnerability profiles to support convergence across social protection, health, women and child development, financial inclusion, and local-government interventions.

Prioritise indicator gaps rather than only ranks. A low dimension score should trigger examination of coverage, exclusion, awareness, access, and service delivery before a programme response is selected.

Add administrative measures. A future version should also incorporate pension coverage, maternity benefits, disability support, child benefits, employment protection, benefit adequacy, grievance redress, and actual programme take-up.

Build a time series. Repeating the index across survey rounds or annual administrative datasets would allow analysis of change over time.

Limitations

- The index uses a limited set of six indicators and does not represent the complete social-protection system.
- Min-max normalisation depends on the observed minimum and maximum; adding observations can change normalised scores.
- Demographic indicators describe population composition rather than programme performance.
- Household access indicators do not establish benefit adequacy, utilisation, service quality, or grievance outcomes.
- The cross-sectional design does not establish causal relationships.

Conclusion

This study presents a district-level framework for examining variations in social protection in India through a composite Social Protection Index (SPI) based on NFHS-6 data. The findings reveal substantial inter-district variation in the relative levels of social protection, highlighting geographical disparities in the indicators captured by the index. The three-dimensional structure of the framework provides a more nuanced understanding than a single composite score by identifying whether a district's relative position is primarily associated with social security, inclusion and enabling capacity of women, or life-cycle vulnerability.

The framework offers a basis for identifying district-level gaps, comparing relative performance, and supporting evidence-informed planning and policy prioritisation. However, the SPI should be interpreted as a composite measure of the selected indicators rather than a comprehensive measure of all dimensions of social protection. Its results depend on the indicators included, their conceptual allocation to dimensions, the normalisation procedure, and the factor-analysis and weighting methods employed.

To enhance the transparency, methodological rigour, and reproducibility of the Social Protection Index (SPI), the study describes the indicator definitions, the data source, the normalisation procedure, and the methodology used to derive weights and calculate district-level SPI scores and rankings. This documentation will enable readers to better understand the construction of the index, assess the robustness of the findings, and replicate the analysis, subject to the availability of the underlying data and computational details. Future research may strengthen the framework by incorporating additional administrative and social protection expenditure data and examining the association between district-level SPI scores and relevant social protection outcomes. Overall, the study provides an analytical framework for assessing inter-district disparities in social protection and generating evidence to support more targeted, context-specific policy planning and interventions.

References

- Anand S, Sen A (1997) Concepts of Human Development and Poverty: A Multidimensional Perspective. New York, United Nations Development Programme.
- Asian Development Bank (2011) *The Revised Social Protection Index. Methodology and Handbook*. Manila, Asian Development Bank.
- Chaurasia AR (2021) Demographic dimensions of social protection in India. In AR Chaurasia (Ed) *India 2020: Population and Social Protection*, pp: 9–30. Bhopal, MLC Foundation and “Shyam” Institute.
- Government of India (2026). *National Family Health Survey (NFHS-6), 2023-24: District Factsheets*. New Delhi, Ministry of Health and Family Welfare.

International Labour Organization (ILO) (2012) *Social Protection Floors Recommendations*. International Labour Conference, Geneva.

International Labour Organization (ILO) (2024). *World Social Protection Report 2024–26*. Geneva, International Labour Office.

OECD (2008). *Handbook on Constructing Composite Indicators: Methodology and User Guide*. Paris, OECD.

World Bank (n.d.). ASPIRE – Atlas of Social Protection Indicators of Resilience and Equity. World Bank.

Appendix Table: SPI, composite score of the three dimensions of social protection and rank of district in SPI in 715 districts of India.

State/Union Territory	District	SSC	IEC	LVC	SPI	Rank
Andaman and Nicobar Islands	Nicobar	0.641	0.451	0.754	0.622	296
	North and Middle Andaman	0.569	0.535	0.822	0.636	246
	South Andaman	0.825	0.442	0.807	0.713	55
Andhra Pradesh	Anantapur	0.418	0.777	0.737	0.614	316
	Chittoor	0.592	0.797	0.716	0.686	99
	East Godavari	0.481	0.858	0.742	0.664	159
	Guntur	0.475	0.852	0.742	0.660	172
	Krishna	0.515	0.884	0.744	0.686	98
	Kurnool	0.386	0.803	0.717	0.602	351
	Prakasam	0.502	0.839	0.760	0.673	128
	Sri Potti Sriramulu Nellore	0.451	0.825	0.718	0.636	247
	Srikakulam	0.453	0.911	0.783	0.680	115
	Visakhapatnam	0.559	0.843	0.750	0.696	77
	Vizianagaram	0.428	0.872	0.748	0.648	210
	West Godavari	0.527	0.905	0.727	0.692	84
	Y.S.R.	0.487	0.771	0.639	0.611	324
Arunachal Pradesh	Anjaw	0.593	0.539	0.726	0.618	305
	Changlang	0.698	0.496	0.701	0.643	221
	Dibang Valley	0.662	0.559	0.678	0.638	239
	East Kameng	0.677	0.637	0.685	0.668	145
	East Siang	0.743	0.345	0.542	0.572	422
	Kamle	0.562	0.551	0.656	0.587	385
	Kra Daadi	0.609	0.740	0.792	0.701	70
	Kurung Kumey	0.540	0.641	0.717	0.621	300
	Lepa Rada	0.670	0.694	0.694	0.684	107
	Lohit	0.598	0.391	0.620	0.547	473
	Longding	0.686	0.638	0.613	0.651	197
	Lower Dibang Valley	0.614	0.406	0.442	0.505	557
	Lower Siang	0.720	0.559	0.735	0.680	114
	Lower Subansiri	0.776	0.587	0.545	0.654	187
	Namsai	0.463	0.515	0.487	0.484	605
	Pakke Kessang	0.698	0.653	0.844	0.729	36
	Papum Pare	0.756	0.599	0.624	0.672	129
	Shi Yomi	0.402	0.556	0.650	0.520	535
	Siang	0.632	0.580	0.564	0.597	360
	Tawang	0.757	0.699	0.810	0.757	15
	Tirap	0.733	0.551	0.864	0.722	47
	Upper Siang	0.685	0.489	0.676	0.628	281
	Upper Subansiri	0.646	0.600	0.708	0.652	193
	West Kameng	0.745	0.598	0.909	0.754	19
	West Siang	0.680	0.569	0.667	0.645	217
	Baksa	0.474	0.718	0.680	0.604	344
	Barpeta	0.334	0.785	0.755	0.586	389

State/Union Territory	District	SSC	IEC	LVC	SPI	Rank
Bihar	Biswanath	0.488	0.753	0.706	0.627	282
	Bongaigaon	0.343	0.774	0.692	0.568	428
	Cachar	0.400	0.536	0.717	0.534	505
	Charaideo	0.356	0.748	0.735	0.579	407
	Chirang	0.429	0.761	0.757	0.620	302
	Darrang	0.346	0.822	0.689	0.582	401
	Dhemaji	0.684	0.800	0.761	0.739	30
	Dhubri	0.316	0.669	0.607	0.502	566
	Dibrugarh	0.411	0.724	0.740	0.597	357
	Dima Hasao	0.710	0.637	0.772	0.709	59
	Goalpara	0.286	0.742	0.664	0.527	516
	Golaghat	0.427	0.759	0.711	0.605	341
	Hailakandi	0.469	0.725	0.675	0.602	349
	Hojai	0.341	0.789	0.668	0.564	441
	Jorhat	0.564	0.455	0.670	0.566	437
	Kamrup	0.455	0.768	0.766	0.636	245
	Kamrup Metropolitan	0.722	0.569	0.691	0.670	133
	Karbi Anglong	0.498	0.399	0.276	0.404	694
	Karimganj	0.521	0.714	0.637	0.610	328
	Kokrajhar	0.460	0.590	0.542	0.521	529
	Lakhimpur	0.618	0.815	0.689	0.694	80
	Majuli	0.557	0.790	0.745	0.679	116
	Marigaon	0.358	0.678	0.644	0.533	507
	Nagaon	0.368	0.727	0.620	0.544	480
	Nalbari	0.542	0.745	0.772	0.668	149
	Sivasagar	0.571	0.781	0.765	0.688	94
	Sonitpur	0.442	0.751	0.713	0.609	329
	South Salmara Mancachar	0.198	0.662	0.579	0.442	666
	Tinsukia	0.337	0.644	0.646	0.515	541
	Udalguri	0.500	0.739	0.746	0.641	227
	West Karbi Anglong	0.428	0.550	0.447	0.468	627
	Araria	0.253	0.385	0.634	0.404	692
	Arwal	0.390	0.259	0.652	0.433	676
	Aurangabad	0.435	0.385	0.666	0.491	587
	Banka	0.348	0.315	0.674	0.437	671
	Begusarai	0.391	0.382	0.637	0.463	636
	Bhagalpur	0.421	0.323	0.609	0.450	653
	Bhojpur	0.427	0.378	0.479	0.429	680
	Buxar	0.406	0.301	0.640	0.448	659
	Darbhanga	0.415	0.404	0.629	0.476	616
	Gaya	0.403	0.340	0.617	0.450	654
	Gopalganj	0.441	0.219	0.627	0.436	672
	Jamui	0.388	0.340	0.609	0.441	667
	Jehanabad	0.381	0.280	0.629	0.428	681
	Kaimur (Bhabua)	0.391	0.406	0.638	0.470	626

State/Union Territory	District	SSC	IEC	LVC	SPI	Rank
Chandigarh Chhattisgarh	Katihar	0.268	0.289	0.539	0.356	711
	Khagaria	0.374	0.340	0.600	0.432	677
	Kishanganj	0.263	0.325	0.620	0.388	701
	Lakhisarai	0.421	0.315	0.642	0.458	643
	Madhepura	0.323	0.444	0.557	0.427	682
	Madhubani	0.354	0.380	0.642	0.448	657
	Munger	0.480	0.379	0.651	0.504	559
	Muzaffarpur	0.368	0.402	0.638	0.459	642
	Nalanda	0.432	0.340	0.627	0.466	631
	Nawada	0.387	0.267	0.583	0.413	689
	Pashchim Champaran	0.320	0.317	0.611	0.407	691
	Patna	0.459	0.349	0.589	0.468	628
	Purbi Champaran	0.330	0.268	0.619	0.400	698
	Purnia	0.248	0.377	0.645	0.404	693
	Rohtas	0.440	0.431	0.581	0.480	613
	Saharsa	0.310	0.426	0.568	0.420	684
	Samastipur	0.403	0.397	0.650	0.476	617
	Saran	0.443	0.389	0.669	0.496	577
	Sheikhpura	0.365	0.229	0.607	0.400	697
	Sheohar	0.362	0.292	0.609	0.417	685
	Sitamarhi	0.328	0.331	0.611	0.414	688
	Siwan	0.472	0.342	0.656	0.491	586
	Supaul	0.321	0.400	0.635	0.437	670
	Vaishali	0.379	0.345	0.586	0.432	678
	Chandigarh	0.762	0.565	0.701	0.689	90
	Balod	0.410	0.876	0.826	0.665	158
	Baloda Bazar	0.248	0.747	0.766	0.543	483
	Balrampur	0.219	0.640	0.702	0.482	611
	Bastar	0.246	0.654	0.669	0.487	599
	Bemetara	0.226	0.838	0.744	0.552	465
	Bijapur	0.201	0.377	0.390	0.307	714
	Bilaspur	0.365	0.698	0.754	0.575	415
	Dantewada	0.246	0.439	0.628	0.415	687
	Dhamtari	0.370	0.794	0.766	0.607	334
	Durg	0.503	0.812	0.818	0.684	108
	Gariyaband	0.234	0.823	0.779	0.562	448
	Gaurela-Pendra-Marwahi	0.270	0.714	0.763	0.542	487
	Janjgir-Champa	0.368	0.774	0.750	0.596	361
	Jashpur	0.336	0.672	0.756	0.556	458
	Kabeerdham	0.187	0.822	0.724	0.525	519
	Kondagaon	0.288	0.698	0.762	0.545	479
	Korba	0.397	0.682	0.769	0.588	383
	Korea	0.345	0.626	0.739	0.542	488
	Mahasamund	0.314	0.736	0.702	0.548	471
	Mungeli	0.187	0.786	0.724	0.515	539

State/Union Territory	District	SSC	IEC	LVC	SPI	Rank
Dadra & Nagar Haveli and Daman & Diu	Narayanpur	0.239	0.561	0.745	0.481	612
	Raigarh	0.323	0.736	0.738	0.563	443
	Raipur	0.543	0.802	0.806	0.694	79
	Rajnandgaon	0.379	0.853	0.788	0.634	254
	Sukma	0.078	0.358	0.463	0.272	715
	Surajpur	0.243	0.644	0.737	0.503	561
	Surguja	0.331	0.663	0.689	0.531	509
	Uttar Bastar Kanker	0.387	0.736	0.796	0.607	336
	Dadra and Nagar Haveli	0.437	0.624	0.804	0.599	353
Goa	Daman	0.586	0.524	0.844	0.647	212
	Diu	0.625	0.657	0.718	0.662	166
Gujarat	North Goa	0.765	0.726	0.769	0.755	18
	South Goa	0.788	0.721	0.742	0.756	16
	Ahmedabad	0.579	0.486	0.570	0.551	466
Gujarat	Amreli	0.314	0.665	0.711	0.531	508
	Anand	0.329	0.674	0.647	0.521	530
	Aravali	0.245	0.727	0.709	0.519	536
	Banas Kantha	0.190	0.603	0.656	0.445	662
	Bharuch	0.461	0.651	0.673	0.578	409
	Bhavnagar	0.353	0.676	0.750	0.562	445
	Botad	0.191	0.622	0.708	0.467	629
	Chhota Udaipur	0.084	0.655	0.552	0.383	703
	Dahod	0.190	0.628	0.633	0.445	663
	Devbhumi Dwarka	0.306	0.694	0.737	0.544	482
	Gandhinagar	0.394	0.677	0.732	0.574	417
	Gir Somnath	0.346	0.757	0.757	0.584	394
	Jamnagar	0.368	0.690	0.689	0.554	461
	Junagadh	0.360	0.780	0.714	0.583	398
	Kachchh	0.295	0.541	0.601	0.455	648
	Kheda	0.179	0.640	0.687	0.460	639
	Mahešana	0.347	0.768	0.741	0.583	399
	Mahisagar	0.211	0.663	0.693	0.482	610
	Morbi	0.417	0.728	0.707	0.591	372
	Narmada	0.206	0.757	0.700	0.508	553
	Navsari	0.566	0.748	0.709	0.659	174
	Panch Mahals	0.203	0.602	0.647	0.448	658
	Patan	0.268	0.693	0.715	0.520	532
	Porbandar	0.310	0.678	0.698	0.529	511
	Rajkot	0.480	0.790	0.684	0.627	283
	Sabar Kantha	0.329	0.734	0.752	0.569	425
	Surat	0.593	0.701	0.684	0.650	198
	Surendranagar	0.247	0.639	0.673	0.484	607
	Tapi	0.347	0.834	0.763	0.607	335
	The Dangs	0.258	0.746	0.684	0.522	526
	Vadodara	0.511	0.720	0.727	0.634	253

State/Union Territory	District	SSC	IEC	LVC	SPI	Rank
Haryana	Valsad	0.541	0.694	0.709	0.634	255
	Ambala	0.617	0.721	0.723	0.678	119
	Bhiwani	0.549	0.794	0.676	0.655	185
	Charkhi Dadri	0.586	0.791	0.732	0.687	96
	Faridabad	0.627	0.646	0.682	0.649	203
	Fatehabad	0.422	0.778	0.736	0.615	312
	Gurugram	0.667	0.686	0.683	0.677	120
	Hisar	0.462	0.761	0.682	0.612	321
	Jhajjar	0.619	0.754	0.659	0.668	144
	Jind	0.512	0.779	0.747	0.657	180
	Kaithal	0.415	0.781	0.738	0.614	315
	Karnal	0.462	0.717	0.738	0.616	311
	Kurukshetra	0.566	0.787	0.710	0.671	131
	Mahendragarh	0.600	0.826	0.752	0.709	58
	Nuh	0.104	0.445	0.548	0.333	712
	Palwal	0.415	0.654	0.630	0.546	475
	Panchkula	0.673	0.635	0.673	0.663	165
	Panipat	0.532	0.748	0.742	0.655	186
	Rewari	0.656	0.815	0.759	0.731	34
	Rohtak	0.634	0.738	0.723	0.689	88
Himachal Pradesh	Sirsa	0.446	0.808	0.736	0.634	256
	Sonipat	0.627	0.699	0.556	0.626	289
	Yamunanagar	0.585	0.685	0.677	0.640	230
	Bilaspur	0.775	0.742	0.715	0.748	23
	Chamba	0.637	0.630	0.751	0.669	135
	Hamirpur	0.885	0.796	0.714	0.809	1
	Kangra	0.816	0.799	0.723	0.783	5
	Kinnaur	0.794	0.754	0.648	0.739	31
	Kullu	0.757	0.595	0.667	0.685	106
	Lahul and Spiti	0.819	0.698	0.645	0.733	32
	Mandi	0.831	0.598	0.687	0.723	46
	Shimla	0.860	0.703	0.731	0.778	8
	Sirmaur	0.590	0.702	0.725	0.662	168
	Solan	0.642	0.669	0.707	0.669	136
	Una	0.793	0.703	0.730	0.749	22
Jammu and Kashmir	Anantnag	0.455	0.770	0.752	0.632	265
	Bandipora	0.377	0.743	0.712	0.580	405
	Baramulla	0.477	0.666	0.679	0.590	375
	Budgam	0.484	0.727	0.726	0.625	291
	Doda	0.653	0.765	0.685	0.694	81
	Ganderbal	0.485	0.847	0.702	0.651	196
	Jammu	0.768	0.713	0.758	0.750	21
	Kathua	0.653	0.813	0.749	0.726	41
	Kishtwar	0.598	0.826	0.754	0.708	60
	Kulgam	0.480	0.756	0.741	0.635	251

State/Union Territory	District	SSC	IEC	LVC	SPI	Rank
Jharkhand	Kupwara	0.442	0.693	0.647	0.573	419
	Poonch	0.575	0.702	0.695	0.646	213
	Pulwama	0.532	0.758	0.767	0.666	155
	Rajouri	0.598	0.682	0.719	0.658	178
	Ramban	0.515	0.703	0.730	0.632	266
	Reasi	0.625	0.825	0.710	0.706	63
	Samba	0.755	0.789	0.731	0.757	14
	Shopian	0.511	0.803	0.762	0.668	147
	Srinagar	0.744	0.705	0.690	0.717	51
	Udhampur	0.670	0.793	0.737	0.725	44
	Bokaro	0.438	0.697	0.742	0.602	350
	Chatra	0.376	0.516	0.665	0.502	564
	Deoghar	0.267	0.587	0.634	0.467	630
	Dhanbad	0.443	0.609	0.697	0.565	439
	Dumka	0.231	0.548	0.707	0.463	635
	Garhwa	0.345	0.515	0.686	0.495	579
	Giridih	0.394	0.588	0.658	0.527	514
	Godda	0.291	0.518	0.643	0.460	641
	Gumla	0.351	0.517	0.641	0.485	604
	Hazaribagh	0.500	0.684	0.696	0.610	327
	Jamtara	0.266	0.498	0.663	0.450	655
	Khunti	0.368	0.527	0.634	0.492	584
	Koderma	0.468	0.618	0.659	0.567	430
	Latehar	0.336	0.527	0.565	0.458	645
	Lohardaga	0.370	0.527	0.665	0.503	562
	Pakur	0.151	0.388	0.637	0.363	710
	Palamu	0.432	0.590	0.651	0.542	485
	Pashchimi Singhbhum	0.338	0.406	0.596	0.435	674
	Purbi Singhbhum	0.511	0.640	0.759	0.622	299
	Ramgarh	0.495	0.669	0.744	0.618	306
	Ranchi	0.548	0.666	0.722	0.633	261
	Sahibganj	0.250	0.397	0.622	0.403	696
	Saraikela-Kharsawan	0.343	0.598	0.641	0.504	558
	Simdega	0.398	0.558	0.619	0.509	551
Karnataka	Bagalkote	0.469	0.613	0.726	0.587	387
	Ballari	0.356	0.628	0.702	0.536	501
	Belagavi	0.521	0.667	0.789	0.642	222
	Bengaluru Rural	0.736	0.726	0.773	0.744	25
	Bengaluru Urban	0.813	0.522	0.696	0.697	75
	Bidar	0.479	0.617	0.743	0.597	358
	Chamarajanagar	0.483	0.583	0.704	0.577	412
	Chikkaballapura	0.572	0.749	0.756	0.677	122
	Chikkamagaluru	0.687	0.727	0.662	0.691	86
	Chitradurga	0.534	0.686	0.749	0.641	226
	Dakshina Kannada	0.787	0.481	0.707	0.678	118

State/Union Territory	District	SSC	IEC	LVC	SPI	Rank
Kerala	Davanagere	0.490	0.658	0.766	0.620	304
	Dharwad	0.543	0.588	0.770	0.624	293
	Gadag	0.397	0.602	0.743	0.558	451
	Hassan	0.665	0.774	0.767	0.726	43
	Haveri	0.432	0.593	0.735	0.568	429
	Kalaburagi	0.383	0.517	0.720	0.522	527
	Kodagu	0.740	0.609	0.703	0.692	83
	Kolar	0.646	0.710	0.716	0.685	105
	Koppal	0.296	0.637	0.698	0.512	547
	Mandya	0.653	0.507	0.592	0.594	366
	Mysuru	0.635	0.680	0.702	0.668	148
	Raichur	0.258	0.539	0.708	0.472	624
	Ramanagara	0.601	0.671	0.767	0.671	132
	Shivamogga	0.616	0.662	0.749	0.669	140
	Tumakuru	0.684	0.723	0.759	0.718	49
	Udupi	0.778	0.683	0.699	0.728	39
	Uttara Kannada	0.591	0.623	0.752	0.648	205
	Vijayapura	0.421	0.577	0.671	0.540	493
	Yadgir	0.222	0.494	0.718	0.447	660
	Alappuzha	0.941	0.681	0.654	0.782	6
	Ernakulam	0.963	0.599	0.716	0.787	3
	Idukki	0.858	0.605	0.701	0.741	28
	Kannur	0.919	0.446	0.670	0.713	57
	Kasaragod	0.809	0.396	0.685	0.657	182
	Kollam	0.914	0.683	0.687	0.782	7
	Kottayam	0.946	0.619	0.678	0.774	10
	Kozhikode	0.923	0.701	0.689	0.791	2
	Malappuram	0.875	0.520	0.694	0.722	48
	Palakkad	0.819	0.617	0.716	0.732	33
	Pathanamthitta	0.975	0.610	0.634	0.771	11
	Thiruvananthapuram	0.903	0.673	0.697	0.777	9
	Thrissur	0.937	0.558	0.695	0.759	13
	Wayanad	0.773	0.665	0.717	0.726	42
Ladakh	Kargil	0.668	0.793	0.718	0.718	50
	Leh Ladakh	0.771	0.778	0.706	0.754	20
Lakshadweep	Lakshadweep	0.824	0.420	0.672	0.666	154
Madhya Pradesh	Agar Malwa	0.225	0.740	0.746	0.525	520
	Alirajpur	0.015	0.674	0.622	0.381	705
	Anuppur	0.310	0.771	0.742	0.568	427
	Ashoknagar	0.126	0.783	0.744	0.494	580
	Balaghat	0.311	0.843	0.759	0.594	367
	Barwani	0.116	0.808	0.665	0.474	620
	Betul	0.358	0.820	0.760	0.608	332
	Bhind	0.332	0.651	0.684	0.527	515
	Bhopal	0.535	0.798	0.795	0.686	100

State/Union Territory	District	SSC	IEC	LVC	SPI	Rank
Maharashtra	Burhanpur	0.171	0.764	0.689	0.492	585
	Chhatarpur	0.206	0.701	0.710	0.495	578
	Chhindwara	0.311	0.860	0.755	0.597	356
	Damoh	0.207	0.794	0.775	0.541	489
	Datia	0.247	0.755	0.757	0.542	484
	Dewas	0.254	0.803	0.754	0.557	452
	Dhar	0.257	0.739	0.755	0.541	490
	Dindori	0.226	0.837	0.753	0.554	460
	Guna	0.088	0.740	0.727	0.462	638
	Gwalior	0.382	0.724	0.708	0.575	414
	Harda	0.257	0.736	0.745	0.537	499
	Hoshangabad	0.380	0.744	0.773	0.599	354
	Indore	0.568	0.760	0.753	0.677	121
	Jabalpur	0.458	0.792	0.788	0.650	199
	Jhabua	0.029	0.735	0.651	0.413	690
	Katni	0.386	0.804	0.750	0.612	322
	Khandwa (East Nimar)	0.155	0.819	0.738	0.515	540
	Khargone (West Nimar)	0.158	0.824	0.714	0.511	548
	Mandla	0.258	0.826	0.783	0.574	418
	Mandsaur	0.318	0.782	0.808	0.595	364
	Morena	0.276	0.634	0.681	0.497	575
	Narsimhapur	0.252	0.879	0.784	0.587	386
	Neemuch	0.364	0.763	0.775	0.598	355
	Panna	0.246	0.637	0.696	0.490	589
	Raisen	0.237	0.822	0.773	0.561	449
	Rajgarh	0.231	0.769	0.772	0.544	481
	Ratlam	0.266	0.752	0.718	0.538	498
	Rewa	0.353	0.723	0.658	0.547	472
	Sagar	0.266	0.689	0.740	0.526	517
	Satna	0.317	0.775	0.687	0.556	457
	Sehore	0.272	0.806	0.771	0.570	423
	Seoni	0.322	0.799	0.764	0.588	384
	Shahdol	0.340	0.789	0.750	0.588	381
	Shajapur	0.292	0.827	0.776	0.586	390
	Sheopur	0.085	0.678	0.743	0.448	656
	Shivpuri	0.129	0.756	0.742	0.488	597
	Sidhi	0.307	0.798	0.685	0.557	453
	Singrauli	0.221	0.692	0.665	0.486	601
	Tikamgarh	0.180	0.708	0.720	0.489	593
	Ujjain	0.328	0.769	0.756	0.580	406
	Umaria	0.293	0.831	0.749	0.580	403
	Vidisha	0.240	0.758	0.750	0.538	496
	Ahmednagar	0.493	0.573	0.707	0.580	404
	Akola	0.458	0.584	0.633	0.546	476
	Amravati	0.519	0.594	0.653	0.580	402

State/Union Territory	District	SSC	IEC	LVC	SPI	Rank
Meghalaya	Aurangabad	0.519	0.462	0.632	0.538	497
	Beed	0.407	0.516	0.611	0.499	570
	Bhandara	0.553	0.727	0.768	0.666	153
	Buldhana	0.324	0.506	0.688	0.484	606
	Chandrapur	0.548	0.626	0.716	0.620	303
	Dhule	0.345	0.608	0.582	0.490	592
	Gadchiroli	0.423	0.543	0.639	0.522	528
	Gondia	0.506	0.613	0.739	0.606	338
	Hingoli	0.214	0.498	0.617	0.415	686
	Jalgaon	0.371	0.615	0.554	0.494	582
	Jalna	0.299	0.433	0.612	0.431	679
	Kolhapur	0.581	0.641	0.658	0.621	301
	Latur	0.464	0.458	0.600	0.503	560
	Mumbai	0.765	0.396	0.762	0.662	169
	Mumbai Suburban	0.714	0.456	0.703	0.639	237
	Nagpur	0.703	0.568	0.562	0.623	295
	Nanded	0.330	0.510	0.645	0.475	619
	Nandurbar	0.149	0.494	0.613	0.385	702
	Nashik	0.432	0.607	0.664	0.550	467
	Osmanabad	0.442	0.600	0.604	0.535	504
	Palghar	0.422	0.579	0.631	0.529	512
	Parbhani	0.325	0.483	0.609	0.455	649
	Pune	0.728	0.614	0.742	0.700	72
	Raigad	0.659	0.571	0.571	0.608	330
	Ratnagiri	0.589	0.629	0.625	0.611	326
	Sangli	0.575	0.614	0.732	0.633	260
	Satara	0.633	0.670	0.675	0.656	183
	Sindhudurg	0.595	0.619	0.679	0.627	285
	Solapur	0.439	0.637	0.672	0.564	440
	Thane	0.744	0.546	0.586	0.641	225
	Wardha	0.569	0.715	0.670	0.640	231
	Washim	0.333	0.553	0.681	0.499	571
	Yavatmal	0.331	0.581	0.692	0.510	550
	East Garo Hills	0.390	0.623	0.509	0.491	588
	East Jaintia Hills	0.458	0.682	0.522	0.540	494
	East Khasi Hills	0.678	0.287	0.112	0.399	700
	North Garo Hills	0.475	0.455	0.164	0.376	708
	Ribhoi	0.389	0.532	0.537	0.473	621
	South Garo Hills	0.524	0.424	0.755	0.566	436
	South West Garo Hills	0.518	0.509	0.765	0.590	374
	South West Khasi Hills	0.493	0.698	0.545	0.566	438
	West Garo Hills	0.470	0.445	0.693	0.530	510
	West Jaintia Hills	0.452	0.641	0.478	0.512	546
	West Khasi Hills	0.449	0.568	0.559	0.515	542
Mizoram	Aizawl	0.812	0.499	0.652	0.677	123

State/Union Territory	District	SSC	IEC	LVC	SPI	Rank
Nagaland	Champhai	0.670	0.707	0.610	0.662	167
	Kolasib	0.659	0.532	0.713	0.640	234
	Lawngtlai	0.559	0.587	0.772	0.631	271
	Lunglei	0.688	0.700	0.759	0.713	56
	Mamit	0.586	0.550	0.718	0.616	310
	Saiha	0.722	0.614	0.737	0.697	76
	Serchhip	0.703	0.665	0.691	0.689	91
	Dimapur	0.757	0.638	0.703	0.708	62
	Kiphire	0.440	0.733	0.587	0.566	435
	Kohima	0.746	0.684	0.659	0.703	68
	Longleng	0.542	0.816	0.694	0.664	160
	Mokokchung	0.725	0.776	0.606	0.703	65
	Mon	0.411	0.684	0.532	0.523	524
	Peren	0.510	0.614	0.558	0.553	462
	Phek	0.549	0.689	0.550	0.588	379
	Tuensang	0.457	0.779	0.561	0.578	410
	Wokha	0.729	0.747	0.714	0.729	37
	Zunheboto	0.591	0.775	0.569	0.635	249
NCT of Delhi	Central	0.729	0.448	0.662	0.631	272
	East	0.760	0.365	0.709	0.635	252
	New Delhi	0.717	0.616	0.642	0.666	151
	North	0.661	0.405	0.549	0.556	455
	North East	0.673	0.282	0.460	0.500	569
	North West	0.729	0.513	0.676	0.653	188
	Shahdara	0.646	0.443	0.666	0.596	362
	South	0.782	0.512	0.638	0.664	162
	South East	0.720	0.560	0.702	0.670	134
	South West	0.751	0.533	0.667	0.665	156
Odisha	West	0.701	0.516	0.684	0.644	220
	Anugul	0.511	0.850	0.721	0.669	141
	Balangir	0.361	0.784	0.715	0.585	392
	Baleshwar	0.507	0.724	0.726	0.633	262
	Bargarh	0.375	0.790	0.728	0.597	359
	Bhadrak	0.545	0.669	0.685	0.622	298
	Boudh	0.317	0.785	0.735	0.573	421
	Cuttack	0.638	0.672	0.628	0.645	218
	Deogarh	0.470	0.693	0.723	0.608	331
	Dhenkanal	0.506	0.781	0.698	0.640	229
	Gajapati	0.332	0.796	0.748	0.586	388
	Ganjam	0.452	0.717	0.724	0.608	333
	Jagatsinghapur	0.587	0.643	0.738	0.648	208
	Jajapur	0.548	0.788	0.689	0.657	181
	Jharsuguda	0.559	0.684	0.629	0.615	313
	Kalahandi	0.371	0.822	0.699	0.595	363
	Kandhamal	0.343	0.687	0.679	0.540	491

State/Union Territory	District	SSC	IEC	LVC	SPI	Rank
Puducherry	Kendrapara	0.529	0.623	0.659	0.594	365
	Kendujhar	0.436	0.776	0.689	0.607	337
	Khordha	0.652	0.564	0.731	0.651	195
	Koraput	0.180	0.737	0.692	0.489	595
	Malkangiri	0.118	0.724	0.675	0.454	650
	Mayurbhanj	0.419	0.630	0.659	0.550	468
	Nabarangpur	0.142	0.711	0.757	0.485	602
	Nayagarh	0.521	0.834	0.707	0.664	161
	Nuapada	0.305	0.791	0.735	0.570	424
	Puri	0.540	0.599	0.696	0.603	347
	Rayagada	0.193	0.722	0.690	0.490	591
	Sambalpur	0.484	0.789	0.692	0.631	270
	Sonepur	0.372	0.770	0.734	0.592	369
	Sundargarh	0.556	0.688	0.670	0.627	286
	Karaikal	0.767	0.557	0.696	0.687	95
	Mahe	0.948	0.607	0.728	0.787	4
	Pondicherry	0.789	0.529	0.809	0.723	45
	Yanam	0.613	0.624	0.686	0.638	241
Punjab	Amritsar	0.607	0.572	0.570	0.586	391
	Barnala	0.634	0.662	0.687	0.658	177
	Bathinda	0.573	0.680	0.664	0.630	275
	Faridkot	0.526	0.700	0.728	0.636	248
	Fatehgarh Sahib	0.640	0.502	0.689	0.617	309
	Fazilka	0.452	0.707	0.749	0.612	318
	Firozpur	0.478	0.615	0.608	0.555	459
	Gurdaspur	0.684	0.622	0.627	0.650	202
	Hoshiarpur	0.754	0.476	0.675	0.653	190
	Jalandhar	0.669	0.547	0.654	0.630	273
	Kapurthala	0.649	0.501	0.702	0.623	294
	Ludhiana	0.675	0.570	0.580	0.617	308
	Mansa	0.487	0.723	0.740	0.629	278
	Moga	0.594	0.639	0.661	0.627	287
	Pathankot	0.745	0.645	0.737	0.715	53
	Patiala	0.607	0.476	0.532	0.548	470
	Rupnagar	0.750	0.628	0.692	0.698	73
	Sahibzada Ajit Singh Nagar	0.692	0.515	0.548	0.600	352
	Sangrur	0.590	0.542	0.630	0.589	377
	Shahid Bhagat Singh Nagar	0.728	0.549	0.712	0.673	127
Rajasthan	Sri Muktsar Sahib	0.514	0.721	0.743	0.641	228
	Tarn Taran	0.482	0.575	0.697	0.573	420
	Ajmer	0.514	0.820	0.640	0.637	242
	Alwar	0.347	0.834	0.707	0.591	373
	Banswara	0.222	0.728	0.682	0.501	567
	Baran	0.235	0.841	0.763	0.563	444
	Barmer	0.442	0.887	0.660	0.632	268

State/Union Territory	District	SSC	IEC	LVC	SPI	Rank
Rajasthan	Bharatpur	0.243	0.743	0.669	0.510	549
	Bhilwara	0.400	0.856	0.661	0.605	340
	Bikaner	0.355	0.818	0.689	0.584	393
	Bundi	0.243	0.875	0.734	0.566	433
	Chittaurgarh	0.373	0.811	0.731	0.603	348
	Churu	0.433	0.785	0.703	0.612	319
	Dausa	0.345	0.864	0.726	0.604	343
	Dholpur	0.201	0.799	0.658	0.505	555
	Dungarpur	0.378	0.761	0.706	0.583	397
	Ganganagar	0.439	0.858	0.785	0.660	173
	Hanumangarh	0.405	0.859	0.730	0.629	277
	Jaipur	0.568	0.811	0.688	0.672	130
	Jaisalmer	0.307	0.775	0.643	0.538	495
	Jalore	0.306	0.783	0.620	0.533	506
	Jhalawar	0.247	0.827	0.737	0.556	456
	Jhunjhunu	0.550	0.847	0.714	0.682	110
	Jodhpur	0.477	0.962	0.721	0.685	103
	Karauli	0.224	0.806	0.682	0.524	523
	Kota	0.469	0.861	0.738	0.659	176
	Nagaur	0.463	0.831	0.725	0.644	219
	Pali	0.432	0.702	0.702	0.588	380
	Pratapgarh	0.245	0.744	0.680	0.515	543
	Rajsamand	0.363	0.757	0.676	0.566	432
	Sawai Madhopur	0.245	0.799	0.712	0.540	492
	Sikar	0.564	0.817	0.606	0.647	211
	Sirohi	0.309	0.741	0.612	0.520	533
	Tonk	0.350	0.870	0.718	0.606	339
	Udaipur	0.400	0.794	0.646	0.584	396
Sikkim	East District	0.775	0.571	0.765	0.715	52
	North District	0.646	0.567	0.688	0.637	244
	South District	0.673	0.475	0.725	0.634	258
	West District	0.729	0.712	0.866	0.766	12
Tamil Nadu	Ariyalur	0.601	0.599	0.726	0.638	238
	Chengalpattu	0.767	0.645	0.437	0.634	257
	Chennai	0.850	0.645	0.700	0.748	24
	Coimbatore	0.746	0.556	0.596	0.648	209
	Cuddalore	0.599	0.663	0.709	0.650	201
	Dharmapuri	0.614	0.744	0.677	0.669	138
	Dindigul	0.609	0.621	0.650	0.625	292
	Erode	0.670	0.657	0.676	0.668	146
	Kallakurichi	0.547	0.702	0.713	0.640	232
	Kanchipuram	0.734	0.633	0.726	0.703	67
	Kanniyakumari	0.842	0.664	0.681	0.744	26
	Karur	0.621	0.546	0.632	0.603	346
	Krishnagiri	0.633	0.701	0.688	0.669	143

State/Union Territory	District	SSC	IEC	LVC	SPI	Rank
Telangana	Madurai	0.666	0.529	0.516	0.583	400
	Mayiladuthurai	0.639	0.624	0.744	0.666	152
	Nagapattinam	0.662	0.686	0.722	0.687	97
	Namakkal	0.686	0.688	0.722	0.698	74
	Perambalur	0.667	0.668	0.672	0.669	142
	Pudukkottai	0.639	0.627	0.722	0.660	171
	Ramanathapuram	0.678	0.621	0.682	0.663	164
	Ranipet	0.628	0.699	0.730	0.679	117
	Salem	0.616	0.648	0.663	0.639	235
	Sivaganga	0.701	0.538	0.667	0.646	216
	Tenkasi	0.599	0.594	0.703	0.629	279
	Thanjavur	0.707	0.602	0.697	0.675	125
	The Nilgiris	0.757	0.742	0.715	0.740	29
	Theni	0.580	0.636	0.416	0.546	474
	Thiruvallur	0.726	0.643	0.545	0.648	204
	Thiruvarur	0.674	0.625	0.685	0.664	163
	Tiruchirappalli	0.721	0.594	0.629	0.658	179
	Tirunelveli	0.735	0.512	0.653	0.648	206
	Tirupathur	0.623	0.725	0.705	0.676	124
	Tiruppur	0.676	0.593	0.730	0.669	137
	Tiruvannamalai	0.551	0.711	0.725	0.648	207
	Tuticorin	0.705	0.570	0.682	0.661	170
	Vellore	0.588	0.665	0.722	0.650	200
	Villupuram	0.578	0.733	0.737	0.669	139
	Virudhunagar	0.570	0.632	0.652	0.612	320
	Adilabad	0.353	0.638	0.741	0.549	469
	Bhadradi Kothagudem	0.471	0.813	0.760	0.653	189
	Hanumakonda	0.708	0.740	0.658	0.702	69
	Hyderabad	0.750	0.620	0.431	0.618	307
	Jagitial	0.588	0.667	0.728	0.652	192
	Jangoan	0.535	0.797	0.726	0.665	157
	Jayashankar Bhupalapally	0.453	0.755	0.837	0.653	191
	Jogulamba Gadwal	0.230	0.788	0.685	0.522	525
	Kamareddy	0.470	0.744	0.754	0.632	267
	Karimnagar	0.634	0.741	0.757	0.701	71
	Khammam	0.437	0.821	0.762	0.642	223
	Kumuram Bheem Asifabad	0.273	0.646	0.767	0.526	518
	Mahabubabad	0.421	0.838	0.758	0.638	240
	Mahabubnagar	0.486	0.792	0.721	0.642	224
	Mancherial	0.500	0.689	0.751	0.628	280
	Medak	0.438	0.772	0.758	0.627	284
	Medchal Malkajgiri	0.750	0.687	0.652	0.703	66
	Mulugu	0.432	0.768	0.767	0.626	288
	Nagarkurnool	0.464	0.784	0.724	0.631	269
	Nalgonda	0.521	0.813	0.781	0.680	113

State/Union Territory	District	SSC	IEC	LVC	SPI	Rank
Tripura	Narayanpet	0.296	0.673	0.719	0.528	513
	Nirmal	0.465	0.624	0.737	0.591	371
	Nizamabad	0.603	0.645	0.661	0.632	264
	Peddapalli	0.597	0.664	0.699	0.646	214
	Rajanna Sircilla	0.648	0.694	0.748	0.691	85
	Ranga Reddy	0.651	0.708	0.746	0.696	78
	Sangareddy	0.528	0.724	0.697	0.633	259
	Siddipet	0.597	0.760	0.741	0.686	101
	Suryapet	0.491	0.786	0.734	0.646	215
	Vikarabad	0.440	0.731	0.740	0.611	325
	Wanaparthy	0.464	0.746	0.728	0.622	297
	Warangal Rural	0.472	0.797	0.784	0.656	184
	Yadadri Bhuvanagiri	0.580	0.762	0.760	0.685	104
	Dhalai	0.321	0.569	0.702	0.505	556
	Gomati	0.404	0.619	0.771	0.575	416
	Khowai	0.326	0.520	0.776	0.516	538
	North Tripura	0.395	0.458	0.665	0.494	581
	Sepahijala	0.382	0.685	0.750	0.577	411
	South Tripura	0.328	0.772	0.793	0.591	370
	Unakoti	0.354	0.536	0.717	0.514	544
Uttar Pradesh	West Tripura	0.517	0.751	0.798	0.667	150
	Agra	0.400	0.454	0.631	0.485	603
	Aligarh	0.376	0.528	0.593	0.484	608
	Ambedkar Nagar	0.525	0.453	0.713	0.562	447
	Amethi	0.378	0.429	0.693	0.487	598
	Amroha	0.350	0.503	0.697	0.497	576
	Auraiya	0.429	0.493	0.651	0.514	545
	Ayodhya	0.447	0.452	0.697	0.524	522
	Azamgarh	0.544	0.458	0.696	0.566	434
	Baghpat	0.450	0.510	0.711	0.546	477
	Bahraich	0.242	0.276	0.635	0.370	709
	Ballia	0.530	0.499	0.659	0.560	450
	Balrampur	0.291	0.200	0.675	0.381	704
	Banda	0.300	0.458	0.634	0.444	664
	Barabanki	0.279	0.429	0.669	0.438	669
	Bareilly	0.263	0.469	0.677	0.445	661
	Basti	0.448	0.469	0.669	0.521	531
	Bhadohi	0.461	0.445	0.727	0.537	500
	Bijnor	0.382	0.445	0.641	0.477	615
	Budaun	0.212	0.466	0.612	0.403	695
	Bulandshahr	0.351	0.498	0.656	0.484	609
	Chandauli	0.473	0.531	0.685	0.553	464
	Chitrakoot	0.316	0.553	0.626	0.475	618
	Deoria	0.496	0.398	0.667	0.520	534
	Etah	0.358	0.476	0.628	0.472	623

State/Union Territory	District	SSC	IEC	LVC	SPI	Rank
	Etawah	0.490	0.506	0.626	0.536	502
	Farrukhabad	0.306	0.423	0.638	0.439	668
	Fatehpur	0.365	0.477	0.672	0.488	596
	Firozabad	0.398	0.515	0.658	0.509	552
	Gautam Buddha Nagar	0.551	0.622	0.613	0.589	376
	Ghaziabad	0.598	0.547	0.694	0.613	317
	Ghazipur	0.512	0.435	0.661	0.536	503
	Gonda	0.387	0.352	0.661	0.460	640
	Gorakhpur	0.545	0.486	0.742	0.588	382
	Hamirpur	0.339	0.524	0.585	0.465	632
	Hapur	0.437	0.505	0.639	0.517	537
	Hardoi	0.225	0.427	0.705	0.426	683
	Hathras	0.322	0.424	0.595	0.433	675
	Jalaun	0.401	0.505	0.659	0.507	554
	Jaunpur	0.527	0.440	0.706	0.557	454
	Jhansi	0.391	0.569	0.449	0.458	646
	Kannauj	0.331	0.371	0.665	0.443	665
	Kanpur Dehat	0.394	0.420	0.698	0.493	583
	Kanpur Nagar	0.588	0.443	0.736	0.592	368
	Kasganj	0.329	0.486	0.629	0.463	634
	Kaushambi	0.342	0.410	0.648	0.453	651
	Kheri	0.159	0.359	0.696	0.376	707
	Kushinagar	0.379	0.490	0.686	0.503	563
	Lalitpur	0.213	0.583	0.698	0.462	637
	Lucknow	0.529	0.497	0.689	0.569	426
	Maharajganj	0.388	0.489	0.661	0.498	573
	Mahoba	0.297	0.541	0.656	0.473	622
	Mainpuri	0.406	0.453	0.631	0.487	600
	Mathura	0.342	0.465	0.655	0.470	625
	Mau	0.516	0.548	0.729	0.589	378
	Meerut	0.498	0.495	0.646	0.542	486
	Mirzapur	0.416	0.572	0.727	0.553	463
	Moradabad	0.331	0.474	0.686	0.478	614
	Muzaffarnagar	0.352	0.456	0.626	0.463	633
	Pilibhit	0.247	0.506	0.688	0.452	652
	Pratapgarh	0.494	0.473	0.743	0.563	442
	Prayagraj	0.526	0.452	0.714	0.562	446
	Rae Bareli	0.399	0.410	0.726	0.500	568
	Rampur	0.300	0.438	0.694	0.457	647
	Saharanpur	0.346	0.492	0.718	0.499	572
	Sambhal	0.181	0.459	0.649	0.399	699
	Sant Kabir Nagar	0.427	0.379	0.706	0.498	574
	Shahjahanpur	0.284	0.476	0.686	0.458	644
	Shamli	0.335	0.477	0.715	0.489	594
	Shrawasti	0.176	0.243	0.590	0.320	713

State/Union Territory	District	SSC	IEC	LVC	SPI	Rank
Uttarakhand	Siddharth Nagar	0.328	0.338	0.675	0.435	673
	Sitapur	0.193	0.355	0.654	0.377	706
	Sonbhadra	0.329	0.531	0.717	0.502	565
	Sultanpur	0.444	0.435	0.721	0.525	521
	Unnao	0.402	0.408	0.688	0.490	590
	Varanasi	0.536	0.602	0.699	0.604	345
	Almora	0.664	0.755	0.678	0.694	82
	Bageshwar	0.638	0.718	0.708	0.681	112
	Chamoli	0.706	0.801	0.691	0.728	38
	Champawat	0.631	0.767	0.700	0.689	89
	Dehradun	0.732	0.772	0.771	0.755	17
	Haridwar	0.397	0.706	0.708	0.577	413
	Nainital	0.670	0.819	0.723	0.728	40
	Pauri Garhwal	0.746	0.796	0.691	0.743	27
	Pithoragarh	0.655	0.723	0.704	0.689	92
	Rudra Prayag	0.722	0.755	0.720	0.731	35
	Tehri Garhwal	0.630	0.723	0.716	0.682	111
	Udham Singh Nagar	0.471	0.694	0.732	0.612	323
	Uttarkashi	0.584	0.806	0.725	0.688	93
West Bengal	Alipurduar	0.447	0.814	0.746	0.639	236
	Bankura	0.240	0.905	0.747	0.578	408
	Birbhum	0.287	0.937	0.742	0.605	342
	Cooch Behar	0.368	0.890	0.738	0.625	290
	Dakshin Dinajpur	0.417	0.828	0.755	0.633	263
	Darjeeling	0.570	0.832	0.712	0.686	102
	Hooghly	0.537	0.943	0.730	0.708	61
	Howrah	0.544	0.923	0.730	0.706	64
	Jalpaiguri	0.492	0.793	0.706	0.640	233
	Jhargram	0.343	0.937	0.749	0.630	276
	Kalimpong	0.643	0.579	0.681	0.637	243
	Kolkata	0.657	0.765	0.647	0.684	109
	Maldah	0.373	0.789	0.689	0.584	395
	Murshidabad	0.399	0.884	0.667	0.614	314
	Nadia	0.449	0.847	0.780	0.659	175
	North 24 Parganas	0.572	0.853	0.782	0.714	54
	Paschim Bardhaman	0.506	0.861	0.736	0.674	126
	Paschim Medinipur	0.376	0.879	0.772	0.635	250
	Purba Bardhaman	0.353	0.968	0.777	0.652	194
	Purba Medinipur	0.456	0.952	0.776	0.690	87
	Purulia	0.293	0.773	0.687	0.545	478
	South 24 Parganas	0.413	0.847	0.735	0.630	274
	Uttar Dinajpur	0.366	0.747	0.683	0.567	431

Source: Author