Policy Research Working Paper 7623

Identifying the Economic Potential of Indian Districts

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Social, Urban, Rural and Resilience Global Practice Group April 2016

Abstract

Despite its rapid growth in recent decades, GDP per capita in India remains at a relatively low level by international standards, and the country continues to be marked by large subnational disparities in levels of well-being. These large disparities naturally lead to interest in India's spatial landscape of potential for economic development. Against this backdrop, this paper presents the results of an analysis of underlying variations in economic potential across Indian districts, where economic potential is defined as the extent to which a district possesses factors that are important determinants of the ability to experience a high level of productivity. The analysis is based on a simple composite Economic Potential Index, which is constructed from variables for which robust evidence exists of their importance as determinants of local productivity. From the analysis, a picture emerges of a heterogeneous landscape of economic potential characterized by strong geographic clustering of districts. The paper also reveals particularly high levels of underperformance, relative to potential, for districts in Uttar Pradesh.

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Identifying the Economic Potential of Indian Districts

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Keywords: India, economic potential, spatial development, productivity **JEL codes:** O18, O47, R11, R12

Acknowledgements

The author would like to thank Parul Agarwala, Katie McWilliams, Mihir Prakash and Sangmoo Kim for their excellent research assistance and also Barjor Mehta for his invaluable guidance. Prof. Prem Pangotra, Tom Farole, Somik Lall, Martin Rama and Toby Linden also provided very useful feedback on an earlier version of this paper. Additional useful feedback was received from Peter Ellis, Augustin Maria, and Vasudha Thawakar, as well as from participants at presentations of earlier versions of the work made within the World Bank.

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1. Introduction

Despite its rapid growth in recent decades, GDP per capita in India remains at a relatively low level by international standards¹ and the country continues to be marked by large sub-national disparities in levels of well-being. Illustrative of these large sub-national disparities is the fact that, according to official data, per capita income in India's most prosperous state (Delhi) in 2011/12 was almost 7.6 times that in its least prosperous state (Bihar). These large disparities naturally lead to interest in India's spatial landscape of potential for economic development. Is it the case, for example, that less prosperous parts of the country lack the basic ingredients that can give rise to high productivity or is it the case that, while they may possess some of these ingredients, they are failing to fully leverage them?

Against the above backdrop, this paper presents the results of an analysis of underlying variations in economic potential across Indian districts, where, in this context, economic potential is defined as the *extent to which a district possesses factors which are important determinants of the ability to experience a high level of productivity*. The analysis is based on a composite Economic Potential Index (EPI). This index can be regarded as a simple, yet innovative, diagnostic tool which can help to improve understanding of a country's spatial landscape of potential for rapid economic development at a granular level. More specifically, the index captures the extent to which a district possesses five crucial ingredients which have the potential to contribute to high levels of productivity: namely, market access, economic density, urbanization, skills, and local transport connectivity. These five factors represent key proximate determinants of local levels of productivity.²

While the EPI cannot, by itself, provide policymakers with direct guidance on, for example, whether they should prioritize investments in leading or lagging districts, it can, however, act as an important catalyst for stimulating discussions on both this and other important questions related to India's spatial development. Among other things, the index provides preliminary insights into the geographic distribution of levels of economic potential across the country, the relative strengths and weaknesses of different districts with respect to the factors that enter into the calculation of the EPI, and the extent to which different districts are fulfilling their potential.

The structure of the remainder of this paper is as follows. Section 2 outlines the underlying methodology used to identify the economic potential of each district, describing in detail each of the five potential determinants of local productivity that enter into the calculation of the EPI and the overall method of construction of the index. Section 3 then presents the results of the analysis. Among other things, it identifies the existence of strong spatial patterns whereby, rather than being randomly scattered, districts which exhibit similar levels of potential tend to neighbor one another. The analysis identifies several important spatially contiguous clusters of high potential districts, not to mention also several low potential clusters. Section 4 examines the relationship between a district's economic potential as measured using the EPI and its actual observed performance. This

¹ Real GDP per capita, expressed in 2011 constant international dollars, grew from \$2,600 to \$5,238 between 2000 and 2011.

² Although not analyzed directly in this paper, underlying the evolution of these determinants are likely to be deepseated institutional and historical factors, including the historical availability of such factor endowments as skilled labor and natural resources and the existence of a location that has been historically favorable to trade.

allows for the identification of, in particular, high potential districts which possess significant "untapped" potential. Finally, Section 5 concludes by summarizing the paper's main findings.

2. Methodology

2.1. Determinants of District Economic Potential

There are numerous factors that can potentially influence productivity at the sub-national level thereby making the task of assessing underlying variations in economic potential across India's districts seem like a daunting task. Over the last two decades, however, a large academic literature has developed which has sought to statistically test, and, in some cases, establish the causal importance of, a wide variety of potential determinants of local productivity levels. A review of this literature shows that relatively few of these factors are consistently robust across both different countries and time-periods. The Economic Potential Index (EPI) on which the analysis of this paper is based, therefore, draws on this literature for its construction. In particular, the EPI is a composite index which assesses a district's potential to develop a high level of productivity based on the extent to which it possesses the following five factors:

- *Market access:* captures proximity of firms to large domestic consumer markets, which facilitates lower costs of trade and increases profits; also captures better access of firms to suppliers of intermediate inputs;
- *Economic density:* measures the potential which exists for both firms and workers to benefit from the various sources of agglomeration economies associated with such density;
- *Rate of urbanization:* complementary measure of density and, therefore, of a district's potential to benefit from agglomeration economies; urbanization also tends to be associated with the production of modern, as opposed to traditional, goods and services which have the potential to drive productivity through trade with both other districts and the rest of the world; modern goods and services include, for example, modern manufacturing and tradable service activities such as financial services;
- *Availability of human capital:* human capital has a direct positive impact on the productive potential of a district's firms and the earnings potential of its workers; an abundant availability of human capital can also bring important indirect benefits for productivity through facilitating spillovers of knowledge between workers and improving adaptability to long-term structural shifts in the wider macro-economy;
- *Local transport connectivity:* captures the ability of urban markets to service their hinterlands through reduced costs of transportation of goods outwards and reduced cost of transportation of skills inwards towards urban areas.

There exists adequate empirical evidence, covering a variety of countries and time-periods, on the importance of each of the above factors to warrant their inclusion in the construction of the EPI. This is especially the case for the first four factors. The international evidence on the importance of the fifth factor – local transport connectivity – is a little more mixed. Nevertheless, there is

strong suggestive evidence of the importance of this factor in the Indian context which merits its inclusion. As such, there is a firm basis for believing that if an Indian district is well-positioned with respect to the above five factors, it possesses some of the most essential pre-conditions for the achievement of high levels of productivity, even if other policy and/or non-policy factors – which may be somewhat unique to the district and/or the state in which it is located – currently constrain the full realization of that potential.

Table 1 expands on the rationale for the selection of the five above-mentioned factors, the indicators that are used to measure these factors, and the sources of data. Annex 1 presents a more detailed technical discussion, which includes references to the relevant academic literature, of the rationale underlying the selection of the factors. It will be noted that, for the human capital component of the EPI, the choice of indicator is not theoretically ideal. Hence, while, ideally, the indicator would be a measure of the stock of education and skills embodied within a district's workforce, the indicator used is a district's literacy rate, as taken from the Census of India, 2011. Similarly, while the GDP based specification of market access used in the construction of the EPI does correspond to that which has been most frequently used in the relevant literature, there are alternative specifications of market access – based, for example, instead on population – that also appear in the literature. Given this, Annex 2 examines the robustness of the EPI results to the exact choice of indicators for both the human capital and market access components of the index. Overall, the analysis presented in this annex demonstrates that the basic EPI results are extremely robust to the exact choice of indicators.

Component	Rationale	Indicator	Source of data
Market access	Better access to areas of buoyant economic activity: (<i>i</i>) stimulates demand for locally produced tradable products; (<i>ii</i>) provides better access to intermediate inputs; and (<i>iii</i>) stimulates beneficial spillovers from those areas	Measure of market access constructed using district GDP levels and travel times through the Indian road network	Geographic Information System (GIS) analysis of the Indian road network Most recently available (2005) district GDP data from the Planning Commission, GoI
Economic density	Provides for greater potential agglomeration economies emanating from the existence of: (<i>i</i>) a large local pool of workers; (<i>ii</i>) a wide variety of local supplier firms and intermediate inputs; and (<i>iii</i>) spillovers of knowledge between firms and workers which are facilitated by geographic proximity	GDP per km ² of land area	Most recently available (2005) district GDP data – Planning Commission, GoI Night-time light intensity data used to help generate missing values: satellite data accessed from National Oceanic and Atmospheric Association (NOAA) - http://ngdc.noaa.gov/eog/dmsp.html
Level of urbanization	Together with economic density, affects a district's potential ability to benefit from agglomeration economies; and the potential propensity to engage in the production of modern tradable goods and services	% of population living in urban areas, 2011	Census of India, 2011

 Table 1: The Five Components of the Economic Potential Index (EPI)

Component	Rationale	Indicator	Source of data
Human capital	Has a direct positive impact on production, as well as potential indirect impacts through facilitating knowledge spillovers and improving adaptability to long-term underlying structural changes in the macro-economy	% of population which is literate, 2011	Census of India, 2011
Local transport connectivity	Better local connectivity reduces costs of transporting goods within the district and contributes to reduced potential commute times	Density of primary and secondary roads – i.e. length of roads per 100 km ² of land area	Based on GIS data used for the construction of the Market Access indicator as above

It is important to note that the five factors that enter into the EPI represent what may be regarded as the *proximate* determinants of district economic potential. This is because underlying the longrun evolution of these factors there are likely to be deep-seated institutional and historical factors, including the historical availability of such factor endowments as skilled labor and natural resources and the existence of a location that has been historically favorable to trade. With respect to institutional factors, for example, empirical evidence shows that historical land tenure systems continue to influence, amongst other things, levels of public investment and educational outcomes across districts in contemporary India,³ thereby indirectly shaping a district's EPI score.

2.2. Construction and Interpretation of the Economic Potential Index

The EPI was constructed by first converting each district's indicator level for each of the five factors into units which are comparable across the indicators. The simple average of the scores across the five indicators was then taken. This average was then re-scaled so as to give an easy to interpret final index (Annex 1 provides a more detailed methodological discussion).⁴ On the final index, a district will achieve an EPI score of 50 if its indicator levels on each of the five key proximate determinants of potential are all exactly equal to the district average. Meanwhile, an EPI score greater than 50 reflects an above average level of potential, while a score of less than 50 indicates a level of potential which is below average. Based on their EPI scores, districts can also be categorized into different bands of potential, which range from 'very high' to 'very low' potential (see Table 2).⁵

³ See Banerjee and Iyer (2005).

⁴ Given a lack of compelling evidence on the appropriate weights to attach to each of the five indicators, it was felt best to adopt the assumption of equal weights by taking the simple average.

⁵ These bands of potential are based on the average number of standard deviations across the five EPI indicators by which a district's score deviates from the mean. The 'very high' ('very low') band of potential, therefore, corresponds to districts which, on average across the five indicators, have scores which exceed (fall short of) the mean by one standard deviation or more, whilst the 'high' ('low') bands correspond to scores which, on average, exceed (fall short of) the mean by 0.5 - 1 standard deviations. Finally, the 'medium' potential category corresponds to scores which, on average, fall within 0.5 standard deviations of the mean. The fact that the 'very high' and 'very low' categories are separated by two standard deviations provides confidence that the districts falling into these categories exhibit statistically meaningful differences in economic potential.

Category	Basis of Categorization	Number of Districts (% of Districts)
Very high	$EPI \ge 68.8$	50 (8.5)
High	EPI ≥ 59.4	84 (14.2)
Medium	59.4 > EPI > 40.6	328 (55.5)
Low	$EPI \le 40.6$	91 (15.4
Very low	EPI ≤ 31.2	38 (6.4)
	Total	591

Table 2: Categorization of district potential

As Table 2 indicates, although, based on current administrative boundaries, India has 676 districts, the EPI results are only reported for a total of 591 districts. This is primarily because limitations with the data, particularly the GDP data which relates to the year 2005, made it difficult to construct the index based on current administrative boundaries. Rather, the index had to be constructed based on the matching of data to *circa* 2007/8 district boundaries.^{6, 7}

In reporting the results of the EPI in the following section, we refrain from providing the exact EPI scores and rankings of districts, instead choosing only to report the band of potential to which each district belongs. This is in order to avoid over-interpretation of the detailed scores and rankings. In particular, given the inherent difficulties in measuring economic potential and the fact that the indicators used for each of the five components of the EPI may be subject to some degree of measurement error, it is preferable to assess districts according to their broad categories of potential rather than their detailed EPI scores.

It is also important to keep the following two points in mind when interpreting the results in the next section:

- *EPI levels capture potential and not performance of districts:* the EPI aims to capture potential rather than actual performance. As such, although, in general, we expect performance as measured by, say, GDP per capita, to be positively correlated with potential,⁸ it is possible for similar EPI scores to translate into different levels of performance. Thus, for example, two districts which share similar EPI scores may, nevertheless, exhibit very different levels of GDP per capita depending on how successful they are in leveraging their potential. Differences across districts in how potential translates into performance are analyzed in greater detail in Section 4.
- *EPIs are a relative measure of economic potential, not an absolute measure:* the EPI assesses a district's underlying economic potential compared to the average for all other districts within the country. Thus, the EPI provides a relative measure of a district's potential as opposed to an absolute measure.

⁶ In particular, data was matched to the shapefile for Indian districts that is available from the GADM database of global administrative areas (http://www.gadm.org/).

 $^{^{7}}$ As islands, the districts of Andman Islands, Nicobar Islands, and Kavaratti had to be excluded from the calculation of the EPI. This is because they lacked connectivity in the GIS road network file. It was not, therefore, possible to calculate the market access indicator for them.

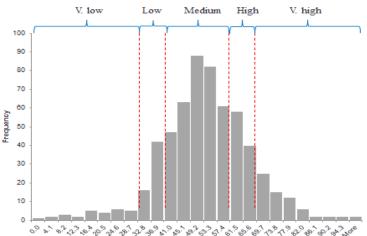
⁸ Evidence of such a positive correlation is provided in Section 4.

3. EPI Results

3.1. Overall Results

Figure 1 shows the distribution of EPI scores across districts, whilst Table 3 provides information on the shares of India's total and urban populations, as well as the share of national GDP, accounted for by districts belonging to each of the different bands of potential. Based on these, it can be seen that around 8 percent of districts demonstrate 'very high' potential, and that, together, these account for more than 16 percent of national population. These districts, moreover, are, on the whole, much more urban than the districts that belong to the other bands of potential and generate a disproportionate share – just over 28 percent – of national GDP. A further 14 percent of districts exhibit 'high' potential. Although less markedly so than the 'very high' potential districts, these districts, on the whole, are also both more urban and generate a larger share of national GDP than would be expected based on their share of the national population alone. The 'medium' band of potential, meanwhile, accounts for just over 55 percent of all districts and a very similar share of the national population. These districts, however, are less urban and generate less GDP than would be expected based on their share of India's overall population. Finally, around 22 percent of districts belong to the 'low' and 'very low' potential categories. These districts are comparatively sparsely populated, however, and account for a fraction of India's overall urban population. Together, they also generate less than 7 percent of national GDP.





Category	No.	Popu	Population		
	districts	Overall	Urban	GDP	
Very high	8.5	16.5	38.2	28.2	
High	14.2	16.9	22.2	21.7	
Medium	55.5	54.9	36.2	43.5	
Low	15.4	10.3	2.9	5.6	
Very low	6.4	1.4	0.4	1.0	

Table 3: Shares of number of districts, overall national population, urban population andGDP belonging to each category of potential

Notes: shares of both overall population and urban population are for 2011, whilst GDP shares are sample shares based on 2005 data (the most recent year for which relatively comprehensive (official) GDP data is available)

Focusing in on the results for the 'very high' potential districts, which are likely to be of particular interest, Table 4 provides a full list of districts within this category.⁹ All of these districts have EPI scores of 68.6 or greater. The table, furthermore, lists district rankings for each of the indicators used to capture the five components of the index. Figure 2, meanwhile, provides information on both the status and population of all urban settlements located within the 'very high' potential districts.¹⁰

State	District	Sub-indicator rank (out of 591)					
		Market access	Economic density	Percent urban	Human capital	Local connectivity	
Chandigarh	Chandigarh	14	7	9	53	73	
Daman and Diu	Daman	95	8	13	34	98	
Delhi	Delhi	4	6	8	47	9	
Goa	North Goa	297	65	42	24	17	
Gujarat	Ahmadabad	91	89	12	60	58	
	Surat	81	92	16	57	97	
Haryana	Ambala	43	60	85	119	21	
	Faridabad	6	23	17	120	341	
	Gurgaon	11	18	24	68	40	
	Panchkula	20	52	54	117	416	
	Panipat	16	32	78	218	37	
	Rewari	28	49	208	129	11	
	Rohtak	13	101	94	139	14	
Karnataka	Bangalore Urban	5	5	11	37	46	
	Dakshin Kannad	142	63	75	30	81	
Kerela	Alappuzha	58	14	55	8	8	
	Ernakulam	22	9	26	7	10	
	Kannur	110	33	33	9	194	
	Kollam	54	25	81	12	26	
	Kottayam	50	21	184	4	15	
	Kozhikode	72	17	29	10	133	
	Malappuram	70	36	86	13	84	

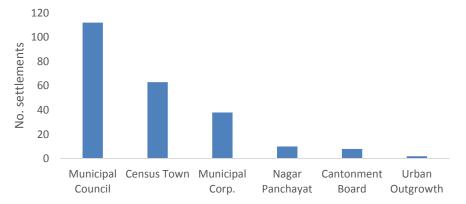
Table 4: Districts with 'Very High' Economic Potential

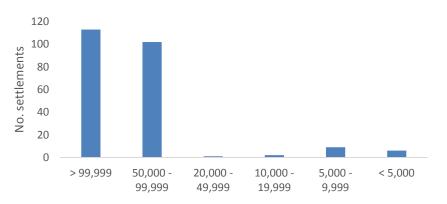
⁹ Annex 5 presents a complete list of districts according to the bands of potential in which they fall.

¹⁰ Annex 6 provides a full list of all urban settlements, including Census Towns, and their populations which fall within the 'very high' potential districts.

	Thiruvananthapuram	52	12	57	15	19
	Thrissur	19	22	28	10	16
Maharashtra	Greater Mumbai	1	3	1	22	5
	Nagpur	67	85	25	31	147
	Nashik	17	110	93	109	94
	Pune	7	39	39	51	72
	Thane	3	16	19	74	65
Manipur	East Imphal	157	141	100	116	1
	West Imphal	335	35	38	52	24
Puducherry	Mahe	87	77	1	3	79
	Puducherry	173	13	23	59	4
Punjab	Jalandhar	49	50	58	108	175
	Ludhiana	32	34	45	111	158
Tamil Nadu	Chennai	27	2	1	19	6
	Coimbatore	30	38	20	311	135
	Kancheepuram	34	43	35	75	305
	Kanniyakumari	131	19	14	17	27
	Madurai	39	42	40	91	125
	Thiruvallur	56	29	32	82	493
Telangana	Hyderabad	18	4	1	95	2
	Rangareddi	23	78	22	22	150
Uttar Pradesh	Ghaziabad	12	30	27	178	76
	Kanpur Nagar	90	10	31	153	7
	Lucknow	59	31	30	193	41
West Bengal	Haora	8	11	36	94	57
	Hugli	24	26	114	118	132
	Kolkata	9	1	1	48	3
	North 24 Parganas	29	27	49	80	497

Figure 2: Classification of settlements located in 'Very High' Potential Districts based on: (a) status; and (b) population





Note: Data on settlement populations is from Census of India, 2011

Based on Table 4 and Figure 2, several key trends among the 'very high' potential districts emerge, including:

- Districts containing large municipal corporations and municipal councils figure prominently among the 'very high' potential districts: this is reflected in, for example, the fact that the list of 'very high' potential districts includes districts which correspond to India's nine most populous urban agglomerations Greater Mumbai, Delhi, Kolkata, Chennai, Bangalore Urban, Hyderabad, Ahmedabad, Pune, and Surat. More generally, out of the 233 urban settlements which are located in the 50 'very high' potential districts, 38 are municipal corporations, while a further 112 are municipal councils. According to the 2011 Census of India, 113 of the urban settlements also have a population of 1 lakh or more. The strong presence of districts containing large agglomerations reflects the potential that these districts have, by virtue of their high levels of economic density and urbanization, to benefit from strong productivity enhancing agglomeration economies. These districts also have great potential to benefit from market access given that, by definition, they actually constitute a large share of India's domestic consumer market.
- Notwithstanding this, there are also numerous secondary and intermediate sized cities, not to mention Census Towns, located in 'very high' potential districts: 43.8 percent (or 102 out of 233) of all urban settlements in the 'very high' potential districts have a population between 0.5 lakh and 1 lakh. 29 of these settlements are located in the districts corresponding to India's nine most populous urban agglomerations, but the remainder are located in other districts. 27 percent (or 63 out of 233) of the urban settlements in the 'very high' potential districts are also classified as Census Towns and, therefore, officially governed as rural areas, even though the census recognizes them as urban.¹¹ In the case of two of the 'very high' potential districts of East Imphal and Daman, where the Census Towns are Thongju (population 10,836) and Dadhel (population 52,578) respectively.

¹¹ To qualify as a Census Town, an administratively rural settlement must meet the following three criteria: (a) population in excess of 5,000 persons; (b) population density greater than 400 people per square kilometer; and (c) at least 75 percent male main workers involved in non-agricultural pursuits.

- *Economic potential and performance do not necessarily go hand-in-hand:* Kanpur Nagar is one such example. Kanpur Nagar's level of district GDP per capita ranks as only the 218th highest in India (2005). Nevertheless, the district has a "very high" level of potential, benefitting, in particular, from its high levels of economic density and urbanization, as well as from its dense local road network. The district also scores reasonably (90th out of 591 districts) in terms of its market access, which is linked, in part, to its intermediate geographic location between the major agglomerations of Delhi and Kolkata. As will be seen in Section 5, Malappuram in Kerala, Ghaziabad in Uttar Pradesh and Hyderabad in Telangana provide further examples of districts with "very high" levels of potential which are not being fully tapped.
- While rankings across the five key determinants of potential are positively correlated, there are important variations that exist: For instance, whilst Hyderabad ranks very highly in terms of its economic density and levels of both urbanization and local transport connectivity, its ranking in terms of human capital is out-of-keeping with its overall EPI score. These variations across the five determinants reveal important areas where there is room for improvement.¹²

3.2. Breakdown of Results by State/Union Territory and Potential Category

Figure 3 provides a breakdown of EPI results by both state / union territory and category of potential, whilst Table 5 presents the same information in a tabular format. Based on these, the following can be synthesized:

- Kerala stands-out both in absolute and proportional terms as having the greatest number of 'very high' potential districts. In particular, 9 of its 14 districts (i.e. 64 percent) possess 'very high' potential. Kerala is followed by Haryana (7 'very high' potential districts), Tamil Nadu (6 districts), Maharashtra (5 districts), West Bengal (4 districts) and Uttar Pradesh (3 districts). In the case of Uttar Pradesh, however, the share of its districts which are of 'very high' potential is only 4 percent.
- Taken together, these six states are home to 68 percent i.e. 34 out of 50 of all 'very high' potential districts. Hence, there is a strong concentration of 'very high' potential districts in a relatively small number of states.
- The remaining 32 percent of 'very high' potential districts are spread across a further 11 states, while 15 states do not feature any 'very high' potential districts at all.
- The bulk of 'very high' and 'high' potential districts are concentrated in highly urbanized states including Maharashtra, Tamil Nadu, Gujarat, Haryana, and Punjab. As a corollary,

¹² Table A1.2 in Annex 1 also reports correlations between the indicators used to capture the five components of the EPI. This formally demonstrates the strong correlation between the different indicators. However, at the same time, it is clear that the correlation is far from perfect. This is important because it shows that the indicators, and, by extension, the components of the EPI, are capturing different information with respect to economic potential.

states, such as Odisha, Bihir, Assam and Jharkhand, which are characterized by low levels of urbanization tend to have a concentration of 'low' and 'very low' potential districts.¹³

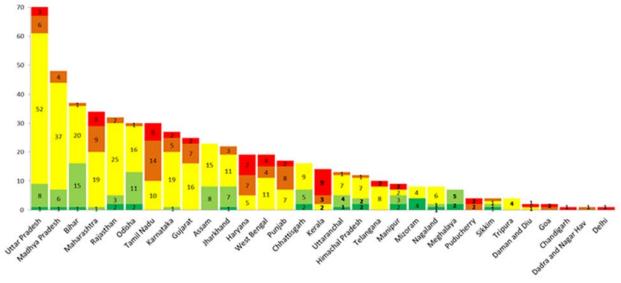


Figure 3: Breakdown of Results by State and Category of Potential

Very Low Low Medium High Very High

Sta		Total # districts	Very High	High	Medium	Low	Very Low
1.	Andhra Pradesh	14	1	2	11	0	0
2.	Assam	23	0	0	15	8	0
3.	Bihar	37	0	1	20	15	1
4.	Chandigarh	1	1	0	0	0	0
5.	Chhattisgarh	16	0	0	9	5	2
6.	Dadra and Nagar Haveli	1	0	1	0	0	0
7.	Daman and Diu	2	1	0	1	0	0
8.	Delhi	1	1	0	0	0	0
9.	Goa	2	1	1	0	0	0
10.	Gujarat	25	2	7	16	0	0
11.	Haryana	19	7	7	5	0	0
12.	Himachal Pradesh	12	0	1	7	2	2
13.	Jharkhand	22	0	3	11	7	1
14.	Karnataka	27	2	5	19	1	0
15.	Kerala	14	9	3	2	0	0
16.	Madhya Pradesh	48	0	4	37	6	1
17.	Maharashtra	34	5	9	19	1	0
18.	Manipur	9	2	0	2	3	2

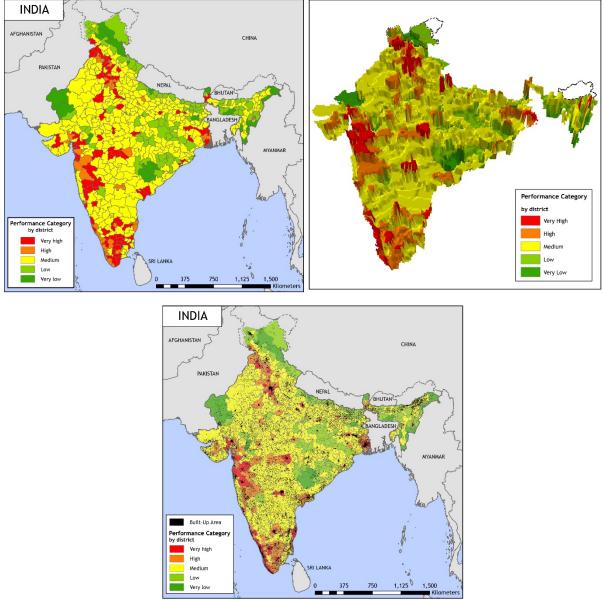
¹³ This is, in part, true by construction (the rate of urbanization is one of the five factors on which the EPI is based). However, low levels of urbanization are also correlated with weak performance on the other four factors included in the index.

State	Total # districts	Very High	High	Medium	Low	Very Low
19. Meghalaya	7	0	0	0	5	2
20. Mizoram	8	0	0	4	0	4
21. Nagaland	8	0	0	6	1	1
22. Odisha	30	0	1	16	11	2
23. Puducherry	4	2	2	0	0	0
24. Punjab	17	2	8	7	0	0
25. Rajasthan	32	0	2	25	3	2
26. Sikkim	4	0	1	1	1	1
27. Tamil Nadu	30	6	14	10	0	0
28. Telangana	10	2	0	8	0	0
29. Tripura	4	0	0	4	0	0
30. Uttar Pradesh	70	3	6	52	8	1
31. Uttaranchal	13	0	1	7	4	1
32. West Bengal	19	4	4	11	0	0
TOTAL	51	50	84	328	91	38

3.3. Clustering of High and Low Potential Districts

Consistent with the above results, Figure 4(a), which provides a spatial representation of the EPI results, indicates that economic potential is not randomly geographically distributed across districts. Rather, there is a strong tendency for districts with similar levels of potential to form spatially contiguous clusters. There, therefore, exist spatial clusters of both high and low potential districts. As shown by Figure 4(b), this gives rise to a spatial landscape characterized by "mountain ranges" of high potential and "valleys" of low potential. The locations of the "mountain ranges", furthermore, tend to coincide with heavily built-up areas (Figure 4(c)). There is also, however, quite significant built-up area in some of the low potential "valleys." This is particularly the case in the North-East of India near the border with Nepal where there exists a significant amount of built-up area in districts classified as being of low potential.

Figure 4: (a) Spatial distribution of potential across districts; (b) Peaks and valleys of potential; (c) Spatial distribution of potential tends to mirror the spatial distribution of built-up area with the exception of North-East India



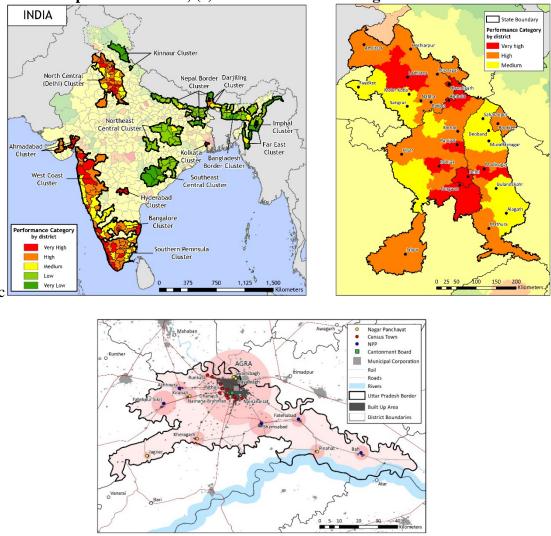
Note: the built-up area depicted in part (c) of the figure is for 2014 (Data source: Global Human Settlement Layer (GHSL), Joint Research Center, European Commission¹⁴)

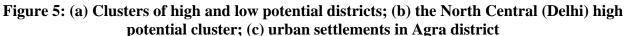
There still remains the question, however, of how important the spatial clustering of potential is from a statistical viewpoint. In this sense, Figure 5(a) provides for a more rigorous identification of both high and low potential clusters. In particular, the map identifies clusters based on the statistical significance of the underlying spatial patterns observed in Figure 4.¹⁵ Overall, there

¹⁴ See Pesaresi *et al.* (2013) for more details on this data source.

¹⁵ Statistical significance is assessed on the basis of local Moran's I statistics. From a technical viewpoint, these statistics allow for the identification of different patterns of local spatial autocorrelation at the district level. Figure

exist 15 clusters, of which nine are high potential clusters (Annex 3 provides a full list of districts belonging to each of the 16 clusters).





Note: the built-up area depicted in part (c) of the figure is for 2014 (Data source: Global Human Settlement Layer (GHSL), Joint Research Center, European Commission)

Taken together, the nine high potential clusters are home to 30 percent of India's total population and just over 51 percent of its urban population.¹⁶ They, furthermore, generate approximately 45 percent of national GDP.¹⁷

⁵⁽a) shows spatially contiguous groups of districts which exhibit statistically significant local Moran's I values. It excludes single district "clusters" – i.e. districts which have statistically significant local Moran's I values, but which are surrounded by districts with statistically insignificant values. For more details on the methodology which underlies the construction of local Moran's I statistics see Anselin (1995).

¹⁶ These figures are based on Census of India, 2011, data.

¹⁷ More precisely, the nine high potential clusters possess a 44.9 percent sample share of GDP, where the GDP data relates to 2005 (the most recent year for which comprehensive (official) district GDP data is available).

The high potential clusters include extended groups of districts which are centered on the major agglomerations of Delhi, Kolkata, Ahmadabad, Hyderabad, and Bangalore – Chennai, but which also include intermediate and smaller sized urban settlements such as Nabha which falls within the Delhi high potential cluster and has a population, according to the Census of India, 2011, of just under 68,000. There is also a West coast corridor of high potential districts which comprises mainly districts from the states of Maharashtra (including Greater Mumbai), Karnataka and Gujarat, as well as a Southern Peninsula cluster that covers districts in Kerala, Puducherry and Tamil Nadu. Finally, there are the Darjiling and Imphal Clusters, which stand-out from the other high potential clusters by virtue of being surrounded by low potential districts. Figure 5(b) provides a more detailed mapping of the North Central high potential cluster which is centered on Delhi and which accounts for 8.5 percent of India's overall population and almost 14 percent of its urban population. The cluster also generates approximately 11.5 percent of national GDP. Meanwhile, Figure 5(c) maps the urban settlements which exist in one of the districts, Agra, which belongs to this cluster.

In contrast to the high potential clusters, the low potential clusters are centered on peripheral and/or lagging regions of the country, often on the borders of other countries in the region. This is the case, for example, for the Bangladesh Border, Kinnaur, and Far East clusters. There is also a significant low potential cluster – the Nepal Border Cluster – which is located in the Northeast and covers parts of the states of Bihar, Jharkhand, Sikkim and Uttar Pradesh. This cluster is notable amongst the low potential clusters for being characterized by both a high density of population and built-up area (see Figure 4(c)). Finally, the Southeast Central low potential cluster is mainly comprised of districts in Odisha, whilst the Northeast Central cluster includes districts from Chhattisgarh, Jharkhand, Madhya Pradesh and Uttar Pradesh.

4. Performance versus Potential

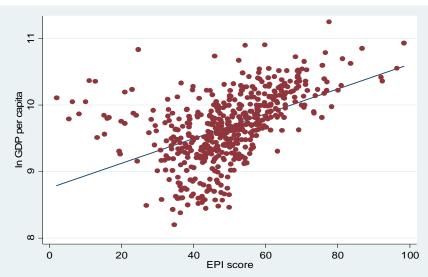
The EPI aims to capture economic potential rather than actual performance, and there exist examples of districts with 'very high' or 'high' EPI scores which exhibit relatively weak performance. This section, therefore, seeks to analyze the relationship between potential and performance in more depth by taking GDP per capita as the metric for a district's performance level.¹⁸ An important point to note, however, is that the analysis relies on GDP per capita data for the year 2005, which is the most recent year for which relatively comprehensive (official) data is available, and there may, therefore, have been important changes in performance since then. The analysis is also restricted to 520 of the 591 districts for which EPI results were reported in the previous section.¹⁹ This is because the analysis is limited to those districts for which GDP per capita data are available from official sources without having to generate missing values.

With the above caveats in mind, Figure 6 shows the relationship across districts between GDP per capita levels and EPI scores. As might be expected, this relationship is positive and the slope of

¹⁸ We focus on the level of GDP per capita rather than its growth rate as the metric of performance because this has been the primary focus of the academic literature on which the EPI is built.

¹⁹ The majority of missing districts belong to nine states / Union Territories – Chandigarh, Dadra and Nagar Haveli, Daman and Diu, Delhi, Goa, Gujarat, Nagaland, Puducherry and Tripura. The district of Lahul and Spiti (Himachal Pradesh) was also excluded from the analysis on account of being an extreme outlier.

the fitted line in the figure indicates that, on average, a one-point increase in a district's EPI score is associated with a 1.9 percent increase in its level of GDP per capita (see also Annex 4). This fitted line shows how we would predict a district to perform in terms of its GDP per capita level given its EPI score. Districts which fall below the line can, therefore, be interpreted as possessing "untapped" potential with districts which fall further below the line having greater "untapped" potential than those which are closer to the line. Although not analyzed in this paper, the wedge between a district's potential and its performance could conceivably have its roots in a number of factors including, for example, factors related to the regulatory and business environment, political economy, and institutions. Some of the factors that constrain performance below potential may be at the state level, while other factors may be more local. More generally, the exact configuration of factors which constrain a particular district's performance below potential is likely to vary from case to case. Uncovering these factors for any given district would require detailed case study work, which is beyond the scope of this paper.





Based on the above, Table 6 shows the "very high" / "high" potential districts which have the greatest levels of untapped potential (i.e. which have the largest wedge between potential and performance) along with additional information on other relevant district characteristics. In particular, the table shows those districts which we estimate could achieve a GDP per capita increase of 10 percent or more if they were to raise their performance to the levels predicted by their EPI scores. As can be seen, 6 out of the 13 districts in this table (Agra, Ghaziabad, Kanpur Nagar, Mathura, Meerut, and Varanasi) belong to a single state – Uttar Pradesh. The predominance of districts from Uttar Pradesh suggests that many of the factors that are constraining their performance below predicted levels are at the state, rather than the local, level (Annex 4 presents more formal analysis of this issue). Outside of Uttar Pradesh, East Imphal (Manipur), Malappuram (Kerala), Haora (West Bengal), Kolar (Karnataka), Bokaro (Jharkhand), Hyderabad (Telangana), and South 24 Parganas (West Bengal) complete the list of "very high" / "high" potential districts that could achieve a GDP per capita increase of at least 10 percent if they were able to increase performance to predicted levels by addressing constraints at the state and local levels.

District	State	Category	Population	Population density (per km ²)	Percent urban (%)	Literacy rate (%)	GDP per capita	Poverty rate
Agra	Uttar Pradesh	High	4,418,797	1,093	45.9	71.6	15021	41.6
Bokaro	Jharkhand	High	2,062,330	715	47.7	72.0	16142	17.1
East Imphal	Manipur	Very high	456,113	643	40.3	82.0	15165	40.0
Ghaziabad	Uttar Pradesh	Very high	4,681,645	3,971	67.5	78.1	19890	17.7
Haora	West Bengal	Very high	4,850,029	3,306	63.3	83.3	21443	24.4
Hyderabad	Telangana	Very high	3,943,323	18,172	100	83.3	31473	7.7
Kanpur Nagar	Uttar Pradesh	Very high	4,581,268	1,452	65.9	79.7	18279	33.9
Kolar	Karnataka	High	1,536,401	386	31.4	74.4	15771	6.7
Malappuram	Kerala	Very high	4,112,920	1,157	44.2	93.6	19473	25.9
Mathura	Uttar Pradesh	High	2,547,184	763	29.7	70.4	15131	18.9
Meerut	Uttar Pradesh	High	3,443,689	1,346	51.1	72.8	18273	19.5
South 24 Parganas	West Bengal	High	8,161,961	819	25.6	77.5	18335	39.5
Varanasi	Uttar Pradesh	High	3,676,841	2,395	43.4	75.6	10989	33.4

Table 6: High potential districts with greatest estimated untapped potential

Note: table lists 'very high' and 'high' potential districts in which the estimated increase in GDP per capita that could be achieved by improving performance to the predicted level is greater than 10 percent. Data on population, population density, percent urban, and the literacy rate is from the Census of India, 2011. GDP per capita is measured in Indian rupees at 2000 constant prices, while the poverty rate is the share of the population living on less than \$1.25 a day, where the poverty line is measured in 2005 constant international prices using Purchasing Power Parity exchange rates.

5. Conclusion

This paper has presented a diagnostic analysis of the underlying economic potential of Indian districts based on the construction of a simple composite index – the Economic Potential Index or EPI. The EPI captures the extent to which each Indian district possesses five key attributes – namely, a good level of market access; high levels of economic density and urbanization; a workforce which embodies good levels of human capital; and strong local transport connectivity – which have been shown by a wide body of empirical evidence to be important to the achievement of high local levels of productivity. The main findings of the analysis may be summarized as follows:

- Of the 591 districts included in the analysis, 50 have been classified as having 'very high' economic potential and a further 84 as having 'high' potential. Compared to lower potential districts, these districts are, on the whole, more urbanized. They also generate a disproportionate share of national GDP. This is especially the case for the 'very high' potential districts.
- Districts containing large municipal corporations and municipal councils figure prominently among the 'very high' potential districts. The districts which are home to India's nine most populous agglomerations Mumbai, Delhi, Kolkata, Chennai, Bangalore, Hyderabad, Ahmedabad, Pune, and Surat all figure in the list of 'very high' potential districts. At the same time, however, there are also numerous secondary and intermediate sized cities, not to mention Census Towns, located in the 'very high' potential districts.
- While 'very high' potential districts tend to exhibit superior levels of performance on all five proximate determinants of economic potential, there, nevertheless, exist important variations which help to highlight relative areas of weakness.
- 'Very high' potential districts are mainly concentrated in six states with Kerala, Haryana, and Tamil Nadu leading the way; around 70 percent of all 'very high' potential districts are located in these three states plus the states of Maharashtra, West Bengal and Uttar Pradesh. By contrast, there are 15 states with no 'very high' potential districts.
- There exist nine (statistically significant) spatially contiguous clusters of 'very high'/'high' potential districts. Five of these clusters are extended groups of districts centered on the major agglomerations of Delhi, Kolkata, Ahmadabad, Hyderabad, and Bangalore Chennai. There also exists a West coast corridor of high potential districts that incorporates, in particular, a large number of districts from the states of Maharashtra (including Greater Mumbai) and Karnataka, as well as a Southern Peninsula cluster that covers districts in Kerala, Puducherry and Tamil Nadu. Finally, there are the Darjiling and Imphal Clusters, which stand-out from the other high potential clusters by virtue of being surrounded by low potential districts. Taken together, these nine clusters account for 30 percent of India's overall population, just over 51 percent of its urban population and generate approximately 45 percent of national GDP.

- There are 38 districts identified as having 'very low' potential and 91 districts identified as having 'low' potential. As with high potential districts, there is significant spatial clustering of low potential districts. In particular, six low potential clusters of districts have been identified.
- There exist a number of "very high" and "high" potential districts whose levels of performance, as measured by their levels of GDP per capita, fall short of what one would expect based on their EPI scores, thereby indicating the existence of significant "untapped" potential. Several of these districts Agra, Ghaziabad, Kanpur Nagar, Mathuri, Meerut, and Varanasi are located in Uttar Pradesh. This indicates that, for these districts, many of the constraints that undermine the fulfillment of potential lie at the state level.

While, as indicated in the introduction, the EPI results presented in this paper should not be used as a direct guide to, for example, the targeting of investment decisions by the public and private sectors, they do provide important preliminary insights into India's spatial landscape of potential for economic development. These insights can, in turn, provide an important starting point for such policy discussions and also more in-depth analysis of, for example, the factors that may be constraining particular districts below potential.

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Annexes

Annex 1: Detailed Methodology and Note on Rationale for Factors used for EPI Analysis

Detailed rationale for selection of EPI factors

The theoretical rationale for the first (proximate) determinant – market access – follows from the so-called "New Economic Geography" literature that was first pioneered by Krugman (1991a, 1991b), which shows that sub-national economies which are better connected through transportation networks to high-income markets can be expected to enjoy higher levels of local productivity. This is because firms located in sub-national economies with better access to markets benefit from greater demand for their products, which, in turn, allows them to more easily cover their fixed costs of production (e.g. the cost of setting-up a new plant). They also benefit from better access to suppliers of intermediate inputs. As a result, theory predicts that both productivity and wages should be higher in these areas than in comparable local areas with lower levels of market access. This is particularly so in countries where labor mobility is limited, as seems to be the case in India.²⁰ Empirical evidence in support of this prediction has been found for not only developed countries, but also for developing countries, including India.²¹

Meanwhile, the theoretical rationale for both the second and third determinants – namely, economic density and the level of urbanization - is to be found in the idea that sub-national economies which are economically more dense and urbanized have a greater propensity to benefit from agglomeration economies. Agglomeration economies refer to the positive externalities - or "accidental" benefits – that individual firms and workers enjoy as a result of locating or working in close geographic proximity to other firms and workers in economically dense and/or highly urbanized areas. These include benefits which stem from, for example, the fact that the existence of a dense concentration of firms in a particular industry helps to stimulate both the growth of a diverse range of local intermediate input suppliers and a local pool of labor which has the skills and talent to meet the needs of the industry. They also include the dynamic benefits that result from the spillover of, for example, best practice knowledge of how to do things, something that is facilitated by close geographic proximity, especially when the knowledge in question is complex and, therefore, more easily passed on through face-to-face communication than through alternative, including electronic, means of interaction.²² As with market access, empirical evidence on the importance of economic density and the level of urbanization as determinants of local levels of productivity has been found for developed and developing countries alike.²³

²⁰ Whereas 9 percent of people in the United States lived in a different state five years ago and 40 percent were born in a different state, the equivalent figures for India, according to 2011 census data, were just 0.4 percent and 3.6 percent (Glaeser, Chauvin, and Tobio, 2011).

²¹ For supportive evidence for India see, in particular, Schramm (2013). Evidence for China is, meanwhile, provided by, for example, Bosker *et al.* (2012), Hering and Poncet (2010a, 2010b), Moreno- Monroy (2008) and Roberts *et al.* (2012). Lall, Wang, and Deichmann (2010) also provide evidence that market access has considerable and significant effects in improving an Indian city's attractiveness for private investment.

²² The seminal references on the sources of agglomeration economies are Marshall (1890), Jacobs (1969) and Duranton and Puga (2004).

²³ See, for example, Ciccone and Hall (1996), Ciccone (2002) and Roberts and Goh (2011) who present evidence on the importance of economic density as a determinant of local levels of productivity for the US, Europe and China

The inclusion of human capital, which is the fourth potential determinant captured by the EPI, can be rationalized by the fact that higher levels of such capital are thought to have both important direct and indirect effects on local levels of productivity.²⁴ The direct effects follow from the fact that firms located in sub-national economies with more skilled, trained and educated workforces are likely to be more effective in combining other inputs to produce output. Meanwhile, the indirect effects stem from two main sources: (*i*) the ability of local economies with higher levels of human capital to better absorb ideas and knowledge emanating from outside the locality; and (*ii*) the fact that higher levels of human capital can help to stimulate better spillovers of knowledge between local firms, thereby further facilitating the exploitation of agglomeration economies. A high level of human capital has also been shown to improve the ability of sub-national economies to adapt to long-term underlying structural shifts in the macro-economy through facilitating their ability to re-invent themselves in response to such shifts.²⁵ Of all the potential determinants of local productivity captured by the EPI, human capital is probably the one which commands the widest empirical support.²⁶

Finally, local transport connectivity, as measured by the density of primary and secondary roads within a district, is included in the EPI based on the fact that better internal connectivity is likely to promote both reduced costs of transporting goods for firms (both for goods that are transported solely within the district and for goods that are transported to and from other districts) and reduced costs of commuting for workers. Although the empirical evidence on internal connectivity as a determinant of local levels of productivity is not perhaps as internationally robust as for the other four factors captured by the EPI, there is suggestive evidence of its particular importance for India. In particular, it has been strongly argued that high internal costs of transport within the core areas of India's major metropolitan areas have been an important contributory factor behind the "premature" outward movement of formal manufacturing activity from these areas, with consequent negative effects on both local levels of productivity and growth.²⁷ Further emerging empirical evidence on the importance of local transport connectivity – in particular, the importance of local roads – exists for Indonesia and Colombia.²⁸

Detailed methodology for construction of the EPI

The methodology for the construction of the EPI consists of the following four basic steps:

1. **Measure raw performance on each of the five components of the index** – i.e. on market access; economic density; level of urbanization; human capital and local transport connectivity. All indicators with the exception of the human capital indicator are measured in natural logs on the basis that their distributions are approximately log-normal.

respectively. Empirical evidence on the importance of urbanization can be found in the strong cross-country relationship that exists between levels of GDP per capita and urbanization (see, for example, World Bank, 2008).

²⁴ The seminal references here are Mankiw, Romer and Weil (1992) and Lucas (1988).

²⁵ For evidence on this see, *inter alia*, Glaeser (2005) and Roberts (2004).

²⁶ See, for example, Roberts and Setterfield (2010) on this point.

²⁷ See Ellis and Roberts (2015) and World Bank (2013).

²⁸ See Gertler *et al.* (2014) and Duranton (2014) respectively.

- 2. **Transform measures of raw performance into units that are comparable across the five components** achieved by converting the values on each of the associated indicators into "Z-scores" by (for each indicator) subtracting the mean and dividing through by the standard deviation.
- 3. **Combine the transformed scores across the five components** by taking the simple average (i.e. mean) of the "Z-scores" across the associated indicators.
- 4. **Re-scale the combined scores to arrive at the final index of performance** this is achieved by applying the formula $EPI_i = 50 + [50/Max(|Z_i|)]*Z_i$ where EPI_i is the final EPI score for district *i* and Z_i is the average Z-score for district *i* from step (3).

Table A1.1 provides more detail on the precise indicators used to capture each component of the index and also on the sources of data. Meanwhile, Table A1.2 provides a matrix of Spearman rank correlation co-efficients for the indicators. This matrix shows that, in general, the five indicators are, as might be expected. positively correlated with each other. However, at the same time, the correlations are far from being perfect, thereby indicating that each provides independent information on a district's economic potential.

Component	Indicator	Data source
Market access	Calculated as $MA_i = \sum_{j} [GDP_j/(time_{i,j}^2)]$ where <i>time_i</i> is the estimated travel time by road (in hours) between the centroids of districts <i>i</i> and <i>j</i> from taking the optimal (i.e. fastest) route between those districts. ²⁹	GIS shapefile of the Indian road network corresponding to that used by Ghani <i>et al.</i> (2013); GDP data is the most recently available (2005) from the Planning Commission, GoI
Economic density	GDP per km ² . Missing GDP values were predicted using data on night-time light intensity, exploiting the strong documented relationship between light intensity and GDP ³⁰	Most recently available (2005) district GDP data – Planning Commission, GoI; night-time light intensity: National Oceanic and Atmospheric Association (http://ngdc.noaa.gov/eog/dmsp.html)
Level of urbanization	% of population living in urban areas, 2011. Where a district was missing data, the % living in urban areas was assumed to be equal to the average across all other districts in the same state	Census of India, 2011
Human capital	% of population which is literate, 2011. Where a district was missing data, the literacy rate was assumed to be equal to the average across all other districts in the same state	Census of India, 2011

 Table A1.1: Construction of indicators and data sources

²⁹ This is a classic Harris (1965) style measure of market potential. The fastest travel time routes were calculated using Dijkstra's algorithm.

³⁰ GDP per capita data was missing for 74 out of the 591 districts. GDP values for these districts were estimated by, first, running, for all non-missing observations, a regression of ln(GDP) on ln(DN), where DN stands for digital number and is a measure of night-time light intensity. The fitted regression was then used to predict the levels of GDP for the districts with missing data. Full regression results are available on request.

Component	Indicator	Data source
Local transport connectivity	Density of primary and secondary roads – i.e. length of roads (in km) per 100 km ² of land area	

Table A1.2: Spearman rank correlation for EPI indicators

	Market access	Economic density	Percent urban	Human capital	Internal connectivity
Market access	1.000				
Economic density	0.785	1.000			
Percent urban	0.498	0.518	1.000		
Human capital	0.294	0.414	0.473	1.000	
Internal connectivity	0.52	0.508	0.389	0.255	1.000

Annex 2: Robustness of EPI Results

The EPI results reported in the main text were derived using the indicators outlined in Table 1 and also discussed in more detail in Annex 1. Further analysis was also undertaken to assess the robustness of the results to the use of alternative indicators for, in particular, the market access and human capital components of the index. Two alternative variants of the market access indicator were considered: (*i*) *MA POP* – instead of calculating market access based on levels of district GDP, this variant bases the calculation on levels of district population – i.e. (*MA POP*)_{*i*} = $\sum_{j}[POP_{j}/(time_{i,j}^{2})$ where POP_{j} is the population of district *j* in 2011 and *time_{i,j}* is the estimated travel time by road between the centroids of districts *i* and *j*; and (*ii*) *MA Class I* – this variant instead calculates market access based on the populations of, and travel times to, Class I cities which are located in other districts – i.e. (*MA Class I*)_{*i*} = $\sum_{j}[POP_{j}/(time_{i,j}^{2})$ where POP_{j} is the estimated travel times to, Class I cities which are located in other districts – i.e. (*MA Class I*)_{*i*} = $\sum_{j}[POP_{j}/(time_{i,j}^{2})$ where POP_{j} is the population of the *j*th Class I city in 2011 and *time_{i,j}* is the estimated travel time by road between the centroids of districts *i* and *j* = $\sum_{j}[POP_{j}/(time_{i,j}^{2})$ where POP_{j} is the population of the *j*th Class I city in 2011 and *time_{i,j}* is the estimated travel time by road between the centroid of districts – i.e.

Meanwhile, for the human capital component, several alternatives to the literacy rate in 2011 were considered: namely, (i) Primary 2001 – the share of the working age population (i.e. the population aged 15-64) in 2001 which had completed at least primary education; (ii) Secondary 2001 – the share of the working age population in 2001 which had completed at least secondary education; (iii) Higher 2001 – the share of the working age population in 2001 which had completed at least secondary education; (iii) Higher 2001 – the share of the working age population in 2001 which had completed at least higher secondary/intermediate pre-University/senior secondary education; and (iv) Grad 2001 – the share of the working age population in 2001 which held a University degree. Each of these indicators provide, arguably, a better measure of a district's stock of human capital than its literacy rate. Unfortunately, however, the Census data to allow for the construction of these indicators for 2011 had yet to be released at the time of preparation of the paper, which provides the rationale for selecting the literacy rate in 2011 as the preferred indicator for the EPI whose results are reported in the main text.

The EPI results were re-calculated for all possible permutations of the alternative indicators for market access and human capital. For completeness, results were also re-calculated using the literacy rate in 2001 (*lit 2001*) as the human capital indicator. Table A2 below reports estimated Pearson correlation co-efficients between the EPI results based on the different indicators. As can be seen, all of the results are extremely highly correlated (the lowest estimated correlation co-efficient is 0.932). This shows that the results reported in the main text are extremely robust to the choices of indicators for both the market access and human capital components.

Panel A									
			MA GDP						
	Lit 2011	Lit 2001	Primary 2001	Secondary 2001	Higher 2001	Grad 2001			
MA GDP	Lit 2011	1.000							
	Lit 2001	0.990	1.000						
	Primary 2001	0.988	0.988	1.000					
	Secondary 2001	0.978	0.976	0.992	1.000				
	Higher 2001	0.973	0.971	0.985	0.995	1.000			

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	Grad 2001	0.966	0.964	0.973	0.986	0.994	1.000
МА РОР	Lit 2011	0.990	0.977	0.978	0.971	0.970	0.966
	Lit 2001	0.983	0.990	0.981	0.972	0.971	0.966
	Primary 2001	0.978	0.975	0.990	0.986	0.983	0.974
	Secondary 2001	0.964	0.959	0.979	0.991	0.990	0.984
	Higher 2001	0.955	0.951	0.968	0.982	0.991	0.988
	Grad 2001	0.945	0.940	0.952	0.969	0.982	0.991
MA Class I	Lit 2011	0.986	0.977	0.973	0.962	0.960	0.952
	Lit 2001	0.974	0.986	0.972	0.959	0.958	0.948
	Primary 2001	0.973	0.975	0.986	0.977	0.973	0.959
	Secondary 2001	0.964	0.964	0.979	0.987	0.985	0.974
	Higher 2001	0.956	0.956	0.969	0.979	0.987	0.979
	Grad 2001	0.950	0.949	0.958	0.971	0.983	0.987

		МА РОР					
		Lit 2011	Lit 2001	Primary 2001	Secondary 2001	Higher 2001	Grad 2001
MA POP	Lit 2011	1.000					
	Lit 2001	0.989	1.000				
	Primary 2001	0.987	0.987	1.000			
	Secondary 2001	0.976	0.974	0.991	1.000		
	Higher 2001	0.971	0.969	0.984	0.995	1.000	
	Grad 2001	0.963	0.961	0.971	0.985	0.994	1.000
MA Class I	Lit 2011	0.978	0.971	0.965	0.950	0.944	0.932
	Lit 2001	0.963	0.978	0.961	0.944	0.939	0.926
	Primary 2001	0.965	0.970	0.978	0.966	0.958	0.940
	Secondary 2001	0.959	0.961	0.975	0.980	0.974	0.959
	Higher 2001	0.955	0.958	0.969	0.976	0.980	0.969
	Grad 2001	0.952	0.954	0.961	0.971	0.979	0.980

Panel C

		MA Class I							
	Lit 2011	Lit 2001	Primary 2001	Secondary 2001	Higher 2001	Grad 2001			
MA Class I	Lit 2011	1.000							
	Lit 2001	0.989	1.000						
	Primary 2001	0.987	0.987	1.000					
	Secondary 2001	0.976	0.974	0.991	1.000				
	Higher 2001	0.971	0.969	0.984	0.995	1.000			
	Grad 2001	0.963	0.961	0.971	0.985	0.994	1.000		

Annex 3: Composition of High and Low Potential Clusters

<u>Olerator</u>	
Cluster	Constituent districts
Southern Peninsula Cluster	 Alappuzha, Coimbatore, Cuddalore, Dindigul, Ernakulam, Erode, Idukki, Kanniyakumari, Karaikal, Karur, Kollam, Kottayam, Kozhikode, Madurai, Malappuram, Namakkal, Nilgiris, Palakkad, Pattanamtitta, Perambalur, Puducherry, Pudukkottai, Ramanathapuram, Salem, Sivaganga, Thanjavur, Theni, Thiruvananthapuram, Thiruvarur, Thoothukudi, Thrissur, Tiruchchirappalli, Tirunelveli Kattabo, Villupuram, Virudhunagar
Bangalore Cluster	Bangalore Rural, Bangalore Urban , Chennai , Chittoor, Dakshin Kannad , Hassan, Kancheepuram , Kannur , Kasaragod, Kodagu, Kolar, Mahe , Mysore, Thiruvallur , Tumkur, Vellore
West Coast Cluster	Ahmednagar, Belgaum, Bellary, Bharuch, Dadra and Nagar Haveli, Daman , Davanagere, Dharwad, Greater Mumbai , Jalgaon, Kolhapur, Nashik , Navsari, North Goa , Pune , Raigarh (Maharashtra), Ratnagiri, Sangli, Satara, Shimoga, Sindhudurg, Solapur, South Goa, Surat , Thane , Udupi, Uttar Kannand, Valsad
Hyderabad Cluster	Hyderabad, Rangareddi
Ahmadabad Cluster	Ahmadabad, Gandhinagar, Rajkot
North Central (Delhi) Cluster	Agra, Aligarh, Ambala , Amritsar, Baghpat, Bhiwani, Bulandshahr, Chandigarh , Delhi , Faridabad , Faridkot, Fatehgarh Sahib, Gautam Buddha Nagar, Ghaziabad , Gurgaon , Haridwar, Hathras, Hisar, Hoshiarpur, Jaipur, Jalandhar , Jhajjar, Jind, Kaithal, Kapurthala, Karnal, Kurukshetra, Ludhiana , Mahendragarh, Mathura, Meerut, Moga, Muzaffarnagar, Nawan Shehar, Panchkula , Panipat , Patiala, Rewari , Rohtak , Rupnagar, Saharanpur, Sangrur, Solan, Sonepat, Yamuna Nagar
Kolkata Cluster	Haora, Kolkata
Darjiling Cluster	Darjiling, East, Jalpaiguri
Imphal Cluster	East Imphal, West Imphal

Table A3.1: Constituent Districts of High Potential Clusters

* 'Very High' potential district in bold.

Cluster	Constituent districts
Southeast Central Cluster	Bastar, Bolangir, Boudh, Dantewada, Gajapati, Kalahandi, Kandhamal, Koraput, Malkangiri, Nabarangpur, Nuapada, Sonepur
Northeast Central Cluster	Bhabua, Bilaspur, Chatra, Dindori, Garhwa, Gumla, Jashpur, Kawardha, Latehar, Palamu, Sidhi, Simdega, Sonbhadra, Surguja
Nepal Border Cluster	Araria, Balrampur, Banka , Godda , Jamui, Katihar, Khagaria, Kishanganj, Madhepura, Madhubani, Maharajganj, North Sikkim , Pakur, Pashchim Champaran, Purba Champaran, Purnia, Saharsa, Samastipur, Sheohar, Shravasti , Siddharth Nagar, Sitamarhi, Supaul, West Sikkim
Bangladesh Border Cluster	Barpeta, Dhuburi, East Garo Hills, East Khasi Hills, Goalpara, Golaghat, Jaintia Hills, Karbi Anglong, Kokrajhar, Marigaon, North Cachar Hills, Ri-Bhoi, South Garo Hills , West Garo Hills, West Khasi Hills
Far East Cluster	Champhai, Chandel, Churachandpur, Hailakandi, Lawngtlai, Lunglei, Mamit, Mon, Phek, Saiha, Senapati, Tamenglong, Tuensang, Ukhrul
Kinnaur Cluster	Kinnaur, Lahul and Spiti, Rudra Prayag

Table A3.2: Constituent Districts of Low Potential Clusters

* 'Very Low' potential district in bold.

Annex 4: Regression Analysis of Relationship between Performance and Potential

This Annex reports the results of regressions which analyze, for a sample of 520 districts, the relationship between a district's performance, as measured by the natural log of its level of GDP per capita in 2005, and its potential, as measured by its EPI score. In particular, Table A4.1 reports the results from two regressions. The first regression corresponds to Figure 6 in the main text and shows that a district's EPI score is positively and significantly related to its level of GDP per capita at all conventional levels. However, from the fit of the regression, it is also clear that variations in EPI scores are unable to explain all of the observed variations in performance across districts, thereby indicating the existence of both "over-performing" and "under-performing" districts. For any given district *i*, the measure of "untapped" potential that is reported for the "very high" and "high" potential districts in Table 6 of the main text is constructed using the following equation:

$$untapped_i = \ln(\widehat{GDP} pc)_i - \ln(GDP pc)_i$$
 [A1]

i.e. as the difference between the fitted and actual observed natural log levels of GDP per capita.

The second regression, meanwhile, is identical to the first except that it has been extended to include state / Union Territory fixed effects. Including these fixed effects has little impact on the estimated slope of the relationship between a district's EPI score and its (ln) level of GDP per capita. The effect of a one point increase in a district's EPI score within states / Union Territories is, therefore, roughly the same as the effect between states. It will be observed, however, that the overall fit of the regression is much improved. This suggests that much of the explanation for why the districts in Table 6 of the main text exhibit untapped potential lies at the state level.

	8 1	1
Variable	Without state effects	With state effects
Constant	8.750***	9.184***
	(0.360)	(.107)
EPI	0.019***	0.0198***
	(.006)	(0.001)
R ²	0.240	0.752
Adj R ²	-	0.740
F (1, 23)	9.520	62.480
Prob > F	0.005	0.000
n	520	520

Table A4.1: Regression results for performance -v- potential

Notes: dependent variable is ln(2005 GDP per capita). Standard errors for the regression without state effects are clustered by state. F(1, 23) is the test statistic for an F-test of the joint significance of all explanatory variables with Prob > F being the corresponding p-value. Estimated co-efficients on the state fixed effects are not reported for reasons of brevity.

The results of the second regression can also be used to identify districts where "untapped" potential is predominantly due to local factors as opposed to factors at the state level. Table A4.2, in particular, reports the "very high" and "high" potential districts that are most constrained by local, as opposed to state-level, factors from fulfilling their potential. The measure of untapped potential arising from local factors is again constructed using equation [A1], except that the fitted values are taken from the second, as opposed to the first, regression.

			0					
District	State	Category	Population	Population	Urban	Literacy	GDP per	Poverty
				density (per	population	rate (%)	capita	rate
				km ²)	(%)			
Akola	Maharashtra	High	1,813,906	320	39.7	88.1	18870	26.6
Alappuzha	Kerala	Very high	2,127,789	1,504	54.1	95.7	27426	14.5
Amravati	Maharashtra	High	2,888,445	237	35.9	87.4	17868	69.3
Amritsar	Punjab	High	2,490.656	928	53.6	76.3	28568	30.0
Bokaro	Jharkhand	High	2,062,330	715	47.7	72.0	16142	17.1
Chennai	Tamil Nadu	Very high	4,646,732	26,553	100.0	90.2	33336	7.9
East Sikkim	Sikkim	High	283,583	297	43.2	83.9	25522	17.0
East Imphal	Manipur	Very high	456,113	643	40.3	82.0	15165	40.0
Gurdaspur	Punjab	High	2,298,323	647	28.5	80.0	24833	23.8
Haora	West Bengal	Very high	4,850,029	3,306	63.3	83.3	21443	24.4
Hoshiarpur	Punjab	High	1,586,625	469	21.2	84.6	27108	15.9
Hyderabad	Telangana	Very high	3,943,323	18,172	100	83.3	31473	7.7
Jalandhar	Punjab	Very high	2,193,590	836	53.2	82.5	32676	17.9
Jhajjar	Haryana	High	958,405	523	25.4	80.7	24316	14.6
Jind	Haryana	High	1,334,152	494	22.8	71.4	22888	22.7
Kolar	Karnataka	High	1,536,401	386	31.4	74.4	15771	6.7
Kollam	Kerala	Very high	2,635,375	1,061	45.1	94.1	26231	8.6
Kozhikode	Kerala	Very high	3,086,293	1,316	67.2	95.1	27400	30.9
Malappuram	Kerala	Very high	4,112,920	1,157	44.2	93.6	19473	25.9
Rangareddi	Telangana	Very high	5,296,741	707	70.3	75.9	25370	22.6
Rohtak	Haryana	Very high	1,061,204	608	42.0	80.2	25115	24.9
Rupnagar	Punjab	High	684,627	505	26.0	82.2	29080	9.7
Sonepat	Haryana	High	1,450,001	683	30.5	79.1	27131	8.8
South 24 Parganas	West Bengal	High	8,161,961	819	25.6	77.5	18335	39.5
Theni	Tamil Nadu	High	1,245,899	434	53.8	77.3	20136	13.1
Thrissur	Kerala	Very high	3,121,200	1,031	67.2	95.1	29527	8.5
Varanasi	Uttar Pradesh	High	3,676,841	2,395	43.4	75.6	10989	33.4

Table A4.2: High potential districts with greatest estimated untapped potential due to local factors

Note: table lists 'very high' and 'high' potential districts in which the estimated increase in GDP per capita that could be achieved through improving performance to the predicted level is greater than 10 percent. Data on population, population density, percent urban, and the literacy rate is from the Census of India, 2011. GDP per capita is measured in Indian rupees at 2000 constant prices, while the poverty rate is the share of the population living on less than \$1.25 a day, where the poverty line is measured in 2005 constant international prices using Purchasing Power Parity exchange rates.

State	District	Market	Economic	Percent	Human	Internal
		access	density	urban	Capital	connectivity
		VERY				
Chandigarh	Chandigarh	14	7	9	53	73
Daman and Diu	Daman	95	8	13	34	98
Delhi	Delhi	4	6	8	47	9
Goa	North Goa	297	65	42	24	17
Gujarat	Ahmadabad	91	89	12	60	58
	Surat	81	92	16	57	97
Haryana	Ambala	43	60	85	119	21
	Faridabad	6	23	17	120	341
	Gurgaon	11	18	24	68	40
	Panchkula	20	52	54	117	416
	Panipat	16	32	78	218	37
	Rewari	28	49	208	129	11
	Rohtak	13	101	94	139	14
Karnataka	Bangalore Urban	5	5	11	37	46
	Dakshin Kannad	142	63	75	30	81
Kerala	Alappuzha	58	14	55	8	8
	Ernakulam	22	9	26	7	10
	Kannur	110	33	33	9	194
	Kollam	54	25	81	12	26
	Kottayam	50	21	184	4	15
	Kozhikode	72	17	29	10	133
	Malappuram	70	36	86	13	84
	Thiruvananthapuram	52	12	57	15	19
	Thrissur	19	22	28	10	16
Maharashtra	Greater Mumbai	1	3	1	22	5
	Nagpur	67	85	25	31	147
	Nashik	17	110	93	109	94
	Pune	7	39	39	51	72
	Thane	3	16	19	74	65
Manipur	East Imphal	157	141	100	116	1
r	West Imphal	335	35	38	52	24
Puducherry	Mahe	87	77	1	3	79
,j	Puducherry	173	13	23	59	4
Punjab	Jalandhar	49	50	58	108	175
Ju~	Ludhiana	32	34	45	111	158
Tamil Nadu	Chennai	27	2	1	19	6
	Coimbatore	30	38	20	311	135
	Kancheepuram	34	43	35	75	305
	Kanniyakumari	131	19	14	17	27
	Madurai	39	42	40	91	125
	Thiruvallur	56	29	32	82	493
Telangana	Hyderabad	18	4	1	95	2
1 changana	Rangareddi	23	78	22	22	150
Uttar Pradesh	Ghaziabad	12	30	27	178	76
ottai i raucsii	Kanpur Nagar	90	10	31	153	70
	Lucknow	59	31	30	193	41
	LUCKIOW	59	51	50	195	41

Annex 5: EPI Classifications for All Districts

West Bengal	Haora	access	density	urban	Capital	
West Bengal					Capital	connectivity
		8	11	36	94	57
	Hugli	24	26	114	118	132
	Kolkata	9	1	1	48	3
	North 24 Parganas	29	27	49	80	497
		HIG				
Andhra Pradesh	Krishna	66	81	97	265	219
	West Godavari	84	79	279	248	167
Bihar	Patna	71	15	87	340	71
Dadra & Nagar Hav.	Dadra & Nagar Hav.	99	44	77	210	538
Goa	South Goa	337	123	34	38	12
Gujarat	Bharuch	124	104	141	122	89
	Gandhinagar	134	48	89	78	66
	Kheda	194	211	245	103	43
	Navsari	93	173	166	84	32
	Rajkot	183	205	48	130	123
	Vadodara	144	131	67	166	215
	Valsad	117	139	119	171	67
Haryana	Hisar	92	148	157	282	50
	Jhajjar	25	152	215	133	39
	Jind	61	160	243	323	29
	Karnal	35	100	170	247	36
	Kurukshetra	47	128	179	207	18
	Sonepat	15	84	168	161	35
	Yamuna Nagar	105	56	111	183	56
Himachal Pradesh	Solan	115	111	331	87	353
Jharkhand	Bokaro	179	132	74	306	190
	Dhanbad	133	37	47	251	186
	Purba Singhbhum	197	115	52	235	286
Karnataka	Bangalore Rural	2	153	204	184	292
	Dharwad	188	156	50	145	106
	Kolar	42	249	160	254	163
	Mysore	137	114	96	287	85
	Udupi	316	171	186	49	20
Kerala	Kasaragod	170	59	113	20	104
	Palakkad	51	53	231	25	294
	Pattanamtitta	136	64	456	5	78
Madhya Pradesh	Bhopal	229	55	15	138	140
in a and a second	Gwalior	221	213	37	203	227
	Indore	139	47	21	131	126
	Jabalpur	252	130	46	128	60
Maharashtra	Ahmednagar	60	248	287	164	90
Traniti upiti u	Akola	263	247	107	35	77
	Amravati	234	353	126	40	143
	Jalgaon	125	197	155	176	44
	Kolhapur	88	73	155	122	31
	Sangli	149	166	211	122	55
	Satara	149	100	315	98	63
	Solapur	98	225	152	200	45
	Wardha	254	320	152	43	86

State	District	Market	Economic	Percent	Human	Internal
		access	density	urban	Capital	connectivity
Odisha	Khordha	299	70	73	44	116
Puducherry	Karaikal	150	20	71	41	469
	Yanam	484	28	1	155	375
Punjab	Amritsar	107	74	120	208	87
	Fatehgarh Sahib	38	80	165	157	348
	Gurdaspur	198	108	185	147	100
	Hoshiarpur	101	145	267	71	107
	Kapurthala	78	103	136	162	498
	Nawan Shehar	62	83	281	152	347
	Patiala	55	88	102	238	99
	Rupnagar	41	93	207	112	181
Rajasthan	Jaipur	57	135	59	234	287
Ŭ	Kota	303	233	41	204	124
Sikkim	East Sikkim	480	242	7	25	131
Tamil Nadu	Cuddalore	138	67	143	180	134
	Dindigul	86	140	118	209	189
	Erode	69	113	61	291	506
	Karur	108	124	99	229	103
	Namakkal	26	69	101	248	381
	Nilgiris	143	144	44	63	243
	Salem	31	62	63	283	288
	Thanjavur	148	68	132	105	415
	Theni	140	147	56	103	413
	Thoothukudi	120	122	65	50	500
	Tiruchchirappalli	68	57	70	97	151
	Tirunelveli Kattabo	128	90	68	107	242
	Vellore	80	90 66	91	160	242
		53	54	64		
	Virudhunagar				140	432
Uttar Pradesh	Agra	82	76	79	318	25
	Baghpat	45	82	271	306	176
	Gautam Buddha Nag.	10	24	43	264	489
	Mathura	37	165	175	351	33
	Meerut	21	61	62	284	403
	Varanasi	168	46	88	229	161
Uttaranchal	Haridwar	112	71	117	269	310
West Bengal	Barddhaman	33	40	106	212	441
	Darjiling	340	107	110	154	23
	Nadia	77	45	197	245	379
	South 24 Parganas	40	41	209	189	417
		MED	-			
Andhra Pradesh	Anantapur	123	309	192	480	162
	Chittoor	114	245	176	320	280
	Cuddapah	226	372	140	413	145
	East Godavari	96	97	210	332	566
	Guntur	104	143	144	410	159
	Kurnool	166	363	190	527	235
	Nellore	213	280	178	382	311
	Prakasam	186	322	305	489	327
	Srikakulam	363	206	365	502	111

State	District	Market	Economic	Percent	Human	Internal
	Vishakhapatnam	access 106	density 87	urban 76	Capital 418	451
	Vizianagaram	367	203	273	540	130
Assam	Bongaigaon	429	305	411	362	268
Assam	Cachar	507	250	325	158	275
	Dibrugarh	512	207	323	364	298
	Goalpara	504	300	413	411	279
	Golaghat	538	386	493	190	257
	Jorhat	499	210	285	114	260
	Kamrup	499	282	492	232	200
	Karimganj	522	180	495	175	304
	Lakhimpur	531	380	504	196	22
	-	533	266	517	373	22
	Marigaon					
	Nagaon	509	276	419	295	248
	Nalbari	497	336	460	170	361
	North Cachar Hills	564	555	183	187	339
	Sibsagar	508	158	487	137	110
	Tinsukia	537	253	288	215	351
Bihar	Aurangabad	261	403	490	352	261
	Begusarai	326	120	311	270	173
	Bhagalpur	318	192	296	486	96
	Bhojpur	332	283	398	348	289
	Buxar	398	337	486	356	488
	Darbhanga	381	189	482	561	236
	Gaya	273	339	418	478	296
	Gopalganj	357	293	550	442	307
	Jehanabad	161	420	436	421	113
	Lakhisarai	328	379	399	496	262
	Munger	383	179	189	349	144
	Muzaffarpur	250	167	477	483	142
	Nalanda	191	272	367	462	119
	Nawada	256	393	481	530	128
	Purba Champaran	301	294	520	559	164
	Rohtas	270	324	390	472	300
	Saran	460	236	499	436	383
	Sheikhpura	315	341	344	473	233
	Siwan	394	259	563	367	481
	Vaishali	374	186	545	429	367
Chhattisgarh	Dhamtari	479	447	320	174	340
	Durg	190	239	116	163	213
	Janjgir-Champa	353	188	405	280	259
	Korba	272	159	121	295	483
	Koriya	485	515	162	343	476
	Mahasamund	331	473	446	331	74
	Raigarh	470	429	356	273	357
	Raipur	212	299	123	231	83
	Raj Nandgaon	225	470	330	217	438
Daman and Diu	Junagadh	543	86	147	2217	30
Gujarat	Amreli	434	303	212	259	122
Gujarat	Anand	206	138	169	344	62

State	District	Market	Economic	Percent	Human	Internal
		access	density	urban	Capital	connectivity
	Banas Kantha	352	351	416	444	241
	Bhavnagar	344	258	98	233	232
	Dahod	309	361	497	541	322
	Jamnagar	251	198	82	267	156
	Junagadh (Gujarat)	520	556	147	221	207
	Kachchh	200	455	137	76	474
	Mahesana	258	170	216	89	253
	Narmada	360	350	465	299	330
	Panch Mahals	257	269	403	332	177
	Patan	408	343	275	300	182
	Porbandar	496	209	72	224	212
	Sabar Kantha	236	311	383	223	302
	Surendranagar	259	334	188	304	185
	The Dangs	243	480	458	241	68
Haryana	Bhiwani	135	262	295	240	28
	Fatehabad	147	168	313	401	117
	Kaithal	76	185	256	374	47
	Mahendragarh	119	201	391	186	70
	Sirsa	156	215	228	385	387
Himachal Pradesh	Bilaspur	132	51	590	71	204
	Hamirpur	195	163	541	32	444
	Kangra	248	307	558	55	314
	Mandi	185	348	552	121	271
	Shimla	345	340	227	88	458
	Sirmaur	214	369	459	168	562
	Una	201	235	506	46	428
Jharkhand	Deoghar	372	217	337	451	364
Jhai Khanu	Dumka	260	391	543	518	112
	Giridih	296	371	508	486	400
	Hazaribag	230	261	369	361	356
	Jamtara	275	357	485	458	477
	Koderma	433	286	300	420	516
	Lohardaga	431	437	425	405	457
		431	389	444	405	466
	Palamu Ranchi	192	224	90	214	303
	Sahibganj	287	218	408	576	42
	Sanioganj Saraikela Kharsawan	268	218	229	404	183
V t - l	Bagalkot	266	313	158	385	139
Karnataka	0					
	Belgaum	154	243	217	268	155
	Bellary	178	195	124	408	129
	Bidar	291	367	223	346	95
	Chamrajnagar	205	426	341	510	513
	Chikmagalur	292	338	270	159	319
	Chitradurga	169	398	298	266	166
	Davanagere	215	237	153	226	205
	Gadag	294	358	127	243	514
	Gulbarga	232	397	151	451	266
	Hassan	162	296	265	213	91
	Haveri	219	279	253	191	440

State	District	Market	Economic density	Percent urban	Human Capital	Internal connectivity
	Kodagu	access 184	267	388	Capital 106	254
	Koppal	237	319	353	397	239
	Mandya	218	220	347	350	276
	Raichur	338	413	218	530	54
	Shimoga	329	290	129	135	390
	Tumkur	65	323	251	242	240
	Uttar Kannand	327	427	177	80	49
Kerala	Idukki	64	154	571	16	121
KCI ala	Wayanad	140	98	578	27	431
Madhya Pradesh	Anuppur	469	304	200	403	148
Maunya Frauesh	Ashoknagar	437	479	326	432	174
	Balaghat	437	479	320 392	432	320
		359	500	392	382	473
	Betul Bhind					
	Bhind	323	442	214	239	388
	Burhanpur	362	424	138	465	301
	Chhatarpur	411	506	247	477	346
	Chhindwara	330	460	230	326	368
	Damoh	452	514	293	363	479
	Datia	341	435	240	290	221
	Dewas	307	466	180	369	414
	Dhar	308	450	317	538	228
	East Nimar	370	439	294	433	539
	Guna	325	432	220	237	293
	Harda	456	501	274	294	521
	Hoshangabad	417	436	159	484	244
	Katni	320	453	282	308	193
	Mandsaur	443	405	277	312	178
	Morena	202	423	233	330	251
	Narsinghpur	396	467	322	227	255
	Neemuch	397	451	174	338	53
	Raisen	409	521	244	281	343
	Rajgarh	351	476	327	516	284
	Ratlam	385	342	171	422	214
	Rewa	278	418	354	315	308
	Sagar	355	472	173	205	229
	Satna	380	419	262	301	299
	Sehore	376	495	316	359	398
	Seoni	420	528	437	305	323
	Shahdol	441	444	278	426	408
	Shajapur	342	459	308	377	502
	Shivpuri	336	533	345	495	138
	Tikamgarh	412	477	338	510	273
	Ujjain	280	292	109	297	464
	Umaria	468	526	340	438	141
	Vidisha	382	490	237	345	154
	West Nimar	382	490	366	493	434
Mohoneshtur	Aurangabad	293	483 541	490	352	88
Maharashtra		172	271	490 306	86	93
	Bhandara Bid	222	387	306 291	201	38

State	District	Market	Economic	Percent	Human	Internal
		access	density	urban	Capital	connectivity
	Buldana	276	388	264	93	61
	Chandrapur	247	284	134	143	188
	Dhule	196	315	195	286	75
	Gondiya	199	321	348	65	382
	Hingoli	366	416	377	177	165
	Jalna	391	408	310	321	209
	Latur	265	312	213	194	80
	Nanded	269	327	202	236	211
	Nandurbar	274	356	355	464	192
	Osmanabad	203	402	350	172	48
	Parbhani	324	347	163	271	169
	Raigarh	36	410	356	273	13
	(Maharashtra)					
	Ratnagiri	182	277	362	113	34
	Sindhudurg	235	306	423	56	82
	Washim	386	438	332	95	64
	Yavatmal	277	404	259	100	234
Manipur	Bishnupur	541	178	122	261	565
-	Thoubal	554	177	131	252	220
Mizoram	Aizawl	563	456	18	2	507
	Kolasib	549	553	51	14	270
	Lunglei	582	568	104	28	496
	Serchhip	578	557	69	1	424
Nagaland	Dimapur	540	162	60	67	127
0	Kohima	555	464	80	62	545
	Mokokchung	553	461	181	18	407
	Phek	569	509	380	179	245
	Wokha	551	499	272	36	439
	Zunheboto	558	496	304	61	329
Odisha	Angul	306	176	364	188	413
	Baleshwar	314	212	457	151	412
	Baragarh	442	445	474	250	230
	Bhadrak	392	251	429	101	349
	Cuttack	298	125	194	58	486
	Deogarh	426	536	379	292	374
	Dhenkanal	407	400	478	169	540
	Ganjam	384	298	258	329	315
	Jagatsinghpur	446	102	472	45	217
	Jajpur	310	183	530	141	453
	Jharsuguda	448	196	105	167	550
	Keonjhar	347	378	402	393	406
	Puri	457	255	370	69	523
	Rayagada	494	498	374	136	337
	Sambalpur	395	448	172	211	360
	Sundargarh	415	365	130	271	425
Punjab	Bathinda	130	161	125	392	352
1 unjao	Faridkot	113	134	123	366	146
	Firozpur	158	175	201	381	92
	Mansa	160	199	263	499	355
	Moga	111	105	249	340	108

State	District	Market	Economic	Percent	Human	Internal
	Muktsar	access 121	density 200	urban 193	Capital 440	connectivity 231
	Sangrur	73	119	161	399	297
Rajasthan	Ajmer	246	325	101	371	136
Najastilan	Alwar	97	221	328	339	277
	Baran	364	428	276	428	184
	Bharatpur	116	291	307	357	396
	Bhilwara	267	344	261	513	465
	Bikaner	440	544	142	448	532
	Bundi	346	414	289	507	263
	Chittaurgarh	313	433	414	504	196
	Churu	379	545	191	423	409
	Dausa	152	343	426	423 396	102
	Dhaulpur	180	370	280	378	197
	Ganganagar	425	431	203	365	472
	Hanumangarh	401	430	301	416	544
	Jhalawar	378	407	363	508	187
	Jhunjhunun	245	345	242	261	430
	Jodhpur	390	481	139	437	366
	Karauli	312	421	382	435	378
	Nagaur	343	492	312	491	274
	Pali	406	462	248	497	332
	Rajsamand	369	377	368	486	152
	Sawai Madhopur	414	394	290	443	420
	Sikar	211	364	235	310	226
	Sirohi	458	417	284	563	278
	Tonk	302	454	252	506	168
	Udaipur	289	373	292	500	422
Sikkim	South Sikkim	472	362	395	125	51
Tamil Nadu	Ariyalur	176	99	454	324	515
	Dharmapuri	103	374	336	388	501
	Nagapattinam	242	75	250	90	564
	Perambalur	102	142	342	258	272
	Pudukkottai	167	133	309	198	509
	Ramanathapuram	238	190	154	149	512
	Sivaganga	233	202	164	132	363
	Thiruvarur	209	150	283	99	391
	Tiruvannamalai	129	204	286	260	508
	Villupuram	127	194	386	83	258
Telangana	Adilabad	279	422	198	519	468
- Chungundu	Karimnagar	171	231	206	467	335
	Khammam	208	318	236	453	269
	Mahbubnagar	145	401	381	564	321
	Medak	145	169	232	512	202
	Nalgonda	146	302	314	466	179
	Nizamabad	204	295	241	515	218
	Warangal	204	316	187	449	373
Tuinung	Warangai Dhalai	527	415	463	54	504
Tripura		527	355	403 335	34 39	478
	North Tripura South Tripura	535	355 346	335 401	39 70	238

State	District	Market access	Economic density	Percent urban	Human Capital	Internal connectivity
	West Tripura	528	184	108	29	372
Uttar Pradesh	Aligarh	63	136	146	407	370
	Allahabad	165	121	226	298	344
	Ambedkar Nagar	283	238	442	302	290
	Auraiya	311	301	349	165	291
	Azamgarh	253	228	507	335	326
	Badaun	159	252	334	390	338
	Ballia	416	257	489	334	534
	Banda	368	411	375	426	225
	Bara Banki	141	229	473	501	309
	Bareilly	126	118	135	545	210
	Basti	282	268	559	415	157
	Bijnor	118	151	221	577	350
	Bulandshahr	46	94	225	384	410
	Chandauli	262	230	424	322	456
	Deoria	356	246	471	327	249
	Etah	164	241	376	337	510
	Etawah	231	216	239	173	450
	Faizabad	217	187	407	387	171
	Farrukhabad	249	208	255	379	216
	Fatehpur	249	333	430	408	429
	Firozabad	151	172	145	309	394
			244			394
	Ghazipur	264 224		526	312	
	Gorakhpur		127	318	336	115
	Hamirpur	388	443	541	32	404
	Hardoi	189	317	417	459	369
	Hathras	89	109	260	380	52
	Jalaun -	284	360	222	288	285
	Jaunpur	175	254	529	319	114
	Jhansi	300	270	95	244	109
	Jyotiba Phule Nagar	44	149	224	474	443
	Kannauj	255	222	351	142	137
	Kanpur Dehat	295	409	484	224	505
	Kaushambi	290	263	521	514	256
	Kushinagar	350	226	570	446	282
	Lalitpur	427	489	394	481	402
	Mahoba	404	382	266	445	265
	Mainpuri	241	281	373	470	460
	Mau	244	181	246	277	306
	Mirzapur	305	368	406	390	426
	Moradabad	74	91	149	554	120
	Muzaffarnagar	48	106	182	376	267
	Pilibhit	319	297	333	509	530
	Pratapgarh	288	330	562	358	224
	Rae Bareli	193	308	496	414	252
	Rampur	79	164	219	570	419
	Saharanpur	94	112	167	347	376
	Sant Kabir Nagar	227	223	528	425	475
	Sant Ravi Das Nagar	216	95	385	317	153

State	District	Market access	Economic density	Percent urban	Human Capital	Internal connectivity
	Shahjahanpur	240	285	302	532	313
	Sitapur	207	275	438	517	345
	Sultanpur	187	256	564	372	334
	Unnao	85	265	343	434	118
Uttaranchal	Almora	413	399	475	134	247
	Champawat	483	484	384	150	411
	Dehra Dun	210	155	587	77	312
	Naini Tal	228	352	112	84	487
	Pauri Garhwal	304	449	359	115	384
	Tehri Garhwal	393	468	449	206	449
	Udham Singh Nagar	155	191	128	276	199
West Pongel	Bankura	133	191	509	355	389
West Bengal	Birbhum	163	182	421	340	393
				421		
	Dakshin Dinajpur	371	116		285 42	59
	East Midnapore	153	129	445		447
	Jalpaiguri	220	137	205	275	105
West Bengal	Kochbihar	281	117	470	246	237
	Maldah	177	72	410	503	395
	Murshidabad	83	58	297	430	69
	Puruliya	174	234	422	461	437
	Uttar Dinajpur	333	157	433	537	149
	West Midnapore	75	146	434	182	452
		LO				
Assam	Barpeta	465	349	505	475	520
	Darrang	526	425	554	489	359
	Dhemaji	552	469	538	288	436
	Dhuburi	478	335	468	546	208
	Hailakandi	518	260	532	257	548
	Karbi Anglong	534	543	439	398	490
	Kokrajhar	455	359	553	447	435
	Sonitpur	523	384	503	412	317
Bihar	Araria	462	392	556	568	386
	Bhabua	377	487	577	370	503
	Jamui	365	475	514	529	362
	Katihar	432	288	501	573	494
	Khagaria	361	287	566	548	392
	Kishanganj	491	383	483	562	328
	Madhepura	403	328	574	572	170
	Madhubani	424	219	580	544	461
	Pashchim Champaran	461	396	462	560	485
	Purnia	358	332	466	578	223
	Saharsa	405	264	515	571	518
	Samastipur	317	227	583	498	201
	Sheohar	339	406	575	567	333
	Sitamarhi	428	278	561	575	264
	Supaul	449	366	569	549	401
	Bilaspur	402	376	590	71	295
Chhattisgarh						
Chhattisgarh	Jashpur	488	520	500	401	385

State	District	Market	Economic	Percent	Human	Internal
		access	density	urban	Capital	connectivity
	Kawardha	474	532	464	520	354
	Surguja	447	529	467	525	470
Himachal Pradesh	Chamba	529	542	540	303	533
	Kullu	519	510	488	156	558
Jharkhand	Chatra	354	488	555	523	525
	Garhwa	445	483	565	522	455
	Gumla	444	494	547	441	495
	Latehar	451	523	537	533	463
	Pakur	373	214	527	584	484
	Pashchim Singhbhum	419	434	389	543	511
	Simdega	453	517	535	399	492
Karnataka	Bijapur	285	446	447	591	101
Madhya Pradesh	Barwani	322	505	387	583	200
	Dindori	487	566	573	471	172
	Mandla	466	535	427	419	377
	Panna	454	539	428	454	421
	Sheopur	421	561	371	550	198
	Sidhi	410	395	512	462	517
Maharashtra	Garhchiroli	476	551	455	255	448
Manipur	Senapati	536	548	586	101	445
	Tamenglong	544	575	452	360	454
	Ukhrul	572	571	396	126	552
Meghalaya	East Garo Hills	545	547	404	263	557
,	East Khasi Hills	524	240	84	79	576
	Jaintia Hills	530	504	533	505	433
	Ri-Bhoi	492	534	479	228	524
	West Garo Hills	546	478	443	406	519
Nagaland	Tuensang	565	519	319	279	480
Odisha	Bolangir	477	440	435	455	442
	Boudh	489	522	572	316	528
	Gajapati	505	508	431	569	318
	Kalahandi	482	486	522	536	336
	Kandhamal	495	530	476	468	342
	Kendrapara	463	274	557	64	574
	Koraput	475	412	360	582	191
	Mayurbhanj	389	465	524	485	499
	Nayagarh	471	474	511	579	462
	Nuapada	481	518	560	253	283
	Sonepur	467	457	525	586	380
Rajasthan	Banswara	430	381	544	557	160
Kajastnan	Dungarpur	399	375	549	534	418
	Jalor	473	503	510	565	324
Sikkim	West Sikkim	501	513	579	192	549
Uttar Pradesh	Bahraich	375	331	513	581	541
ottal i laucsii	Balrampur	422	390	523	580	246
	Chitrakoot	435	502	480	450	331
	Gonda	286	310	546	542	325
	Lakhimpur Kheri	321	310	448	521	542
	Maharajganj	459	329	567	492	203
	wanarajganj	439	514	507	492	205

State	District	Market access	Economic density	Percent urban	Human Capital	Internal connectivity
	Siddharth Nagar	418	385	551	535	365
	Sonbhadra	348	273	352	216	578
Uttaranchal	Bageshwar	502	537	582	143	491
	Chamoli	513	559	378	103	555
	Pithoragarh	525	552	397	110	546
	Uttarkashi	490	576	531	220	527
		VERY	LOW			
Bihar	Banka	387	441	581	547	537
Chhattisgarh	Bastar	503	546	412	566	536
	Dantewada	511	567	432	590	570
Himachal Pradesh	Kinnaur	517	574	588	145	531
	Lahul and Spiti	547	589	588	202	591
Jharkhand	Godda	400	326	568	556	561
Madhya Pradesh	Jhabua	423	507	498	589	471
Manipur	Chandel	567	570	441	328	543
	Churachandpur	570	564	548	219	582
Meghalaya	South Garo Hills	568	527	494	314	571
	West Khasi Hills	556	569	453	185	583
Mizoram	Champhai	580	573	115	6	579
	Lawngtlai	586	563	329	439	573
	Mamit	573	577	339	66	577
	Saiha	587	565	83	21	572
Nagaland	Mon	562	512	409	553	529
Odisha	Malkangiri	510	550	518	551	568
	Nabarangpur	514	493	534	588	553
Rajasthan	Barmer	498	560	539	555	482
	Jaisalmer	561	586	415	552	551
Sikkim	North Sikkim	560	587	461	181	581
Uttar Pradesh	Shravasti	450	516	584	587	405
Uttaranchal	Rudra Prayag	500	471	576	127	569

Annex 6: Urban Settlements in 'Very High' Potential Districts

This annex presents the following three tables:

- (i) Table A6.1: List of Urban Settlements by State (including Census Towns)
- (ii) Table A6.2: List of Urban Settlements by Type(including Census Towns)
- (iii) Table A6.3: List of Urban Settlements by Population (including Census Towns)

State	District	UAName	Туре	Population
Chandigarh	Chandigarh	Chandigarh	Municipal Corp.	961587
Daman and Diu	Daman	Dadhel	Census Town	52578
Delhi	Delhi	DMC	Municipal Corp.	11034555
Delhi	Delhi	N.D.M.C.	Muncipal Council	257803
Delhi	Delhi	Delhi Cantt	Cantonment Board	110351
Delhi	Delhi	Sahibabad Daulat Pur	Census Town	54773
Delhi	Delhi	Bawana	Census Town	73680
Delhi	Delhi	Kirari Suleman Nagar	Census Town	283211
Delhi	Delhi	Nithari	Census Town	50464
Delhi	Delhi	Begum Pur	Census Town	53682
Delhi	Delhi	Pooth Kalan	Census Town	96002
Delhi	Delhi	Sultan Pur Majra	Census Town	181554
Delhi	Delhi	Bhalswa Jahangir Pur	Census Town	197148
Delhi	Delhi	Mukand Pur	Census Town	57135
Delhi	Delhi	Burari	Census Town	146190
Delhi	Delhi	Sadat Pur Gujran	Census Town	97641
Delhi	Delhi	Karawal Nagar	Census Town	224281
Delhi	Delhi	Mustafabad	Census Town	127167
Delhi	Delhi	Khajoori Khas	Census Town	76640
Delhi	Delhi	Ziauddin Pur	Census Town	68993
Delhi	Delhi	GokalPur	Census Town	121870
Delhi	Delhi	Jaffrabad	Census Town	54601
Delhi	Delhi	Mandoli	Census Town	120417
Delhi	Delhi	Gharoli	Census Town	92540
Delhi	Delhi	DalloPura	Census Town	154791
Delhi	Delhi	Chilla Saroda Bangar	Census Town	83217
Delhi	Delhi	Hastsal	Census Town	176877
Delhi	Delhi	Bapraula	Census Town	52744
Delhi	Delhi	NangloiJat	Census Town	205596
Delhi	Delhi	Mundka	Census Town	54541
Delhi	Delhi	Roshan Puraalias Dichaon Khurd	Census Town	57217
Delhi	Delhi	Kapas Hera	Census Town	74073
Delhi	Delhi	Deoli	Census Town	169122

State	District	UAName	Туре	Population
Delhi	Delhi	Pul Pehlad	Census Town	69657
Delhi	Delhi	TajPul	Census Town	68796
Delhi	Delhi	Mithe Pur	Census Town	69837
Delhi	Delhi	Molar Band	Census Town	91402
Delhi	Delhi	Jait Pur	Census Town	59330
Goa	North Goa	Panaji	Municipal Corp.	70991
Gujarat	Ahmadabad	Ahmadabad	Municipal Corp.	5577940
Gujarat	Ahmadabad	Viramgam	Municipality	55821
Gujarat	Ahmadabad	Dholka	Municipality	79531
Gujarat	Surat	Surat	Municipal Corp.	4467797
Gujarat	Surat	Bardoli	Municipality	60821
Haryana	Gurgaon	Gurgaon	Municipal Corp.	876969
Haryana	Faridabad	Faridabad	Municipal Corp.	1414050
Haryana	Panipat	Panipat	Muncipal Council	294292
Haryana	Panipat	Panipat Taraf Makhdum Zadgan	Census Town	67998
Haryana	Rohtak	Rohtak	Muncipal Council	374292
Haryana	Ambala	Ambala Sadar	Muncipal Council	103093
Haryana	Ambala	Ambala Cantt.	Cantonment Board	55370
Haryana	Ambala	Ambala	Muncipal Council	195153
Haryana	Panchkula	Panchkula	Muncipal Council	211355
Haryana	Rewari	Rewari	Muncipal Council	143021
Karnataka	Bangalore Urban	Bangalore BMP	Municipal Corp.	8443675
Karnataka	Dakshin Kannad	Mangalore	Municipal Corp.	488968
Karnataka	Dakshin Kannad	Ullal	TMC	53773
Karnataka	Dakshin Kannad	Puttur	TMC	53061
Kerela	Ernakulam	Kochi	Municipal Corp.	602046
Kerela	Ernakulam	Kalamassery	Municipality	71038
Kerela	Ernakulam	Thrippunithura	Municipality	69390
Kerela	Ernakulam	Edathala	Census Town	77811
Kerela	Ernakulam	Vazhakkala	Census Town	51242
Kerela	Thrissur	Thrissur	Municipal Corp.	315957
Kerela	Thrissur	Kunnamkulam	Municipality	54071
Kerela	Alappuzha	Kayamkulam	Municipality	68634
Kerela	Alappuzha	Alappuzha	Municipality	174176
Kerela	Thiruvananthapuram	Thiruvananthapuram	Municipal Corp.	743691
Kerela	Thiruvananthapuram	Nedumangad	Municipality	60161
Kerela	Thiruvananthapuram	Neyyattinkara	Municipality	70850
Kerela	Thiruvananthapuram	Pallichal	Census Town	53861
Kerela	Kozhikode	Kozhikode	Municipal Corp.	431560
Kerela	Kozhikode	Vadakara	Municipality	75295
Kerela	Kozhikode	Quilandy	Municipality	73293

State	District	UAName	Туре	Population
Kerela	Kozhikode	Cheruvannur	Census Town	61614
Kerela	Kozhikode	Beypore	Census Town	69752
Kerela	Kollam	Kollam	Municipal Corp.	348657
Kerela	Kottayam	Kottayam	Municipality	55374
Kerela	Kannur	Kannur	Municipality	56823
Kerela	Kannur	Payyannur	Municipality	72111
Kerela	Kannur	Taliparamba	Municipality	72465
Kerela	Kannur	Thalassery	Municipality	92558
Kerela	Malappuram	Malappuram	Municipality	68127
Kerela	Malappuram	Manjeri	Municipality	97102
Kerela	Malappuram	Tirur	Municipality	56058
Kerela	Malappuram	Ponnani	Municipality	90491
Kerela	Malappuram	Moonniyur	Census Town	55535
Kerela	Malappuram	Tirurangadi	Census Town	56632
Kerela	Malappuram	Thennala	Census Town	56546
Maharashtra	Greater Mumbai	Greater Mumbai	Municipal Corp.	12442373
Maharashtra	Thane	Mira Bhayandar	Municipal Corp.	809378
Maharashtra	Thane	Thane	Municipal Corp.	1841488
Maharashtra	Thane	Navi Mumbai	Municipal Corp.	1120547
Maharashtra	Thane	Kalyan Dombivali	Municipal Corp.	1247327
Maharashtra	Thane	Ulhasnagar	Municipal Corp.	506098
Maharashtra	Thane	Ambarnath	Muncipal Council	253475
Maharashtra	Thane	Badlapur	Muncipal Council	174226
Maharashtra	Thane	Dahanu	Muncipal Council	50287
Maharashtra	Thane	Palghar	Muncipal Council	68930
Maharashtra	Thane	Vasai-Virar City	Municipal Corp.	1222390
Maharashtra	Thane	Bhiwandi	Municipal Corp.	709665
Maharashtra	Pune	Pune	Municipal Corp.	3124458
Maharashtra	Pune	Pune Cantt.	Cantonment Board	71781
Maharashtra	Pune	Kirkee Cantt.	Cantonment Board	78684
Maharashtra	Pune	Pimpri Chinchwad	Municipal Corp.	1727692
Maharashtra	Pune	Talegaon Dabhade	Muncipal Council	56435
Maharashtra	Pune	Lonavala	Muncipal Council	57698
Maharashtra	Pune	Baramati	Muncipal Council	54415
Maharashtra	Nagpur	Kamptee	Muncipal Council	86793
Maharashtra	Nagpur	Nagpur	Municipal Corp.	2405665
Maharashtra	Nagpur	Wadi	Census Town	54048
Maharashtra	Nagpur	Umred	Muncipal Council	53971
Maharashtra	Nashik	Malegaon	Municipal Corp.	471312
Maharashtra	Nashik	Manmad	Muncipal Council	80058
Maharashtra	Nashik	Nashik	Municipal Corp.	1486053
wianai asiiti a	INASIIIK	TASHIK	Municipal Corp.	1400033

State	District	UAName	Туре	Population
Maharashtra	Nashik	Sinnar	Muncipal Council	65299
Maharashtra	Nashik	Ozar	Census Town	51297
Manipur	West Imphal	Imphal	Muncipal Council	282335
Manipur	East Imphal	Porompat Plan Area	Urban Outgrowth	1145
Manipur	East Imphal	Kongkham Leikai	Urban Outgrowth	887
Manipur	East Imphal	Porompat	Census Town	6191
Manipur	East Imphal	Torban	Census Town	5459
Manipur	East Imphal	Luwangsangbam	Census Town	3458
Manipur	East Imphal	Khongman	Census Town	6096
Manipur	East Imphal	Laipham Siphai	Census Town	5268
Manipur	East Imphal	Khurai Sajor Leikai	Census Town	7987
Manipur	East Imphal	Chingangbam Leikai	Census Town	4904
Manipur	East Imphal	Kshetrigao	Census Town	10534
Manipur	East Imphal	Kiyamgei	Census Town	5336
Manipur	East Imphal	Jiribam	Muncipal Council	7343
Manipur	East Imphal	Lamlai	Nagar Panchayat	4601
Manipur	East Imphal	Heingang	Census Town	6115
Manipur	East Imphal	Lairikyengbam Leikai	Census Town	4586
Manipur	East Imphal	Thongju	Census Town	10836
Manipur	East Imphal	Andro	Nagar Panchayat	8744
Puducherry	Mahe	Mahe	Municipality	41816
Puducherry	Puducherry	Puducherry	Municipality	244377
Puducherry	Puducherry	Ozhukarai	Municipality	300104
Punjab	Ludhiana	Khanna	Muncipal Council	128137
Punjab	Ludhiana	Ludhiana	Municipal Corp.	1618879
Punjab	Ludhiana	Jagraon	Muncipal Council	65240
Punjab	Jalandhar	Jalandhar	Municipal Corp.	862886
Tamil Nadu	Chennai	Chennai	Municipal Corp.	4646732
Tamil Nadu	Kanyakumari	Nagercoil	Municipality	224849
Tamil Nadu	Madurai	Madurai	Municipal Corp.	1017865
Tamil Nadu	Madurai	Anaiyur	Municipality	63917
Tamil Nadu	Madurai	Avaniapuram	Municipality	89635
Tamil Nadu	Madurai	Thirumangalam	Municipality	51194
Tamil Nadu	Kancheepuram	Kundrathur	Town Parishad	54986
Tamil Nadu	Kancheepuram	Pammal	Municipality	75870
Tamil Nadu	Kancheepuram	Alandur	Municipality	164430
Tamil Nadu	Kancheepuram	Puzhithivakkam	Municipality	53322
Tamil Nadu	Kancheepuram	Oggiyamduraipakkam	Census Town	76600
Tamil Nadu	Kancheepuram	Pallavaram	Municipality	215417
Tamil Nadu	Kancheepuram	Tambaram	Municipality	174787
Tamil Nadu	Kancheepuram	Maraimalainagar	Municipality	81872
Tamil Nadu	Kancheepuram	Chengalpattu	Municipality	62579

State	District	UAName	Туре	Population
Tamil Nadu	Kancheepuram	Kancheepuram	Municipality	164384
Tamil Nadu	Thiruvallur	Avadi	Municipality	345996
Tamil Nadu	Thiruvallur	Tiruverkadu	Municipality	62824
Tamil Nadu	Thiruvallur	Poonamallee	Municipality	57224
Tamil Nadu	Thiruvallur	Tiruvottiyur	Municipality	249446
Tamil Nadu	Thiruvallur	Madavaram	Municipality	119105
Tamil Nadu	Thiruvallur	Ambattur	Municipality	466205
Tamil Nadu	Thiruvallur	Nerkunram	Census Town	59790
Tamil Nadu	Thiruvallur	Maduravoyal	Municipality	86195
Tamil Nadu	Thiruvallur	Ramapuram	Census Town	52295
Tamil Nadu	Thiruvallur	Thiruvallur	Municipality	56074
Tamil Nadu	Coimbatore	Coimbatore	Municipal Corp.	1050721
Tamil Nadu	Coimbatore	Goundampalayam	Municipality	83908
Tamil Nadu	Coimbatore	Kuniyamuthur	Municipality	95924
Tamil Nadu	Coimbatore	Kurichi	Municipality	123667
Tamil Nadu	Coimbatore	Pollachi	Municipality	90180
Tamil Nadu	Coimbatore	Mettupalayam	Municipality	69213
Tamil Nadu	Coimbatore	Valparai	Municipality	70859
Telangana	Hyderabad	Secunderabad	Cantonment Board	217910
Telangana	Rangareddi	Vicarabad	Municipality	53143
Telangana	Rangareddi	Tandur	Municipality	65115
Uttar Pradesh	Kanpur Nagar	Kanpur	Municipal Corp.	2765348
Uttar Pradesh	Kanpur Nagar	Kanpur	Cantonment Board	108534
Uttar Pradesh	Ghaziabad	Modinagar	Nagar Panchayat	130325
Uttar Pradesh	Ghaziabad	Muradnagar	Nagar Panchayat	95208
Uttar Pradesh	Ghaziabad	Ghaziabad	Municipal Corp.	1648643
Uttar Pradesh	Ghaziabad	Loni	Nagar Panchayat	516082
Uttar Pradesh	Ghaziabad	Khora	Census Town	190005
Uttar Pradesh	Ghaziabad	Pilkhuwa	Nagar Panchayat	83736
Uttar Pradesh	Ghaziabad	Hapur	Nagar Panchayat	262983
Uttar Pradesh	Lucknow	Lucknow	Municipal Corp.	2817105
Uttar Pradesh	Lucknow	Lucknow Cantonment	Cantonment Board	63003
West Bengal	Kolkata	Kolkata	Municipal Corp.	4496694
West Bengal	Haora	Bally	Municipality	293373
West Bengal	Haora	Bally	Census Town	113377
West Bengal	Haora	Haora	Municipal Corp.	1077075
West Bengal	Haora	Bankra	Census Town	63957
West Bengal	Haora	Uluberia	Municipality	222240
West Bengal	Hugli	Bansberia	Municipality	103920
West Bengal	Hugli	Hugli-Chinsurah	Municipality	177259
West Bengal	Hugli	Bhadreswar	Municipality	101477
West Bengal	Hugli	Champdani	Municipality	111251

State	District	UAName	Туре	Populatior
West Bengal	Hugli	Chandannagar	Municipal Corp.	166867
West Bengal	Hugli	Baidyabati	Municipality	121110
West Bengal	Hugli	Serampore	Municipality	181842
West Bengal	Hugli	Rishra	Municipality	12457
West Bengal	Hugli	Konnagar	Municipality	76172
West Bengal	Hugli	Uttarpara Kotrung	Municipality	15914
West Bengal	Hugli	Dankuni	Municipality	9493
West Bengal	Hugli	Arambag	Municipality	6617
West Bengal	North 24 Parganas	Rajarhat Gopalpur	Municipality	40284
West Bengal	North 24 Parganas	Barasat	Municipality	27843
West Bengal	North 24 Parganas	Madhyamgram	Municipality	19612
West Bengal	North 24 Parganas	Kanchrapara	Municipality	12034
West Bengal	North 24 Parganas	Halisahar	Municipality	12493
West Bengal	North 24 Parganas	Naihati	Municipality	21790
West Bengal	North 24 Parganas	Bhatpara	Municipality	38376
West Bengal	North 24 Parganas	Garulia	Municipality	8533
West Bengal	North 24 Parganas	North Barrackpur	Municipality	13280
West Bengal	North 24 Parganas	Barrackpur	Municipality	15278
West Bengal	North 24 Parganas	Titagarh	Municipality	11654
West Bengal	North 24 Parganas	Khardaha	Municipality	10849
West Bengal	North 24 Parganas	Panihati	Municipality	37734
West Bengal	North 24 Parganas	New Barrackpur	Municipality	7684
West Bengal	North 24 Parganas	Kamarhati	Municipality	33021
West Bengal	North 24 Parganas	Baranagar	Municipality	24521
West Bengal	North 24 Parganas	South Dum Dum	Municipality	40331
West Bengal	North 24 Parganas	North Dum Dum	Municipality	24914
West Bengal	North 24 Parganas	Dum Dum	Municipality	11478
West Bengal	North 24 Parganas	Bidhan Nagar	Municipality	21551
West Bengal	North 24 Parganas	Habra	Municipality	14722
West Bengal	North 24 Parganas	Ashoknagar Kalyangarh	Municipality	12159
West Bengal	North 24 Parganas	Basirhat	Municipality	12525
West Bengal	North 24 Parganas	Bongaon	Municipality	10886
West Bengal	North 24 Parganas	Baduria	Municipality	5249

Table A6.2: List of Urban Settlements by Type (including Census Towns)

State	District	UAName	Туре	Population
Chandigarh	Chandigarh	Chandigarh	Municipal Corp.	961587
Delhi	Delhi	DMC	Municipal Corp.	11034555
Goa	North Goa	Panaji	Municipal Corp.	70991
Gujarat	Ahmadabad	Ahmadabad	Municipal Corp.	5577940
Gujarat	Surat	Surat	Municipal Corp.	4467797

State	District	UAName	Туре	Population
Haryana	Gurgaon	Gurgaon	Municipal Corp.	876969
Haryana	Faridabad	Faridabad	Municipal Corp.	1414050
Karnataka	Bangalore Urban	Bangalore BMP	Municipal Corp.	8443675
Karnataka	Dakshin Kannad	Mangalore	Municipal Corp.	488968
Kerela	Ernakulam	Kochi	Municipal Corp.	602046
Kerela	Thrissur	Thrissur	Municipal Corp.	315957
Kerela	Thiruvananthapuram	Thiruvananthapuram	Municipal Corp.	743691
Kerela	Kozhikode	Kozhikode	Municipal Corp.	431560
Kerela	Kollam	Kollam	Municipal Corp.	348657
Maharashtra	Greater Mumbai	Greater Mumbai	Municipal Corp.	12442373
Maharashtra	Thane	Mira Bhayandar	Municipal Corp.	809378
Maharashtra	Thane	Thane	Municipal Corp.	1841488
Maharashtra	Thane	Navi Mumbai	Municipal Corp.	1120547
Maharashtra	Thane	Kalyan Dombivali	Municipal Corp.	1247327
Maharashtra	Thane	Ulhasnagar	Municipal Corp.	506098
Maharashtra	Thane	Vasai-Virar City	Municipal Corp.	1222390
Maharashtra	Thane	Bhiwandi	Municipal Corp.	709665
Maharashtra	Pune	Pune	Municipal Corp.	3124458
Maharashtra	Pune	Pimpri Chinchwad	Municipal Corp.	1727692
Maharashtra	Nagpur	Nagpur	Municipal Corp.	2405665
Maharashtra	Nashik	Malegaon	Municipal Corp.	471312
Maharashtra	Nashik	Nashik	Municipal Corp.	1486053
Punjab	Ludhiana	Ludhiana	Municipal Corp.	1618879
Punjab	Jalandhar	Jalandhar	Municipal Corp.	862886
Tamil Nadu	Chennai	Chennai	Municipal Corp.	4646732
Tamil Nadu	Madurai	Madurai	Municipal Corp.	1017865
Tamil Nadu	Coimbatore	Coimbatore	Municipal Corp.	1050721
Uttar Pradesh	Kanpur Nagar	Kanpur	Municipal Corp.	2765348
Uttar Pradesh	Ghaziabad	Ghaziabad	Municipal Corp.	1648643
Uttar Pradesh	Lucknow	Lucknow	Municipal Corp.	2817105
West Bengal	Kolkata	Kolkata	Municipal Corp.	4496694
West Bengal	Haora	Haora	Municipal Corp.	1077075
West Bengal	Hugli	Chandannagar	Municipal Corp.	166867
Delhi	Delhi	N.D.M.C.	Muncipal Council	257803
Haryana	Panipat	Panipat	Muncipal Council	294292
Haryana	Rohtak	Rohtak	Muncipal Council	374292
Haryana	Ambala	Ambala Sadar	Muncipal Council	103093
Haryana	Ambala	Ambala	Muncipal Council	195153
Haryana	Panchkula	Panchkula	Muncipal Council	211355

State	District	UAName	Туре	Population
Haryana	Rewari	Rewari	Muncipal Council	143021
Maharashtra	Thane	Ambarnath	Muncipal Council	253475
Maharashtra	Thane	Badlapur	Muncipal Council	174226
Maharashtra	Thane	Dahanu	Muncipal Council	50287
Maharashtra	Thane	Palghar	Muncipal Council	68930
Maharashtra	Pune	Talegaon Dabhade	Muncipal Council	56435
Maharashtra	Pune	Lonavala	Muncipal Council	57698
Maharashtra	Pune	Baramati	Muncipal Council	54415
Maharashtra	Nagpur	Kamptee	Muncipal Council	86793
Maharashtra	Nagpur	Umred	Muncipal Council	53971
Maharashtra	Nashik	Manmad	Muncipal Council	80058
Maharashtra	Nashik	Sinnar	Muncipal Council	65299
Manipur	West Imphal	Imphal	Muncipal Council	282335
Manipur	East Imphal	Jiribam	Muncipal Council	7343
Punjab	Ludhiana	Khanna	Muncipal Council	128137
Punjab	Ludhiana	Jagraon	Muncipal Council	65240
Gujarat	Ahmadabad	Viramgam	Municipality	55821
Gujarat	Ahmadabad	Dholka	Municipality	79531
Gujarat	Surat	Bardoli	Municipality	60821
Kerela	Ernakulam	Kalamassery	Municipality	71038
Kerela	Ernakulam	Thrippunithura	Municipality	69390
Kerela	Thrissur	Kunnamkulam	Municipality	54071
Kerela	Alappuzha	Kayamkulam	Municipality	68634
Kerela	Alappuzha	Alappuzha	Municipality	174176
Kerela	Thiruvananthapuram	Nedumangad	Municipality	60161
Kerela	Thiruvananthapuram	Neyyattinkara	Municipality	70850
Kerela	Kozhikode	Vadakara	Municipality	75295
Kerela	Kozhikode	Quilandy	Municipality	71873
Kerela	Kottayam	Kottayam	Municipality	55374
Kerela	Kannur	Kannur	Municipality	56823
Kerela	Kannur	Payyannur	Municipality	72111
Kerela	Kannur	Taliparamba	Municipality	72465
Kerela	Kannur	Thalassery	Municipality	92558
Kerela	Malappuram	Malappuram	Municipality	68127
Kerela	Malappuram	Manjeri	Municipality	97102
Kerela	Malappuram	Tirur	Municipality	56058
Kerela	Malappuram	Ponnani	Municipality	90491
Puducherry	Mahe	Mahe	Municipality	41816
Puducherry	Puducherry	Puducherry	Municipality	244377

State	District	UAName	Туре	Population
Puducherry	Puducherry	Ozhukarai	Municipality	300104
Tamil Nadu	Kanyakumari	Nagercoil	Municipality	224849
Tamil Nadu	Madurai	Anaiyur	Municipality	63917
Tamil Nadu	Madurai	Avaniapuram	Municipality	89635
Tamil Nadu	Madurai	Thirumangalam	Municipality	51194
Tamil Nadu	Kancheepuram	Pammal	Municipality	75870
Tamil Nadu	Kancheepuram	Alandur	Municipality	164430
Tamil Nadu	Kancheepuram	Puzhithivakkam	Municipality	53322
Tamil Nadu	Kancheepuram	Pallavaram	Municipality	215417
Tamil Nadu	Kancheepuram	Tambaram	Municipality	174787
Tamil Nadu	Kancheepuram	Maraimalainagar	Municipality	81872
Tamil Nadu	Kancheepuram	Chengalpattu	Municipality	62579
Tamil Nadu	Kancheepuram	Kancheepuram	Municipality	164384
Tamil Nadu	Thiruvallur	Avadi	Municipality	345996
Tamil Nadu	Thiruvallur	Tiruverkadu	Municipality	62824
Tamil Nadu	Thiruvallur	Poonamallee	Municipality	57224
Tamil Nadu	Thiruvallur	Tiruvottiyur	Municipality	249446
Tamil Nadu	Thiruvallur	Madavaram	Municipality	119105
Tamil Nadu	Thiruvallur	Ambattur	Municipality	466205
Tamil Nadu	Thiruvallur	Maduravoyal	Municipality	86195
Tamil Nadu	Thiruvallur	Thiruvallur	Municipality	56074
Tamil Nadu	Coimbatore	Goundampalayam	Municipality	83908
Tamil Nadu	Coimbatore	Kuniyamuthur	Municipality	95924
Tamil Nadu	Coimbatore	Kurichi	Municipality	123667
Tamil Nadu	Coimbatore	Pollachi	Municipality	90180
Tamil Nadu	Coimbatore	Mettupalayam	Municipality	69213
Tamil Nadu	Coimbatore	Valparai	Municipality	70859
Telangana	Rangareddi	Vicarabad	Municipality	53143
Telangana	Rangareddi	Tandur	Municipality	65115
West Bengal	Haora	Bally	Municipality	293373
West Bengal	Haora	Uluberia	Municipality	222240
West Bengal	Hugli	Bansberia	Municipality	103920
West Bengal	Hugli	Hugli-Chinsurah	Municipality	177259
West Bengal	Hugli	Bhadreswar	Municipality	101477
West Bengal	Hugli	Champdani	Municipality	111251
West Bengal	Hugli	Baidyabati	Municipality	121110
West Bengal	Hugli	Serampore	Municipality	181842
West Bengal	Hugli	Rishra	Municipality	124577

State	District	UAName	Туре	Population
West Bengal	Hugli	Uttarpara Kotrung	Municipality	159147
West Bengal	Hugli	Dankuni	Municipality	94936
West Bengal	Hugli	Arambag	Municipality	66175
West Bengal	North 24 Parganas	Rajarhat Gopalpur	Municipality	402844
West Bengal	North 24 Parganas	Barasat	Municipality	278435
West Bengal	North 24 Parganas	Madhyamgram	Municipality	196127
West Bengal	North 24 Parganas	Kanchrapara	Municipality	120345
West Bengal	North 24 Parganas	Halisahar	Municipality	124939
West Bengal	North 24 Parganas	Naihati	Municipality	217900
West Bengal	North 24 Parganas	Bhatpara	Municipality	383762
West Bengal	North 24 Parganas	Garulia	Municipality	85336
West Bengal	North 24 Parganas	North Barrackpur	Municipality	132806
West Bengal	North 24 Parganas	Barrackpur	Municipality	152783
West Bengal	North 24 Parganas	Titagarh	Municipality	116541
West Bengal	North 24 Parganas	Khardaha	Municipality	108496
West Bengal	North 24 Parganas	Panihati	Municipality	377347
West Bengal	North 24 Parganas	New Barrackpur	Municipality	76846
West Bengal	North 24 Parganas	Kamarhati	Municipality	330211
West Bengal	North 24 Parganas	Baranagar	Municipality	245213
West Bengal	North 24 Parganas	South Dum Dum	Municipality	403316
West Bengal	North 24 Parganas	North Dum Dum	Municipality	249142
West Bengal	North 24 Parganas	Dum Dum	Municipality	114786
West Bengal	North 24 Parganas	Bidhan Nagar	Municipality	215514
West Bengal	North 24 Parganas	Habra	Municipality	147221
West Bengal	North 24 Parganas	Ashoknagar Kalyangarh	Municipality	121592
West Bengal	North 24 Parganas	Basirhat	Municipality	125254
West Bengal	North 24 Parganas	Bongaon	Municipality	108864
West Bengal	North 24 Parganas	Baduria	Municipality	52493
Tamil Nadu	Kancheepuram	Kundrathur	Town Parishad	54986
Karnataka	Dakshin Kannad	Ullal	TMC	53773
Karnataka	Dakshin Kannad	Puttur	TMC	53061
Manipur	East Imphal	Lamlai	Nagar Panchayat	4601
Manipur	East Imphal	Andro	Nagar Panchayat	8744
Uttar Pradesh	Ghaziabad	Modinagar	Nagar Panchayat	130325
Uttar Pradesh	Ghaziabad	Muradnagar	Nagar Panchayat	95208
Uttar Pradesh	Ghaziabad	Loni	Nagar Panchayat	516082
Uttar Pradesh	Ghaziabad	Pilkhuwa	Nagar Panchayat	83736
Uttar Pradesh	Ghaziabad	Hapur	Nagar Panchayat	262983
Delhi	Delhi	Delhi Cantt	Cantonment Board	110351

State	District	UAName	Туре	Population
Haryana	Ambala	Ambala Cantt.	Cantonment Board	55370
Maharashtra	Pune	Pune Cantt.	Cantonment Board	71781
Maharashtra	Pune	Kirkee Cantt.	Cantonment Board	78684
Maharashtra	Nashik	Deolali Cantt.	Cantonment Board	54027
Telangana	Hyderabad	Secunderabad	Cantonment Board	217910
Uttar Pradesh	Kanpur Nagar	Kanpur	Cantonment Board	108534
Uttar Pradesh	Lucknow	Lucknow Cantonment	Cantonment Board	63003
Manipur	East Imphal	Porompat Plan Area	Urban Outgrowth	1145
Manipur	East Imphal	Kongkham Leikai	Urban Outgrowth	887
Daman and Diu	Daman	Dadhel	Census Town	52578
Delhi	Delhi	Sahibabad Daulat Pur	Census Town	54773
Delhi	Delhi	Bawana	Census Town	73680
Delhi	Delhi	Kirari Suleman Nagar	Census Town	283211
Delhi	Delhi	Nithari	Census Town	50464
Delhi	Delhi	Begum Pur	Census Town	53682
Delhi	Delhi	Pooth Kalan	Census Town	96002
Delhi	Delhi	Sultan Pur Majra	Census Town	181554
Delhi	Delhi	Bhalswa Jahangir Pur	Census Town	197148
Delhi	Delhi	Mukand Pur	Census Town	57135
Delhi	Delhi	Burari	Census Town	146190
Delhi	Delhi	Sadat Pur Gujran	Census Town	97641
Delhi	Delhi	Karawal Nagar	Census Town	224281
Delhi	Delhi	Mustafabad	Census Town	127167
Delhi	Delhi	Khajoori Khas	Census Town	76640
Delhi	Delhi	Ziauddin Pur	Census Town	68993
Delhi	Delhi	GokalPur	Census Town	121870
Delhi	Delhi	Jaffrabad	Census Town	54601
Delhi	Delhi	Mandoli	Census Town	120417
Delhi	Delhi	Gharoli	Census Town	92540
Delhi	Delhi	DalloPura	Census Town	154791
Delhi	Delhi	Chilla Saroda Bangar	Census Town	83217
Delhi	Delhi	Hastsal	Census Town	176877
Delhi	Delhi	Bapraula	Census Town	52744
Delhi	Delhi	NangloiJat	Census Town	205596
Delhi	Delhi	Mundka	Census Town	54541
Delhi	Delhi	Roshan Puraalias Dichaon Khurd	Census Town	57217
Delhi	Delhi	Kapas Hera	Census Town	74073
Delhi	Delhi	Deoli	Census Town	169122

State	District	UAName	Туре	Population
Delhi	Delhi	Pul Pehlad	Census Town	69657
Delhi	Delhi	TajPul	Census Town	68796
Delhi	Delhi	Mithe Pur	Census Town	69837
Delhi	Delhi	Molar Band	Census Town	91402
Delhi	Delhi	Jait Pur	Census Town	59330
Haryana	Panipat	Panipat Taraf Makhdum Zadgan	Census Town	67998
Kerela	Ernakulam	Edathala	Census Town	77811
Kerela	Ernakulam	Vazhakkala	Census Town	51242
Kerela	Thiruvananthapuram	Pallichal	Census Town	53861
Kerela	Kozhikode	Cheruvannur	Census Town	61614
Kerela	Kozhikode	Beypore	Census Town	69752
Kerela	Malappuram	Moonniyur	Census Town	55535
Kerela	Malappuram	Tirurangadi	Census Town	56632
Kerela	Malappuram	Thennala	Census Town	56546
Maharashtra	Nagpur	Wadi	Census Town	54048
Maharashtra	Nashik	Ozar	Census Town	51297
Manipur	East Imphal	Porompat	Census Town	6191
Manipur	East Imphal	Torban	Census Town	5459
Manipur	East Imphal	Luwangsangbam	Census Town	3458
Manipur	East Imphal	Khongman	Census Town	6096
Manipur	East Imphal	Laipham Siphai	Census Town	5268
Manipur	East Imphal	Khurai Sajor Leikai	Census Town	7987
Manipur	East Imphal	Chingangbam Leikai	Census Town	4904
Manipur	East Imphal	Kshetrigao	Census Town	10534
Manipur	East Imphal	Kiyamgei	Census Town	5336
Manipur	East Imphal	Heingang	Census Town	6115
Manipur	East Imphal	Lairikyengbam Leikai	Census Town	4586
Manipur	East Imphal	Thongju	Census Town	10836
Tamil Nadu	Kancheepuram	Oggiyamduraipakkam	Census Town	76600
Tamil Nadu	Thiruvallur	Nerkunram	Census Town	59790
Tamil Nadu	Thiruvallur	Ramapuram	Census Town	52295
Uttar Pradesh	Ghaziabad	Khora	Census Town	190005
West Bengal	Haora	Bally	Census Town	113377
West Bengal	Haora	Bankra	Census Town	63957

	State	District	UAName	Туре	Total Population
	Maharashtra	Greater Mumbai	Greater Mumbai	Municipal Corp.	12442373
n	Delhi	Delhi	DMC	Municipal Corp.	11034555
illi	Karnataka	Bangalore Urban	Bangalore BMP	Municipal Corp.	8443675
Above 4 million	Gujarat	Ahmadabad	Ahmadabad	Municipal Corp.	5577940
ove	Tamil Nadu	Chennai	Chennai	Municipal Corp.	4646732
ЧÞ	West Bengal	Kolkata	Kolkata	Municipal Corp.	4496694
	Gujarat	Surat	Surat	Municipal Corp.	4467797
	Maharashtra	Pune	Pune	Municipal Corp.	3124458
	Uttar Pradesh	Lucknow	Lucknow	Municipal Corp.	2817105
	Uttar Pradesh	Kanpur Nagar	Kanpur	Municipal Corp.	2765348
	Maharashtra	Nagpur	Nagpur	Municipal Corp.	2405665
	Maharashtra	Thane	Thane	Municipal Corp.	1841488
ies)	Maharashtra	Pune	Pimpri Chinchwad	Municipal Corp.	1727692
1-4 million (16 cities)	Uttar Pradesh	Ghaziabad	Ghaziabad	Municipal Corp.	1648643
(16	Punjab	Ludhiana	Ludhiana	Municipal Corp.	1618879
lion	Maharashtra	Nashik	Nashik	Municipal Corp.	1486053
mil	Haryana	Faridabad	Faridabad	Municipal Corp.	1414050
1-4	Maharashtra	Thane	Kalyan Dombivali	Municipal Corp.	1247327
	Maharashtra	Thane	Vasai-Virar City	Municipal Corp.	1222390
	Maharashtra	Thane	Navi Mumbai	Municipal Corp.	1120547
	West Bengal	Haora	Haora	Municipal Corp.	1077075
	Tamil Nadu	Coimbatore	Coimbatore	Municipal Corp.	1050721
	Tamil Nadu	Madurai	Madurai	Municipal Corp.	1017865
	Chandigarh	Chandigarh	Chandigarh	Municipal Corp.	961587
(SS	Haryana	Gurgaon	Gurgaon	Municipal Corp.	876969
(9 cities)	Punjab	Jalandhar	Jalandhar	Municipal Corp.	862886
	Maharashtra	Thane	Mira Bhayandar	Municipal Corp.	809378
ion	Kerela	Thiruvananthapuram	Thiruvananthapuram	Municipal Corp.	743691
0.5-1 milli	Maharashtra	Thane	Bhiwandi	Municipal Corp.	709665
<u>-</u>	Kerela	Ernakulam	Kochi	Municipal Corp.	602046
0.1	Uttar Pradesh	Ghaziabad	Loni	Nagar Panchayat	516082
	Maharashtra	Thane	Ulhasnagar	Municipal Corp.	506098
(s	Karnataka	Dakshin Kannad	Mangalore	Municipal Corp.	488968
itie	Maharashtra	Nashik	Malegaon	Municipal Corp.	471312
35 (Tamil Nadu	Thiruvallur	Ambattur	Municipality	466205
) uo	Kerela	Kozhikode	Kozhikode	Municipal Corp.	431560
illi	West Bengal	North 24 Parganas	South Dum Dum	Municipality	403316
.5 m	West Bengal	North 24 Parganas	Rajarhat Gopalpur	Municipality	402844
0.2-0.5 million (35 cities)	West Bengal	North 24 Parganas	Bhatpara	Municipality	383762
0.	West Bengal	North 24 Parganas	Panihati	Municipality	377347

Table A6.3: List of Urban Settlements by Population (including Census Towns)

	State	District	UAName	Туре	Total Population
	Haryana	Rohtak	Rohtak	Muncipal Council	374292
	Kerela	Kollam	Kollam	Municipal Corp.	348657
	Tamil Nadu	Thiruvallur	Avadi	Municipality	345996
	West Bengal	North 24 Parganas	Kamarhati	Municipality	330211
	Kerela	Thrissur	Thrissur	Municipal Corp.	315957
	Puducherry	Puducherry	Ozhukarai	Municipality	300104
	Haryana	Panipat	Panipat	Muncipal Council	294292
	West Bengal	Haora	Bally	Municipality	293373
	Delhi	Delhi	Kirari Suleman Nagar	Census Town	283211
	Manipur	West Imphal	Imphal	Muncipal Council	282335
	West Bengal	North 24 Parganas	Barasat	Municipality	278435
	Uttar Pradesh	Ghaziabad	Hapur	Nagar Panchayat	262983
	Delhi	Delhi	N.D.M.C.	Muncipal Council	257803
	Maharashtra	Thane	Ambarnath	Muncipal Council	253475
	Tamil Nadu	Thiruvallur	Tiruvottiyur	Municipality	249446
	West Bengal	North 24 Parganas	North Dum Dum	Municipality	249142
	West Bengal	North 24 Parganas	Baranagar	Municipality	245213
	Puducherry	Puducherry	Puducherry	Municipality	244377
	Tamil Nadu	Kanyakumari	Nagercoil	Municipality	224849
	Delhi	Delhi	Karawal Nagar	Census Town	224281
	West Bengal	Haora	Uluberia	Municipality	222240
	Telangana	Hyderabad	Secunderabad	Cantonment Board	217910
	West Bengal	North 24 Parganas	Naihati	Municipality	217900
	West Bengal	North 24 Parganas	Bidhan Nagar	Municipality	215514
	Tamil Nadu	Kancheepuram	Pallavaram	Municipality	215417
	Haryana	Panchkula	Panchkula	Muncipal Council	211355
	Delhi	Delhi	NangloiJat	Census Town	205596
	Delhi	Delhi	Bhalswa Jahangir Pur	Census Town	197148
	West Bengal	North 24 Parganas	Madhyamgram	Municipality	196127
ies)	Haryana	Ambala	Ambala	Muncipal Council	195153
s/cit	Uttar Pradesh	Ghaziabad	Khora	Census Town	190005
MUS	West Bengal	Hugli	Serampore	Municipality	181842
6 to	Delhi	Delhi	Sultan Pur Majra	Census Town	181554
(16	West Bengal	Hugli	Hugli-Chinsurah	Municipality	177259
ion	Delhi	Delhi	Hastsal	Census Town	176877
Below 0.2 million (166 towns/cities)	Tamil Nadu	Kancheepuram	Tambaram	Municipality	174787
0.2	Maharashtra	Thane	Badlapur	Muncipal Council	174226
) M0	Kerela	Alappuzha	Alappuzha	Municipality	174176
Bel	Delhi	Delhi	Deoli	Census Town	169122
	West Bengal	Hugli	Chandannagar	Municipal Corp.	166867
	Tamil Nadu	Kancheepuram	Alandur	Municipality	164430

State	District	UAName	Туре	Total Population
Tamil Nadu	Kancheepuram	Kancheepuram	Municipality	164384
West Bengal	Hugli	Uttarpara Kotrung	Municipality	159147
Delhi	Delhi	DalloPura	Census Town	154791
West Bengal	North 24 Parganas	Barrackpur	Municipality	152783
West Bengal	North 24 Parganas	Habra	Municipality	147221
Delhi	Delhi	Burari	Census Town	146190
Haryana	Rewari	Rewari	Muncipal Council	143021
West Bengal	North 24 Parganas	North Barrackpur	Municipality	132806
Uttar Pradesh	Ghaziabad	Modinagar	Nagar Panchayat	130325
Punjab	Ludhiana	Khanna	Muncipal Council	128137
Delhi	Delhi	Mustafabad	Census Town	127167
West Bengal	North 24 Parganas	Basirhat	Municipality	125254
West Bengal	North 24 Parganas	Halisahar	Municipality	124939
West Bengal	Hugli	Rishra	Municipality	124577
Tamil Nadu	Coimbatore	Kurichi	Municipality	123667
Delhi	Delhi	GokalPur	Census Town	121870
West Bengal	North 24 Parganas	Ashoknagar Kalyangarh	Municipality	121592
West Bengal	Hugli	Baidyabati	Municipality	121110
Delhi	Delhi	Mandoli	Census Town	120417
West Bengal	North 24 Parganas	Kanchrapara	Municipality	120345
Tamil Nadu	Thiruvallur	Madavaram	Municipality	119105
West Bengal	North 24 Parganas	Titagarh	Municipality	116541
West Bengal	North 24 Parganas	Dum Dum	Municipality	114786
West Bengal	Haora	Bally	Census Town	113377
West Bengal	Hugli	Champdani	Municipality	111251
Delhi	Delhi	Delhi Cantt	Cantonment Board	110351
West Bengal	North 24 Parganas	Bongaon	Municipality	108864
Uttar Pradesh	Kanpur	Kanpur	Cantonment Board	108534
West Bengal	North 24 Parganas	Khardaha	Municipality	108496
West Bengal	Hugli	Bansberia	Municipality	103920
Haryana	Ambala	Ambala Sadar	Muncipal Council	103093
West Bengal	Hugli	Bhadreswar	Municipality	101477
Delhi	Delhi	Sadat Pur Gujran	Census Town	97641
Kerela	Malappuram	Manjeri	Municipality	97102
Delhi	Delhi	Pooth Kalan	Census Town	96002
Tamil Nadu	Coimbatore	Kuniyamuthur	Municipality	95924
Uttar Pradesh	Ghaziabad	Muradnagar	Nagar Panchayat	95208
West Bengal	Hugli	Dankuni	Municipality	94936
Kerela	Kannur	Thalassery	Municipality	92558
Delhi	Delhi	Gharoli	Census Town	92540
 Delhi	Delhi	Molar Band	Census Town	91402

State	District	UAName	Туре	Total Population
Kerela	Malappuram	Ponnani	Municipality	90491
Tamil Nadu	Coimbatore	Pollachi	Municipality	90180
Tamil Nadu	Madurai	Avaniapuram	Municipality	89635
Maharashtra	Nagpur	Kamptee	Muncipal Council	86793
Tamil Nadu	Thiruvallur	Maduravoyal	Municipality	86195
West Bengal	North 24 Parganas	Garulia	Municipality	85336
Tamil Nadu	Coimbatore	Goundampalayam	Municipality	83908
Uttar Pradesh	Ghaziabad	Pilkhuwa	Nagar Panchayat	83736
Delhi	Delhi	Chilla Saroda Bangar	Census Town	83217
Tamil Nadu	Kancheepuram	Maraimalainagar	Municipality	81872
Maharashtra	Nashik	Manmad	Muncipal Council	80058
Gujarat	Ahmadabad	Dholka	Municipality	79531
Maharashtra	Pune	Kirkee Cantt.	Cantonment Board	78684
Kerela	Ernakulam	Edathala	Census Town	77811
West Bengal	North 24 Parganas	New Barrackpur	Municipality	76846
Delhi	Delhi	Khajoori Khas	Census Town	76640
Tamil Nadu	Kancheepuram	Oggiyamduraipakkam	Census Town	76600
West Bengal	Hugli	Konnagar	Municipality	76172
Tamil Nadu	Kancheepuram	Pammal	Municipality	75870
Kerela	Kozhikode	Vadakara	Municipality	75295
Delhi	Delhi	Kapas Hera	Census Town	74073
Delhi	Delhi	Bawana	Census Town	73680
Kerela	Kannur	Taliparamba	Municipality	72465
Kerela	Kannur	Payyannur	Municipality	72111
Kerela	Kozhikode	Quilandy	Municipality	71873
Maharashtra	Pune	Pune Cantt.	Cantonment Board	71781
Kerela	Ernakulam	Kalamassery	Municipality	71038
Goa	North Goa	Panaji	Municipal Corp.	70991
Tamil Nadu	Coimbatore	Valparai	Municipality	70859
Kerela	Thiruvananthapuram	Neyyattinkara	Municipality	70850
Delhi	Delhi	Mithe Pur	Census Town	69837
Kerela	Kozhikode	Beypore	Census Town	69752
Delhi	Delhi	Pul Pehlad	Census Town	69657
Kerela	Ernakulam	Thrippunithura	Municipality	69390
Tamil Nadu	Coimbatore	Mettupalayam	Municipality	69213
Delhi	Delhi	Ziauddin Pur	Census Town	68993
Maharashtra	Thane	Palghar	Muncipal Council	68930
Delhi	Delhi	TajPul	Census Town	68796
Kerela	Alappuzha	Kayamkulam	Municipality	68634
Kerela	Malappuram	Malappuram	Municipality	68127
Haryana	Panipat	Panipat Taraf Makhdum Zadgan	Census Town	67998

 State	District	UAName	Туре	Total Population
West Bengal	Hugli	Arambag	Municipality	66175
Maharashtra	Nashik	Sinnar	Muncipal Council	65299
Punjab	Ludhiana	Jagraon	Muncipal Council	65240
Telangana	Rangareddi	Tandur	Municipality	65115
West Bengal	Haora	Bankra	Census Town	63957
Tamil Nadu	Madurai	Anaiyur	Municipality	63917
Uttar Pradesh	Lucknow	Lucknow Cantonment	Cantonment Board	63003
Tamil Nadu	Thiruvallur	Tiruverkadu	Municipality	62824
Tamil Nadu	Kancheepuram	Chengalpattu	Municipality	62579
Kerela	Kozhikode	Cheruvannur	Census Town	61614
Gujarat	Surat	Bardoli	Municipality	60821
Kerela	Thiruvananthapuram	Nedumangad	Municipality	60161
Tamil Nadu	Thiruvallur	Nerkunram	Census Town	59790
Delhi	Delhi	Jait Pur	Census Town	59330
Maharashtra	Pune	Lonavala	Muncipal Council	57698
Tamil Nadu	Thiruvallur	Poonamallee	Municipality	57224
Delhi	Delhi	Roshan Puraalias Dichaon Khurd	Census Town	57217
Delhi	Delhi	Mukand Pur	Census Town	57135
Kerela	Kannur	Kannur	Municipality	56823
Kerela	Malappuram	Tirurangadi	Census Town	56632
Kerela	Malappuram	Thennala	Census Town	56546
Maharashtra	Pune	Talegaon Dabhade	Muncipal Council	56435
Tamil Nadu	Thiruvallur	Thiruvallur	Municipality	56074
Kerela	Malappuram	Tirur	Municipality	56058
Gujarat	Ahmadabad	Viramgam	Municipality	55821
Kerela	Malappuram	Moonniyur	Census Town	55535
Kerela	Kottayam	Kottayam	Municipality	55374
Haryana	Ambala	Ambala Cantt.	Cantonment Board	55370
Tamil Nadu	Kancheepuram	Kundrathur	Town Parishad	54986
Delhi	Delhi	Sahibabad Daulat Pur	Census Town	54773
Delhi	Delhi	Jaffrabad	Census Town	54601
Delhi	Delhi	Mundka	Census Town	54541
Maharashtra	Pune	Baramati	Muncipal Council	54415
Kerela	Thrissur	Kunnamkulam	Municipality	54071
Maharashtra	Nagpur	Wadi	Census Town	54048
Maharashtra	Nashik	Deolali Cantt.	Cantonment Board	54027
Maharashtra	Nagpur	Umred	Muncipal Council	53971
Kerela	Thiruvananthapuram	Pallichal	Census Town	53861
Karnataka	Dakshin Kannad	Ullal	TMC	53773
Delhi	Delhi	Begum Pur	Census Town	53682
Tamil Nadu	Kancheepuram	Puzhithivakkam	Municipality	53322

State	District	UAName	Туре	Total Population
Telangana	Rangareddi	Vicarabad	Municipality	53143
Karnataka	Dakshin Kannad	Puttur	TMC	53061
Delhi	Delhi	Bapraula	Census Town	52744
Daman and Diu	Daman	Dadhel	Census Town	52578
West Bengal	North 24 Parganas	Baduria	Municipality	52493
Tamil Nadu	Thiruvallur	Ramapuram	Census Town	52295
Maharashtra	Nashik	Ozar	Census Town	51297
Kerela	Ernakulam	Vazhakkala	Census Town	51242
Tamil Nadu	Madurai	Thirumangalam	Municipality	51194
Delhi	Delhi	Nithari	Census Town	50464
Maharashtra	Thane	Dahanu	Muncipal Council	50287
Puducherry	Mahe	Mahe	Municipality	41816
Manipur	East Imphal	Thongju	Census Town	10836
Manipur	East Imphal	Kshetrigao	Census Town	10534
Manipur	East Imphal	Andro	Nagar Panchayat	8744
Manipur	East Imphal	Khurai Sajor Leikai	Census Town	7987
Manipur	East Imphal	Jiribam	Muncipal Council	7343
Manipur	East Imphal	Porompat	Census Town	6191
Manipur	East Imphal	Heingang	Census Town	6115
Manipur	East Imphal	Khongman	Census Town	6096
Manipur	East Imphal	Torban	Census Town	5459
Manipur	East Imphal	Kiyamgei	Census Town	5336
Manipur	East Imphal	Laipham Siphai	Census Town	5268
Manipur	East Imphal	Chingangbam Leikai	Census Town	4904
Manipur	East Imphal	Lamlai	Nagar Panchayat	4601
Manipur	East Imphal	Lairikyengbam Leikai	Census Town	4586
Manipur	East Imphal	Luwangsangbam	Census Town	3458
Manipur	East Imphal	Porompat Plan Area	Urban Outgrowth	1145
Manipur	East Imphal	Kongkham Leikai	Urban Outgrowth	887