

MULTI-LEVEL MEASURING

Monitoring and Reporting on Urban Development in India

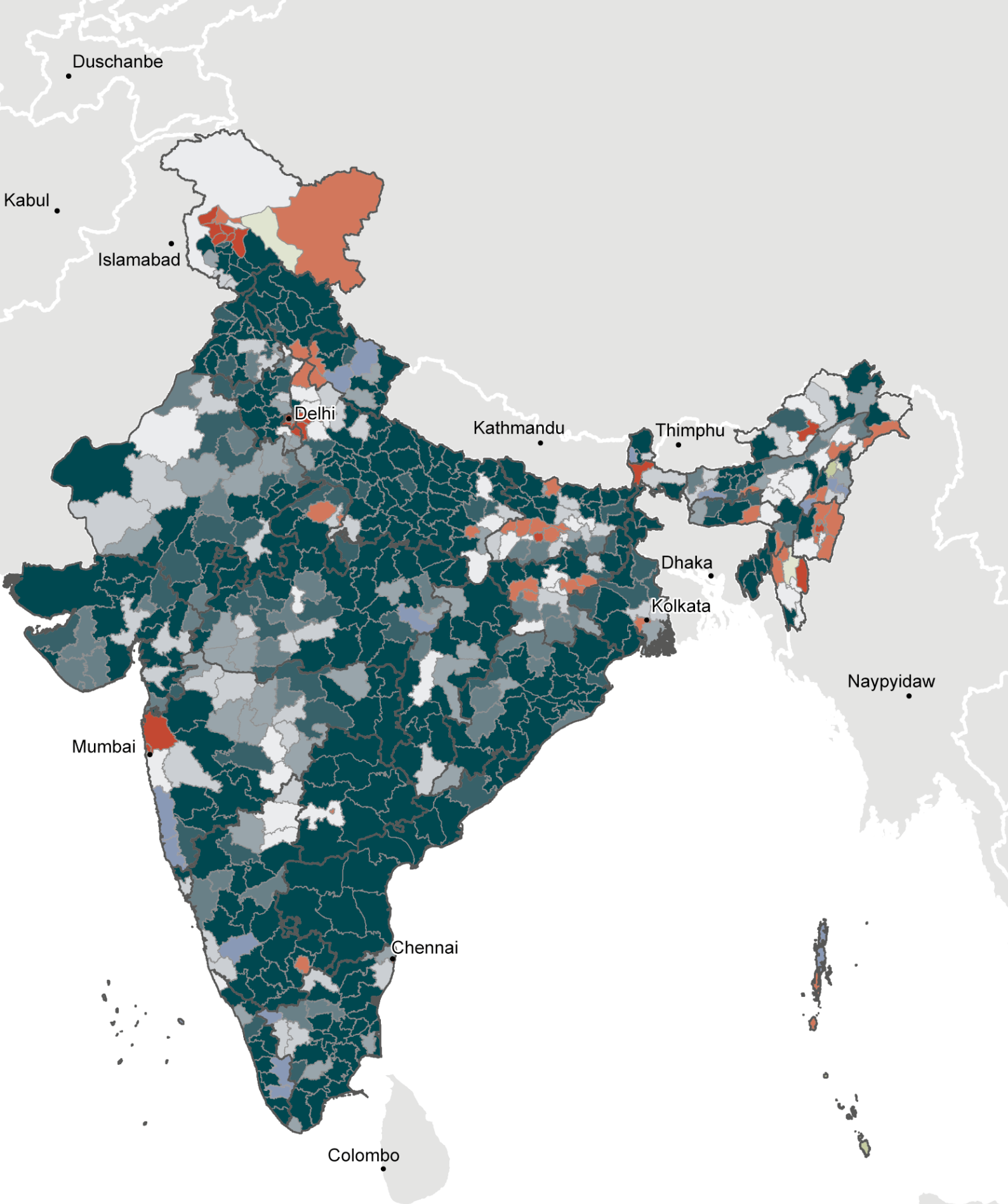
India looks back on a long-standing series of official data on urban development, though mainly focusing on hard infrastructure and only gradually incorporating the soft one. A new series in Census data, particularly on the economic base of cities and towns, would be needed for proper evidence-based policies. The governmental research cooperation between BBSR and the National Institute of Urban Affairs (NIUA) in that respect helps to better understand urban development in a transcultural way.

Prof. Dr. Debolina Kundu

is a leading Social Scientist and Professor at the National Institute of Urban Affairs in New Delhi.
dkundu@niua.org

Dr. Arvind Pandey

is Assistant Professor at School of Public Policy and Governance, Tata Institute of Social Sciences in Hyderabad.
arvind.pandey@tiss.edu



Introduction

The spatial and demographic structure, economic, social and political activities as well as the social fabric are certain attributes that uniquely position settlements in the modern settlement system. These settlements are generally divided into “rural” and “urban” based on some or most of these attributes. India, the second largest most populous country in the world, is no exception. It accounts for 11 % of the global urban population (UN DESA 2018), thus housing 377 million people residing in 7933 cities and towns and comprising 31.2 % of the total population (Office of the Registrar General & Census Commissioner 2011a). These figures are significant, both because of its heavy demographic weight and the dynamics of urbanisation (Kundu 2014). The transition from rural to urban has been on the account of rural to urban migration, natural growth, expansion of urban boundaries, and sectoral diversification of rural settlements into urban. The latter manifested in the growth of new Census Towns. It is estimated that the urban population in India would reach a level of about 52.8 % or 876.6 million by 2050, adding in the process around 499.5 million people in its urban areas during the period from 2011 to 2050 (WUP 2018; Office of the Registrar General & Census Commissioner 2011a).

The increase in the urban population is not simply a demographic shift but it places cities and towns at the center of India’s development trajectory. Urbanisation in India is top-heavy with class-I Urban Agglomerations (UAs)/cities (UAs/cities with more than 100,000 population) accommodating more than 70 % of the total urban population. This structure is largely the result of uneven economic development since the colonial period. The British established and promoted port cities (Kolkata, Mumbai, Chennai) and the capital (Delhi) which still dominate and have remained major centers of economic opportunities (Shaban/Kourtit/Nijkamp 2020). In 1950s, the partition of the

country resulted in mass immigration to the cities both from Bangladesh and Pakistan, resulting in a high urban growth of 3.5 % (Kundu 2006). Since then, the level of urbanisation gradually increased from 17.3 % in 1951 to 31.1 % in 2011. The sheer size of urban population poses several challenges to the civic infrastructure and public services. The high share of urban population coupled with low investments in urban development have resulted in a poor level of urban infrastructure in the country. The Government of India has recognised that addressing these challenges demands evidence-based policy designs using data at granular level, robust and agile implementation mechanisms and a rigorous evaluation and monitoring framework (MoHUA 2019). In this context, the article attempts at providing an overview of methodologies to determine “urban” as well as data definitions and data sources on how does the country measure, monitor and report on the urban development across various levels of governance. The distribution of the urban population varies among the various levels of disaggregated units. These units include inner-urban areas, cities/towns with municipal jurisdictions, areas designated as Urban Agglomerations and metropolitan regions as well as any other regional or state level jurisdictions decided by state and national government.

The second part of this article discusses the governance structure of urban India which has a bearing on determining what is “urban”. The measurement issues related to urbanisation has been dealt within this part, both from the administrative and the Census perspective. The third part of the article discusses the scale, nature and availability of urban data sets in India and the reporting and monitoring of urban development programmes by the government before drawing a conclusion.

Definition of “urban” in the governance structure of India

In India, there are two criteria for defining “urban”: the administrative criteria adopted by state governments and the Census criteria adopted by the Registrar General of India. The Census classifies urban areas into two types of administrative units: Statutory Towns and Census Towns. However, the state governments do not consider Census

Towns declared by the Registrar General of India as “urban”. State governments treat all such Census Towns as “villages” and these are governed by rural local bodies or panchayats (Aijaz 2017; HSMI-HUDCO-NIUA 2017). As urban development is a state subject in India, state governments exercise the power to notify rural settlements as urban at

any given point under the state statutes. They may also de-notify urban settlements to rural if these fail to meet the urban criteria.

Administrative criteria adopted by state governments

In the federal structure of India, there are three tiers of government: central, state and municipal (local). As stated earlier, urban development in India is essentially a state subject, which explains the variation in the criteria adopted by different states to designate a settlement as urban.

In 1992, the Parliament of India amended the Constitution to empower the urban local governments through the 74th Constitutional Amendment Act (CAA). Article 243 Q of the Act has made a constitutional provision to create three different types of Urban Local Bodies (ULBs):

- Municipal Corporation for a larger urban area

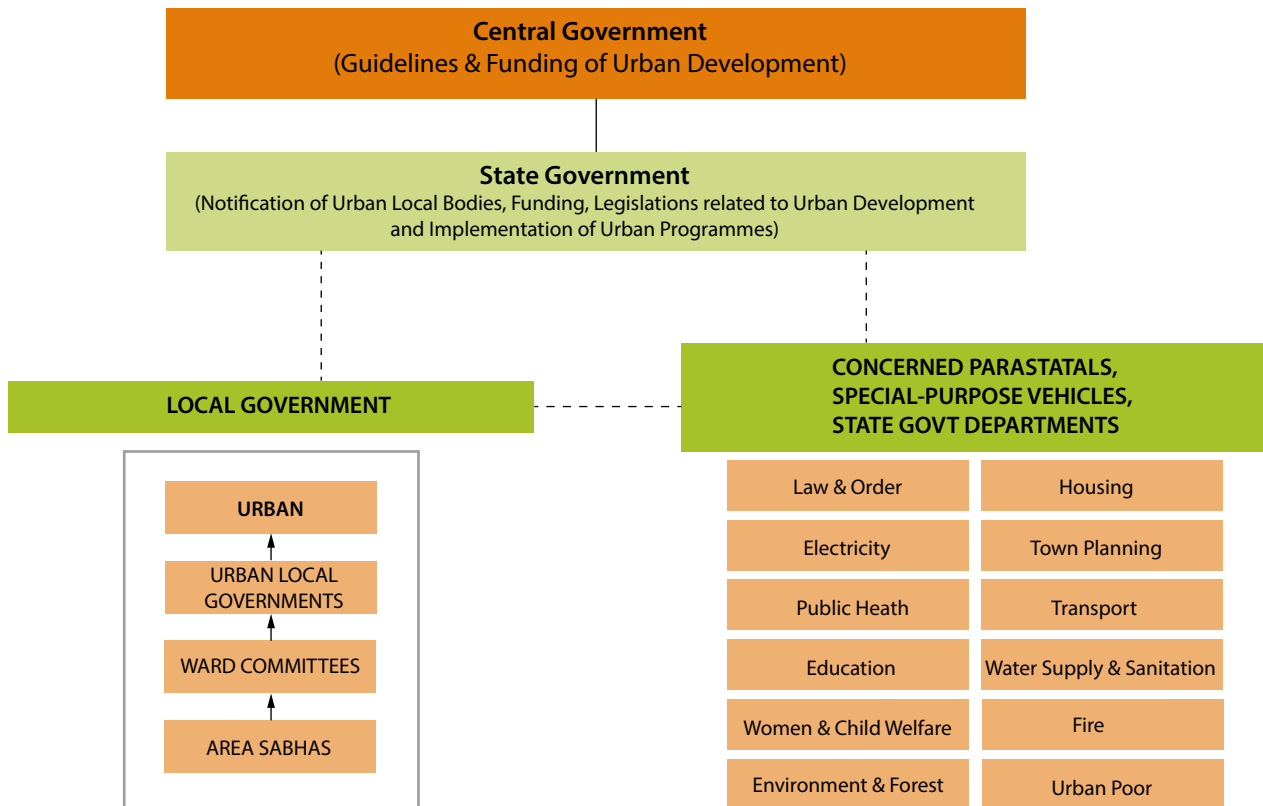
- Municipal Council or Municipality for a smaller urban area
- Town Panchayat for a transitional area

Apart from the ULBs, there are three different types of urban settlements which are exception to the 74th CAA: (i) autonomous areas under Sixth Schedule of the Constitution, (ii) cantonment boards and (iii) industrial townships (Joshi/Pradhan 2018).

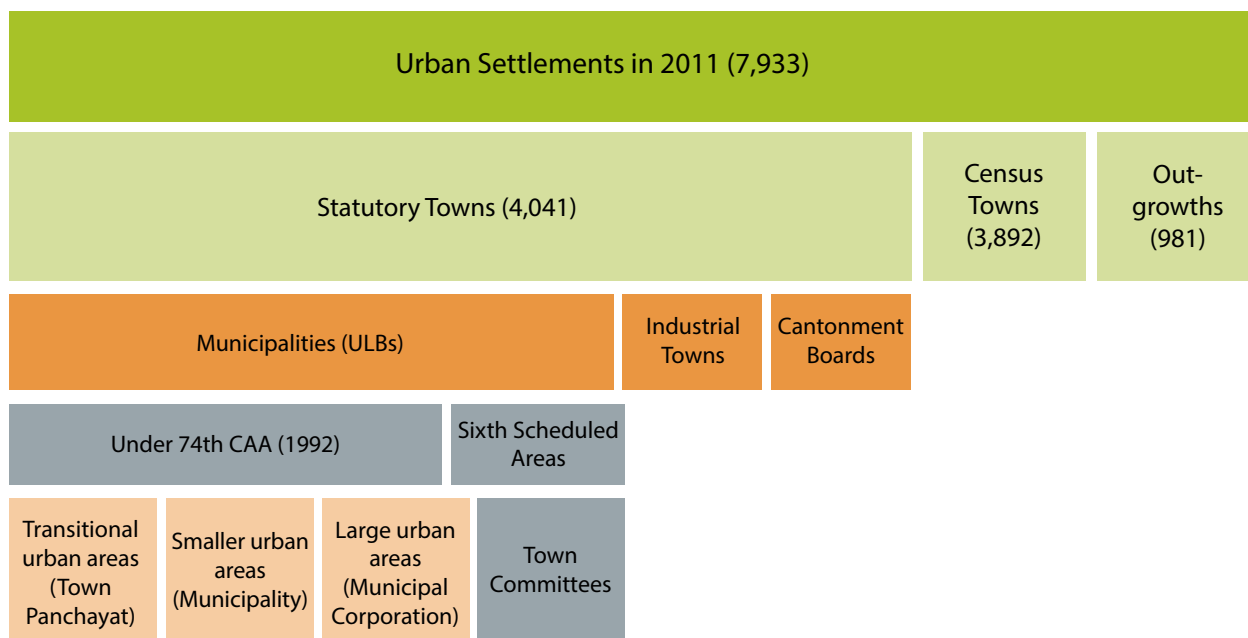
The 74th CAA broadly outlines the indicators that are to be considered by the state government while constituting ULBs which include (i) population, (ii) density, (iii) revenue generated for local administration, (iv) share of the non-agricultural employment and (v) economic importance of the area. These are broad guidelines and the exact qualification for an area to be classified as larger (Municipal Council), smaller (Municipality) and transitional (Town Panchayat) urban area is left to the discretion of the respective state governments (ibid.).

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Urban governance structure in India



Source: own compilation



Source: Joshi/Pradhan 2018

The lack of clarity in the adoption of different criteria for constituting ULBs and the discretionary power of the state to adopt their own norms of population size and other parameters have created ambiguity in the same types of ULBs across states (Aijaz 2017; Joshi/Pradhan 2018). Population is the single criterion used by several states to define an area as large, small or transitional area. Five states (Haryana, Jharkhand, Maharashtra, Mizoram, Odisha) use population as the only criterion for declaring large urban areas as Municipal Corporation. It is used in four states (Haryana, Jharkhand, Mizoram, Odisha) for smaller urban areas and in five states (Haryana, Jharkhand, Mizoram, Odisha, West Bengal) for transitional urban areas. The population as a criterion also varies from 50,000 to 5,00,000 in case of large urban areas, 5,000 to 150,000 in case of smaller urban areas and 2,000 to 30,000 in case of transitional urban areas. The same pattern is found in population density, revenue generation and non-agricultural employment criteria where a limited number of states use these criteria in addition to the population to notify a settlement as “urban settlement”. The norms related to these criteria also vary significantly from one state to the other (Joshi/Pradhan 2018).

Apart from these issues, the reluctance of state governments to convert rural areas into urban areas is also one of the major factors affecting the urban development across states.

The perception that rural areas receive more government funding (Sivaramakrishnana 2002), higher subsidies and pay taxes at comparatively lower rates are some of the reasons. Also, the political parties do not want to lose their local support and, therefore, oppose the formation of ULBs in their strongholds (Tandel et al. 2016).

The emergence of metropolitan regions or city-regions, which are complex entities with multiple municipal and non-municipal arrangements, is common in most part of the world – India is not an exception to this process. The importance of metropolitan areas were recognized in 74th CAA, which defines a metropolitan area, as “an area having a population of one million or more, comprised of one or more districts and consisting of two or more municipalities or panchayats (local rural governance of India) or other contiguous areas, specified by the Governor of the State by public notification to be a metropolitan area” (Sivaramakrishnan/Maiti 2009). Under article 243ZE of 74th CAA, there is a provision to constitute a Metropolitan Planning Committee (MPC) in every metropolitan area to prepare a draft development plan for the metropolitan area as a whole. However, until today only few states have constituted MPCs for metropolitan areas as proposed under the 74th CAA.

Measuring “urban” in India: the Census criteria

The Population Census of India is a single important source of information about urbanisation in the country. The first Census in India was conducted in 1881 and since then, Censuses have been undertaken uninterruptedly every ten years. Before 1951, the definition of “urban” in India was arbitrary. In the British period, a settlement was classified as “urban” based on the presence of (i) a ULB or a Municipality, (ii) civil lines, which were outside the boundary of the Municipality/ULB and (iii) all cantonments and all other contiguous clusters of houses inhabited by 5,000 or more persons. Towns of over 100,000 inhabitants were treated as cities, including any other towns which the Census Superintendent decided to treat as cities subject to the sanction of the respective local government. The towns/cities were further classified based on population in six size classes: class-I (100,000 and above), class-II (50,000–99,999), class-III (20,000–49,999), class-IV (10,000–19,999), class-V (5,000–9,999) and class-VI (5,000 and below) (Hutton 1933/ Bhagat 2005). The first Census after the independence of India was conducted in 1951 in which the Census Superintendent was empowered to identify and declare a settlement as urban based on

- population not less than 5,000 and
- settlements with less than 5,000 persons but having urban characteristics such as the supply of drinking water and availability of schools, hospitals, post-offices and electricity etc. (Shaban/Kourtit/Nijkamp 2020).

The definition of “urban” in India was formalised in 1961. The urban settlements in India were identified and classified based on uniform criteria across the country. A settlement was identified and classified as “urban”, if it satisfied the following criteria:

- all municipal corporations, municipal boards, cantonments and notified areas
- all localities though not in themselves local bodies but forming part of a city or town agglomeration

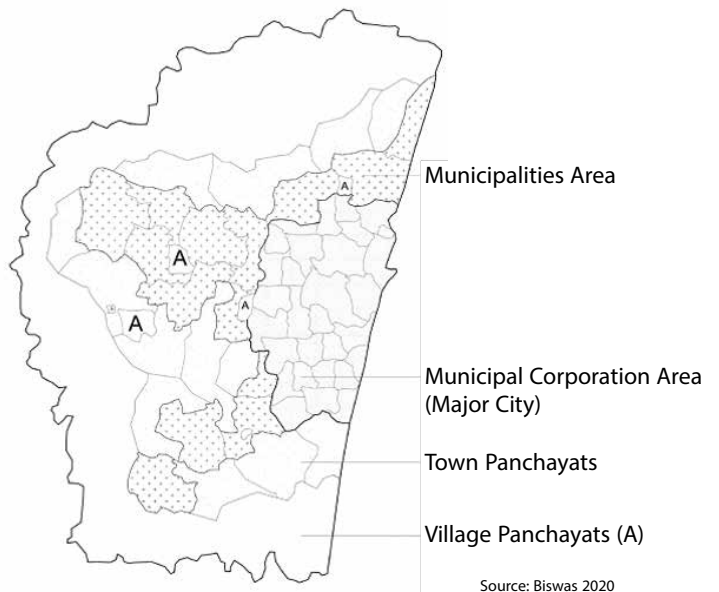
Apart from these two types, the Office of the Registrar General of India had identified other places as Census Towns which satisfied the following three conditions:

- a minimum population of 5,000 persons
- at least 75 % of the working population engaged in non-agricultural pursuits
- a density of population of at least 400 persons per km²

Two modifications were adopted in the 1981 Census: (i) places having distinct urban characteristics and physical amenities like industrial areas, special project areas, large housing colonies, places of tourist interest, railway colonies,

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Spatial distribution of administrative units within a metropolitan region



etc. to be regarded as towns at the discretion of the Director of Census Operations in consultation with the concerned state governments and (ii) in the criteria of Census Towns, only male workforce had been considered while estimating the 75 % workforce engaged in non-agricultural pursuits. This Census excluded the “workers engaged in livestock, forestry, fishing, hunting and plantations, orchards and allied activities, making the definition of urban more industrially biased” (Bhagat 2005).

As stated earlier, the Census classifies urban areas in two types of administrative units: Statutory Towns and Census Towns. In 2011, Statutory Towns included all administrative units that have been defined by respective state statutes as urban like Municipal Corporation, Municipality, Cantonment Board, Notified Town Area Committee, Town Panchayat, Nagar Palika etc. Census Towns, on the other hand, were identified by the Registrar General of India as settlements, which satisfied the following three criteria simultaneously:

- a minimum population of 5,000 persons
- a minimum of 75 % and above of the male main working population engaged in non-agricultural pursuits
- a density of population of at least 400 persons per km² (1,000 per mile²).

The Registrar General of India still classifies the cities/towns into six different size-classes based on their population as

mentioned above. The urban settlements with a population of 100,000 and more persons are considered as “cities” while other urban settlements with a population of less than 100,000 persons are considered as “towns”. The cities with a population of one million are known as “Metropolitan Cities” (Office of the Registrar General & Census Commissioner 2011b). In 2011, there were 4,041 Statutory Towns and 3,892 Census Towns. The decade from 2001 to 2011 witnessed an unprecedented increase in the number of Census Towns. There was an addition of 2,530 new Census Towns as compared to only 242 new Statutory Towns during this decade. The increase in the level of urbanisation in 2011 is attributed to this “census activism” (Kundu 2011) and expansion of the municipal boundaries of some of the Metropolitan Cities such as Hyderabad and Bangalore (HSMI-HUDCO-NIUA 2017). The number of metropolitan Urban Agglomerations/cities also increased from 35 in 2001 to 52 in 2011 due to the addition of several Census Towns to erstwhile Statutory Towns to form million plus Urban Agglomerations.

Urban Agglomeration is another concept used by the Registrar General of India to indicate the larger city area beyond the city boundary. In the Census of 2011, it was defined as “a continuous urban spread constituting a town and its adjoining outgrowths (OGs) or two or more physically contiguous towns together with or without outgrowths of such towns. An Urban Agglomeration must consist of at least a Statutory Town and its total population (i. e. all the constituents put together) should not be less than 20,000 as per the 2001 Census”. The concept of Urban Agglomeration was introduced in 1981 Census, following the Standard Urban Area concept used in 1971 and replacing the Town-Group definition used earlier in 1961 (Denis/Marius-Gnanou 2011). To cite examples, the total population of the Bhubaneswar Urban Agglomeration (Odisha) was 885,363 in 2011. It comprised of the Bhubaneswar Municipal Corporation with a population of 840,834 persons and 15 OGs which accounted for the rest of the Urban Agglomeration. Similarly,

the Kochi Urban Agglomeration (Kerala) comprised of the Kochi Municipal Corporation with two OGs, 6 Municipalities and 45 Census Towns.

Likewise, the total population of Coimbatore Urban Agglomeration (Tamil Nadu) was 2,136,916 persons. It comprised of the Coimbatore Municipal Corporation, 3 Municipalities, 32 Town Panchayats and 10 Census Towns.

An outgrowth (OG) is “a viable unit such as a village or a hamlet or an enumeration block made up of such village or hamlet and clearly identifiable in terms of its boundaries and location. Some of the examples are railway colonies, university campuses, port areas, military camps etc., which have come up near a Statutory Town outside its statutory limits but within the revenue limits of a village or villages contiguous to the town. While determining the outgrowth of a town, it has been ensured that it possesses the urban features in terms of infrastructure and amenities such as paved (pucca) roads, electricity, taps, drainage system for disposal of waste water etc., educational institutions, post offices, medical facilities, banks etc. and is physically contiguous with the core town of the UA. Each such town together with its outgrowth(s) is treated as an integrated urban area and is designated as an ‘Urban Agglomeration’ (Office of the Registrar General & Census Commissioner 2011b).

The number of UAs increased from 384 to 474 with an addition of 90 UAs between 2001 and 2011. The outgrowths increased in the same period by 19 from 962 to 981. Among the UAs, Delhi, Mumbai and Kolkata belong to the class of world’s mega-cities (cities with 10 million inhabitants or more) as defined by the United Nations (Office of the Registrar General & Census Commissioner 2011a; UN DESA 2018; Denis/Marius-Gnanou 2011). Despite a significant increase in the absolute urban population figures in last few decades, the level of urbanisation in India is lowest among most of the emerging economies such as China, Brazil and South Africa (UN DESA 2018; Sridhar 2019).

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Number of urban settlements in India

Type of Towns	2001	2011	Addition
Statutory Towns	3,799	4,041	242
Census Towns	1,362	3,892	2,530
Urban Agglomerations (UAs)	384	474	90
Outgrowths	962	981	19
Metropolitan Cities	35	52	17

Source: Kundu/Pandey/Sharma 2019

Intra-urban differentiation

The structure and morphology of cities in India is very complex. There are multiple types of settlements which could be broadly classified into two groups: formal and informal settlement. There is no fixed definition of “formal” and “informal” settlements in cities in India. However, based on Census data, urban centres can be further disaggregated into slums and non-slums. The Statutory Towns need to abide by the development plans, planning and building norms and other legislations in the category of a “formal settlement” (Bhan 2013). Importantly, population pressure

and the lack of affordability of adequate housing results in the proliferation and growth of slums. Slums are the most common form of informal settlements in India. The Census of India and National Sample Surveys (NSS) are two important sources of information related to informal settlements. However, both adopt different approach and definitions to define informal settlements. Three types of slums have been defined in the Census of 2011 namely, notified, recognized and identified which are as follows:

- **Notified slums:** All areas in a town or city notified as “slum” by State, Union Territories Administration or Local Government under any Act including a “Slum Act” may be considered as notified slums.
- **Recognized slums:** All areas recognized as “slums” by State, Union Territories Administration or Local Government, Housing and Slum Boards, which may have not been formally notified as slums under any Act, may be considered as recognized slums.
- **Identified slums:** A compact area with a population of at least 300 persons or about 60 to 70 households of poorly built congested tenements living in an unhygienic environment usually with inadequate infrastructure and lacking proper sanitary and drinking water facilities is considered as an identified slum (Office of the Registrar General & Census Commissioner 2011c).

According to the Census of 2011, a total population of 65.4 million persons lived in slum settlements constituting 17.4 % of the total urban population. The National Sample Survey adopted a definition which is broader than the one adopted by the Census. It defines slums as “any compact settlement with at least 20 households of poorly built tenements, mostly of temporary nature, living in crowded and unhygienic conditions usually with inadequate sanitary and drinking water facilities” (NSS 2018). Bhan/Jana (2013) had suggested several notes of caution while interpreting the slum data of the Census of 2011 because of the definition adopted by the Census. They have mentioned that thresholds of the households adopted by the Census is a matter of concern because it not only excludes clusters of small slum households but also excludes entire cities that report having no slums because of this threshold population. In this context, the definition adopted by the National Sample Survey is more comprehensive.

Every Statutory Town is divided into several wards. Importantly, a ward is the lowest unit of urban administration. The 74th CAA has proposed to form Ward Committees consisting of one or more wards, within the jurisdiction of a Municipality having a population of three lakhs or more to ensure participatory governance at the local level. Notably, the smallest administrative unit at which data is collected by the Census is the ward.

Reporting on urban development via secondary data sources and monitoring urban development programmes of the government

There are several secondary data sources in India which report urban characteristics of settlements and population at a regular intervals. The Census of India is one of the main sources of such data. The last Census of 2011 was the 15th Census in the history of all Censuses of India. The Census data provides information on demographic (A Series), socio-economic characteristics (B and C Series), migration (D Series), housing stock, household amenities and assets (H Series), historical demography, infrastructure (schools, hospitals, colleges, vocational colleges, professional colleges) and municipal finance (revenue and expenditure only in 2001) (Town Directory), characteristics of slum households, housing and amenities condition in slums (Primary Census Abstract Slum) and data on homeless and female-headed households. Figure 5 illustrates the demographic data of

the Census. The different series of the Census provides data at different levels of administration: state, districts, sub-districts, Urban Agglomerations, city and ward.

The Economic Census is another important data source which is conducted by the Ministry of Statistics and Programme Implementation (MoSPI) and is quinquennial in periodicity. It provides information on economic activities at various levels of disaggregation like state, district, city and ward. It covers the industrial units that are registered/licensed under various laws and regulations, and self-employed/own account establishments which are not registered. These units vary by location, duration of operation, type of industry and number of workers employed. Some of them may engage themselves in multiple economic activities at any given

point of time and some may diversify their activities from time to time.

There are several important large-scale surveys in India which provide a range of information on households living in urban areas: National Sample Surveys (NSS), Periodic

Labour Force Surveys (PLFS), Annual Survey of Industries (ASI) conducted by MoSPI, National Family Health Surveys (NFHS) and District Level Health Survey (DLHS) conducted by the Ministry of Health and Family Welfare, Sample Registration System (SRS) and Annual Health Survey (AHS) conducted by the Census of India, Urban-Unified District

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Demographic Indicators available in the Census of India

SL No.	Indicators	Data availability	Level	Source
Population Characteristics				
1	Urban Population (Absolute)	<ul style="list-style-type: none"> Urban Population Total Male Female 	<ul style="list-style-type: none"> National State/UT District ULBs/Town C. D. Block Ward 	Primary Census Abstract (PCA)
2	Urban Population (Age-disaggregated)	Usage: Age-disaggregated analysis and calculation of age profile of urban population.		
		Urban population (Total/male/female), age 0–6 years	<ul style="list-style-type: none"> National State/UT District ULBs Ward 	PCA
		Urban population (total/male/female), five years age-group (i. e. 0–4, 5–9 and so on)	<ul style="list-style-type: none"> National State/UT District 	Table C-14
		Urban population (Total/male/female), single year age data	<ul style="list-style-type: none"> National State/UT District 	Table C-13
		<ul style="list-style-type: none"> Urban Male Female 	<ul style="list-style-type: none"> National State/UT District ULBs Ward 	PCA
3	Area and population density	<ul style="list-style-type: none"> rural and urban 	<ul style="list-style-type: none"> National State/UT District CD block/sub-district 	A 1 Table
4	Level of Urbanization	Definition: Share of population living in urban settlements to total population. Can be calculated at National/State/District/Ward level.		
5	Urban Growth	Definition: Growth Rate of urban population. Can be calculated at National/State/District/ULB/Ward level using PCA tables.		
6	Urban-Rural Growth Differential	Definition: Difference in annual growth of rural population and urban population. Represented in percentage.		
7	Slum population	Description: Percentage of slum population can be calculated using two tables i. e. PCA and PCA for slum households.		
		<ul style="list-style-type: none"> Population (total/male/female) Social groups Percentage of literate (7 years and above) (total/male/female) Number of workers (Main/Marginal/Total) Sector of employment (Cultivator/Agricultural Labour/Household Industries/Others) 	<ul style="list-style-type: none"> National State/UT ULBs/Town Ward (available in 2001 Census, but excluded in 2011 Census) 	PCA for slum households
8	Size class distribution of UAs and Towns	Standard six size classes		
		<ul style="list-style-type: none"> Total Population Decadal change Decadal change 	<ul style="list-style-type: none"> National UA Town 	Table A-4

Source: Office of the Registrar General & Census Commissioner 2011

Information System for Education (U-DISE) conducted by the Ministry of Education (erstwhile Ministry of Human Resource Development) and crime data by the National Crime Records Bureau.

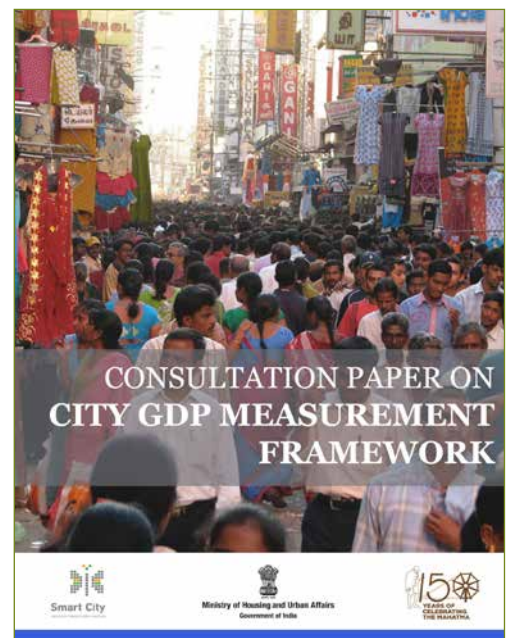
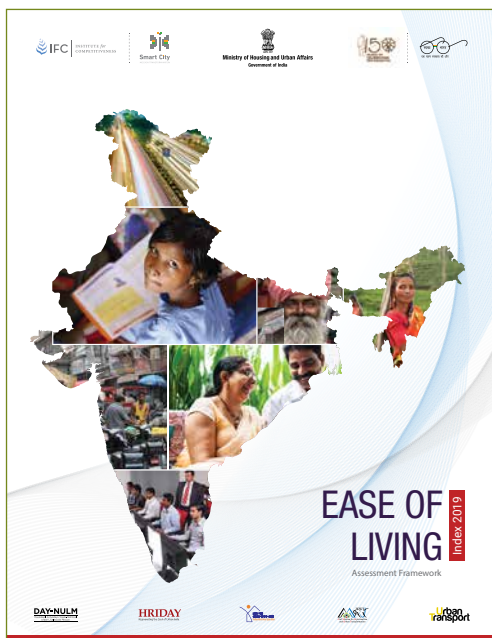
The NSSs are quinquennial sample surveys that mainly provide information on employment, unemployment and consumption expenditure in urban areas at state, state-regions and Metropolitan Cities (only in few rounds) level. It also captures the data on other issues such as morbidity, enterprises, informal sector and migration etc. on the same scale but these schedules are not regular in the same way as they are demand-based. The NFHS is the single most important data source on urban health, nutrition, WASH (Water, Sanitation, Hygiene) and other household characteristics. The recent round of NFHS-IV (2015–2016) provides the data at state and district levels along with information on slums in eight selected cities of India. DLHS is another important source on urban health, nutrition, WASH and other household characteristics which provides the data at district level. The AHS and SRS are other two sources on urban demography and health characteristics. The India Human Development Survey (IHDS) provides a range of data on demographic, socio-economic characteristics of urban population in India and it is available at state level. However,

the U-DISE is the single most important data source on urban education at district level capturing school-level infrastructure, learning outcomes and school enrolment as well as indicators related to teachers. The National Crime Record Bureau collects the data on urban crime at state and Metropolitan Cities level.

Apart from these secondary data sources, the Ministry of Housing and Urban Affairs (MoHUA), which is the apex ministry for urban development in India, has taken several initiatives in the recent past to trace the performance of urban development programmes at national, state and city levels. The Government of India has launched several development programmes on a mission mode focusing on cities to improve the infrastructural and economic condition of urban India. These include the Smart City Mission, Atal Mission for Rejuvenation and Urban Transformation (AMRUT), the National Heritage City Development and Augmentation Yojana (HRIDAY), Clean India Mission (SBM Urban), Housing for All (PMAY-HFA Urban) and National Urban Livelihood Mission (NULM). The progress of each of these urban development programmes is monitored and tracked on a regular basis through a management information system (MIS). Respective portals have been created on the MoHUA's website to present the current status.

6

Ease of Living Index, Municipal Performance Index and city-level GDP framework



Source: smartnet.niua.org

In the framework of Smart City Mission, the Central Government is establishing Integrated Command and Control Centers to not only manage the safety and surveillance of the cities, but also for hosting smart solutions for the service delivery provided by municipal corporations. A Central Urban Observatory has been established in MoHUA for data analytics to optimize city operations, improve governance and enhance the economic performance of cities across the country. To leverage data generated by systems and processes deployed in Smart Cities, MoHUA has framed the Data Smart Cities Strategy, which lays down the basic premise, foundational pillars and suggested roadmap for cities to improve their readiness for the intelligent use of data in addressing complex urban challenges. MoHUA has also initiated a Data Maturity Assessment Framework intending to guide city governments for undertaking (with the support of a set of indicators) self-assessments of their readiness in becoming Data Smart Cities. A Climate Smart Cities Assessment Framework is also prepared to provide a road map for cities to combat the climate crisis while planning their actions including investments. The framework has 28 indicators across 5 sectors, namely (i) Energy and Green Buildings, (ii) Urban Planning, Green Cover and Biodiversity, (iii) Mobility and Air Quality, (vi) Water Management and (v) Waste Management. The indicators are progressive in nature so that cities can assess where they stand in their current state, and may already know the actions that will enable a better ranking in the future and a consequent increase in climate resilience.

To assess the progress made in cities by various initiatives and empower them to use evidence-based planning, monitoring and evaluation of their performance, the Government of India in 2019 for the first time launched two assessment frameworks, namely, the Ease of Living Index (EoLI) and the Municipal Performance Index (MPI) (see figure 6). Both these indices are designed to assess the quality of life of citizens in 100 Smart Cities and 14 other million plus cities. With the MPI, the Government of India has sought to assess the performance of municipalities based on five

enablers namely service, finance, planning, technology and governance. This will help municipalities in better planning and management, filling the gaps in city administration, and improving the liveability of the cities for their citizens (PIB 2020).

The EoLI aims at providing a holistic view of Indian cities – beginning from the public services provided by urban local bodies, the effectiveness of the administration, the outcomes generated through these public services in terms of the liveability within cities and, finally, the citizen perception of these outcomes. The EoLI captures this holistic view of Indian cities through 50 indicators in 14 different categories related to quality of life, economic ability and sustainability. These indicators are aligned to the Sustainable Development Goals (SDGs) as part of the 2030 Agenda of the United Nations. The MPI is meant to complement the EoLI, which in turn gives insight into the liveability within Indian cities as a result of the public services provided by local bodies. MoHUA is also in the process of developing a framework for capturing the Gross Domestic Product (GDP) at city level.

Monitoring the SDGs

The National Institution for Transforming India (NITI Aayog) is a policy think tank of the Government of India which is regularly monitoring the country's progress in various sectors. It also acts as the nodal institution to coordinate all efforts at the national and sub-national levels in implementing the SDGs. It has created an SDG Index to measure the performance of different states and rank them accordingly. The baseline report prepared by NITI Aayog measures the progress achieved and distance to be covered by the States/Union Territories in their journey towards meeting the targets while using the SDG India Index. The SDG India Index is a powerful tool, which offers excellent possibilities for the States/Union Territories to identify priority areas with a demand for action, facilitate peer-learning, highlight data gaps and promote healthy competition.

Conclusion

It is evident that India has a long history of official databases. Besides, there have been recent initiatives undertaken by the Government of India to assess the progress of urban development at the national, state and city levels.

Assessments of centrally sponsored missions and defined SDG targets have also been the major focus. However, the initiatives taken under these missions have been restricted to hard infrastructure only. The recent pandemic has brought

into focus the importance of social infrastructure such as health and education in assessing urban well-being – largely neglected by the missions.

Making critical datasets available would help in informed decision-making. Also, it is important to report and monitor urban data in a more time-bound manner with a release of data at the granular level. Many of the important datasets in India are not available at the level of a ward or a household. Municipal data, which is one of the important data sources to assess the economic bases of cities, have been disconnected from the Census since 2001. Besides, the release of important datasets has been delayed for several years. Migration tables from the Census of 2011 were released in 2018. Likewise, the last survey on migration by the NSS took place between 2007 and 2008. Therefore, concerted efforts need to be

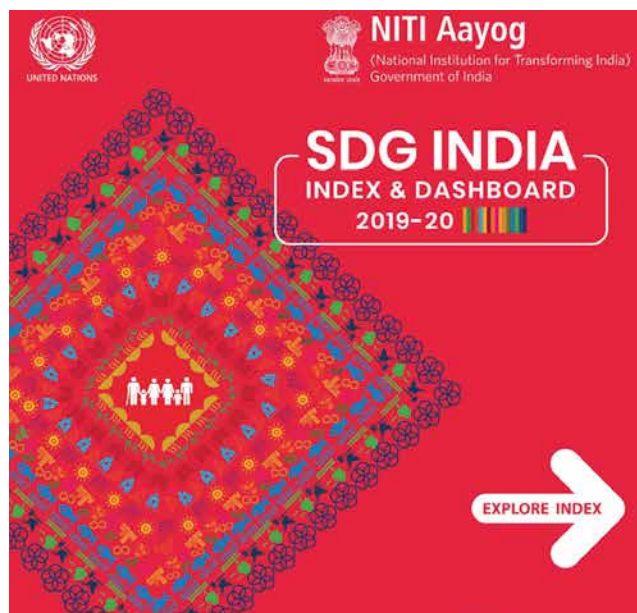
taken to build a comprehensive database on cities. Data gathering agencies should ensure the timely release of datasets ensuring the granularity of the respective database. This would help in reporting, measuring and monitoring urban development in the country in a more scientific and coherent manner.

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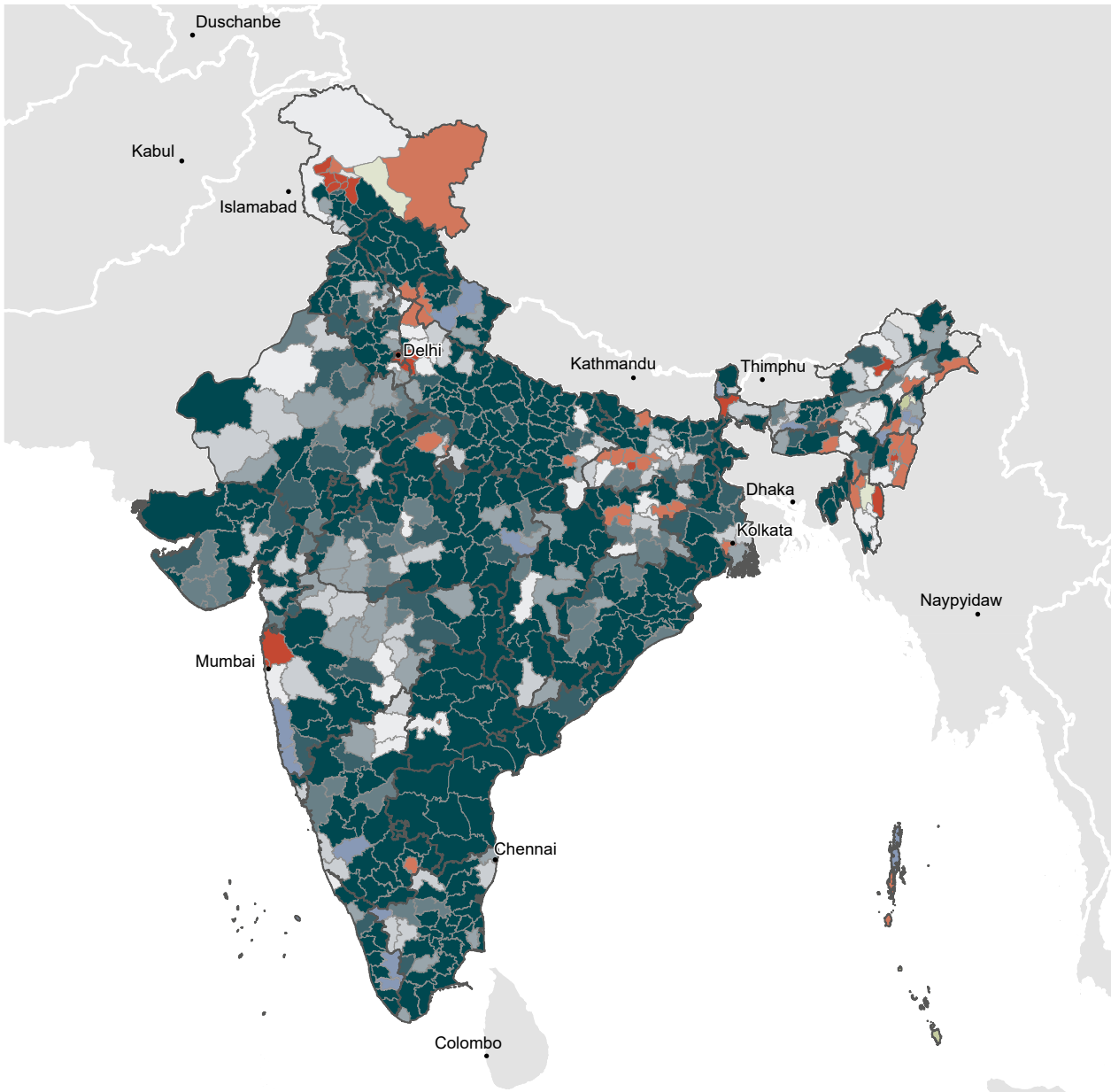
Dashboard of the SDG India Index by NITI Aayog



1 NO POVERTY
End poverty in all its forms everywhere

Source: sdgindiaindex.niti.gov.in

Development of built-up area in relation of population in India



500 km

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Ratio of annual percentage change of built-up area and population change between 1990 and 2014

with increase of built-up area by declining population

- up to below -1
- 1 up to below -0.5
- 0.5 up to below 0

with increase of population higher than increase of built-up area

- 0 up to below 0.5
- 0.5 up to below 1

with increase of built-up area higher than increase of population

- 1 up to below 1.5
- 1.5 up to below 2
- 2 up to below 2.5
- 2.5 up to below 3
- 3 up to below 3.5
- 3.5 and more

Source: National Institute of Urban Affairs
 Origin of data: Global Human Settlement Layer
 Administrative data: ESRI data and maps, territorial units: districts
 Author: NIUA Team

Disclaimer: The information on this map has been created with the highest degree of accuracy possible. However, NIUA cannot be held responsible for errors, omissions or positional accuracy. Depiction of boundaries is not authoritative.

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