



**BHOPAL**

# URBAN SUSTAINABILITY INDICATORS REPORT

SUSTAINABLE CITIES INTEGRATED  
APPROACH PILOT (SCIAP)

**UN HABITAT**  
FOR A BETTER URBAN FUTURE



**Prepared By:**

**Submitted to:**

**Project Donors:**



**JUNE 2021**

## Disclaimer

The designations employed and the presentation of the material in this report do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area, or of its authorities, or concerning delimitations of its frontiers or boundaries, or regarding its economic system or degree of development. The analysis, conclusions and recommendations of this reports do not necessarily reflect the views of the United Nations Human Settlements Programme or its Governing Council.

This report has been prepared under the Sustainable Cities Integrated Approach Pilot (SCIAP) project funded by the Global Environment Facility (GEF-6) through UNIDO. It documents the findings from the application of the Urban Sustainability Assessment Framework (USAF), which was developed under SCIAP for five pilot cities – Bhopal, Guntur, Jaipur, Mysore and Vijayawada. The report is produced using data provided by the state and municipal authorities of the four participating states and additional geospatial data collected from the National Platform for Sustainable Cities, European Space Agency. While UN-Habitat checks data to the fullest extent possible, the responsibility for the accuracy of the data lies with the original providers of the data. Information contained in this Report is provided without warranty of any kind, either express or implied, including, without limitation, warranties of merchantability, fitness for a particular purpose and non-infringement. UN-Habitat specifically does not make any warranties or representations as to the accuracy or completeness of any such data. Under no circumstances shall UN-Habitat be liable for any loss, damage, liability or expense incurred or suffered that is claimed to have resulted from the use of this Report, including, without limitation, any fault, error, omission with respect thereto. The use of this Report is at the User's sole risk. Under no circumstances, including, but not limited to negligence, shall UN-Habitat or its affiliates be liable for any direct, indirect, incidental, special or consequential damages, even if UN-Habitat has been advised of the possibility of such damages.

## List of Acronyms

<b>BMC</b>	Bhopal Municipal Corporation
<b>CSCAF</b>	Climate Smart City Assessment Framework
<b>EOLI</b>	Ease of Living Index
<b>ESCI</b>	Emerging and Sustainable Cities Initiative
<b>GDP</b>	Gross Domestic Product
<b>GEF</b>	Global Environment Facility
<b>GHG</b>	Green House Gas
<b>GIS</b>	Geographical Information System
<b>GPSC</b>	Global Platform for Sustainable Cities
<b>MoHUA</b>	Ministry of Housing and Urban Affairs
<b>MPI</b>	Municipal Performance Index
<b>PMAY</b>	Pradhan Mantri Awas Yojana
<b>SCIAP</b>	Sustainable Cities Integrated Approach Pilot
<b>SDG</b>	Sustainable Development Goals
<b>SLB</b>	Service Level Benchmarking
<b>SS 2020</b>	Swachh Survekshan 2020
<b>SWM</b>	Solid Waste Management
<b>UNIDO</b>	United Nations Industrial Development Organisation
<b>UN-Habitat</b>	United Nations Human Settlements Programme
<b>URDPFI</b>	Urban and Regional Development Plans Formulation and Implementation
<b>USAF</b>	Urban Sustainability Assessment Framework

## Table of Contents

<b>1. Introduction</b> .....	<b>6</b>
<b>2. City Management and Planning Indicators</b> .....	<b>7</b>
<b>3. Indicator Categories and Scoring</b> .....	<b>8</b>
<b>4. Sector-wise City Performance</b> .....	<b>9</b>
4.1. Urban Form, Public Space and Safety.....	9
4.2. Housing and Property.....	10
4.3. Water.....	11
4.4. Sanitation.....	12
4.5. Solid Waste Management .....	13
4.6. Transportation.....	14
4.7. Social Facilities and Services.....	15
4.8. Environment and Ecology.....	16
4.9. Clean Energy.....	18
4.10. Disaster Risk Management.....	19
4.11. Governance and Data Management .....	20
4.12. Finance and Economy.....	22
<b>5. Highlights and Way Forward</b> .....	<b>24</b>
<b>6. Annexures</b> .....	<b>27</b>
6.1. List of Consultations .....	27
6.2. Indicator Sheet with City Performance .....	28

## List of Figures

**Figure 2.1:** Urban Sectors

**Figure 3.1:** Indicator Levels and their Definitions

**Figure 3.2:** Colour gradient of indicator performance

**Figure 4.1:** Data collection status for Bhopal

**Figure 5.1:** Average performance and percentage of indicators collected for all sectors

## List of Tables

<b>Table 4.1:</b>	Urban Form, Public Space and Safety
<b>Table 4.2:</b>	Housing and Property
<b>Table 4.3:</b>	Water
<b>Table 4.4:</b>	Sanitation
<b>Table 4.5:</b>	Solid Waste Management
<b>Table 4.6:</b>	Transportation
<b>Table 4.7:</b>	Social facilities and services
<b>Table 4.8:</b>	Environment and Ecology
<b>Table 4.9:</b>	Clean Energy
<b>Table 4.10:</b>	Disaster Risk Management
<b>Table 4.11:</b>	Governance and Data Management
<b>Table 4.12:</b>	Finance and Economy
<b>Table 5.1:</b>	Highest performing primary indicators
<b>Table 5.2:</b>	Lowest performing primary indicators

## Key Definitions

**Benchmark:** Benchmarks refer to a quantitative value set for an indicator to assess the performance to reach the target. Scoring range is based on benchmarks derived from national standards and linked to global standards wherever possible. In the Urban Sustainability Assessment Framework (USAF), for quantitative indicators, indicator value over and above the set benchmark is categorised as excellent performance.

**Threshold:** Threshold is the minimum level of performance that can be associated with an indicator value to be considered within the sustainability range.

## 1. Introduction

Bhopal is the administrative capital of the state of Madhya Pradesh. It is the second-largest city in the state and a major educational and institutional hub, and an important trade centre in the region. Situated amidst Vindhya and Satpura mountain ranges along the Malwa Plateau, its neighbouring forests and national parks are habitats for keystone species like tigers and leopards. It is also rich in cultural heritage with grand monuments, palaces and mosques built by the erstwhile nawabs.

According to Bhopal Municipal Corporation's estimations, the city's population in 2019 was 23.71 lakh. It has an area of 417 sq. km with an average population density of 56.8 people per hectare (PPH). The wards falling in the old city have the highest density with Ward No. 14 at 1003 PPH. Bhopal has had a 23% increase in population from 2001 and 2011 while the built-up area per capita in the city has reduced by 15% between 2000 and 2014. Approximately 8% of the city land is under slums with 36% of householders living in slums or squatter settlements.

In 2015, Bhopal was included in the Smart City Mission. The city has consistently achieved high rank under the Swachh Survekshan survey and in 2019 it won the Cleanest State Capital award. The city has a AA investable grade credit rating and has successfully floated a municipal bond in 2018. Some of the major urban management initiatives of the Bhopal Municipal Corporation include the construction and up-gradation of one lakh housing units for slum dwellers under Housing for All Scheme – Pradhan Mantri Awas Yojana (PMAY), construction of Bhopal City Metro, up-gradation of sewerage system, improvement of City Bus Transportation, and developing parks and green spaces under the Atal Mission for Rejuvenation and Urban Transformation (AMRUT).

At present, the city does not have an approved planning document to guide urban development. The Bhopal Development Plan 2005 (1999) is the current statutory planning document. The Revised City Development Plan 2031 is under review by the state authorities. This Urban Sustainability Indicators Report for Bhopal is based on the Urban Sustainability Assessment Framework (USAF), developed under the Sustainable Cities Integrated Approach Pilot. It intends to enhance decision-making by augmenting the development potential of Bhopal and strengthening day-to-day management and good governance. It can also help decision-makers prioritize projects to effectively direct resources towards targeted areas for maximum impact and benefit.

## 2. City Management and Planning Indicators

Urban sustainability indicators are important tools to measure and monitor city’s development status and trajectory. The indicators in this report cover 12 sectors, namely, public space-safety-urban form, housing-property, water, sanitation, solid waste management, transportation, social services-facilities, environment-ecology, clean energy, disaster risk management, governance-data management and finance-economy (Figure 2.1). These sectors represent the primary urban planning and management functions of the urban local bodies. The report provides multi-sectoral outlook as well as granular sector-specific data to assess city’s performance relative to national and international standards.

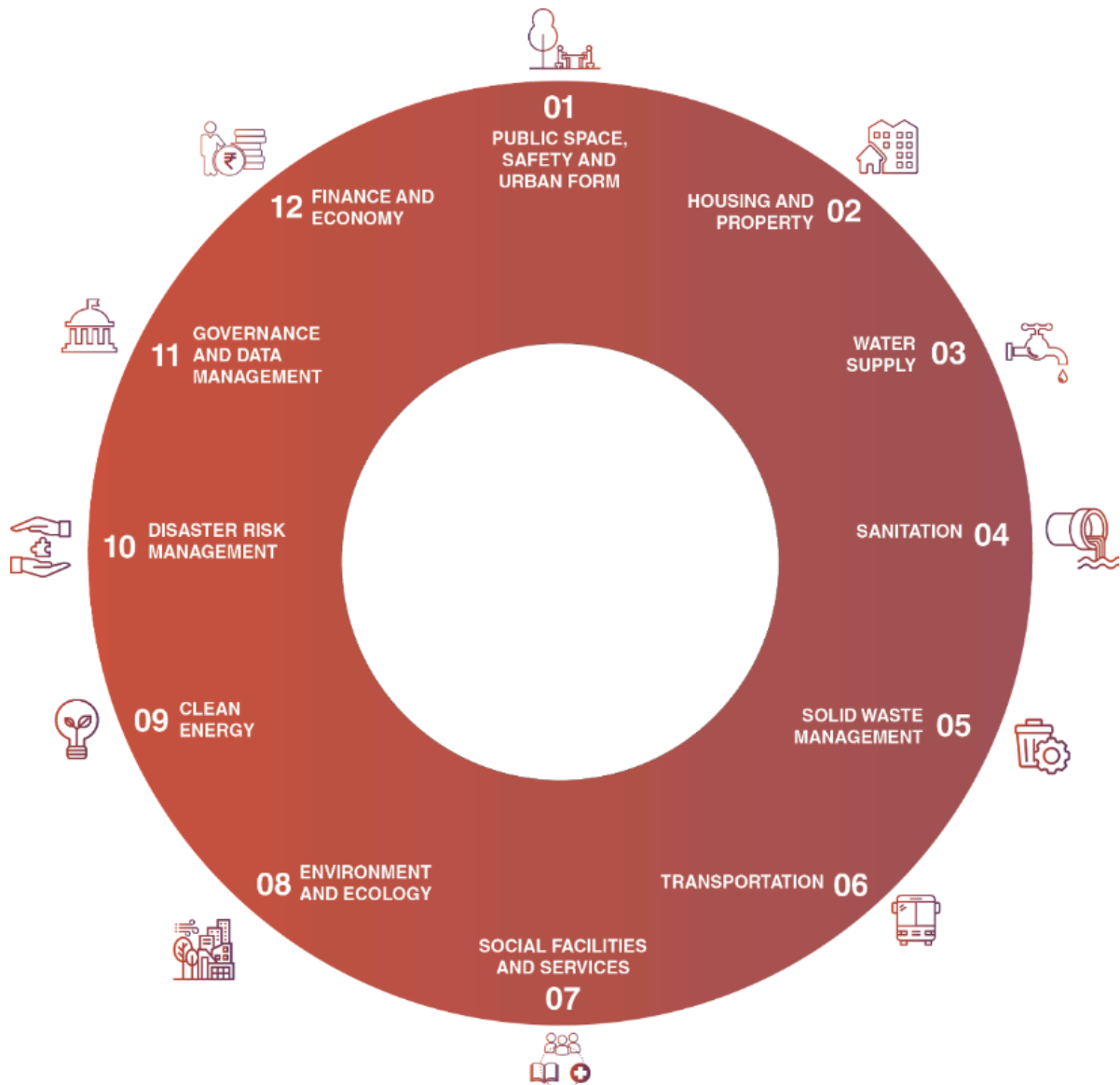


Figure 2.1: Urban Sectors

### 3. Indicator Categories and Scoring

There are 131 indicators in USAF which are formulated using 235 data inputs across 12 sectors. These 131 indicators have been divided into three levels: 54 are primary, 55 are secondary and 22 are tertiary. The definitions of the levels are specified in Figure 3.1.



Figure 3.1: Indicator Levels and their Definitions

The indicators are scored on a 7-point scale (very low to excellent performance). A score of 0 (or very low performance) is given when performance is below minimum threshold and score of 6 (or excellent performance) is given when performance meets or exceeds the benchmark set by considering national and global standards. Performance above the set threshold for an indicator procures the score of 1 (or low performance). National urban averages are used as mid-point (score 3 or medium performance) wherever either thresholds or benchmarks weren't available.

For representation, the range of performance follows a spectral colour ramp and varies from two shades of red (very low - low) to two shades of green (high - excellent) with three shades of yellow in between (lower medium - medium - upper medium) (Figure 3.2).

Indicator Performance						
0	1	2	3	4	5	6
Very low performance	Low performance	Lower medium performance	Medium performance	Upper medium performance	High performance	Excellent performance

Figure 3.2: Colour gradient of indicator performance



## 4. Sector-wise City Performance

This section presents the indicator-wise and overall performance of each sector for primary, secondary and tertiary indicators, based on the data collected and scored in accordance with the scoring methodology. It also includes the status of data collection for each sector.

For Bhopal, 69% of all indicators (91 out of the 131 indicators), have been collected (figure 4.1). 83% of all primary indicators have been collected.

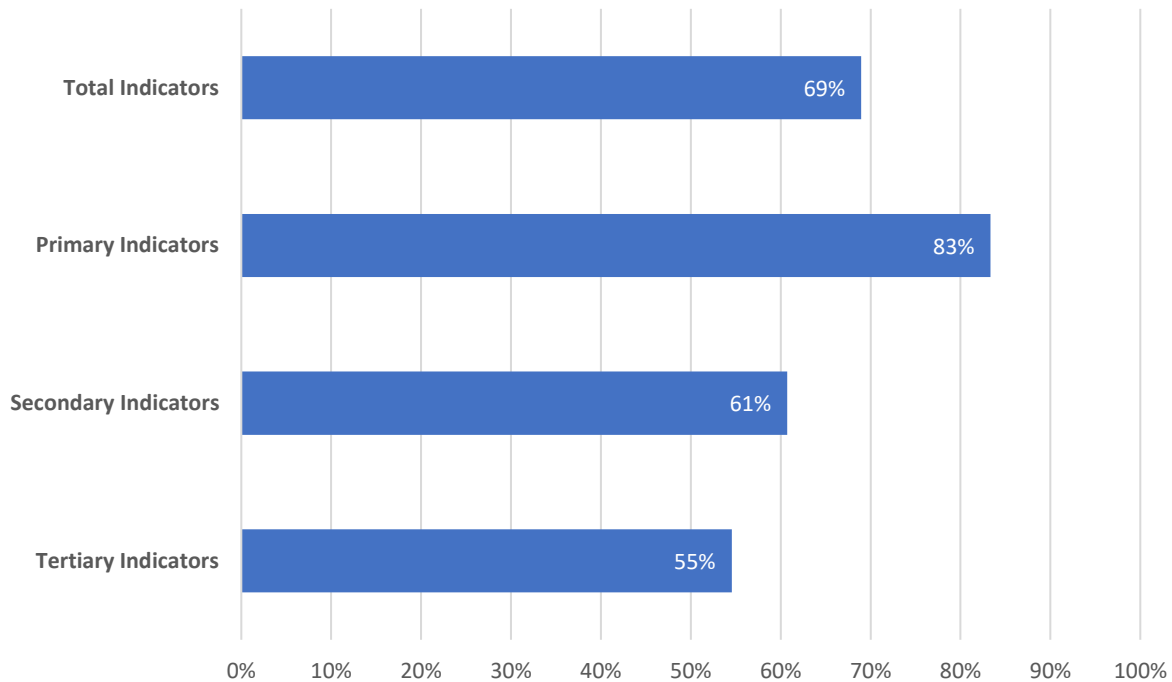


Figure 4.1: Data collection status for Bhopal

In the following sections (4.1 to 4.12), performance of overall sector and each indicator in that sector is given. In the sector wise tables, '-' in the city indicator value column represents unavailable data. These indicators are not scored and represented by '-' in the indicator performance column. In the indicator performance column, 'NA' value represents that the scoring for such indicators is 'Not Applicable' (for descriptive indicators). Overall average for each sector is calculated based on the collected indicators.

All data in this report has been collected and validated by relevant local entity consulted during the preparation. (Annex 6.1). A detailed list of all indicators, indicator value, benchmarks, score, indicator type and source framework for each of the 12 sectors is provided in Annexure 6.2.

### 4.1. Urban Form, Public Space and Safety

There are 9 indicators in this sector, 3 of which are related to safety, 2 to urban form and rest are related to public and open spaces in the city. Data for 5 out of 9 indicators has been collected for Bhopal.

Code	No.	Indicator	Indicator Category	City Indicator Value	Indicator Performance
UPS	1.1	Percentage of city roads covered with street lighting (%)	Primary	83%	1
UPS	1.2	Percentage change in the built-up area per capita in the city in between year 2000 and year 2014 (%)	Primary	-15%	NA
UPS	1.3	Percentage of agriculture use area proposed for future developable uses in the Master Development Plan (%)	Primary	-	NA
UPS	1.4	Percentage of population within 500m distance to public park/open space (%)	Primary	25%	0
UPS	1.5	Open space (includes recreational space, organised green, other common open spaces) per capita (sqm/person)	Primary	11.68	5
UPS	1.6	Percentage share of pedestrian fatalities in total fatalities (motorized/non-motorized transport) in road accident during a year (%)	Secondary	-	-
UPS	1.7	Percentage of recreational and open space (includes stadiums, theme parks, playgrounds, maidan) of total developable area (%)	Secondary	10%	0
UPS	1.8	Rating of safety standards of the city	Tertiary	-	-
UPS	1.9	Amount spent in operations and maintenance per square metre area of parks in the city by the ULB (INR per sqm)	Tertiary	-	NA
UPS	<b>Overall Sector Average Score</b>				<b>2</b>

Table 4.1: Urban Form, Public Space and Safety

## 4.2. Housing and Property

There are 5 indicators in this sector measuring the status of informal settlements and slums, and housing demand in the city. Data for 2 out of 5 indicators has been collected for Bhopal.

Code	No.	Indicator	Indicator Category	City Indicator Value	Indicator Performance
HP	2.1	Percentage of urban households living in slums/squatter settlements (%)	Primary	36%	0
HP	2.2	Percentage of city area under slums/squatter settlements (%)	Primary	8%	NA
HP	2.3	Percentage of owner-occupied housing units to total housing units (%)	Secondary	-	-
HP	2.4	Percentage of households spending greater than 30 percent of their income on accommodation expenses (%)	Tertiary	-	-
HP	2.5	Percentage of households living in one room (%)	Tertiary	-	-
HP	<b>Overall Sector Average Score</b>				<b>0</b>

Table 4.2: Housing and Property

### 4.3. Water

There are 6 indicators to gauge the water resource management including service coverage and efficiency in mapping households with piped connection, metered connections, and measuring the extent of non-revenue water in the city. Data for all 6 indicators has been collected for Bhopal.

Code	No.	Indicator	Indicator Category	City Indicator Value	Indicator Performance
WTR	3.1	Percentage of households with piped connection (%)	Primary	94%	5
WTR	3.2	Percentage of water samples in a year that comply with national potable water quality standards (%)	Primary	97%	4
WTR	3.3	Existence of water resources assessment and management Plan prepared in the last five years.	Primary	Water Resource Management (WRM) Plan is prepared with Short, Medium- and Long-Term Actions	6
WTR	3.4	Extent of Non-Revenue Water (%)	Primary	16%	6
WTR	3.5	Water supply per capita (LPCD)	Secondary	183.47	6

Code	No.	Indicator	Indicator Category	City Indicator Value	Indicator Performance
WTR	3.6	Extent of metering of water supply connections (%)	Secondary	5%	0
WTR	<b>Overall Sector Average Score</b>				<b>5</b>

Table 4.3: Water

#### 4.4. Sanitation

For assessing performance of cities on coverage of sewerage network and toilet facilities and industry compliance with wastewater treatment norms and guidelines, there are 9 indicators in the sanitation sector. Data for 8 out of 9 indicators has been collected for Bhopal.

Code	No.	Indicator	Indicator Category	City Indicator Value	Indicator Performance
SAN	4.1	Percentage of properties in the ULB connected to sewerage network (%)	Primary	25%	0
SAN	4.2	Proportion of households having access to toilet facility (%)	Primary	98%	4
SAN	4.3	Percentage of sewage treated before discharge into surface water bodies (%)	Primary	24%	1
SAN	4.4	Percentage of wastewater samples that passed the specified secondary treatment standards from the total samples collected in a year(%)	Primary	93%	4
SAN	4.5	Percentage of wastewater received at the treatment plant that is recycled or reused after appropriate treatment for various purposes (%)	Primary	7%	0
SAN	4.6	Percentage of city sewage that is treated in a sewage treatment plant (%)	Secondary	25%	1
SAN	4.7	Percentage of industries complying with waste water treatment as per CPCB norms (%)	Secondary	-	-
SAN	4.8	Existence of FSSM Action plan or notified San-benchmarks, byelaws/ guidelines/	Secondary	Guidelines/policy/action plan prepared	6

Code	No.	Indicator	Indicator Category	City Indicator Value	Indicator Performance
		policy notes by the ULB/Development Authority			
SAN	4.9	Percentage of Public Toilets (PTs) mapped on Google Maps (%)	Tertiary	100%	6
SAN		<b>Overall Sector Average Score</b>			<b>3</b>

Table 4.4: Sanitation

#### 4.5. Solid Waste Management

There are 12 indicators in the framework to assess the state of solid waste management which includes the extent of scientific landfill sites, provision for treating hazardous waste and remediation of legacy waste in the city. Data for 11 out of the 12 indicators has been collected for Bhopal.

Code	No.	Indicator	Indicator Category	City Indicator Value	Indicator Performance
SWM	5.1	Percentage of city's wet waste processed (%)	Primary	74%	6
SWM	5.2	Percentage of the city's dry waste that is separated and classified for recycling/material recovery (%)	Primary	95%	6
SWM	5.3	Percentage of the city's solid waste that is used for energy recovery (incineration) or co-processing (%)	Primary	0%	6
SWM	5.4	Percentage of the city's municipal solid waste that is disposed off in open dumps / controlled dumps, water bodies / is burnt (%)	Primary	27%	4
SWM	5.5	Percentage of waste remediated in the city (%)	Primary	-	-
SWM	5.6	Percentage of wards practicing source segregation of waste which is maintained till processing/ disposal site (%)	Secondary	53%	6
SWM	5.7	ICT based Monitoring Mechanism in place for: i) Ward wise Collection and Transportation (C&T)	Secondary	3	6

Code	No.	Indicator	Indicator Category	City Indicator Value	Indicator Performance
		ii) Monitoring of Garbage Vulnerable Points (GVPs) iii) Attendance of Sanitation Staff			
SWM	5.8	Percentage of informal waste pickers integrated into sustainable SWM systems (%)	Secondary	28%	0
SWM	5.9	Percentage of C&D waste collected of the total C&D waste generated (%)	Secondary	0%	0
SWM	5.10	Percentage of hazardous waste processed (%)	Secondary	75%	6
SWM	5.11	Total solid waste generation per capita per day (kg/capita/day)	Tertiary	0.41	4
SWM	5.12	Percentage Coverage of wards under Door-To-Door Collection System (%)	Tertiary	96%	6
SWM		<b>Overall Sector Average Score</b>			<b>5</b>

Table 4.5: Solid Waste Management

## 4.6. Transportation

There are 15 indicators in the transportation sector informing about the status of public transport coverage, quality, safety features, and invest in environmentally friendly infrastructure by the ULB. Data for 8 out of 14 indicators has been collected for Bhopal.

Code	No.	Indicator	Indicator Category	City Indicator Value	Indicator Performance
TR	6.1	Percentage of population within 500m distance to public transport stops (%)	Primary	72%	4
TR	6.2	Kilometres of bicycle path per 100,000 population (km)	Primary	1.35	0
TR	6.3	Percentage of major roads covered with footpath (footpath wider than 1.2 meters) within the city (%)	Primary	54%	1
TR	6.4	Rate of increase in public transportation ridership (%)	Primary	-	-

Code	No.	Indicator	Indicator Category	City Indicator Value	Indicator Performance
TR	6.5	Percentage of shared vehicles that operate on clean fuels like CNG, LPG, biofuels or are hybrid or electric vehicles (%)	Primary	0%	0
TR	6.6	Road density (km/sqkm)	Primary	11.25	NA
TR	6.7	Average travel speed in major roads of the city (kmph)	Secondary	-	-
TR	6.8	Percentage share of NMT in commuting (cycling and walking) (%)	Secondary	47%	6
TR	6.9	Street intersection density (intersections/sqkm)	Secondary	-	-
TR	6.10	Kilometres of road with public transit per 100,000 population (km)	Secondary	11.26	3
TR	6.11	Fatal and serious injuries in road accidents per lakh population (number)	Secondary	-	-
TR	6.12	Accessibility of differently-abled groups to Public Buses (%)	Secondary	-	-
TR	6.13	Workplace accessibility within 30 minutes of transit (%)	Tertiary	-	NA
TR	6.14	Percentage of total area of ULB allocated to streets (%)	Tertiary	19%	2
TR		<b>Overall Average Sector Score</b>			<b>2</b>

Table 4.6: Transportation

#### 4.7. Social Facilities and Services

Out of the 11 indicators in the social facilities and services sector, 4 indicate about the demography, 5 are related to the health and 3 to the status of education in the city. Data for 7 out of 11 indicators has been collected for Bhopal.

Code	No.	Indicator	Indicator Category	City Indicator Value	Indicator Performance
SCL	7.1	Percentage of population within 800m distance to healthcare facilities (public/private) (%)	Primary	82%	1
SCL	7.2	Percentage of females of ages 7 and above who are literate (%)	Primary	79%	3
SCL	7.3	Percentage of population within 800m distance to primary/secondary schools (public/private) (%)	Primary	92%	5
SCL	7.4	Change in decadal population growth rate (1991-2001 and 2001-2011) (%)	Secondary	-14%	NA
SCL	7.5	City Level Dependency Ratio (%)	Secondary	48%	NA
SCL	7.6	Under-five mortality rate per 1000 births (number)	Secondary	-	-
SCL	7.7	Bed density in public and private hospitals (Hospital beds per 10,000 residents) (number)	Secondary	3.77	0
SCL	7.8	Percentage reduction in prevalence of vector borne diseases(malaria, dengue) over the previous year (%)	Secondary	-	-
SCL	7.9	Percentage reduction in prevalence of waterborne diseases (Diarrhoea, typhoid) over the previous year (%)	Secondary	-	-
SCL	7.1	Percentage of schools with Access to Digital Education (%)	Secondary	4%	NA
SCL	7.11	Percentage of mobile network, by 3G and 4G technology subscriptions (%)	Tertiary	-	-
SCL	<b>Overall Sector Average Score</b>				<b>2</b>

Table 4.7: Social Facilities and Services

#### 4.8. Environment and Ecology

With 18 indicators to examine whether ULBs have a clean air action plan, are equipped to measure the major pollutants, as well as disaggregate emissions data to the specific sectors,



this is one of the most important sectors of USAF. Data for 14 out of 18 indicators has been collected for Bhopal.

Code	No.	Indicator	Indicator Category	City Indicator Value	Indicator Performance
ENV	8.1	Clean Air Action Plan (Planning and Implementation)	Primary	Clean Air Action Plan and Pollutants Source Identification	3
ENV	8.2	Existence of a GHG emissions measurement system with a monitoring system (Y/N)	Primary; Aspirational	No	0
ENV	8.3	Total annual GHG emissions (MtCO <sub>2</sub> e)	Primary; Aspirational	3660161	NA
ENV	8.4	Proportion of Tree Cover to the total ULB area(%)	Primary	-	-
ENV	8.5	Extent to which city is acting for protection, conservation and management of urban biodiversity	Primary	No action initiated	0
ENV	8.6	Number of structural and financial incentives for green buildings implemented (number)	Primary	No incentives	0
ENV	8.7	Annual mean Air Quality Index(AQI) (number)	Secondary	137.6	3
ENV	8.8	Annual CO <sub>2</sub> equivalent (GHG) emissions per capita (MtCO <sub>2</sub> e/capita)	Secondary; Aspirational	2.05	NA
ENV	8.9	Annual CO <sub>2</sub> equivalent emissions from the transportation sector (MtCO <sub>2</sub> e)	Secondary; Aspirational	710271	NA
ENV	8.10	Biochemical Oxygen Demand 3 day, 270C (mg/l)	Secondary	-	-
ENV	8.11	Area under ULB covered by trees per inhabitant (sqm per person)	Secondary	-	-
ENV	8.12	Is there a land use plan that includes zoning with environmental protection and preservation zones? (Y/N)	Secondary	No	0

Code	No.	Indicator	Indicator Category	City Indicator Value	Indicator Performance
ENV	8.13	Annual mean levels of PM10 (µg/m3)	Tertiary	113	0
ENV	8.14	Annual mean levels of PM2.5 (µg/m3)	Tertiary	51.8	0
ENV	8.15	Annual concentration of NO2 (µg/m3)	Tertiary	11.5	6
ENV	8.16	Average daily concentration of SO2 (µg/m3)	Tertiary	5.5	6
ENV	8.17	Total annual methane emissions (MtCO2e)	Tertiary; Aspirational	-	NA
ENV	8.18	Existence, monitoring and enforcement of regulations on noise pollution (Y/N)	Tertiary	No	0
ENV	<b>Overall Sector Average Score</b>				<b>2</b>

Table 4.8: Environment and Ecology

#### 4.9. Clean Energy

There are 8 indicators in to assesses the current distribution network, coverage and stability, accessibility of households to natural gas for cooking, and current per capita consumption. Data for 4 out of 8 indicators has been collected for Bhopal.

Code	Number	Indicator	Indicator Category	City Indicator Value	Indicator Performance
CE	9.1	Percentage of the city's households using LPG/PNG for cooking (%)	Primary	-	-
CE	9.2	Percentage of total electrical energy in the city derived from renewable sources (%)	Primary	0%	0
CE	9.3	Proportion of population in the city who have access to renewable energy (%)	Primary; Aspirational	-	-
CE	9.4	Percentage of energy-efficient street lighting in the city (%)	Primary	37%	1
CE	9.5	Energy use per capita (kWh)	Primary	877.21	NA

Code	Number	Indicator	Indicator Category	City Indicator Value	Indicator Performance
CE	9.6	Percentage of the city's households with an authorized connection to electrical energy (%)	Secondary	-	-
CE	9.7	Do existing building codes consider eco-friendly techniques and/or the use of local/renewable material? (Y/N)	Secondary	No	0
CE	9.8	System Average Interruption Frequency Index (SAIFI) (number)	Tertiary	-	-
CE	<b>Overall Sector Average Score</b>				<b>0</b>

Table 4.9: Clean Energy

#### 4.10. Disaster Risk Management

There are 6 indicators to analyse the state of preparedness of the city in an event of natural disasters (flood, earthquakes and cyclones) and manmade disasters (incidence of fire). Data for 4 out of 6 indicators has been collected for Bhopal.

Code	Number	Indicator	Indicator Category	City Indicator Value	Indicator Performance
DRM	10.1	Presence of City Disaster Management Plan prepared / updated in last five years (Y/N)	Primary	Plan prepared after year 2016	6
DRM	10.2	Existence of hazard vulnerability maps/risk maps (at city level) prepared / updated in the last five years for the main hazards threatening the city (Y/N)	Primary	Maps not prepared	0
DRM	10.3	Percentage of households at risk due to placement in areas of non-mitigable risk within the ULB (%)	Primary	-	-
DRM	10.4	Percentage of buildings within 4km distance to fire service facility (%)	Primary	-	-
DRM	10.5	Presence of hazard early warning systems linked with command control system.	Secondary	Presence of hazard early warning system but no linkage with ULB Command Control system	3

Code	Number	Indicator	Indicator Category	City Indicator Value	Indicator Performance
DRM	10.6	Existence of urban flood / water stagnation risk assessment and management plan	Secondary	City has conducted rapid / detailed flood risk assessment in the last five years	6
DRM	<b>Overall Sector Average Score</b>				<b>4</b>

Table 4.10: Disaster Risk Management

#### 4.11. Governance and Data Management

There are 14 indicators to analyse the extent to which the ULBs are effectively directing the planning and management of the City. Data for 13 out of 14 indicators has been collected for Bhopal.

Code	Number	Indicator	Indicator Category	City Indicator Value	Indicator Performance
GOV	11.1	Number of planners per capita (number)	Primary	0.08	0
GOV	11.2	Years since enforced master plan/development plan was last reviewed and updated (number of years)	Primary	15	0
GOV	11.3	Number of services being managed through command and control system in the ULB (eg: SCADA, ICCC etc) (number)	Primary	12	6
GOV	11.4	Number of functions being implemented by ULB out of 18 functions stipulated in the Twelfth schedule of Indian constitution (number)	Primary	Between 15 and 17	3
GOV	11.5	Existence of Geographic information System (GIS) based Master Plan for the city	Primary	Absence of GIS base Master Plan	0
GOV	11.6	Environmental status report with action plans published by the ULB for the last three years	Secondary	No	0
GOV	11.7	Percentage of total staff trained during the year in any of the ULB functionary domains (%)	Secondary	-	-

Code	Number	Indicator	Indicator Category	City Indicator Value	Indicator Performance
GOV	11.8	Number of E-governance initiatives undertaken by the ULB: a. ULB website (Y/N) b. Online Public Service Delivery (Services provided online as a proportion of total Services provided) c. Online Public Service Delivery on Mobile (Services provided via mobile as a proportion of total Services provided) d. Online Grievance Redressal (number of grievances received online as a proportion of total grievances received) e. Online Grievance Redressal on Mobile (Services provided via mobile as a proportion of total Services provided)	Secondary	5	6
GOV	11.9	Local development control regulations and master plan / development plan are accessible completely through the web.	Secondary	Both available online	6
GOV	11.10	Number of stipulated committees in the ULB: 1) Municipal Committee/Council 2) Ward Committee 3) Metropolitan Planning Committee / District Planning Committee 4) Project Coordination /Monitoring Committee 5) Town Vending Committee (Street vendors) 6) Heritage Conservation Committee	Secondary	5	3
GOV	11.11	ULB's citizen charter and appeal mechanisms	Secondary	Exists offline and online	6
GOV	11.12	Presence of City data officer (Y/N)	Secondary	Yes	6
GOV	11.13	Proportion of Women councillors in Municipal Council (%)	Tertiary	48%	3
GOV	11.14	Digital Governance: Presence on Open Data Portal	Tertiary	Yes	6
GOV	<b>Overall Sector Average Score</b>				<b>4</b>

Table 4.11: Governance and Data Management

## 4.12. Finance and Economy

Out of the total 19 indicators in this sector, 13 indicators are related to analysing the status of municipal finance in the city and the remaining 6 indicators suggest about the performance of the economic factors. Data for 9 out of 19 indicators has been collected for Bhopal.

Code	Number	Indicator	Indicator Category	City Indicator Value	Indicator Performance
FIN	12.1	Credit rating of the ULB	Primary	Greater or equal to AA	6
FIN	12.2	Total property tax collected as a percentage of total property tax billed in the same financial year (%)	Primary	64%	1
FIN	12.3	Financial dependency: Percentage of grants received from central and state governments to total revenue (%)	Primary	25%	6
FIN	12.4	Growth rate of GDP per capita (%)	Primary	-	NA
FIN	12.5	Change in Own Source Revenue (number of years with OSR > 20%)	Secondary	5	6
FIN	12.6	Operating margin: Difference in revenue and expenditure in the financial year (INR in Lakhs)	Secondary	-30072	0
FIN	12.7	Total cost of annual debt service as a percentage of expenditure (%)	Secondary	-	NA
FIN	12.8	Percentage of debt/loans in overall budget allocation (%)	Secondary	25%	6
FIN	12.9	Properties covered under the tax net expressed as percentage of total properties within the municipality (%)	Secondary	100%	6
FIN	12.10	Efficiency of Capital expenditure spending: Actual capital expenditure spent expressed as a percentage of the budgeted capital expenditure in the financial year (%)	Secondary	-	-
FIN	12.11	Cost Recovery in Water Supply: Total operating revenues expressed as a percentage of the total operating expenses	Secondary	-	-

Code	Number	Indicator	Indicator Category	City Indicator Value	Indicator Performance
		incurred towards water supply services in the given financial year (%)			
FIN	12.12	Cost Recovery in Sanitation: Total operating revenues expressed as a percentage of the total operating expenses incurred towards sanitation services in the financial year (%)	Secondary	-	-
FIN	12.13	Cost Recovery in Solid Waste Management: Total operating revenues expressed as a percentage of the total operating expenses incurred towards solid waste management services in the financial year (%)	Secondary	-	-
FIN	12.14	Unemployment rate of persons of age 15 years and above (%)	Secondary	5%	5
FIN	12.15	Inequality Index based on Consumption Expenditure- Gini Coefficient (score)	Secondary	-	NA
FIN	12.16	Percentage of workforce employed in the service sector (%)	Secondary	-	NA
FIN	12.17	Total capital expenditure as percentage of total expenditure (%)	Tertiary	36%	5
FIN	12.18	GDP density as a percentage of the built-up area of the local government (%)	Tertiary	-	NA
FIN	12.19	Informal employment as percentage of total employment (%)	Tertiary	-	NA
FIN		<b>Overall Sector Average Score</b>			<b>5</b>

Table 4.12: Finance and Economy

## 5. Highlights and Way Forward

The overall performance of Bhopal is rated as “3 – average” based on the data collected, with Sector 3-Water, Sector 5-Solid Waste Management, Sector 12-Finance and Economy, scoring highest, and Sector 2-Housing and Property, and Sector 9-Clean Energy, scoring lowest. (Figure 5.1). The average performance of each sector is represented using the 7-point colour gradient.<sup>1</sup>

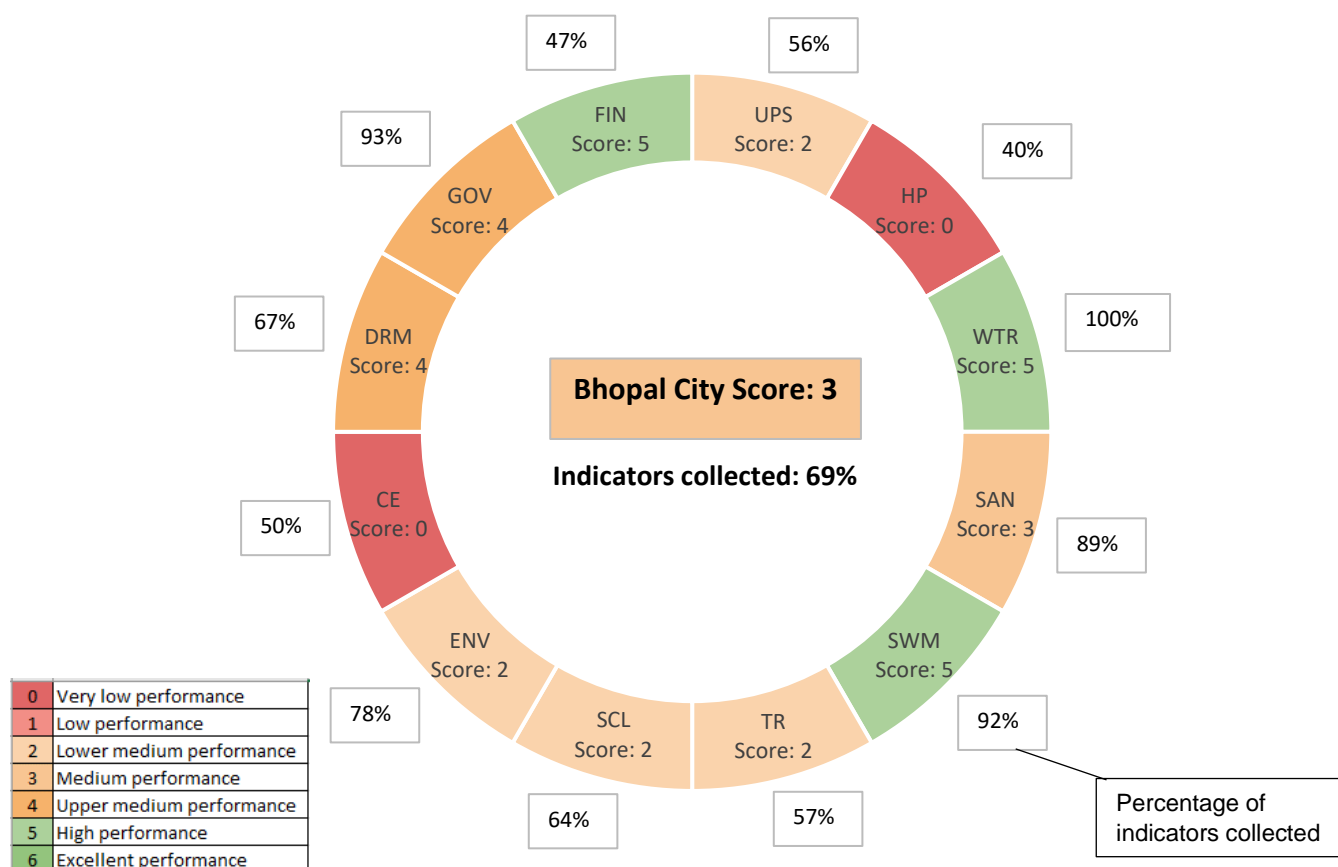


Figure 5.1: Average performance and percentage of indicators collected for all sectors

Amongst all the sectors, the highest five performing primary indicators are enlisted in Table 5.1 and the lowest five indicators in Table 5.2.<sup>2</sup>

<sup>1</sup> It should be noted here that the performance of a sector may move in either direction if data points for more indicators were available.

<sup>2</sup> The highest and lowest primary performing indicators are determined by taking the difference between the benchmark and the indicator value. Some of the lowest performing indicators may emerge from the highest average performing sectors or vice-versa.



Code	Number	Indicators	Indicator Category	Benchmark	Indicator Value
WTR	3.4	Extent of Non-Revenue Water (%)	Primary	20%	16%
SWM	5.3	Percentage of the city's solid waste that is used for energy recovery (incineration) or co-processing (%)	Primary	5%	0%
SCL	7.3	Percentage of population within 800m distance to primary/secondary schools (public/private) (%)	Primary	95%	92%
GOV	11.3	Number of services being managed through command and control system in the ULB (eg: SCADA, ICCC etc) (number)	Primary	10	12
FIN	12.3	Financial dependency: Percentage of grants received from central and state governments to total revenue (%)	Primary	30%	25%

*Table 5.1: Highest performing primary indicators*

Code	Number	Indicator	Indicator Category	Benchmark	Indicator Value
UPS	1.4	Percentage of population within 500m distance to public park/open space (%)	Primary	80%	25%
SAN	4.1	Percentage of properties in the ULB connected to sewerage network (%)	Primary	100%	25%
SAN	4.3	Percentage of sewage treated before discharge into surface water bodies (%)	Primary	100%	24%
TR	6.2	Kilometres of bicycle path per 100,000 population (km)	Primary	25	1.35
CE	9.4	Percentage of energy-efficient street lighting in the city (%)	Primary	100%	37%

*Table 5.2: Lowest performing primary indicators*

Bhopal Urban Sustainability Indicators Report is the foundation for an indepth city profile, diagnostics and assessment for sustainable and resilient urban planning and management. Indicators are important input into the Urban Sustainability Assessment Framework (USAF), designed as a decision support tool for municipal commissioners, chief town planners, and urban practitioners to undertake evidence-based and spatially-informed policy, regulatory, and granular development decisions. USAF methodology is documented in detail in Technical Document.

Regularly updated Urban Sustainability Indicators Report is crucial for identifying gaps and opportunities across the 12 sectors, thereby providing stronger impetus for master plan revision, preparing capital investment plans and development projects. Urban Sustainability Indicators Report can also be used for monitoring impact of policies and projects on local communities.

The Urban Sustainability Indicators Report is recommended to be prepared annually. In the future, BMC may customise its reporting based on relevant priority sectors at the time. The reporting framework is adaptable to meet the context of each city. However, it is recommended that cities report on all primary indicators and select from the menu of secondary and tertiary indicators. Public disclosure of data is encouraged to enable participation of community and other stakeholders in city's vision and development.

## 6. Annexures

### 6.1. List of Consultations

Means of engagement	Department	Name and Designation of official(s) attending	No. of indicators for discussion	Date	Location	Documentation
<b>Tier 1 Stakeholders Consultations</b>						
In-person discussion	BMC	Mr. K V S Choudhary, Municipal Commissioner	11	03-12-2020	BMC Office, ISBT, Habibganj	Feedback and comments are catalogued in stakeholder consultation report
In-person discussion	BMC - Health	Mr. M P Singh, Additional Commissioner (SCIAP Nodal Officer)	11	03-12-2020	BCLL Office, ISBT, Habibganj	
In-person discussion	BMC - Sanitation & Gardens	Ms. Shalini Singh, Assistant Engineer	32	04-12-2020	Jal Nigam Office, Shyamla Hills	
In-person discussion	BMC - SBM Cell	Mr. Sourav Sood, Assistant Engineer	11	05-12-2020	SBM Cell, ISBT, Habibganj	
Tele consultation	BMC - Fire	Mr. Rameshwar Neel, Fire Officer	8	05-12-2020	NA	
In-person discussion	TNCP	Mr. Hari Om Maheshwari, Assistant Planner	33	17-12-2020	TNCP Office, Arera Colony	
In-person discussion	BMC - HfA	Mr. Rajeev Kumar, Urban Planner	6	18-12-2020	BMC Office, ISBT, Habibganj	
In-person discussion	BSCDCL	Mr. Jitender Rathore, City Data Officer	6	18-12-2020	BSCDCL Office, Govindpura	
<b>Tier 2 Stakeholders Consultations</b>						
In-person discussion	BCLL	Mr. Manish Chaube, Manager	26	08-12-2020	BCLL Office, ISBT, Habibganj	Feedback and comments are catalogued in stakeholder consultation report
In-person discussion	MPPCB	Mr. Alok Singhai, Regional Officer Dr. Sangeeta, Chief Scientist	18	15-12-2020	MPPCB Regional Office, Arera Colony	
In-person discussion	EPCO	Mr. Devendra Thakkar	22	15-12-2020	EPCO Office, Arera Colony	
Tele consultation	MP Biodiversity Board	Dr. Vakul, Joint Director	7	21-12-2020	NA	
In-person discussion	MP Education Department	Mr. Naveen Saxena, District Education Officer	5	11-01-2021	DEO Office, Shivajinagar	

## 6.2. Indicator Sheet with City Performance

The detailed methodology of evolution of the following indicators and explanation of the entire USAF process is documented in the USAF report. Details of each indicator including its calculation, formulation and performance evaluation levels is documented in the USAF technical manual report.

**Data requested:** Data has been requested from ULB or concerned departments and is awaited; **Data to be verified:** Input data yet to be verified from concerned officials; **Data not available:** Data not available for the city

1. URBAN FORM, PUBLIC SPACE AND SAFETY															
Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)	
UPS	1.1	Percentage of city roads covered with street lighting (%)	Primary	Non-spatial	49%	MPI (1.6.1)	The Twelfth schedule of Indian constitution; Pg.356 <a href="https://www.india.gov.in/sites/upload_files/npi/files/coi-eng-schedules_1-12.pdf">https://www.india.gov.in/sites/upload_files/npi/files/coi-eng-schedules_1-12.pdf</a>	<80%	80%-83.9%	84%-87.9%	88%-91.9%	92%-95.9%	96%-99.9%	100%	5
UPS	1.2	Percentage change in the built-up area per capita in the city in between year 2000 and year 2014 (%)	Primary	Spatial	-15%	GPSC	[Descriptive Indicator]	NA <sup>3</sup>	NA	NA	NA	NA	NA	NA	NA
UPS	1.3	Percentage of agriculture use area proposed for future developable uses in the Master Development Plan (%)	Primary	Non-spatial	Data requested	Expert recommended	[Descriptive Indicator]	NA	NA	NA	NA	NA	NA	NA	NA
UPS	1.4	Percentage of population within 500m distance to public park/open space (%)	Primary	Spatial	25%	NIF (11.7.1)	URDPFI, Vol 1, Pg 356 <a href="http://mohua.gov.in/upload/uploadfiles/files/URDPFI%20Guidelines%20Vol%201.pdf">http://mohua.gov.in/upload/uploadfiles/files/URDPFI%20Guidelines%20Vol%201.pdf</a>	<50%	50%-55.9%	56%-61.9%	62%-67.9%	68%-73.9%	74%-79.9%	>=80%	0
UPS	1.5	Open space (includes recreational space, organised green, other common open spaces) per capita (sqm/person)	Primary	Non-spatial	11.68	CPI(4.1)	AMRUT Service Level Improvement Plan (SLIP) Green space and Parks; Pg 3 <a href="http://ccpgoa.com/pdf/04_Template_SLIP_Format_Parks_v2_(28Jul2015).pdf">http://ccpgoa.com/pdf/04_Template_SLIP_Format_Parks_v2_(28Jul2015).pdf</a>	<10sqm	10-10.3 sqm	10.4-10.7 sqm	10.8-11.1 sqm	11.2-11.5 sqm	11.6-11.9 sqm	>=12sqm	5
UPS	1.6	Percentage share of pedestrian fatalities in total fatalities (motorized/non-motorized transport) in road accident during a year (%)	Secondary	Non-spatial	Data requested	Expert recommended	SLBs for Urban Transport, Gol; Pg.35 <a href="http://mohua.gov.in/upload/uploadfiles/files/Service_level.pdf">http://mohua.gov.in/upload/uploadfiles/files/Service_level.pdf</a> Accidental deaths & suicides in India - 2019 (Statistics) - Table 1A.3; National Crime Records Bureau <a href="https://ncrb.gov.in/sites/default/files/ads_i_report">https://ncrb.gov.in/sites/default/files/ads_i_report</a>	>19.25%	19.25%-15.3%	15.4%-11.45%	11.55%-7.6%	7.7%-3.75%	3.85%--0.1%	0%	-

<sup>3</sup> NA in the 7-point scoring range and city score columns refers to 'Not Applicable' as descriptive indicators in USAF are not scored.

**1. URBAN FORM, PUBLIC SPACE AND SAFETY**

Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)	
							<a href="#">s_previous_year/Table-1A.3_2019.pdf</a>								
UPS	1.7	Percentage of recreational and open space (includes stadiums, theme parks, playgrounds, maidan) of total developable area (%)	Secondary	Non-spatial	Data requested	Expert recommended	URDPFI, Vol 1, Pg 143 <a href="http://mohua.gov.in/upload/uploadfiles/files/URDPFI%20Guidelines%20Vol%20I.pdf">http://mohua.gov.in/upload/uploadfiles/files/URDPFI%20Guidelines%20Vol%20I.pdf</a>	<25%	25%-26.9%	27%-28.9%	29%-30.9%	31%-32.9%	33%-34.9%	>=35%	-
UPS	1.8	Rating of safety standards of the city	Tertiary; Aspirational	Non-spatial	Data requested	EOLI (Perception Survey: 1.6)s	Ease of living- Perception survey) (Pg 34) <a href="https://smartnet.niua.org/eol19/pdf/EOL-2019-Completed-Version.pdf">https://smartnet.niua.org/eol19/pdf/EOL-2019-Completed-Version.pdf</a>	Poor	NA	NA	Fair	NA	NA	Good	-
UPS	1.9	Amount spent in operations and maintenance per square metre area of parks in the city by the ULB (INR per sqm)	Tertiary	Non-spatial	Data requested	Expert recommended	[Descriptive Indicator]	NA	NA	NA	NA	NA	NA	NA	NA

**2. HOUSING AND PROPERTY**

Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)	
HP	2.1	Percentage of urban households living in slums/squatter settlements (%)	Primary	Non-spatial	36%	EOLI (1.3.4)	<a href="http://mohua.gov.in/pdf/5c80e2225a124Handbook%20of%20Urban%20Statistics%202019.pdf">Hand Book of urban statistics 2019, Pg no : 24 http://mohua.gov.in/pdf/5c80e2225a124Handbook%20of%20Urban%20Statistics%202019.pdf</a>	>27.5%	27.5%-23.9%	24%-20.4%	20.5%-16.9%	17%-13.4%	13.5%-9.9%	<=10%	0
HP	2.2	Percentage of city area under slums/squatter settlements (%)	Primary	Non-spatial	8%	GPSC	[Descriptive Indicator]	NA	NA	NA	NA	NA	NA	NA	NA
HP	2.3	Percentage of owner-occupied housing units to total housing units (%)	Secondary	Non-spatial	Data requested	MDPI (3.6)	Hand Book of urban statistics 2019 pg no : 170 <a href="http://mohua.gov.in/pdf/5c80e2225a124Handbook%20of%20Urban%20Statistics%202019.pdf">http://mohua.gov.in/pdf/5c80e2225a124Handbook%20of%20Urban%20Statistics%202019.pdf</a>	<52.5%	52.5%-57.9%	58%-63.4%	63.5%-68.9%	69%-74.4%	74.5%-79.9%	>=80%	-
HP	2.4	Percentage of households spending greater than 30 percent of their income on accommodation expenses (%)	Tertiary	Non-spatial	Data not available	GPSC	Household Consumption of Various Goods and Services in India 2011-12, Pg 133 <a href="http://mospi.nic.in/sites/default/files/publication-reports/Report_no558_rou68_30june14.pdf">http://mospi.nic.in/sites/default/files/publication-reports/Report_no558_rou68_30june14.pdf</a> Page 33 of 1143	NA	NA	NA	NA	NA	NA	NA	-

2. HOUSING AND PROPERTY															
Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)	
HP	2.5	Percentage of households living in one room (%)	Tertiary	Non-spatial	Data not available	CPI (1.5)	Hand Book of urban statistics 2019 pg no : 159 <a href="http://mohua.gov.in/pdf/5c80e2225a124Handbook%20of%20Urban%20Statistics%202019.pdf">http://mohua.gov.in/pdf/5c80e2225a124Handbook%20of%20Urban%20Statistics%202019.pdf</a>	>80%	80%-64.9%	65%-49.9%	50%-34.9%	35%-19.9%	20%-4.9%	<=5%	-

3. WATER															
Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)	
WTR	3.1	Percentage of households with piped connection (%)	Primary	Non-spatial	94%	MPI (1.3.1)	Handbook of Service Level Benchmarking - CPHEEO; Pg. 23 <a href="http://cpheeo.gov.in/upload/uploadfiles/files/Handbook.pdf">http://cpheeo.gov.in/upload/uploadfiles/files/Handbook.pdf</a>  C-WAS (Centre for Water and Sanitation) - Interactive Dash Borad for Water Supply (2018) <a href="https://www.pas.org.in/web/ceptpas/interactivedashboards?p_p_id=InteractiveDashboard_WAR_Portal&amp;p_p_lifecycle=1&amp;p_p_state=normal&amp;p_p_mode=view&amp;p_p_col_id=column-1&amp;p_p_col_count=1&amp;actionVal=Retrieve&amp;SkipAccessChecking=false">https://www.pas.org.in/web/ceptpas/interactivedashboards?p_p_id=InteractiveDashboard_WAR_Portal&amp;p_p_lifecycle=1&amp;p_p_state=normal&amp;p_p_mode=view&amp;p_p_col_id=column-1&amp;p_p_col_count=1&amp;actionVal=Retrieve&amp;SkipAccessChecking=false</a>	<20%	20%-35.9%	36%-51.9%	52%-67.9%	68%-83.9%	84%-99.9%	100%	5
WTR	3.2	Percentage of water samples in a year that comply with national potable water quality standards (%)	Primary	Non-spatial	97%	GPSC	Handbook of Service Level Benchmarking - CPHEEO; Pg. 33 <a href="http://cpheeo.gov.in/upload/uploadfiles/files/Handbook.pdf">http://cpheeo.gov.in/upload/uploadfiles/files/Handbook.pdf</a>	<90%	90%-91.9%	92%-93.9%	94%-95.9%	96%-97.9%	98%-99.9%	100%	4
WTR	3.3	Existence of water resources assessment and management Plan prepared in the last five years	Primary	Non-spatial	No water resource assessment	CSCAF (4.4: Indicator 1)	NA	No water resource assessment	NA	NA	Assessment of current water resources	NA	NA	Water Resource Management (WRM) Plan is prepared with	0

3. WATER															
Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)	
					t has been carried out			has been carried out				along with future demand and water availability for at least five years		Short, Medium- and Long-Term Actions	
WTR	3.4	Extent of Non-Revenue Water (%)	Primary	Non-spatial	83%	CSCAF (4.4: Indicator 2)	Handbook of Service Level Benchmarking - CPHEEO; Pg. 28 <a href="http://cpheeo.gov.in/upload/uploadfiles/files/Handbook.pdf">http://cpheeo.gov.in/upload/uploadfiles/files/Handbook.pdf</a>	>40%	40%-35.9%	36%-31.9%	32%-27.9%	28%-23.9%	24%-19.9%	<=20%	0
WTR	3.5	Water supply per capita (LPCD)	Secondary	Non-spatial	236	MPI (1.3.2)	Handbook of Service Level Benchmarking - CPHEEO; Pg. 25 <a href="http://cpheeo.gov.in/upload/uploadfiles/files/Handbook.pdf">http://cpheeo.gov.in/upload/uploadfiles/files/Handbook.pdf</a>	<135 lpcd	135-137.9 lpcd	138-140.9 lpcd	141-143.9 lpcd	144-146.9 lpcd	147-149.9 lpcd	>=150 lpcd	6
WTR	3.6	Extent of metering of water supply connections (%)	Secondary	Non-spatial	5%	MPI (1.3.3)	Handbook of Service Level Benchmarking - CPHEEO; Pg. 27 <a href="http://cpheeo.gov.in/upload/uploadfiles/files/Handbook.pdf">http://cpheeo.gov.in/upload/uploadfiles/files/Handbook.pdf</a>	<20%	20%-35.9%	36%-51.9%	52%-67.9%	68%-83.9%	84%-99.9%	100%	0

4. SANITATION															
Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)	
SAN	4.1	Percentage of properties in the ULB connected to sewerage network (%)	Primary	Non-spatial	25%	MPI (1.4.6)	Handbook of Service Level Benchmarking - CPHEEO; Pg. 42 <a href="http://cpheeo.gov.in/upload/uploadfiles/files/Handbook.pdf">http://cpheeo.gov.in/upload/uploadfiles/files/Handbook.pdf</a> C-WAS (Centre for Water and Sanitation) - Interactive Dash Board for Sanitation (2018) <a href="https://www.pas.org.in/web/ceptpas/interactivedashboards?p_p_id=InteractiveDashboard_WAR_Portal&amp;p_p_lifecycle=1&amp;">https://www.pas.org.in/web/ceptpas/interactivedashboards?p_p_id=InteractiveDashboard_WAR_Portal&amp;p_p_lifecycle=1&amp;</a>	<80%	80%-83.9%	84%-87.9%	88%-91.9%	92%-95.9%	96%-99.9%	100%	0

4. SANITATION															
Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range						City Score	
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)		6 (Excellent performance)
							<a href="#">p_p_state=normal&amp;p_p_mode=view&amp;p_p_col_id=column-1&amp;p_p_col_count=1&amp;actionVal=Retrieve&amp;SkipAccessChecking=false</a>								
SAN	4.2	Proportion of households having access to toilet facility (%)	Primary	Non-spatial	98%	NIF (6.2.1)	Handbook of Service Level Benchmarking - CPHEEO; Pg. 40 <a href="http://cpheeo.gov.in/upload/uploadfiles/files/Handbook.pdf">http://cpheeo.gov.in/upload/uploadfiles/files/Handbook.pdf</a>  Swachh Bharat Mission - Urban ODF <a href="https://swachhodfurban.org/">https://swachhodfurban.org/</a>	<90%	90%-91.9%	92%-93.9%	94%-95.9%	96%-97.9%	98%-99.9%	100%	4
SAN	4.3	Percentage of sewage treated before discharge into surface water bodies (%)	Primary	Non-spatial	36%	NIF (6.3.1)	Handbook of Service Level Benchmarking - CPHEEO; Pg. 46 <a href="http://cpheeo.gov.in/upload/uploadfiles/files/Handbook.pdf">http://cpheeo.gov.in/upload/uploadfiles/files/Handbook.pdf</a>  C-WAS (Centre for Water and Sanitation) - Interactive Dash Board for Sanitation (2018)  <a href="https://www.pas.org.in/web/ceptpas/interactivedashboards?p_p_id=InteractiveDashboard_WAR_Portal&amp;p_p_lifecycle=1&amp;p_p_state=normal&amp;p_p_mode=view&amp;p_p_col_id=column-1&amp;p_p_col_count=1&amp;actionVal=Retrieve&amp;SkipAccessChecking=false">https://www.pas.org.in/web/ceptpas/interactivedashboards?p_p_id=InteractiveDashboard_WAR_Portal&amp;p_p_lifecycle=1&amp;p_p_state=normal&amp;p_p_mode=view&amp;p_p_col_id=column-1&amp;p_p_col_count=1&amp;actionVal=Retrieve&amp;SkipAccessChecking=false</a>	<20%	20%-35.9%	36%-51.9%	52%-67.9%	68%-83.9%	84%-99.9%	100%	1
SAN	4.4	Percentage of wastewater samples that passed the specified secondary treatment standards from the total samples collected in a year(%)	Primary	Non-spatial	93%	Expert recommended	Handbook of Service Level Benchmarking - CPHEEO; Pg. 49 <a href="http://cpheeo.gov.in/upload/uploadfiles/files/Handbook.pdf">http://cpheeo.gov.in/upload/uploadfiles/files/Handbook.pdf</a>	<70%	70%-75.9%	76%-81.9%	82%-87.9%	88%-93.9%	94%-99.9%	100%	4



4. SANITATION															
Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)	
SAN	4.5	Percentage of wastewater received at the treatment plant that is recycled or reused after appropriate treatment for various purposes (%)	Primary	Non-spatial	7%	CSCAF (4.4: Indicator 3)	Handbook of Service Level Benchmarking - CPHEEO; Pg. 51  <a href="http://cpheeo.gov.in/upload/uploadfiles/files/Handbook.pdf">http://cpheeo.gov.in/upload/uploadfiles/files/Handbook.pdf</a>  C-WAS (Centre for Water and Sanitation) - Interactive Dash Board for Sanitation (2018)  <a href="https://www.pas.org.in/web/ceptpas/interactivedashboards?p_p_id=InteractiveDashboard_WAR_Portal&amp;p_p_lifecycle=1&amp;p_p_state=normal&amp;p_p_mode=view&amp;p_p_col_id=column-1&amp;p_p_col_count=1&amp;actionVal=Retrieve&amp;SkipAccessChecking=false">https://www.pas.org.in/web/ceptpas/interactivedashboards?p_p_id=InteractiveDashboard_WAR_Portal&amp;p_p_lifecycle=1&amp;p_p_state=normal&amp;p_p_mode=view&amp;p_p_col_id=column-1&amp;p_p_col_count=1&amp;actionVal=Retrieve&amp;SkipAccessChecking=false</a>  Climate Smart City Assessment Framework Pg 47	<10%	10%-11.9%	12%-13.9%	14%-15.9%	16%-17.9%	18%-19.9%	>=20%	0
SAN	4.6	Percentage of city sewage that is treated in a sewage treatment plant (%)	Secondary	Non-spatial	47%	MPI (1.4.5)	Municipal Performance Index Pg 38 <a href="https://smartnet.niua.org/eol19/pdf/MPI_Methodology.pdf">https://smartnet.niua.org/eol19/pdf/MPI_Methodology.pdf</a>  Table: State-wise details of sewage generation in urban areas and treatment capacity available; National status of waste water generation & treatment  <a href="http://www.sulabhervis.nic.in/Database/STST_wastewater_2090.aspx">http://www.sulabhervis.nic.in/Database/STST_wastewater_2090.aspx</a>	<20%	20%-35.9%	36%-51.9%	52%-67.9%	68%-83.9%	84%-99.9%	100%	4
SAN	4.7	Percentage of industries complying with waste water treatment as per CPCB norms (%)	Secondary	Non-spatial	Data not available	Expert recommended	NA	<80%	80%-83.9%	84%-87.9%	88%-91.9%	92%-95.9%	96%-99.9%	100%	-

4. SANITATION															
Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)	
SAN	4.8	Existence of FSSM Action plan or notified San-benchmarks, byelaws/ guidelines/ policy notes by the ULB/Development Authority	Secondary	Non-spatial	Guidelines /policy/act ion plan prepared	SS 2020 (3.1)	NA	No guidelines/ policy/actio n plan prepared	NA	NA	Work under progress	NA	NA	Guidelines/ policy/actio n plan prepared	6
SAN	4.9	Percentage of Public Toilets (PTs) mapped on Google Maps (%)	Tertiary	Non-spatial	100%	SS 2020 (3.8)	Swachh Bharat Mission Urban <a href="http://sbmtoilet.org/bac kend/web/index.php?r=s ite%2Flogin">http://sbmtoilet.org/bac kend/web/index.php?r=s ite%2Flogin</a>	<80%	80%-83.9%	84%-87.9%	88%-91.9%	92%-95.9%	96%-99.9%	100%	6

5. SOLID WASTE MANAGEMENT															
Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)	
SWM	5.1	Percentage of city's wet waste processed (%)	Primary	Non-spatial	74%	CSCAF (4.5: Indicator 4)	PIB - Swacch Survekshan 2020 <a href="https://pib.gov.in/PressR eleasePage.aspx?PRID=1 598072">https://pib.gov.in/PressR eleasePage.aspx?PRID=1 598072</a>	<40%	40%-45.9%	46%-51.9%	52%-57.9%	58%-63.9%	64%-69.9%	>=70%	6
SWM	5.2	Percentage of the city's dry waste that is separated and classified for recycling/material recovery (%)	Primary	Non-spatial	95%	SS 2020 (2.3)	PIB - Swacch Survekshan 2020 <a href="https://pib.gov.in/PressR eleasePage.aspx?PRID=1 598072">https://pib.gov.in/PressR eleasePage.aspx?PRID=1 598072</a>	<40%	40%-43.9%	44%-47.9%	48%-51.9%	52%-55.9%	56%-59.9%	>=60%	6
SWM	5.3	Percentage of the city's solid waste that is used for energy recovery (incineration) or co-processing (%)	Primary	Non-spatial	0%	Expert Recommended	<a href="https://datatopics.world bank.org/what-a- waste/trends in solid w aste management.html">https://datatopics.world bank.org/what-a- waste/trends in solid w aste management.html</a>	>10%	10%-8.9%	9%-7.9%	8%-6.9%	7%-5.9%	6%-4.9%	<=5%	6
SWM	5.4	Percentage of the city's municipal solid waste that is disposed off in open dumps / controlled dumps, water bodies / is burnt (%)	Primary	Non-spatial	27%	Expert Recommended	Annual report 2017-18 on solid waste management; Available at <a href="https://cpcb.nic.in/uploa ds/MSW/MSW AnnualR eport 2017-18.pdf">https://cpcb.nic.in/uploa ds/MSW/MSW AnnualR eport 2017-18.pdf</a> Global waste disposal in open dumpsites <a href="https://datatopics.world bank.org/what-a- waste/trends in solid w aste management.html">https://datatopics.world bank.org/what-a- waste/trends in solid w aste management.html</a>	>50%	50%-43.9%	44%-37.9%	38%-31.9%	32%-25.9%	26%-19.9%	<=20%	4
SWM	5.5	Percentage of waste remediated in the city (%)	Primary	Non-spatial	Data requested	SS 2020 (2.7)	NA	<40%	40%-50.9%	51%-61.9%	62%-72.9%	73%-83.9%	84%-94.9%	>=95%	-

5. SOLID WASTE MANAGEMENT															
Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)	
SWM	5.6	Percentage of wards practicing source segregation of waste which is maintained till processing/ disposal site (%)	Secondary	Non-spatial	53%	SS 2020 (1.2)	<a href="https://www.swachhsurv ekshan2020.org/ImpDocs/SS2020fullreport.pdf">https://www.swachhsurv ekshan2020.org/ImpDocs/SS2020fullreport.pdf</a>	<20%	20%-25.9%	26%-31.9%	32%-37.9%	38%-43.9%	44%-49.9%	>=50%	6
SWM	5.7	ICT based Monitoring Mechanism in place for: i) Ward wise Collection and Transportation (C&T) ii) Monitoring of Garbage Vulnerable Points (GVPs) iii) Attendance of Sanitation Staff	Secondary	Non-spatial	3	SS 2020 (1.3)	NA	If 0 ICT Based Monitoring mechanisms	NA	NA	If 1 or 2 ICT Based Monitoring mechanisms	NA	NA	If all 3 ICT Based Monitoring mechanisms	6
SWM	5.8	Percentage of informal waste pickers integrated into sustainable SWM systems (%)	Secondary	Non-spatial	28%	SS 2020 (1.4)	NA	<60%	60%-63.9%	64%-67.9%	68%-71.9%	72%-75.9%	76%-79.9%	>=80%	0
SWM	5.9	Percentage of C&D waste collected of the total C&D waste generated (%)	Secondary	Non-spatial	0%	SS 2020 (2.6)	NA	<60%	60%-66.9%	67%-73.9%	74%-80.9%	81%-87.9%	88%-94.9%	>=95%	0
SWM	5.10	Percentage of hazardous waste processed (%)	Secondary	Non-spatial	75%	SS 2020 (2.5)	CPCB Annual Report 2018-19; <a href="https://cpcb.nic.in/openpdf.php?id=UmVwb3JlORmlsZXNvMTEwOV8xNTk3M0M3NTM0X21lZGllhcGhvdG8xOTY1Ni5wZGY=">https://cpcb.nic.in/openpdf.php?id=UmVwb3JlORmlsZXNvMTEwOV8xNTk3M0M3NTM0X21lZGllhcGhvdG8xOTY1Ni5wZGY=</a>	<50%	50%-53.9%	54%-57.9%	58%-61.9%	62%-65.9%	66%-69.9%	>=70%	6
SWM	5.11	Total solid waste generation per capita per day (kg/capita/day)	Tertiary	Non-spatial	0.41	SS 2020 (2.1)	Swacch Bharta Mission, Part II Manual (2016) Pg 83; World Bank <a href="https://datatopics.worldbank.org/what-a-waste/trends-in-solid-waste-management.html">https://datatopics.worldbank.org/what-a-waste/trends-in-solid-waste-management.html</a> <a href="http://mohua.gov.in/upload/uploadfiles/files/Part2.pdf">http://mohua.gov.in/upload/uploadfiles/files/Part2.pdf</a>	>1.1	1.1-0.89	0.9-0.69	0.7-0.49	0.5-0.29	0.3-0.01	<=0.11	4
SWM	5.12	Percentage Coverage of wards under Door-To-Door Collection System (%)	Tertiary	Non-spatial	100%	MPI (1.4.1)	PIB - Swacch Survekshan 2020 <a href="https://pib.gov.in/PressReleasePage.aspx?PRID=1598071">https://pib.gov.in/PressReleasePage.aspx?PRID=1598071</a>	<60%	60%-67.1%	67.2%-74.3%	74.4%-81.5%	81.6%-88.7%	88.8%-95.9%	>=96%	6

6. TRANSPORTATION															
Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)	
TR	6.1	Proportion of population with access to public transport within 500m (%)	Primary	Spatial	72%	GPSC	SLB in Urban Transport, pg no : 12 <a href="http://mohua.gov.in/upload/uploadfiles/files/Voulme1_Methodologyreport_final03.pdf">http://mohua.gov.in/upload/uploadfiles/files/Voulme1_Methodologyreport_final03.pdf</a>	<60%	60%-63.9%	64%-67.9%	68%-71.9%	72%-75.9%	76%-79.9%	>=80%	4
TR	6.2	Kilometres of bicycle path per 100,000 population (km)	Primary	Non-spatial	1.35	GPSC	Green cities programme methodology, pg no: 80 <a href="https://www.ebrd.com/documents/technical-cooperation/green-city-action-plan-in-tirana.pdf">https://www.ebrd.com/documents/technical-cooperation/green-city-action-plan-in-tirana.pdf</a>	<15 km	15-16.9 km	17-18.9 km	19-20.9 km	21-22.9 km	23-24.9 km	>=25 km	0
TR	6.3	Percentage of major roads covered with footpath (footpath wider than 1.2 meters) within the city (%)	Primary	Non-spatial	54%	GPSC	Urban transportation SLB 2B, pg no : 68 <a href="https://smartnet.niua.org/sites/default/files/resources/SLB%202B.pdf">https://smartnet.niua.org/sites/default/files/resources/SLB%202B.pdf</a>	<50%	50%-54.9%	55%-59.9%	60%-64.9%	65%-69.9%	70%-74.9%	>=75%	1
TR	6.4	Rate of increase in public transportation ridership (%)	Primary	Non-spatial	Data requested	Expert recommended	NA	Negative year on year ridership change	NA	NA	No change in ridership	NA	NA	Positive year on year ridership change	-
TR	6.5	Percentage of shared vehicles that operate on clean fuels like CNG, LPG, biofuels or are hybrid or electric vehicles (%)	Primary	Non-spatial	0%	CSCAF (4.3: Indicator 1)	Climate Smart Cities Assessment Framework 2.0, Pg. 36 <a href="https://www.niua.org/cs/c/assets/pdf/CSCAF_2_Booklet.pdf">https://www.niua.org/cs/c/assets/pdf/CSCAF_2_Booklet.pdf</a>	<5%	5%-8.9%	9%-12.9%	13%-16.9%	17%-20.9%	21%-24.9%	>=25%	0
TR	6.6	Road density (km/sqkm)	Primary	Non-spatial	11.25	MPI (1.6.4)	[Descriptive Indicator]	NA	NA	NA	NA	NA	NA	NA	NA
TR	6.7	Average travel speed in major roads of the city (kmph)	Secondary	Non-spatial	Data requested	GPSC	SLB in Urban Transport, pg no : 29 <a href="http://mohua.gov.in/upload/uploadfiles/files/Voulme1_Methodologyreport_final03.pdf">http://mohua.gov.in/upload/uploadfiles/files/Voulme1_Methodologyreport_final03.pdf</a>	<16 kmph	16-16.7 kmph	16.8-17.5 kmph	17.6-18.3 kmph	18.4-19.1 kmph	19.2-19.9 kmph	>=20 kmph	-
TR	6.8	Percentage share of NMT in commuting (cycling and walking) (%)	Secondary	Non-spatial	47%	Expert recommended	UNCRD Mobility and NMT in Sustainable Urban Transport Development, Pg. 23 <a href="https://www.uncrd.or.jp/content/documents/6988Background%20Paper%20for%20EST%20Plena">https://www.uncrd.or.jp/content/documents/6988Background%20Paper%20for%20EST%20Plena</a>	<15%	15%-18.5%	18.6%-22.1%	22.2%-25.7%	25.8%-29.3%	29.4%-32.9%	>=33%	6

6. TRANSPORTATION															
Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)	
							<a href="#">ry%20Session%205-11th%20Regiona%20EST%20Forum.pdf</a>								
TR	6.9	Street intersection density (intersections/sqkm)	Secondary	Non-spatial	Data requested	CPI (5.1)	Economic Foundations for Sustainable Urbanization, UN-Habitat, Pg 37 <a href="https://unhabitat.org/sites/default/files/download-manager-files/3PA_Second%20Edition_ForWeb.pdf">https://unhabitat.org/sites/default/files/download-manager-files/3PA_Second%20Edition_ForWeb.pdf</a>	Less than 75 intersections	NA	NA	Between 75 and 100 intersections	NA	NA	Greater than 100 intersections	0
TR	6.10	Kilometres of road with public transit per 100,000 population (km)	Secondary	Non-spatial	13.88	GPSC	Green cities programme methodology, pg no: 80 <a href="https://www.ebrd.com/documents/technical-cooperation/green-city-action-plan-in-tirana.pdf">https://www.ebrd.com/documents/technical-cooperation/green-city-action-plan-in-tirana.pdf</a>	Less than 10 km	NA	NA	Between 10km and 40 km	NA	NA	Greater than 40 km	3
TR	6.11	Fatal and serious injuries in road accidents per lakh population (number)	Secondary	Non-spatial	Data requested	GPSC	SLB in Urban Transport, pg : 32 <a href="http://mohua.gov.in/upload/uploadfiles/files/VoulmeI_Methodologyreport_final03.pdf">http://mohua.gov.in/upload/uploadfiles/files/VoulmeI_Methodologyreport_final03.pdf</a>	>6	6-4.7	4.8-3.5	3.6-2.3	2.4-1.1	1.2--0.1	0	-
TR	6.12	Accessibility of differently abled groups to Public Buses (%)	Secondary	Non-spatial	Data requested	Expert recommended	SLB in Urban Transport, pg : 26 <a href="http://mohua.gov.in/upload/uploadfiles/files/VoulmeI_Methodologyreport_final03.pdf">http://mohua.gov.in/upload/uploadfiles/files/VoulmeI_Methodologyreport_final03.pdf</a>	<25%	25%-34.9%	35%-44.9%	45%-54.9%	55%-64.9%	65%-74.9%	>=75%	-
TR	6.13	Workplace accessibility within 30 minutes of transit (%)	Tertiary; Aspirational	Spatial	Data not available	GPSC	[Descriptive Indicator]	NA	NA	NA	NA	NA	NA	NA	NA
TR	6.14	Percentage of total area of ULB allocated to streets (%)	Tertiary	Non-spatial	19%	CPI (5.3)	Economic Foundations for Sustainable Urbanization, UN-Habitat, Pg 74 <a href="https://unhabitat.org/sites/default/files/download-manager-files/3PA_Second%20Edition_ForWeb.pdf">https://unhabitat.org/sites/default/files/download-manager-files/3PA_Second%20Edition_ForWeb.pdf</a>	<15%	15%-17.9%	18%-20.9%	21%-23.9%	24%-26.9%	27%-29.9%	>=30%	2

7. SOCIAL FACILITIES AND SERVICES															
Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)	
SCL	7.1	Percentage of population within 800m distance to healthcare facilities (public/private) (%)	Primary	Spatial	82%	GPSC	URDPFI, Vol 1, Pg 356  ( <a href="http://mohua.gov.in/upload/uploadfiles/files/URDPFI%20Guidelines%20Vol%201.pdf">http://mohua.gov.in/upload/uploadfiles/files/URDPFI%20Guidelines%20Vol%201.pdf</a> )	<80%	80%-82.9%	83%-85.9%	86%-88.9%	89%-91.9%	92%-94.9%	>=95%	1
SCL	7.2	Percentage of females of ages 7 and above who are literate (%)	Primary	Non-spatial	79.16%	GPSC	NSS 75th round social consumption on education report Year: 2017-18 Page 52 of 1504 <a href="http://mospi.nic.in/sites/default/files/publication-reports/Report_585_75th_round_Education_final_1507_0.pdf">http://mospi.nic.in/sites/default/files/publication-reports/Report_585_75th_round_Education_final_1507_0.pdf</a>	<55%	55%-63.9%	64%-72.9%	73%-81.9%	82%-90.9%	91%-99.9%	100%	3
SCL	7.3	Percentage of population within 800m distance to primary/secondary schools (public/private) (%)	Primary	Spatial	92%	MDPI (2.4)	URDPFI, Vol 1, pg 357 <a href="http://mohua.gov.in/upload/uploadfiles/files/URDPFI%20Guidelines%20Vol%201.pdf">http://mohua.gov.in/upload/uploadfiles/files/URDPFI%20Guidelines%20Vol%201.pdf</a>	<80%	80%-82.9%	83%-85.9%	86%-88.9%	89%-91.9%	92%-94.9%	>=95%	5
SCL	7.4	Change in decadal population growth rate (1991-2001 and 2001-2011) (%)	Secondary	Non-spatial	-14%	GPSC	[Descriptive Indicator]	NA	NA	NA	NA	NA	NA	NA	NA
SCL	7.5	City Level Dependency Ratio (%)	Secondary	Non-spatial	48%	GPSC	[Descriptive Indicator]	NA	NA	NA	NA	NA	NA	NA	NA
SCL	7.6	Under-five mortality rate per 1000 births (number)	Secondary	Non-spatial	Data requested	GPSC	<a href="https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf">THE 2030 AGENDA SDG Goal 3.3, Pg 20</a> ( <a href="https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf">https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf</a> ) ( <a href="https://www.niti.gov.in/niti/content/under-5-mortality-rate-u-5mr-1000-live-births">https://www.niti.gov.in/niti/content/under-5-mortality-rate-u-5mr-1000-live-births</a> )  World Bank database ( <a href="https://data.worldbank.org/indicator/SH.DYN.MORT?locations=IN">https://data.worldbank.org/indicator/SH.DYN.MORT?locations=IN</a> )	>47.5	47.5-42.9	43-38.4	38.5-33.9	34-29.4	29.5-24.9	<=25	-
SCL	7.7	Bed density in public and private hospitals (Hospital beds per 10,000 residents) (number)	Secondary	Non-spatial	4.6	ESCI (Q.2)	EoL, Section 1.2.4, Pg 45  <a href="https://smartnet.niua.org/eol19/pdf/EOL-2019-Completed-Version.pdf">https://smartnet.niua.org/eol19/pdf/EOL-2019-Completed-Version.pdf</a>	<15	15-16.9	17-18.9	19-20.9	21-22.9	23-24.9	>=25	0

7. SOCIAL FACILITIES AND SERVICES															
Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)	
SCL	7.8	Percentage reduction in prevalence of vector borne diseases(malaria, dengue) over the previous year (%)	Secondary	Non-spatial	Data requested	Expert recommended	<a href="https://www.who.int/docs/default-source/searo/india/health-topic-pdf/vbd-factsheets.pdf?sfvrsn=c1908b04_2#:~:text=Important%20vector%2Dborne%20disease%20for,Family%20Welfare%2C%20Government%20of%20India.https://www.intechopen.com/books/public-health-in-developing-countries-challenges-and-opportunities/innovations-in-vector-borne-disease-control-in-indiahttps://nvbdcp.gov.in/index1.php?lang=1&amp;level=1&amp;sublinkid=5776&amp;lid=3690,https://main.mohfw.gov.in/sites/default/files/5201617.pdf">https://www.who.int/docs/default-source/searo/india/health-topic-pdf/vbd-factsheets.pdf?sfvrsn=c1908b04_2#:~:text=Important%20vector%2Dborne%20disease%20for,Family%20Welfare%2C%20Government%20of%20India.https://www.intechopen.com/books/public-health-in-developing-countries-challenges-and-opportunities/innovations-in-vector-borne-disease-control-in-indiahttps://nvbdcp.gov.in/index1.php?lang=1&amp;level=1&amp;sublinkid=5776&amp;lid=3690,https://main.mohfw.gov.in/sites/default/files/5201617.pdf</a>	<25%	25%-29.9%	30%-34.9%	35%-39.9%	40%-44.9%	45%-49.9%	>=50%	-
SCL	7.9	Percentage reduction in prevalence of waterborne diseases (Diarrhoea, typhoid) over the previous year (%)	Secondary	Non-spatial	Data requested	Expert recommended	<a href="https://www.who.int/cholera/publications/global-roadmap.pdf">https://www.who.int/cholera/publications/global-roadmap.pdf</a>	<5%	5%-7.9%	8%-10.9%	11%-13.9%	14%-16.9%	17%-19.9%	>=20%	-
SCL	7.10	Percentage of schools with Access to Digital Education (%)	Secondary; Aspirational	Non-spatial	4%	EOLI (1.1.7)	[Descriptive Indicator]	NA	NA	NA	NA	NA	NA	NA	NA
SCL	7.11	Percentage of mobile network, by 3G and 4G technology subscriptions (%)	Tertiary	Non-spatial	Data not available	GPSC	NA	<80%	80%-82.9%	83%-85.9%	86%-88.9%	89%-91.9%	92%-94.9%	>=95%	-

8. ENVIRONMENT AND ECOLOGY															
Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)	
ENV	8.1	Clean Air Action Plan (Planning and Implementation)	Primary	Non-spatial	Clean Air Action Plan and Pollutants Source	CSCAF (4.3: Indicator 5)	Climate Smart City Assessment Framework, Pg 41-42 <a href="https://csc.urban-industrial.in/hrdpmp/ige">https://csc.urban-industrial.in/hrdpmp/ige</a>	No Air Pollutant Monitoring Clean Air Action	NA	NA	Clean Air Action Plan and Pollutants Source	NA	NA	Assessing impacts of Clean Air Action Plan implementation	3

8. ENVIRONMENT AND ECOLOGY															
Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)	
					Identificati on		uid/content/e5170/e625 8/e10222/e10224/CSCAF _2_Booklet.pdf	Plan in the city				Identificati on			
ENV	8.2	Existence of a GHG emissions measurement system with a monitoring system (Y/N)	Primary; Aspirational	Non- spatial	No	GPSC	NA	No	NA	NA	NA	NA	NA	Yes	0
ENV	8.3	Total annual GHG emissions (MtCO2e)	Primary; Aspirational	Non- spatial	3660161	GPSC	[Descriptive Indicator]	NA	NA	NA	NA	NA	NA	NA	NA
ENV	8.4	Proportion of Tree Cover to the total ULB area(%)	Primary	Non- spatial	Data requested	EOLI (3.1.2)	National Institute of Environmental Studies (NIES)  <a href="http://cdn.narendramodi.in/ebooks/other-ebooks1/tree_cover_in_urban_area/files/assets/basic-html/index.html#22">http://cdn.narendramodi.in/ebooks/other-ebooks1/tree_cover_in_urban_area/files/assets/basic-html/index.html#22</a>	<5%	5%-5.9%	6%-6.9%	7%-7.9%	8%-8.9%	9%-9.9%	>=10%	-
ENV	8.5	Extent to which city is acting for protection, conservation and management of urban biodiversity	Primary	Non- spatial	No action initiated	CSCAF (4.2: Indicator 3)	Climate Smart City Assessment Framework, Pg 30-31 <a href="https://csc.urban-industrial.in/hrdpmp/igepp-uid/content/e5170/e6258/e10222/e10224/CSCAF_2_Booklet.pdf">https://csc.urban-industrial.in/hrdpmp/igepp-uid/content/e5170/e6258/e10222/e10224/CSCAF_2_Booklet.pdf</a>	No action initiated	NA	NA	NA	NA	NA	Implement ation of actions	0
ENV	8.6	Number of structural and financial incentives for green buildings implemented (number)	Primary	Non- spatial	No incentives	EOLI (3.2.2)	Government Incentives to IGBC-rated Green Building Projects  <a href="https://igbc.in/igbc/redirectHtml.htm?redVal=showGovtIncentivesnosign#:~:text=Some%20of%20the%20Central%20and,to%20IGBCs'%20Green%20Rating%20Systems.&amp;text=The%20Ministry%20of%20Environment%2C%20Forest,PreCertified%2F%20Provisionally%20Certified%20by%20IGBC.">https://igbc.in/igbc/redirectHtml.htm?redVal=showGovtIncentivesnosign#:~:text=Some%20of%20the%20Central%20and,to%20IGBCs'%20Green%20Rating%20Systems.&amp;text=The%20Ministry%20of%20Environment%2C%20Forest,PreCertified%2F%20Provisionally%20Certified%20by%20IGBC.</a>	No incentives	NA	NA	One or two incentives	NA	NA	All three incentives	0
ENV	8.7	Annual mean Air Quality Index(AQI) (number)	Secondary	Non- spatial	137.6	EOLI (3.1.5)	NA	Greater than 300	NA	NA	Between 101 and 300	NA	NA	Less than 100	3
ENV	8.8	Annual CO2 equivalent (GHG) emissions per capita (MtCO2e/capita)	Secondary; Aspirational	Non- spatial	2.05	GPSC	[Descriptive Indicator]	NA	NA	NA	NA	NA	NA	NA	NA



8. ENVIRONMENT AND ECOLOGY															
Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)	
ENV	8.9	Annual CO2 equivalent emissions from the transportation sector (MtCO2e)	Secondary; Aspirational	Non-spatial	710271	Expert Recommended	[Descriptive Indicator]	NA	NA	NA	NA	NA	NA	NA	NA
ENV	8.10	Biochemical Oxygen Demand 3 day, 270C (mg/l)	Secondary	Non-spatial	Data to be collected	Expert Recommended	<a href="https://pib.gov.in/PressReleasePage.aspx?PRID=1602631">https://pib.gov.in/PressReleasePage.aspx?PRID=1602631</a>	Greater than 6 mg/l	NA	NA	Between 3 and 6 mg/l	NA	NA	Less than 3 mg/l	-
ENV	8.11	Area under ULB covered by trees per inhabitant (sqm per person)	Secondary	Non-spatial	Data not available	Expert Recommended	National Institute of Environmental Studies (NIES) <a href="https://cdn.narendramodi.in/ebooks/other-ebooks1/tree_cover_in_urban_area/files/assets/basic-html/page22.html">https://cdn.narendramodi.in/ebooks/other-ebooks1/tree_cover_in_urban_area/files/assets/basic-html/page22.html</a>	Less than 10 sqm	NA	NA	Between 10 sqm and 15 sqm	NA	NA	Greater than 15 sqm	-
ENV	8.12	Is there a land use plan that includes zoning with environmental protection and preservation zones? (Y/N)	Secondary	Non-spatial	No	GPSC	NA	No	NA	NA	NA	NA	NA	Yes	0
ENV	8.13	Annual mean levels of PM10 (µg/m3)	Tertiary	Non-spatial	113	NIF (11.6.2)	<a href="#">Revised National Ambient Air Quality Standards, Pg 1-2</a>  <a href="https://cpcb.nic.in/displaypdf.php?id=aG9tZS9haXltcG9sbHV0aW9uL1JlY3ZlZC1OYXRpb25hbC5wZGY">https://cpcb.nic.in/displaypdf.php?id=aG9tZS9haXltcG9sbHV0aW9uL1JlY3ZlZC1OYXRpb25hbC5wZGY</a>  WHO: <a href="https://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health">https://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health</a>	Greater than 60 µg/m3	NA	NA	Between 60 µg/m3 and 20 µg/m3	NA	NA	Less than 20 µg/m3	0
ENV	8.14	Annual mean levels of PM2.5 (µg/m3)	Tertiary	Non-spatial	51.8	NIF (11.6.2)	<a href="#">Revised National Ambient Air Quality Standards, Pg 1-2</a>  <a href="https://cpcb.nic.in/displaypdf.php?id=aG9tZS9haXltcG9sbHV0aW9uL1JlY3ZlZC1OYXRpb25hbC5wZGY">https://cpcb.nic.in/displaypdf.php?id=aG9tZS9haXltcG9sbHV0aW9uL1JlY3ZlZC1OYXRpb25hbC5wZGY</a>  WHO: <a href="https://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health">https://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health</a>	Greater than 40 µg/m3	NA	NA	Between 40 µg/m3 and 10 µg/m3	NA	NA	Less than 10 µg/m3	0

8. ENVIRONMENT AND ECOLOGY															
Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)	
							<a href="#">ws-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health</a>								
ENV	8.15	Annual concentration of NO2 (µg/m3)	Tertiary	Non-spatial	11.5	GPSC	<a href="#">Revised National Ambient Air Quality Standards, Pg 1</a> <a href="https://cpcb.nic.in/displaypdf.php?id=aG9tZS9haXlhcG9sbHV0aW9uL1JlY3ZlZC1OYXRpb25hbC5wZGY">https://cpcb.nic.in/displaypdf.php?id=aG9tZS9haXlhcG9sbHV0aW9uL1JlY3ZlZC1OYXRpb25hbC5wZGY</a> WHO: <a href="https://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health">https://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health</a>	Greater than 80 µg/m3	NA	NA	Between 80 µg/m3 and 40 µg/m3	NA	NA	Less than 40 µg/m3	6
ENV	8.16	Average daily concentration of SO2 (µg/m3)	Tertiary	Non-spatial	5.5	GPSC	<a href="#">Revised National Ambient Air Quality Standards, Pg 1</a> <a href="https://cpcb.nic.in/displaypdf.php?id=aG9tZS9haXlhcG9sbHV0aW9uL1JlY3ZlZC1OYXRpb25hbC5wZGY">https://cpcb.nic.in/displaypdf.php?id=aG9tZS9haXlhcG9sbHV0aW9uL1JlY3ZlZC1OYXRpb25hbC5wZGY</a> WHO: <a href="https://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health">https://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health</a>	Greater than 80 µg/m3	NA	NA	Between 80 µg/m3 and 20 µg/m3	NA	NA	Less than 20 µg/m3	6
ENV	8.17	Total annual methane emissions (MtCO2e)	Tertiary; Aspirational	Non-spatial	Data requested	GPSC	[Descriptive Indicator]	NA	NA	NA	NA	NA	NA	NA	NA
ENV	8.18	Existence, monitoring and enforcement of regulations on noise pollution (Y/N)	Tertiary	Non-spatial	No	ESCI (G.1)	[Descriptive Indicator]	No	NA	NA	NA	NA	NA	Yes	0

9. CLEAN ENERGY															
Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range						City Score	
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)		6 (Excellent performance)
CE	9.1	Percentage of the city's households using LPG/PNG for cooking (%s)	Primary	Non-spatial	Data to be verified	EOLI (3.1.3)	<a href="http://mospi.nic.in/sites/default/files/NSS7612dw/Report_584_final.pdf">Drinking water, Sanitation, Hygiene &amp; Housing Conditions in India, Pg 195</a> <a href="http://mospi.nic.in/sites/default/files/NSS7612dw/Report_584_final.pdf">http://mospi.nic.in/sites/default/files/NSS7612dw/Report_584_final.pdf</a>	<67%	67%-73.5%	73.6%-80.1%	80.2%-86.7%	86.8%-93.3%	93.4%-99.9%	100%	-
CE	9.2	Percentage of total electrical energy in the city derived from renewable sources (%)	Primary	Non-spatial	Data to be verified	CSCAF (4.1: Indicator 2)	Renewable energy consumption - The World Bank (% of total final energy consumption) <a href="https://data.worldbank.org/indicator/EG.FEC.RNE.W.ZS">https://data.worldbank.org/indicator/EG.FEC.RNE.W.ZS</a>	<5%	5%-6.9%	7%-8.9%	9%-10.9%	11%-12.9%	13%-14.9%	>=15%	-
CE	9.3	Proportion of population in the city who have access to renewable energy (%s)	Primary; Aspirational	Non-spatial	Data not available	GPSC	Population with primary reliance on clean fuels and technologies Data by country - World Health Organisation <a href="https://apps.who.int/gho/data/view.main.SDGFUELS712v">https://apps.who.int/gho/data/view.main.SDGFUELS712v</a>	<10%	10%-22.9%	23%-35.9%	36%-48.9%	49%-61.9%	62%-74.9%	>=75%	-
CE	9.4	Percentage of energy-efficient street lighting in the city (%)	Primary	Non-spatial	37%	CSCAF (4.1: Indicator 1)	Street Light National Programme (SLNP), GoI <a href="https://slnp.eeslindia.org/">https://slnp.eeslindia.org/</a> <a href="https://vikaspedia.in/energy/policy-support/energy-efficiency/street-light-national-programme#:~:text=Street%20Light%20National%20Programme%20is,energy%20efficiency%20in%20the%20country.&amp;text=The%20National%20Programme%20has%20been,with%20energy%20efficient%20LED%20lights.">https://vikaspedia.in/energy/policy-support/energy-efficiency/street-light-national-programme#:~:text=Street%20Light%20National%20Programme%20is,energy%20efficiency%20in%20the%20country.&amp;text=The%20National%20Programme%20has%20been,with%20energy%20efficient%20LED%20lights.</a>	<25%	25%-39.9%	40%-54.9%	55%-69.9%	70%-84.9%	85%-99.9%	100%	1
CE	9.5	Energy use per capita (kWh)	Primary	Non-spatial	Data requested	Expert Recommended	[Descriptive Indicator]	NA	NA	NA	NA	NA	NA	NA	NA
CE	9.6	Percentage of the city's households with an authorized connection to electrical energy (%)	Secondary	Non-spatial	Data to be verified	EOLI (1.3.1)	Access to Electricity - Urban, The World Bank <a href="https://data.worldbank.org/">https://data.worldbank.org/</a>	<99.25%	99.25%-99.3%	99.4%-99.45%	99.55%-99.6%	99.7%-99.75%	99.85%-99.9%	100%	-

9. CLEAN ENERGY															
Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)	
							<a href="#">rg/indicator/EG.ELC.ACC.S.UR.ZS</a>								
CE	9.7	Do existing building codes consider eco-friendly techniques and/or the use of local/renewable material? (Y/N)	Secondary	Non-spatial	No	CityRAP	NA	No	NA	NA	NA	NA	NA	Yes	0
CE	9.8	System Average Interruption Frequency Index (SAIFI) (number)s	Tertiary	Non-spatial	Data requested	Expert Recommended	NA	>73.5	73.5-58.9	59-44.4	44.5-29.9	30-15.4	15.5-0.9	<=1	-

10. DISASTER RISK MANAGEMENT															
Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)	
DRM	10.1	Presence of City Disaster Management Plan prepared / updated in last five years (Y/N)	Primary	Non-spatial	Plan prepared after year 2016	GPSC	NA	No Plan	NA	NA	Plan prepared before year 2016	NA	NA	Plan prepared after year 2016	6
DRM	10.2	Existence of hazard vulnerability maps/risk maps (at city level) prepared / updated in the last five years for the main hazards threatening the city (Y/N)	Primary	Non-spatial	Maps not prepared	GPSC	NA	Maps not prepared	NA	NA	Maps prepared / updated prior to year 2016	NA	NA	Maps prepared / updated in or after year 2016	0
DRM	10.3	Percentage of households at risk due to placement in areas of non-mitigable risk within the ULB (%)	Primary	Non-spatial	Data requested	ESCI (H.2)	NA	>20%	20%-17.9%	18%-15.9%	16%-13.9%	14%-11.9%	12%-9.9%	<=10%	-
DRM	10.4	Percentage of buildings within 4km distance to fire service facility (%)	Primary	Spatial	Data requested	Expert recommended	URDPFI, Vol 1, Pg 366 <a href="http://mohua.gov.in/upload/uploadfiles/files/URDPFI%20Guidelines%20Vol%20I.pdf">http://mohua.gov.in/upload/uploadfiles/files/URDPFI%20Guidelines%20Vol%20I.pdf</a>	<70%	70%-75.9%	76%-81.9%	82%-87.9%	88%-93.9%	94%-99.9%	100%	-
DRM	10.5	Presence of hazard early warning systems linked with command control system	Secondary	Non-spatial	Presence of hazard early warning system but no linkage with ULB Command Control system	Expert recommended	NA	Absence of hazard early warning system	NA	NA	Presence of hazard early warning system but no linkage with ULB Command Control system	NA	NA	Presence of hazard early warning system linked to ULB command control system	3
DRM	10.6	Existence of urban flood / water stagnation risk assessment and management plan	Secondary	Non-spatial	City has conducted rapid / detailed flood risk assessment	CSCAF (4.4: Indicator 4)	NA	City has not conducted urban flood / water stagnation	NA	NA	City has conducted rapid / detailed flood risk assessment	NA	NA	City has conducted rapid / detailed flood risk assessment	6

10.DISASTER RISK MANAGEMENT																
Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score	
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)		
					t in the last five years			risk assessment				older than five years.			in the last five years	

11.GOVERNANCE AND DATA MANAGEMENT															
Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)	
GOV	11.1	Number of planners per capita (number)	Primary	Non-spatial	0.09	GPSC	<a href="http://mohua.gov.in/upload/uploadfiles/files/URDPFI%20Guidelines%20Vol%20I.pdf">URDPFI, Vol I, pg 105</a> <a href="http://mohua.gov.in/upload/uploadfiles/files/URDPFI%20Guidelines%20Vol%20I.pdf">http://mohua.gov.in/upload/uploadfiles/files/URDPFI%20Guidelines%20Vol%20I.pdf</a>	<0.5	0.5-0.59	0.6-0.69	0.7-0.79	0.8-0.89	0.9-0.99	>=1	0
GOV	11.2	Years since enforced master plan/development plan was last reviewed and updated (number of years)	Primary	Non-spatial	15	GPSC	<a href="http://mohua.gov.in/upload/uploadfiles/files/URDPFI%20Guidelines%20Vol%20I.pdf">URDPFI, Vol I, pg 06</a> <a href="http://mohua.gov.in/upload/uploadfiles/files/URDPFI%20Guidelines%20Vol%20I.pdf">http://mohua.gov.in/upload/uploadfiles/files/URDPFI%20Guidelines%20Vol%20I.pdf</a>	>10 years	10-8.9 years	9-7.9 years	8-6.9 years	7-5.9 years	6-4.9 years	<=5 years	0
GOV	11.3	Number of services being managed through command and control system in the ULB (number)	Primary	Non-spatial	12	MPI (3.1.2)	NA	<5	5-5.9	6-6.9	7-7.9	8-8.9	9-9.9	>=10	6
GOV	11.4	Number of functions being implemented by ULB out of 18 functions stipulated in the Twelfth schedule of Indian constitution (number)	Primary	Non-spatial	Between 15 and 17	Expert recommended	Twelfth Schedule (Article 243W) - 74 CAA; Pg 10& 11 <a href="https://www.mhrd.gov.in/sites/upload_files/mhrd/files/upload_document/74amend.pdf">https://www.mhrd.gov.in/sites/upload_files/mhrd/files/upload_document/74amend.pdf</a>	Less than 15	NA	NA	Between 15 and 17	NA	NA	All 18	3
GOV	11.5	Existence of Geographic information System (GIS) based Master Plan for the city	Primary	Non-spatial	Absence of GIS base Master Plan	MPI (4.1.2)	AMRUT Reform Agenda - Formulation of GIS Based Master Plan for AMRUT Cities - <a href="http://amrut.gov.in/upload/uploadfiles/files/AMRUT-SubScheme_Guideline(4).pdf">http://amrut.gov.in/upload/uploadfiles/files/AMRUT-SubScheme_Guideline(4).pdf</a>	Absence of GIS base Master Plan	NA	NA	Presence of GIS base Master Plan prepared / updated before 2015	NA	NA	Presence of GIS base Master Plan prepared / updated after 2015	0
GOV	11.6	Environmental status report with action plans published by the ULB for the last three years	Secondary	Non-spatial	No	MPI (5.1.4)	NA	No	NA	NA	NA	NA	NA	Yes	0

**11.GOVERNANCE AND DATA MANAGEMENT**

Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)	
GOV	11.7	Percentage of total staff trained during the year in any of the ULB functionary domains (%)	Secondary	Non-spatial	Data requested	MPI (5.4.3)	NA	<50%	50%-54.9%	55%-59.9%	60%-64.9%	65%-69.9%	70%-74.9%	>=75%	-
GOV	11.8	Existence of vision, long-term planning and evidence-based strategy including Development Plan and an implementation process (with regulatory tools, enforcement rules, incentives, and measurable goals and indicators for monitoring progress)	Secondary	Non-spatial	City has no long-term urban development vision (as part of master plan / any other long-term plans)	MPI (3.1.1)	NA	City has no long-term urban development vision (as part of master plan / any other long-term plans)	NA	NA	City has defined long term urban development vision as part of its master / development plan with defined strategies	NA	NA	City has a specific urban development vision document with defined strategies for implementation (other than master / development plan / other long-term plans)	0
GOV	11.9	E-governance initiatives by the ULB: a. ULB website (Y/N) b. Online Public Service Delivery (Services provided online as a proportion of total Services provided) c. Online Public Service Delivery on Mobile (Services provided via mobile as a proportion of total Services provided) d. Online Grievance Redressal (number of grievances received online as a proportion of total grievances received) e. Online Grievance Redressal on Mobile (Services provided via mobile as a proportion of total Services provided)	Secondary	Non-spatial	5	Expert recommended	NA	Less than 2	NA	NA	Between 2 and 4	NA	NA	All 5	6
GOV	11.10	Local development control regulations and master plan / development plan are accessible completely through the web	Secondary	Non-spatial	Both available online	Expert recommended	NA	Both not available	NA	NA	One available online	NA	NA	Both available online	6
GOV	11.11	Existence of following stipulated committees in the ULB:  1) Municipal Committee/Council 2) Ward Committee 3) Metropolitan Planning Committee / District Planning Committee 4) Project Coordination /Monitoring Committee	Secondary	Non-spatial	5	MPI (5.4.1)	NA	Less than or equal to 3	NA	NA	Between 4 and 5	NA	NA	6	3

## 11. GOVERNANCE AND DATA MANAGEMENT

Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)	
		5) Town Vending Committee (Street vendors) 6) Heritage Conservation Committee													
GOV	11.12	ULB's citizen charter and appeal mechanisms	Secondary	Non-spatial	Exists offline and online	MPI (3.1.6)	NA	Doesn't exist	NA	NA	Exist only offline	NA	NA	Exists offline and online	6
GOV	11.13	Presence of City data officer (Y/N)	Secondary	Non-spatial	Yes	MPI (5.2.2)	NA	No	NA	NA	NA	NA	NA	Yes	6
GOV	11.14	Proportion of Women councillors in Municipal Council (%)	Tertiary	Non-spatial	48%	MPI (3.1.8)	74th Constitutional Amendment Act of India <a href="https://www.mhrd.gov.in/sites/upload_files/mhrd/files/upload_document/74amend.pdf">https://www.mhrd.gov.in/sites/upload_files/mhrd/files/upload_document/74amend.pdf</a>	<33%	33%-36.3%	36.4%-39.7%	39.8%-43.1%	43.2%-46.5%	46.6%-49.9%	>=50%	3
GOV	11.15	Digital Governance: Presence on Open Data Portal	Tertiary	Non-spatial	Yes	GPSC	NA	No	NA	NA	NA	NA	NA	Yes	6

## 12. FINANCE AND ECONOMY

Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)	
FIN	12.1	Credit rating of the ULB	Primary	Non-spatial	Greater or equal to AA	MPI (2.4.3)	<a href="http://documents1.worldbank.org/curated/en/339851517836894370/pdf/123149-Urban-Sustainability-Framework.pdf">http://documents1.worldbank.org/curated/en/339851517836894370/pdf/123149-Urban-Sustainability-Framework.pdf</a>	Lesser or equal to BBB	NA	NA	Between BBB and A	NA	NA	Greater or equal to AA	6
FIN	12.2	Total property tax collected as a percentage of total property tax billed in the same financial year (%)	Primary	Non-spatial	64%	MPI (2.1.5)	NA	<60%	60%-63.9%	64%-67.9%	68%-71.9%	72%-75.9%	76%-79.9%	>=80%	1
FIN	12.3	Financial dependency: Percentage of grants received from central and state governments to total revenue (%)	Primary	Non-spatial	25%	Expert Recommended	NA	>60%	60%-53.9%	54%-47.9%	48%-41.9%	42%-35.9%	36%-29.9%	<=30%	6
FIN	12.4	Growth rate of GDP per capita (%)	Primary; Aspirational	Non-spatial	Data not available	GPSC	[Descriptive Indicator]	NA	NA	NA	NA	NA	NA	NA	NA
FIN	12.5	Change in Own Source Revenue (number of years with OSR > 20%)	Secondary	Non-spatial	5	Expert Recommended	GPSC, Pg 133 <a href="http://documents1.worldbank.org/curated/en/339851517836894370/pdf/123149-Urban-Sustainability-Framework.pdf">http://documents1.worldbank.org/curated/en/339851517836894370/pdf/123149-Urban-Sustainability-Framework.pdf</a>	Greater than 20% in one year	NA	NA	Greater than 20% for more than 1 Year	NA	NA	Greater than 20% for more 3 years	6

12.FINANCE AND ECONOMY																
Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score	
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)		
							<a href="#">Sustainability-Framework.pdf</a>									
FIN	12.6	Operating margin: Difference in revenue and expenditure in the financial year (INR in Lakhs)	Secondary	Non-spatial	-30072	GPSC	<a href="http://documents1.worldbank.org/curated/en/339851517836894370/pdf/123149-Urban-Sustainability-Framework.pdf">http://documents1.worldbank.org/curated/en/339851517836894370/pdf/123149-Urban-Sustainability-Framework.pdf</a>	Deficit	NA	NA	NA	NA	NA	NA	Surplus	0
FIN	12.7	Total cost of annual debt service as a percentage of expenditure (%)	Secondary	Non-spatial	Data requested	GPSC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FIN	12.8	Percentage of debt/loans in overall budget allocation (%)	Secondary	Non-spatial	25%	Expert Recommended	NA	>70%	70%-61.9%	62%-53.9%	54%-45.9%	46%-37.9%	38%-29.9%	<=30%	6	
FIN	12.9	Properties covered under the tax net expressed as percentage of total properties within the municipality (%)	Secondary	Non-spatial	100%	MPI (2.1.3)	NA	<85%	85%-87.7%	87.8%-90.5%	90.6%-93.3%	93.4%-96.1%	96.2%-98.9%	>=99%	6	
FIN	12.10	Efficiency of Capital expenditure spending: Actual capital expenditure spent expressed as a percentage of the budgeted capital expenditure in the financial year (%)	Secondary	Non-spatial	Data requested	Expert Recommended	NA	<60%	60%-63.9%	64%-67.9%	68%-71.9%	72%-75.9%	76%-79.9%	>=80%	-	
FIN	12.11	Cost Recovery in Water Supply: Total operating revenues expressed as a percentage of the total operating expenses incurred towards water supply services in the given financial year (%)	Secondary	Non-spatial	Data requested	Expert Recommended	NA	<30%	30%-37.9%	38%-45.9%	46%-53.9%	54%-61.9%	62%-69.9%	>=70%	-	
FIN	12.12	Cost Recovery in Sanitation: Total operating revenues expressed as a percentage of the total operating expenses incurred towards sanitation services in the financial year (%)	Secondary	Non-spatial	Data requested	Expert Recommended	NA	<30%	30%-37.9%	38%-45.9%	46%-53.9%	54%-61.9%	62%-69.9%	>=70%	-	
FIN	12.13	Cost Recovery in Solid Waste Management: Total operating revenues expressed as a percentage of the total operating expenses incurred towards solid waste management services in the financial year (%)	Secondary	Non-spatial	Data requested	Expert Recommended	NA	<30%	30%-37.9%	38%-45.9%	46%-53.9%	54%-61.9%	62%-69.9%	>=70%	-	
FIN	12.14	Unemployment rate of persons of age 15 years and above (%)	Secondary	Non-spatial	5.2%	NIF (8.5.1)	<a href="http://mospi.nic.in/sites/default/files/publication-reports/Annual%20Repo">Periodic Labour Force Survey (2017-18) Page 211 of 643 and Page 500 of 643</a> <a href="http://mospi.nic.in/sites/default/files/publication-reports/Annual%20Repo">http://mospi.nic.in/sites/default/files/publication-reports/Annual%20Repo</a>	>14%	14%-11.9%	12%-9.9%	10%-7.9%	8%-5.9%	6%-3.9%	<=4%	5	



12.FINANCE AND ECONOMY															
Code	Number	Indicator	Primary/ Secondary/ Tertiary; Aspirational	Type of Indicator	City Indicator Value	Source Reference Framework	Source of Threshold / National Average / Benchmark	7 Point Scoring Range							City Score
								0 (Very low performance)	1 (Low performance)	2 (Lower medium performance)	3 (Medium performance)	4 (Upper medium performance)	5 (High performance)	6 (Excellent performance)	
							<a href="#">rt%2C%20PLFS%202017-18_31052019.pdf?download=1</a>								
FIN	12.15	Inequality Index based on Consumption Expenditure- Gini Coefficient (score)	Secondary	Non-spatial	Data not available	EOLI (2.3.1)	NA	NA	NA	NA	NA	NA	NA	NA	NA
FIN	12.16	Percentage of workforce employed in the service sector (%)	Secondary; Aspirational	Non-spatial	Data not available	GPSC	NA	NA	NA	NA	NA	NA	NA	NA	NA
FIN	12.17	Total capital expenditure as percentage of total expenditure (%)	Tertiary	Non-spatial	36%	MPI (2.2.3)	NA	<10%	10%-15.9%	16%-21.9%	22%-27.9%	28%-33.9%	34%-39.9%	>=40%	5
FIN	12.18	GDP density as a percentage of the built-up area of the local government (%)	Tertiary; Aspirational	Non-spatial	Data not available	GPSC	NA	NA	NA	NA	NA	NA	NA	NA	NA
FIN	12.19	Informal employment as percentage of total employment (%)	Tertiary; Aspirational	Non-spatial	Data not available	CPI (3.3)	NA	NA	NA	NA	NA	NA	NA	NA	NA



**UN HABITAT**  
FOR A BETTER URBAN FUTURE

**Country Programme Manager**  
United Nations Human Settlements Programme  
UN-Habitat India  
3<sup>rd</sup> Floor, HSMI/ HUDCO House, Lodhi Road,  
New Delhi 110003, India  
Tel: +91-11-47884777  
Email: [unhabitat.india@un.org](mailto:unhabitat.india@un.org)