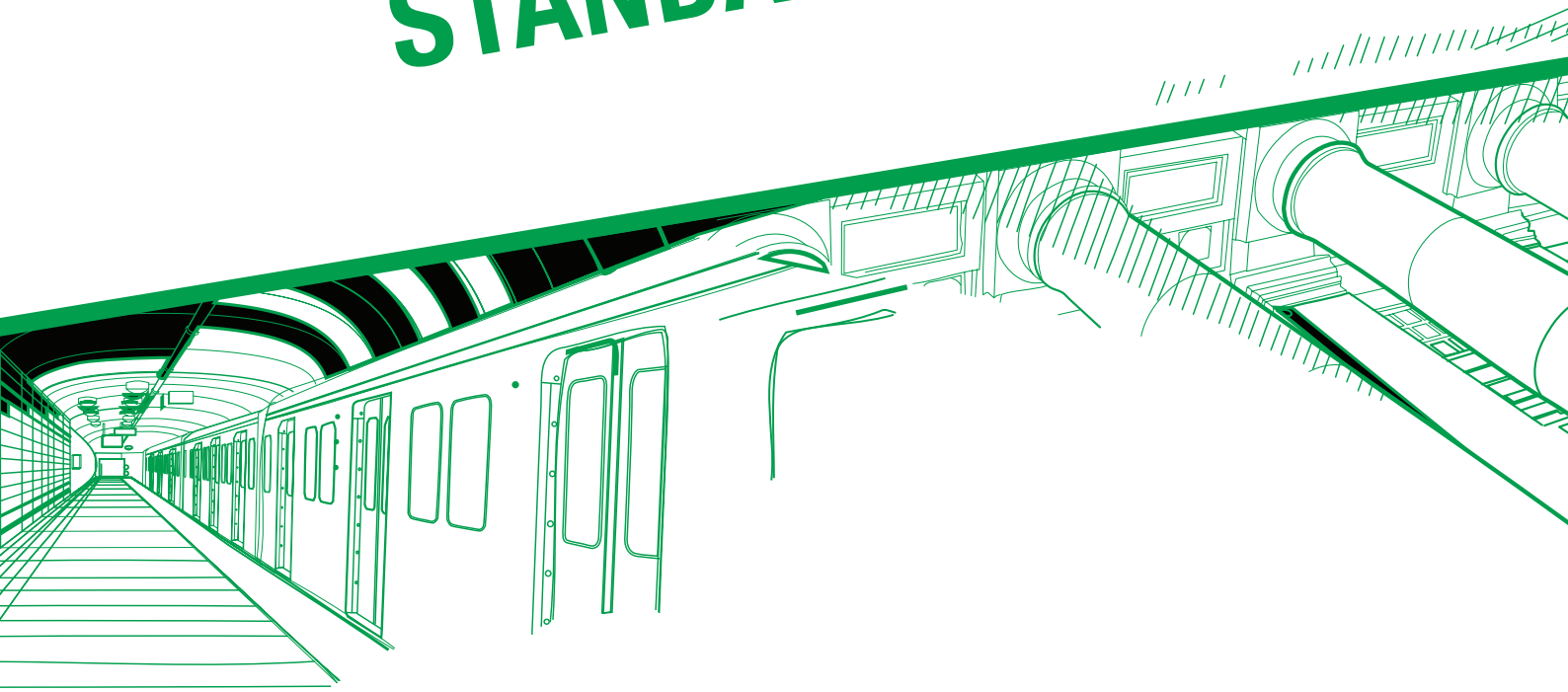
सत्यमेव जयते

Ministry of Urban Development
Government of India

LIVEABILITY STANDARDS IN CITIES



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Overview

A. Background

The Government of India along with the various State and Local Governments is implementing several flagship Urban Missions. An overarching goal of the various missions and schemes is to make Indian cities more 'Liveable'. The Ministry of Urban Development (MoUD) has developed a set of 'Liveability Standards in Cities' to generate a

Table 1: Categories of Indicators

FEATURE CONTAINED IN SCPs	CATEGORY	PILLAR OF COMPREHENSIVE DEVELOPMENT
Citizen Participation IT Connectivity ICT-enabled Government Services	1. Governance	Institutional
Identity and Culture	2. Identity and Culture	Social
Education	3. Education	
Health	4. Health	
Safety and Security	5. Safety and Security	
Economy and Employment	6. Economy and Employment	Economic
Housing and Inclusiveness	7. Housing and Inclusiveness	Physical
Open Spaces	8. Public Open Spaces	
Mixed Land use Compactness	9. Mixed Land Use and Compactness	
Energy Supply Underground Electric Wiring Energy Source Energy Efficiency	10. Power Supply	
Transportation and Mobility Walkability	11. Transportation and Mobility	
Water Supply Water Management	12. Assured Water Supply	
Sanitation Waste Water Management	13. Waste Water Management	
Waste Management	14. Solid Waste Management	
Air Quality	15. Reduced Pollution ('Noise Pollution' and 'Pollution of Surface Water Bodies' have also been included)	

Liveability Index and rate cities. The source of the Liveability Standards are the 24 features contained in the Smart City Proposals (SCPs), which have been grouped into 15 categories. These categories are part of the four pillars of comprehensive development of cities. The details are given in Table 1.

B. Framework

A total of 79 Indicators (57 Core Indicators and 22 Supporting Indicators) have been prescribed in the document. While the Core Indicators are considered an essential measure of liveability of cities, the Supporting Indicators supplement the Core Indicators by adding value to them.These are organized in 15 'Categories' given earlier. The details are given in Table 2.

Sub-Indexes will be developed for each of the categories to form 15 'Category Indexes', which will be aggregated to a common 'City Liveability Index' for each city on the 79 indicators. Annex 1 gives the list of 79 indicators and the way they will contribute to achievement of SDGs. Weights will be assigned to Category Indexes during the calculation of the City Liveability Index, depending upon the pillar of comprehensive development. 'Physical' pillar has been accorded the highest weightage, followed by 'Institutional' and 'Social' pillar, which includes aspects such as safety and security (as per Maslow Pyramid of Needs). The weights also recognize the extent to which, City Governments can actively make improvements in the indicators. Thus, the 'Economic' pillar

Table 2: Category-wise number of indicators

CATEGORY	NUMBER OF INDICATORS		
	CORE	SUPPORTING	TOTAL
1. Governance	7	1	8
2. Identity and Culture	3	2	5
3. Education	4	2	6
4. Health	3	2	5
5. Safety and Security	3	1	4
6. Economy and Employment	4	1	5
7. Housing and Inclusiveness	2	-	2
8. Public Open Space	2	-	2
9. Mixed Land Use and Compactness	2	-	2
10. Power Supply	4	5	9
11. Transportation and Mobility	6	6	12
12. Assured Water Supply	4	2	6
13. Waste Water Management	5	-	5
14. Solid Waste Management	3	-	3
15. Reduced Pollution	5	-	5
TOTAL	57	22	79

that cannot be influenced by the actions of City Governments alone has been assigned the lowest weight. Details are given in Table 3.

In order to ensure that comparison of cities is done with similarly placed peers, the cities have been placed in 5 groups, given in Table 4. A separate 'Methodological Booklet' will also be designed as a companion document to provide guidance for capturing and recording of city data on the types of Liveability. This will also contain benchmarks, as prescribed by various national and international studies/ guidelines.

Table 3: Weights assigned to pillars of comprehensive development

INSTITUTIONAL	SOCIAL	ECONOMIC	PHYSICAL
25% weightage	25% weightage	5% weightage	45% weightage

The model to compute the Liveability Index in given in Figure 1.

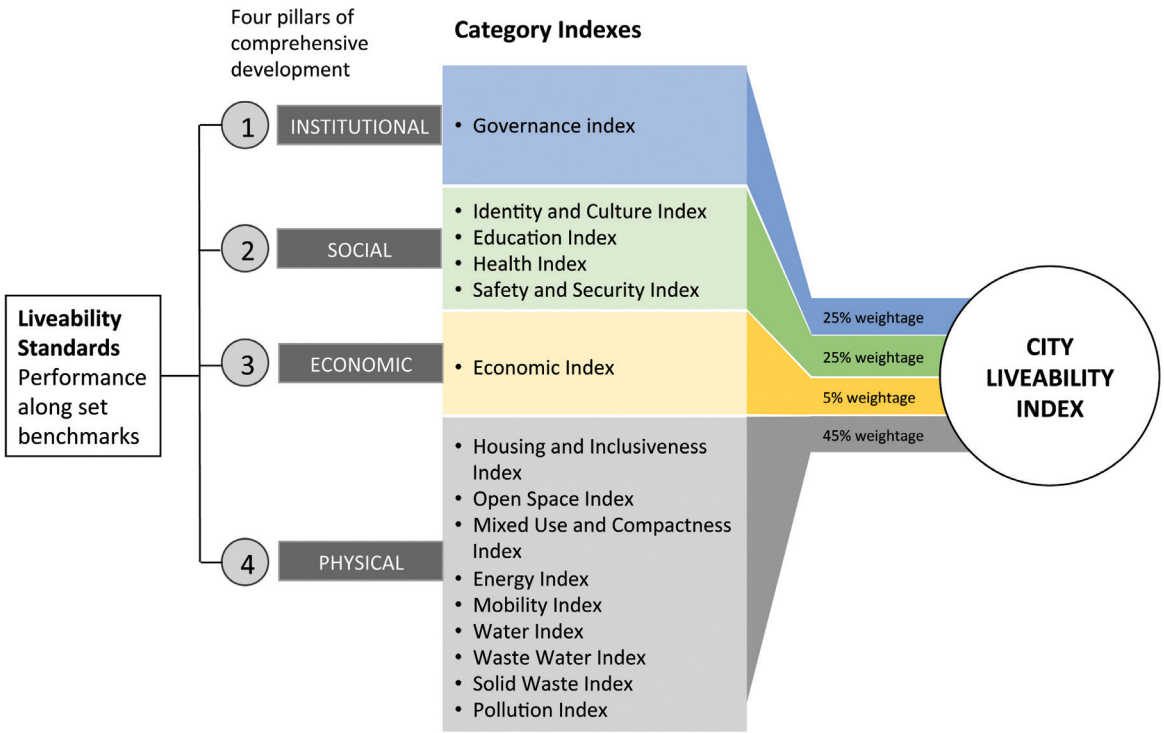

Table 4: Classification of cities based on population

Classification*		Population range
1	Small Towns	Less than 50,000 population
2	Medium Towns	Population ≥ 50,000 < 5 lakh
3	Large Towns	Population ≥ 5 lakh < 1 million
4	Metropolitan Cities	Population ≥ 1 million < 5 million
5	Megapolis	Population ≥ 5 million

*Adapted on the basis of the classification given in the Urban and Regional Development Plans Formulation and Implementation (URDPFI) guidelines, 2014

PILLAR:
INSTITUTIONAL

Category 1: **Governance**

1.1 Percentage of citizen services available online (Core)

Description: The extent to which, various citizen services can be accessed by citizens remotely, through online portals, phone applications, e-kiosks etc. Citizen services will include various online payments of taxes and charges, applications and approvals, grievance management, issue of documents like birth and death certificates etc.

Expressed as

Number of citizen services available online

---------- X 100 = _____%

Total number of citizen services provided by the ULB

1.2 Percentage of services integrated through Command Centre (Supporting)

Description: The extent to which, various city services like water supply, sewerage, waste management, e-governance, urban transport etc. have been integrated through Singular Operations or Command and Control Centres. Such integration can facilitate better data management and horizontal integration across various services, leading to overall efficiency in service provision and optimal use of resources.

Expressed as

Number of services integrated through singular operations centre

---------- X 100 = _____%

Total number of services provided by the ULB

1.3 Percentage of citizens using online services (Core)

Description: The extent to which citizens have started using the online portals and phone-based smart applications for accessing various citizen services that are being provided online.

Expressed as

Average for all citizen services

Number of registered users using online services in a month

---------- X 100 = _____%

Total number of households

1.4 Average delay in grievance redressal (Core)

Description: This denotes the efficiency achieved in addressing complaints/issues raised by citizens regarding the various services being provided by the ULB. Most cities have committed grievance redressal timelines as part of their Citizen Charters. The Guidelines on National Mission Mode Project on e-Governance in Municipalities of the MoUD provide the guidelines and benchmarks for grievance acknowledgement and redressal.

Expressed as

Average of all services

[Average redressal period for a service - Committed redressal period for the service] = _____ days

1.5 Tax collected as percentage of tax billed (Core)

Description: This denotes the efficiency achieved by a city in collecting property taxes against the

tax demand raised in a given year. Implementation of smart solutions in cities will be expected to improve systemic efficiencies in issuance of regular and timely demand notices, and facilitate ease of payment (online, m-applications etc.), thereby leading to improvement in collection of taxes and ULB revenues.

Expressed as

Total tax collected in a year

---------- X 100 = _____%

Total demand raised for the year

1.6 Extent of cost recovery (O&M) in water supply services (Core)

Description: The extent to which O&M expenditure on provision of water supply services is being recovered by city administrations through user charges. O&M cost can be reduced through the implementation of monitoring systems like SCADA, installation of smart meters and reduction in NRW. This coupled with adoption of telescopic and volume based tariffs, and efficient billing and collection systems can result in better recovery of costs.

Expressed as

Total collection of user charges in water supply in a year

---------- X 100 = _____%

Total O&M cost for providing water supply services during the year

1.7 Capital spending as percentage of total expenditure (Core)

Description: The extent to which, a ULB is able to re-invest its revenues into creation of capital (infrastructure and assets), after taking care of annual establishment and O&M costs. This is a strong measure of the financial health of cities and a higher percentage indicates that the city is proactively improving its services and facilities.

Expressed as

Total capital expenditure during a year

---------- X 100 = _____%

Total expenditure (revenue and capital accounts) in the same year

1.8 Percentage of population covered under Ward Committees/ Area Sabhas (Core)

Description: The participation of citizens in matters of governance, planning and development is critical for ensuring inclusive and participatory growth of cities. This indicator determines the extent of institutionalization of citizen participation, through implementation of the provisions of the Community Participation Law.

Expressed as

Population covered under ward committees/ area sabhas

---------- X 100 = _____%

Total population of the city

PILLAR:
SOCIAL

Category 2:
Identity and culture

2.1 Restoration and reuse of historic buildings (Core)

Description: The extent to which planning and development in the city respects historic buildings/sites and the existing cultural landscape, through projects for preservation/restoration and adaptive reuse. Heritage assets are listed by the Archaeological Survey of India (ASI) and various State ASIs. City governments may also undertake listing of buildings, sites, precincts considered historically significant locally due to their cultural importance. The guidelines for local listing and grading of heritage assets are provided by the Town and Country Planning Organization (TCPO), MoUD (Model Heritage Regulations, 2011).

Expressed as

Average for buildings listed by ASI, State ASI and Local Authority

Number of historic buildings/sites restored/ preserved/brought under adaptive reuse

---------- X 100 = _____%

Total number of historic buildings/sites identified

2.2 Percentage of ecologically important areas covered through projects for restoration (Core)

Description: The extent to which the city has taken ecologically sensitive areas (natural heritage) into consideration during the process of planning and development. Ecologically sensitive sites will include surface water bodies, urban watershed (natural drainage lines), coastlines, riverfronts, wetlands and urban forests. Such sites are often ignored in the process of urban development and suffer from invasive development along the edges, deterioration due to dumping of wastes and waste water, pollution, silting and narrowing etc. Restoration of such sites can lead to better urban environment and sustainable development.

Expressed as

Ecologically important sites covered through projects for restoration

---------- X 100 = _____%

Total number of ecologically important sites identified in the city

2.3 Hotel Occupancy (Core)

Description: This indicates the extent to which the city is frequented by tourists/visitors coming to the city for various purposes such as tourism, business or other work related activities. High average hotel occupancy rates across different times of the year indicate a flourishing inflow of visitors, fuelled by improvements in economic productivity and business environment, concerted efforts towards upkeep and marketing of local heritage and ecological assets (eco-tourism), and availability of adequate opportunities for exploring local identity and culture.

Expressed as

Average of various categories of hotels

Total number of hotel rooms occupied

---------- X 100 = _____%

Total number of hotel rooms available

2.4 Percentage of budget allocated towards cultural/sports activities (Supporting)

Description: This indicates the focus of the City Government on encouraging cultural and sports activities in the city. Active budgeting and expenditure by city governments on such cultural/ sports activities can facilitate a vibrant socio-cultural environment within cities.

Expressed as

Budget allocated for cultural/sports activities

---------- X 100 = _____%

Total budget of the ULB (capital and revenue)

2.5 Number of cultural/sports events hosted by city authority (Supporting)

Description: This along with the previous Indicator 2.4 indicates the focus of the City Government on encouraging cultural and sports activities in the city. While some of the activities may be actively funded through ULB funds, others may be supported by the city administration through facilitation of permissions and provision of land/facilities.

Expressed as

Number of cultural/sports events hosted by the city authority in the preceding year

Category 3: **Education**

3.1 Percentage of school-aged population enrolled in schools (Core)

Description: Education is one of the most important aspects of human development. This indicator denotes educational opportunity, and determines the coverage of formal education among school-aged population in the city. The Right of Children to Free and Compulsory Education Act (RTE Act) of 2009 provides for children below the age of 14 to be provided free and compulsory education.

Expressed as

Total enrolment in primary and secondary schools (public and private)

---------- X 100 = _____%

Total population in the age group of 6-14 years

3.2 Percentage of female school-aged population enrolled in schools (Core)

Description: This indicator determines the availability of educational opportunity for girls. Reporting on differential enrolment by gender is also consistent with the Sustainable Development Goals. The RTE Act 2009 provides for children below the age of 14 to be provided free and compulsory education.

Expressed as

Total female enrolment in primary and secondary schools (public and private)

---------- X 100 = _____%

Total female population in the age group of 6-14 years

3.3 Primary education student-teacher ratio (Core)

Description: This denotes the availability of adequate number of teachers in schools for providing primary education. A lower ratio indicates better individual attention and support for students in the primary grades. The norms for an acceptable student-teacher ratio are set out under the RTE Act 2009.

Expressed as

Total number of students in primary grades (public and private)

---------- = _____

Total number of teachers available for primary grades (public and private schools)

3.4 Percentage of schools with access to digital education (Supporting)

Description: The extent to which government schools have facilities for accessing digital educational content, thereby reducing the complete dependence on the quality of teachers as well as improving learning outcomes through use of innovative audio-visual pedagogy and providing access to vast online knowledge repositories. It is important for schools to not only focus on procuring digital infrastructure but also focus on connecting to robust digital learning networks such as the National Knowledge Network (NKN) developed by the Government of India.

Expressed as

Number of schools (public and private) with facilities for using digital educational content (availability of necessary infrastructure and connection to digital resources such as NKN)

---------- X 100 = _____%

Total number of schools

3.5 Percentage of students completing primary education (Core)

Description: The ability of the primary education system in the city to hold enrolled students until the completion of primary education (survival rate). It is the percentage of students belonging to a school-cohort who have reached each successive grade of primary education without failing or moving to another jurisdiction. Survival rate, particularly at the primary level, is considered a pre-requisite for sustainable literacy, and indicates the holding power and efficiency of the primary education system.

Expressed as

Average for all school cohorts enrolled in base year Number of students from a school cohort completing primary education

---------- X 100 = _____%

Total number of students belonging to the school cohort

3.6 Percentage of students completing secondary education (Supporting)

Description: The ability of the secondary education system to hold enrolled students until the completion of secondary education (survival rate). It is the percentage of students belonging to a school-cohort i.e. those originally enrolled in the first grade of secondary education, who have reached each successive grade of secondary education without failing or moving to another jurisdiction.

Expressed as

Average for all school cohorts enrolled in base year Number of students from a school cohort completing secondary education

---------- X 100 = _____%

Total number of students belonging to the school cohort

Category 4: **Health**

4.1 Number of in-patient hospital beds per 10,000 population (Core)

Description: This denotes the adequacy of in-patient medical infrastructure measured in the form of availability of in-patient beds in hospitals (public and private) in the city. The World Health Organization (WHO) provides the benchmarks for health services as part of its Service Availability and Readiness Assessment initiative (SARA Reference Manual 2015).

Expressed as

Number of in-patient hospital beds in public and private hospitals

---------- X 10,000 = _____ per 10,000

Total population of the city

4.2 Healthcare professionals per 10,000 population (Supporting)

Description: This denotes the availability of health workers in the city (health worker density) that cater to the health needs of citizens. This includes various qualified human resources for healthcare including doctors, nurses, mid-wives etc. The World Health Organization (WHO) provides the benchmarks for health services as part of its Service Availability and Readiness Assessment initiative (SARA Reference Manual 2015).

Expressed as

Total number of qualified healthcare professionals

---------- X 10,000 = _____ per 10,000

Total population of the city

4.3 Average response time in case of health emergencies (Supporting)

Description: The average response time taken by Emergency Medical Services (EMS) to respond to an initial distress call. Response time is the time elapsed from receiving the initial call to arrival on-site of emergency personnel and equipment. Lower response times indicate better preparedness and response to emergency calls, resulting in effective and timely medical attention.

Expressed as

Sum of all response times for distress calls received during the year

---------- = ___mins ____seconds

Total number of emergency responses in the same year

4.4 Period prevalence of water borne diseases (Core)

Description: This denotes the prevalence of water borne diseases such as cholera, typhoid, dysentery etc. in the city during a particular time period.
It is an indicator of the quality of water used for drinking, washing, bathing etc. in the city.

Expressed as

Number of cases of persons affected by water borne diseases in a year

---------- X100 = _____%

Total population of the city

4.5 Period prevalence of vector borne diseases (Core)

Description: This denotes the prevalence of vector borne diseases such as malaria, dengue, chikungunya etc. in the city during a particular time period. It is an indicator of the measures taken by city administrations to control the growth of mosquitoes and other organisms that spread such diseases, and the general level of hygiene and sanitation in the city.

Expressed as

Number of cases of persons affected by vector borne diseases in a year

---------- X100 = _____%

Total population of the city

Category 5:
Safety and Security

5.1 Number of streets, public places, junctions covered through surveillance systems (Core)

Description: The extent to which public areas such as streets, public places like transport interchanges, government buildings, recreational spaces etc. and major traffic junctions in the city are covered through Closed-circuit Television (CCTV) surveillance cameras. This can facilitate real time monitoring of instances of crime or accident and quicker responses in emergency situations. Such surveillance systems can result in improved security and incidence management, and in the specific case of traffic junctions, also help in obtaining real time information regarding pedestrian and vehicular flow for monitoring road accidents.

To be expressed as

Number of streets, public places and major traffic junctions covered through CCTV cameras
---------- X 100 = _____%
Total number of streets, public places and major traffic junctions in the city

5.2 Number of recorded crimes per lakh population (Core)

Description: This denotes the prevalent crime rate in a city. Lower crime rates are indicative of higher levels of safety and security in a city, due to effective surveillance in public spaces, better SOS and crime registration systems, and police response mechanisms. Better planning and programming of public spaces, illumination of streets, compact and active neighbourhoods can also contribute to safer cities.

To be expressed as

Total number of crimes recorded in a year
---------- X 1,00,000 = _____ per lakh
Total population of the city

5.3 Extent of crimes recorded against women, children and elderly per year (Core)

Description: This denotes the proportion of crimes committed against vulnerable groups such as women, children and elderly.

To be expressed as

Number of crimes recorded against vulnerable groups (women, children and elderly) in a year
---------- X 100 = _____%
Total crimes recorded in the same year

5.4 Transport-related fatality per lakh population (Supporting)

Description: This denotes the level of safety of transport networks in the city. Better managed transport systems will tend to be safer and record lower transport related fatalities. Service Level Benchmarks (SLBs) for Urban Transport developed by the MoUD provide guidance on the service levels for transport.

To be expressed as

Total number of fatalities recorded in road accidents in a year
---------- X 1,00,000 = _____ per lakh
Total population of the city

PILLAR:
ECONOMIC

Category 6:
Economy And Employment

6.1 Increase in VAT/GST collection (Core)

Description: This is one of the important indicators of economic productivity and competitiveness of a city, along with Indicators 6.2 and 6.3. Increase in collection of Value-added Tax (VAT) or Goods and Services Tax (GST) is a proxy for improvements in trade and services in the city.

Expressed as

(Total VAT/GST collection during the year – Total VAT/GST collection during preceding year)

---------- X 100 = _____%

Total VAT/GST collection during preceding year

6.2 Increase in collection of Professional Tax (Core)

Description: This is one of the important indicators of economic productivity and competitiveness of a city, along with Indicators 6.1 and 6.3. Increase in collection of Professional Tax is a proxy for improvements in organized sector employment in the city.

Expressed as

(Total Professional Tax collection during the year – Total Professional Tax collection during preceding year)

---------- X 100 = _____%

Total Professional Tax collection during preceding year

6.3 Increase in issuance of Construction Permits (Core)

Description: This is one of the important indicators of economic productivity and competitiveness of a city, along with Indicators 6.1 and 6.2. Increases in issuance of construction permits indicates improvements in the construction/real estate sector in the city.

Expressed as

(Number of construction permits issued during the year – Number of construction permits during preceding year)

---------- X 100 = _____%

Number of construction permits during preceding year

6.4 Unemployment rate (Core)

Description: Employment generation is one of the key channels through which economic growth translates into prosperity for the population. Unemployment rate of a city denotes the proportion of work force in a city that is not engaged in gainful employment or economic activity, and is given as persons unemployed per 1000 persons in the labour force (employed and unemployed).

Expressed as

Number of unemployed persons (seeking or available for work)

---------- X 1000 = _____

Total labour force in the city

6.5 Percentage of vendors registered and provided formal spaces (Supporting)

Description: The extent to which the city has implemented inclusive strategies for protecting livelihoods of street vendors, by integrating such activities with public places (including streets) in line with the Street Vendors Act of 2014.

Expressed as

Number of street vendors registered and provided formal spaces

---------- X 100 = _____%

Total number of vendors in the city

PILLAR:
PHYSICAL

Category 7:
Housing And Inclusiveness

7.1 Percentage of Slum/EWS households covered through formal/affordable housing (Core)

Description: The extent to which slum households have been provided formal housing through redevelopment projects, and EWS (economically weaker section) households have been covered through various affordable housing projects and schemes. Improved housing supply to the poorer sections can to lead to overall improvement in the living conditions of the poor.

Expressed as

Total number of slum and EWS households covered through formal/affordable housing
---------- X 100 = _____ %
Total number of slum and EWS households in the city

7.2 Percentage of slum areas covered through basic services (Core)

Description: This denotes the extent to which basic services of water supply, waste water management and solid waste management (SWM) are available in slum areas of the city.

Expressed as

Slum areas covered through basic services
---------- X 100 = _____ %
Total area under slums in the city

Category 8:
Public Open Spaces

8.1 Per capita availability of green spaces (Core)

Description: The extent to which urban greens and open spaces such as recreational spaces, organized greens and common spaces like flood plains, forest cover, vacant lands etc. are available in the city leading to a better urban environment. The Urban and Regional Development Plans Formulation and Implementation (URDPFI) guidelines, 2014 prescribe benchmarks for open spaces in cities.

Expressed as

Total area of green space (sq.m.)

---------- = _____ sq.m.

Total population of the city

8.2 Per capita availability of public and recreational places (Core)

Description: This indicator denotes the extent to which recreational and public spaces are available in the city for recreation, social interaction and active physical activities. Such spaces can include playgrounds, stadiums and sports complexes, city and district parks, neighbourhood parks and tot lots, zoological/botanical gardens, multi-use open spaces and maidans for cultural events, publicly accessible waterfront areas, promenades, public squares etc.

Expressed as

Total area of public and recreational places (sq.m.)

---------- = _____ sq.m.

Total population of the city

Category 9:
Mixed Land Use And Compactness

9.1 Share of mixed land use area in overall city land use (Core)

Description: This indicates the proportion of areas in the city which have been developed as multi-functional zones, i.e. areas where residential, commercial and non-polluting industrial activity/ service industry are planned in close proximity to one another as an integrated mix. This is an important departure from the emphasis of modern planning on functional separation leading to unsustainable land use patterns (large mono-functional land uses, longer trip distances, overt reliance on motorized transport etc.). The URDPFI guidelines, 2014 provide the guidelines for planning of mixed land use areas.

Expressed as

Total area under mixed land use

---------- X 100 = _____%

Total area of the city (total area of all land uses)

9.2 Net Density (Core)

Description: This denotes the intensity of development in the city. Higher net densities coupled with mixed land use areas can result in a compact development pattern, potentially forming walkable and inviting activity centres and neighbourhoods.

Expressed as

Total population of the city

---------- = _____ persons per hectare

Area allocated for residential land use (in hectares)

Category 10: **Power Supply**

10.1 Percentage of city population with authorized electrical service (Core)

Description: This denotes the extent to which households in the city are being served through authorized electrical connections, and enjoy associated services such as complaint registration and timely grievance redressal.

Expressed as

Number of authorized electrical connections at household level

---------- X 100 = _____ %

Total number of households in the city

10.2 Percentage of electrical connections covered through smart meters (Supporting)

Description: The extent to which electrical connections in the city are covered through smart meters, leading to better monitoring and reduction in losses. Smart metering is an essential component of a smart grid, and supplies the required meter data and events' information to the utility's various IT systems, including its outage management system. This allows better management of power outages and restoration, and can improve reliability of supply in the long run.

Expressed as

Number of electrical connections (residential and commercial) with smart meters

---------- X 100 = _____ %

Total number of electricity connections in the city

10.3 Average number of electrical interruptions per customer per year (Core)

Description: This denotes the reliability of electric supply for both residential and commercial users, in terms of frequency of electrical interruptions causing inconvenience to users. This indicator is also known as the System Average Interruption Frequency Index (SAIFI), defined as the average number of sustained interruptions (outages that last more than 5 minutes) per consumer during the year. This is one of the critical reliability indicators prescribed under the IEEE Standard 1366, 2012.

Expressed as

Total number of sustained electrical interruptions in a year

---------- = _____

Total number of consumers (residential and commercial) served in the same year

10.4 Average length of electrical interruptions per customer per year (Supporting)

Description: In combination with Indicator 10.3 this denotes the reliability of electrical supply for both residential and commercial users, in terms of average duration of unscheduled electrical interruptions causing inconvenience to users. This indicator is also known as the System Average Interruption Duration Index (SAIDI), defined as the average duration of sustained interruptions (outages that last more than 5 minutes) per consumer during the year. This is one of the critical reliability indicators prescribed under the IEEE Standard 1366, 2012.

Expressed as

Sum of duration of all sustained electrical interruptions in a year (in hours)

---------- = _____ hours

Total number of consumers (residential and commercial) served in the same year

10.5 Percentage of total energy derived from renewable sources (Core)

Description: The extent to which energy demand is met from non-conventional energy sources such as solar energy, wind energy etc. thereby reducing the dependence on energy produced through non-renewable sources. Cities can actively promote installation of renewable energy systems both in public buildings and public spaces, as well as individual households and community facilities.

Expressed as

Total installed capacity for generation of renewable energy in the city

---------- X 100 = _____ %

Total energy consumption from all sources

10.6 Energy consumption per unit - water supply and sewerage (Supporting)

Description: The extent to which ULB has adopted energy saving options to reduce the energy consumption on water supply and sewerage services through interventions such as use of energy efficient pumps for water and wastewater systems.

Expressed as

Energy consumption on water supply and sewerage services

---------- = kWh per million litres

Total quantum of water and waste water handled during the period

10.7 Energy consumption per unit - street lighting (Supporting)

Description: The extent to which ULB has adopted energy saving options to reduce the energy consumption on street lighting through interventions such as installation of energy saving LED lights and/or solar panels in street lights, and general lighting in public places such as plazas, squares etc.

Expressed as

Energy consumption on street lighting

---------- = kWh per installation

Total number of street light installations

10.8 Percentage of new and redeveloped buildings following green building norms (Supporting)

Description: The extent to which new developments and redevelopments have adopted green building norms and have received GRIHA, LEEDS or equivalent green ratings, leading to reduction in overall energy consumption.

Expressed as

Built up area of new/redeveloped buildings completed in a year that have received green ratings

---------- X 100 = _____ %

Total built up area of all new/redeveloped buildings completed during the same year

10.9 Total energy consumption per capita (Core)

Description: This denotes the per capita energy consumption by residential, commercial and industrial users in the city. This is an important indicator that can be used by cities to plan various conservation and efficiency-related interventions for optimizing energy use.

Expressed as

Total energy consumption (for all uses) in the city

---------- = _____ kWh per capita

Total population of the city

Category 11:
Transportation And Mobility

11.1 Geographical coverage of public transport (Core)

Description: This denotes the geographical coverage of public transport services (road, rail or water based) in the city, and along with Indicator 11.2 is indicative of the overall availability of public transport facilities in the city. SLBs for Urban Transport developed by the MoUD provide guidance on the service levels for transport.

Expressed as

Total length of public transport network (road km)
---------- = _____ road kms. per square km.
Total area of the city (sq.km)

11.2 Availability of public transport (Supporting)

Description: This denotes the availability of public bus or rail transport in the city, in proportion to the population of the city. Along with Indicator 11.1 it is indicative of the overall availability of public transport facilities in the city. SLBs for Urban Transport developed by the MoUD provide guidance on the service levels for transport.

Expressed as

Average number of public transport vehicles available per day
---------- X 1,000 = _____ (per 1,000 persons)
Total population of the city

11.3 Mode share of public transport (Core)

Description: This is a critical indicator that denotes the extent to which people use public transport for moving within the city. Higher modal share in favour of public transport or non-motorized transport is desirable. The National Transport Development Policy Committee (NTDPC), 2013 provides the benchmarks for the level of service in a city.

Expressed as

Total public transport trips
---------- X 100 = _____ %
Total trips through all modes in the city

11.4 Percentage of road network with dedicated bicycle tracks (Core)

Description: This denotes the availability of dedicated Right of Way (ROW) for bicycles in the city, thereby encouraging the use of such non-polluting transport options. Higher percentage would indicate a better non-motorised transport (NMT) network in the city. SLBs for Urban Transport developed by the MoUD provide guidance on the service levels for transport.

Expressed as

Total length of bicycle network
---------- X 100 = _____ %
Total length of road network in the city

11.5 Percentage of interchanges with bicycle parking facilities (Supporting)

Description: The extent to which use of bicycles is encouraged in a city by providing adequate parking facilities at the major transport interchanges – bus depots/stations, metro or suburban rail stations and water transport terminals (e.g. ferry terminal). This is thus an indicator of the extent to which

NMT has been integrated with the public transport network in the city. SLBs for Urban Transport developed by the MoUD provide guidance on the service levels for transport.

Expressed as

Total number of major transport interchanges with bicycle parking facility (within 250m radius)
---------- X 100 = _____ %
Total number of major transport interchanges in the city

11.6 Mode share of non-motorised transport (Core)

Description: This denotes the extent to which people walk or use bicycles and cycle rickshaws for moving within the city. Higher number of trips indicate better infrastructure available for pedestrian movement and cycling as well as higher acceptability of NMT as a transport option. The National Transport Development Policy Committee, 2013 provides the benchmarks for the level of service in a city.

Expressed as

Total NMT (pedestrian, cycling and cycle rickshaws) trips
---------- X 100 = _____ %
Total trips through all modes in the city

11.7 Availability of Passenger Information System (Supporting)

Description: Passenger Information Systems (PIS) are the key communication link between transportation operators and the travelling passengers. They provide accurate information regarding arrival and departure times, gates etc. Such information is provided in the form of digital displays as well as through loud speakers installed at appropriate locations. This indicator denotes the extent to which such PIS are installed at all major transport interchanges, such as major bus stops and bus depots, suburban rail stations, metro stations and water transport terminals. SLBs for Urban Transport developed by the MoUD provide guidance on the service levels for transport.

Expressed as

Total number of major interchanges with PIS
---------- X 100 = _____ %
Total number of major interchanges in the city

11.8 Extent of signal synchronisation (Supporting)

Description: The extent to which signals installed at traffic junctions on major roads in the city are inter-connected and synchronised, so as to facilitate smooth traffic flow along the road networks. Synchronisation means that the phasing of the signal at any specific intersection is in tune with the phasing of the intersection before and after it so as to provide a continuous green phase for the traffic stream, resulting in reduced congestion and stopping time at each intersection. SLBs for Urban Transport developed by the MoUD provide guidance on the service levels for transport.

Expressed as

Total number of signalised intersections that are synchronised
---------- X 100 = _____ %
Total number of signalised intersections in the city

11.9 Availability of paid parking spaces (Core)

Description: This is indicative of the restriction on free parking spaces for all vehicles in a city and measures the availability of paid public on-street parking spaces in the city, particularly along major arterial and sub-arterial roads. SLBs for Urban Transport developed by the MoUD provide guidance on the service levels for transport.

Expressed as

Total available on-street paid parking spaces in the city

---------- X 100 = _____ %

Total available on-street parking spaces in the city

11.10 Percentage coverage of footpaths – wider than 1.2m (Core)

Description: This denotes the availability of pedestrian facilities (footpaths wider than 1.2 metres) along the road network in the city. SLBs for Urban Transport developed by the MoUD provide guidance on the service levels for transport.

Expressed as

Total length of footpaths (wider than 1.2 m) available in the city

---------- X 100 = _____ %

Total length of road network in the city

11.11 Percentage of traffic intersections with pedestrian crossing facilities (Supporting)

Description: The extent to which pedestrian crossing facilities such as zebra crossing, pedestrian signals, grade separators etc. are available at all traffic junctions on major roads in the city.

Expressed as

Total number of intersections with pedestrian crossing facilities on major roads

---------- X 100 = _____ %

Total number of junctions/ intersections on major roads in the city

11.12 Extent to which universal accessibility is incorporated in public rights-of-way (Supporting)

Description: The extent to which public right-of-way areas such as Government buildings, sidewalks/ footpaths, subways and foot-over-bridges (FOB) have been designed in accordance with universal design principles (including design of appropriate signage) so as to facilitate use and access by all, including the differently abled. Guidelines have been provided by the MoUD for barrier-free environment (Harmonized Guidelines and Space Standards for Barrier Free Built Environment for Persons with Disability and Elderly persons, 2016)

Expressed as

Number of government buildings, sidewalks, subways and FOBs as per universal design principles

---------- X 100 = _____ %

Total number of government buildings, sidewalks, subways and FOBs

Category 12:
Assured Water Supply

12.1 Household level coverage of direct water supply connections (Core)

Description: The extent to which households in the city are connected to the water supply network with a direct service connection, as percentage of total number of households. Household level water supply connection i.e. direct piped connection, is the minimum acceptable standard for water supply service. Water provision through public stand posts or tankers is not considered as an acceptable long-term service provision standard. SLBs for Urban Services developed by the MoUD provide guidance on the service levels for water supply.

Expressed as

Total number of households with direct water supply connection

---------- X 100 = _____ %

Total number of households in the city

12.2 Per capita supply of water (Core)

Description: Per capita water supplied, indicates the adequacy of the municipal water supply system to source adequate raw water, treat water to potable standards and supply the same into the distribution system. This denotes the overall sufficiency of water supplied into the municipal network to meet the needs of the population. SLBs for Urban Services developed by the MoUD provide guidance on the service levels for water supply.

Expressed as

Total quantity of water supplied into the distribution system

---------- = _____

Total population of the city

12.3 Quality of water supplied (Core)

Description: This denotes the quality of water supplied to citizens, as per specified potable water standards. This is an important aspect, since poor water quality can pose serious public health hazards. Quality standards for potable water are laid down by the Central Public Health and Environmental Engineering Organization (CPHEEO) as part of the Manual on Water Supply and Treatment, 1999.

Expressed as

Number of samples meeting or exceeding specified potable water standards

---------- X 100 = _____ %

Total number of samples tested for water quality

12.4 Level of non-revenue water - NRW (Core)

Description: This denotes the quantity of water produced and supplied by the ULB that does not earn the utility any revenue. NRW comprises of - a) consumption which is authorized but not billed, such as public stand posts; b) apparent losses such as illegal water connections, water theft and metering inaccuracies; and c) real losses due to leakages in the transmission and distribution networks. SLBs for Urban Services developed by the MoUD provide guidance on the service levels for water supply.

Expressed as

Quantum of water put into distribution system (mld) - Quantum of water sold (mld)
---------- X 100 = _____ %
Quantum of water put into the distribution system (mld)

12.5 Percentage of water connections covered through meters (Supporting)

Description: The extent to which water supply connections in the city are covered through functional meters (including smart meters), thereby facilitating better monitoring, volumetric billing and reduction in losses. SLBs for Urban Services developed by the MoUD provide guidance on the service levels for water supply.

Expressed as

Number of metered water connections
---------- X 100 = _____ %
Total number of water connections in the city

12.6 Percentage of plots with rainwater harvesting facility (Supporting)

Description: The extent to which individual plots within a city have the ability to retain storm water within the site through rain water harvesting (RWH) structures. The MoUD under the AMRUT Mission has recommended that all new developments/ redevelopments with minimum plot size of 300 sq.m., and all commercial and public buildings should have rainwater harvesting facilities.

Expressed as

Number of new developments/redevelopments (of designated plot size),
commercial and public buildings with RWH facility
---------- X 100 = ____ %
Total number of new developments/ redevelopments (of designated plot size), commercial and public buildings in the city

Category 13:
Waste Water Management

13.1 Coverage of toilets (Core)

Description: The extent to which citizens have access to individual or community toilets in the city. These would include toilets in the category of residential, commercial, industrial and institutional properties. This should be computed for the number of properties recorded in municipal records and not households. SLBs for Urban Services developed by the MoUD provide guidance on the service levels for waste water management.

Expressed as

Total number of properties with access to individual and/or community toilets

---------- X 100 = _____ %

Total number of properties in the city

13.2 Coverage of sewerage network and/or septage (Core)

Description: Denotes the extent to which waste water management facilities are available to individual properties across the city, whether through centralized underground sewerage, decentralized systems or on-site systems such as septic tanks. This should be computed for the number of properties recorded in municipal records and not households, and should include all residential, commercial, industrial and institutional properties. SLBs for Urban Services developed by the MoUD provide guidance on the service levels for waste water management.

Expressed as

Total number of properties with connection to waste water management systems

---------- X 100 = _____ %

Total number of properties in the city

13.3 Collection efficiency of sewerage network (Core)

Description: This indicator denotes the actual proportion of waste water generated in the city that is collected by the available sewerage network. SLBs for Urban Services developed by the MoUD provide guidance on the service levels for waste water management.

Expressed as

Total waste water collected per day

---------- X 100 = _____ %

Total waste water generated in the city per day

13.4 Extent of reuse and recycling of waste water (Core)

Description: This denotes the proportion of waste water received at the treatment plant that is recycled or reused for various purposes. Treated waste water can be used for horticultural purposes in parks and gardens, irrigation of farmlands on city periphery, and/or supplied to power plants and industries. SLBs for Urban Services developed by the MoUD provide guidance on the service levels for waste water management.

Expressed as

Quantum of waste water recycled or reused per day

---------- X 100 = _____ %

Total waste water received at treatment plants per day

13.5 Coverage of storm water drains (Core)

Description: The extent to which the road network in the city is covered through a storm water drainage network (pucca covered drains). SLBs for Urban Services developed by the MoUD provide guidance on the service levels for storm water drainage.

Expressed as

Total length of covered primary, secondary and tertiary drains (of pucca construction)

---------- X 100 = _____ %

Total length of road network (wider than 3.5m) in the city

Category 14:
Solid Waste Management

14.1 Household level coverage of municipal solid waste collection (Core)

Description: The extent to which households and establishments in the city are covered through door-to-door collection of municipal solid wastes on a daily basis. SLBs for Urban Services developed by the MoUD provide guidance on the service levels for solid waste management.

Expressed as

Total number of households and establishments covered through doorstep collection

---------- X 100 = _____ %

Total number of households and establishments in the city

14.2 Efficiency of collection of municipal solid waste (Core)

Description: The extent to which the quantum of municipal solid waste (MSW) generated in the city is collected by the ULB or its authorised service providers (private operators). SLBs for Urban Services developed by the MoUD provide guidance on the service levels for solid waste management.

Expressed as

Total quantum of MSW collected by the ULB or private operator

---------- X 100 = _____ %

Total quantum of MSW generated in the city

14.3 Extent of municipal solid waste recovered through reuse (Core)

Description: The extent to which municipal solid waste generated in the city is either recycled or processed through centralised and decentralised recycling processes. SLBs for Urban Services developed by the MoUD provide guidance on the service levels for solid waste management.

Expressed as

Average quantum of MSW that is processed or recycled (tons per month)

---------- X 100 = _____ %

Average MSW generated in the city (tons per month)

Category 15:
Reduced Pollution

15.1 Concentration of SO_2 - air pollution (Core)

Description: This indicator along with 15.2 and 15.3 denotes the acceptable levels of air pollutants in the city. Sulphur Dioxide (SO_2) is considered one of the critical urban air pollutants, monitored on a regular basis by the Central Pollution Control Board (CPCB) through a nation-wide programme for ambient air quality monitoring known as National Air Quality Monitoring Programme (NAMP). High levels of SO_2 can potentially affect the health of citizens, particularly those suffering from asthma and chronic lung diseases, and exacerbate respiratory symptoms. The standards for acceptable level of air pollutants (including SO_2) have been prescribed as part of the National Air Quality Standards (2009) by the CPCB.

Expressed as

Annual mean concentration OR Mean concentration over 24 hours of SO_2 given in $\mu g/m^3$

15.2 Concentration of NO_2 - air pollution (Core)

Description: This indicator along with 15.1 and 15.3 denotes the acceptable levels of air pollutants in the city. Nitrogen Dioxide (NO_2) is considered one of the critical urban air pollutants, monitored on a regular basis by the CPCB through a nation-wide programme for ambient air quality monitoring known as National Air Quality Monitoring Programme (NAMP). Continued and frequent exposure to high levels of NO_2 can cause irritation of lungs and acute respiratory illnesses. The standards for acceptable level of air pollutants (including NO_2) have been prescribed as part of the National Air Quality Standards (2009) by the CPCB.

Expressed as

Annual mean concentration OR Mean concentration over 24 hours of NO_2 given in $\mu g/m^3$

15.3 Concentration of PM_{10} - air pollution (Core)

Description: This indicator along with 15.1 and 15.2 denotes the acceptable levels of air pollutants in the city. Respirable Suspended Particulate Matter (size less than 10µm) or PM_{10} is considered one of the critical urban air pollutants, monitored on a regular basis by the CPCB through a nation-wide programme for ambient air quality monitoring known as National Air Quality Monitoring Programme (NAMP). Exposure to high levels of PM^{10} can cause respiratory and cardiovascular diseases. The standards for acceptable level of air pollutants (including PM_{10}) have been prescribed as part of the National Air Quality Standards (2009) by the CPCB.

Expressed as

Annual mean concentration OR Mean concentration over 24 hours of PM_{10} given in $\mu g/m^3$

15.4 Level of noise pollution (Core)

Description: This denotes the level of noise pollution in a city. Prolonged exposure to ambient noise from industrial activity, construction, vehicles, loud speakers, generator sets etc. can have negative health effects on citizens, in addition to causing annoyance and sleep deprivation. Cities can implement various measures to regulate noise pollution as per the provisions of the Noise Pollution (Regulation and Control) Rules, 2000. The rules also provide benchmarks for acceptable noise

levels in industrial, commercial, residential and sensitive (silence) zones such as hospitals, nursing homes, educational institutions and courts.

Expressed as

Number of noise samples meeting acceptable noise levels

---------- X 100 = _____ %

Total number of noise samples

15.5 Quality of water in public surface water bodies (Core)

Description: This denotes the quality of water in public surface water bodies such as rivers, lakes and ponds in the city, which is critical for maintaining the health of the overall water ecology associated with these surface water bodies. The CPCB has classified water bodies into 5 categories based on the designated best use of the water bodies and prescribed water quality standards in terms of chemical requirements for each of the categories (Guidelines for Water Quality Management, 2008).

Expressed as

Number of tested samples meeting prescribed standards

---------- X 100 = _____ %

Total number of samples tested

ANNEX 1

List of Indicators

PILLAR	CATEGORY	INDICATOR	TYPE C=Core S=Supporting	SDG Reference(s)
INSTITUTIONAL	Governance	1.1 Percentage of citizen services available online	C	Target 16.6
		1.2 Percentage of services integrated through Command Centre	S	Target 16.6
		1.3 Percentage of citizens using online services	C	Target 16.6
		1.4 Average delay in grievance redressal	C	Target 16.6
		1.5 Tax collected as percentage of tax billed	C	Target 17.1
		1.6 Extent of cost recovery (O&M) in water supply services	C	Target 17.1
		1.7 Capital spending as percentage of total expenditure	C	Target 16.6
		1.8 Percentage of population covered under Ward Committees/ Area Sabhas	C	Target 11.3 Indicator 11.3.2
SOCIAL	Identity and Culture	2.1 Restoration and reuse of historic buildings	C	Target 11.4 Indicator 11.4.1
		2.2 Percentage of ecologically important areas covered through projects for restoration	C	Target 6.6 Target 11.4 Indicator 11.4.1 Target 15.1
		2.3 Hotel occupancy	C	Target 8.9
		2.4 Percentage of budget allocated towards cultural/sports activities	S	Target 11.4
		2.5 Number of cultural/sports events hosted by city authority	S	Target 11.4

PILLAR	CATEGORY	INDICATOR	TYPE C=Core S=Supporting	SDG Reference(s)
SOCIAL	Education	3.1 Percentage of school-aged population enrolled in schools	C	Target 4.1
		3.2 Percentage of female school-aged population enrolled in schools	C	Target 4.1 Target 4.5
		3.3 Primary education student-teacher ratio	C	Target 4.C Indicator 4.C.1
		3.4 Percentage of schools with access to digital education	S	Target 4.A Indicator 4.A.1
		3.5 Percentage of students completing primary education	C	Target 4.1
		3.6 Percentage of students completing secondary education	S	Target 4.1
	Health	4.1 Number of in-patient hospital beds per 10,000 population	C	Target 3.8
		4.2 Healthcare professionals per 10,000 population	S	Target 3.C Indicator 3.C.1
		4.3 Average response time in case of health emergencies	S	Target 3.D Indicator 3.D.1
		4.4 Period prevalence of water borne diseases	C	Target 3.3
		4.5 Period prevalence of vector borne diseases	C	Target 3.3 Indicator 3.3.3
	Safety and Security	5.1 Number of streets, public places, junctions covered through surveillance systems	C	Target 16.1
		5.2 Number of recorded crimes per lakh population	C	Target 16.1
		5.3 Extent of crimes recorded against women, children and elderly per year	C	Target 5.2 Target 11.7 Indicator 11.7.2 Target 16.2
		5.4 Transport-related fatality per lakh population	S	Target 3.6 Indicator 3.6.1

PILLAR	CATEGORY	INDICATOR	TYPE C=Core S=Supporting	SDG Reference(s)
ECONOMIC	Economy and Employment	6.1 Increase in VAT/GST collection	C	Target 8.2
		6.2 Increase in collection of Professional Tax	C	Target 8.2
		6.3 Increase in issuance of Construction permits	C	Target 8.2
		6.4 Unemployment rate	C	Target 8.5 Indicator 8.5.2 Target 8.6
		6.5 Percentage of vendors registered and provided formal spaces	S	Target 8.3
PHYSICAL	Housing and Inclusiveness	7.1 Percentage of Slum/EWS households covered through formal/ affordable housing	C	Target 1.4 Indicator 1.4.2 Target 11.1
		7.2 Percentage of slum areas covered through basic services	C	Target 1.4 Indicator 1.4.1 Target 11.1
	Public Open Spaces	8.1 Per capita availability of green spaces	C	Target 11.7
		8.2 Per capita availability of public and recreational places	C	Target 11.7
	Mixed Land Use and Compactness	9.1 Share of mixed land use area in overall city land use	C	Target 11.3
		9.2 Net Density	C	Target 11.3

PILLAR	CATEGORY	INDICATOR	TYPE C=Core S=Supporting	SDG Reference(s)
PHYSICAL	Power Supply	10.1 Percentage of city population with authorized electrical service	C	Target 7.1 Indicator 7.1.1
		10.2 Percentage of electrical connections covered through smart meters	S	Target 7.1
		10.3 Average number of electrical interruptions per customer per year	C	Target 7.1
		10.4 Average length of electrical interruptions per customer per year	S	Target 7.1
		10.5 Percentage of total energy derived from renewable sources	C	Target 7.2 Indicator 7.2.1 Target 12.2
		10.6 Energy consumption per unit - water supply and sewerage	S	Target 7.3 Target 12.2
		10.7 Energy consumption per unit - street lighting	S	Target 7.3 Target 12.2
		10.8 Percentage of new and redeveloped buildings following green building norms	S	Target 7.3 Target 11.3 Target 12.2
		10.9 Total energy consumption per capita	C	Target 7.3 Target 12.2
	Transportation and Mobility	11.1 Geographical coverage of public transport	C	Target 11.2
		11.2 Availability of public transport	S	Target 11.2
		11.3 Mode share of public transport	C	Target 11.2 Target 12.2
		11.4 Percentage of road network with dedicated bicycle tracks	C	Target 11.2
		11.5 Percentage of interchanges with bicycle parking facilities	S	Target 11.2
		11.6 Mode share of non-motorized transport	C	Target 11.2 Target 11.3 Target 12.2
		11.7 Availability of Passenger Information System	S	Target 11.2
		11.8 Extent of signal synchronization	S	Target 11.2

PILLAR	CATEGORY	INDICATOR	TYPE C=Core S=Supporting	SDG Reference(s)
PHYSICAL		11.9 Availability of paid parking spaces	C	Target 11.3
		11.10 Percentage coverage of footpaths – wider than 1.2 m	C	Target 11.2 Target 11.3
		11.11 Percentage of traffic intersections with pedestrian crossing facilities	S	Target 11.2
		11.12 Extent to which universal accessibility is incorporated in public rights-of-way	S	Target 11.2
	Assured Water Supply	12.1 Household level coverage of direct water supply connections	C	Target 6.1 Indicator 6.1.1
		12.2 Per capita supply of water	C	Target 6.1
		12.3 Quality of water supplied	C	Target 6.1 Indicator 6.1.1
		12.4 Level of non-revenue water - NRW	C	Target 6.4 Indicator 6.4.1 Target 12.2
		12.5 Percentage of water connections covered through meters	S	Target 6.4
		12.6 Percentage of plots with rainwater harvesting facility	S	Target 6.4 Target 12.2
	Waste Water Management	13.1 Coverage of toilets	C	Target 6.2 Indicator 6.2.1
		13.2 Coverage of sewerage network and/or septage	C	Target 6.2 Indicator 6.2.1 Target 6.3
		13.3 Collection efficiency of sewerage network	C	Target 6.3 Indicator 6.3.1
		13.4 Extent of reuse and recycling of waste water	C	Target 6.3 Indicator 6.3.1 Target 12.2
		13.5 Coverage of storm water drains	C	Target 11.5

PILLAR	CATEGORY	INDICATOR	TYPE C=Core S=Supporting	SDG Reference(s)
PHYSICAL	Solid Waste Management	14.1 Household level coverage of municipal solid waste collection	C	Target 11.6 Indicator 11.6.1
		14.2 Efficiency of collection of municipal solid waste	C	Target 11.6 Indicator 11.6.1
		14.3 Extent of municipal solid waste recovered through reuse	C	Target 11.6 Indicator 11.6.1 Target 12.5 Indicator 12.5.1
	Reduced Pollution	15.1 Concentration of SO_2 - air pollution	C	Target 3.9 Target 11.6
		15.2 Concentration of NO_2 - air pollution	C	Target 3.9 Target 11.6
		15.3 Concentration of PM_{10} - air pollution	C	Target 3.9 Target 11.6 Indicator 11.6.2
		15.4 Level of noise pollution	C	Target 11.6
		15.5 Quality of water in public surface water bodies	C	Target 3.9 Target 6.3 Indicator 6.3.2 Target 6.6

Notes

Notes

Ministry of Urban Development
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