Ministry of Housing and Urban Affairs
Government of India

National Urban Digital Mission (NUDM)

Urban Analytics

Knowledge Standard

March 2025

National Institute of Urban Affairs

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0 INTRODUCTION

The terminology and vocabulary used for municipal governance differ among Urban Local Bodies (ULBs) across India due to the federal structure of governance, state-specific laws, and varying eGovernance system implementations. Non-standardized interfaces and storage also result in challenges related to data interpretation and interoperability. As a consequence, measuring municipal performance can lead to significant inconsistencies not only from city to city but also from state to state. Therefore, without clear definitions, vocabulary, specifications, and benchmarks for municipal governance, it is challenging to enable 'Data-Driven Governance.'

The municipal governance standards are being designed to include minimum base data elements common across municipal services in ULBs/Development Authorities or parastatals[1] to ensure interoperability, harmonization, and data-driven governance. ULBs with more complex processes can adopt and expand on these initiatives. The Knowledge Standards will help,

a) identifying and categorizing important data elements for a domain
b) resolving differences in terminology for Urban Governance
c) to analyse current city domain models, processes, reports & Key Performance Indicators (KPIs); thus, retrofitting existing data models with missing data

The Urban Analytics taxonomy defined in this standard includes common Urban Analytics KPIs and their definitions. The definitions in this standard have been curated through an ecosystem driven process and can be utilized as such in the absence of state and local legislations. The taxonomy structure in this document is scalable both vertically and horizontally to accommodate ULB specific complexities as well as change in people, process and technology over time.

Urban Analytics Taxonomy will be used in developing Urban Analytics Data Models and Application Programming Interface (API) Specifications as well as for creating metadata specifications. Few sample parameters and specifications are also given in the Annex A - Data Models for Solid Waste Management and Annex B: Sample Parameters and Specifications for understanding purposes.

Together these standards will ensure semantic and syntactic interoperability among eGovernance systems in India.

The audience for this standard includes, but is not limited to government organisation, industry, academics, Urban Practitioners, consumers, users, tool developers, regulators, auditors and standards development organizations. This Urban Analytics Taxonomy is developed as an open standard under National Urban Digital Mission (NUDM) by National Institute of Urban Affairs (NIUA). No part(s) of the document can be sublicensed further by any other organisation. Any attempted sublicense, whether voluntarily or otherwise, shall be null and void, and will attract penal actions.

[1] Parastatals are institutions/organizations, which are wholly or partially owned and managed by the government (either autonomous or quasi-governmental).

This document is also interrelated with other Indian standards for e-Governance such as SP7: 2016, IS 18000, IS 18006 (Part 1) and IS 18006 (Part 3/Sec 1): 2021.

0.1 Governing Principles in the Design of Knowledge Standard

To ensure this taxonomy fits the needs of interested stakeholders the following principles have been followed in designing it.

0.1.1 Minimalist

The standards are designed to have minimum base elements common across ULBs to ensure interoperability, harmonisation and data-driven governance. These can then be adopted and built upon by some ULBs with higher process complexities.

0.1.2 Evolvable

The standard is designed to evolve over a period of time thereby adapting to changing needs and emerging technologies thus making the system comprehensive progressively.

0.1.3 Modular

The classifications and categorisations in the knowledge standard are designed modularly, yet they function together as a whole. They are independent and self-contained and may be combined and configured with similar units to suit separate contexts.

0.1.4 Extendible

The standard is designed to be exhaustive and the elements of Urban Governance are positioned in a hierarchy that can accommodate both horizontal and vertical additions. This leaves room for wider adoption and innovation to suit the contexts of any ecosystem. The end goal is to build a knowledge practice that supports Open Standards with the Data Element taxonomy as a base.

0.1.5 Open

The standard is designed to be ‘open’ to enable wider ecosystem participation and use. The standard is intended to be used by State Governments, Urban Local Bodies, industry and technology providers, academia and civil society organisations who are either working in the domain or are providing services to the ULBs in any manner.

0.1.6 Accessible & Inclusive

The standard is designed to be inclusive and accessible in nature for all types of stakeholders. The standard will enable the technology to reach every section of society, for e.g.: Interactive Voice Responses and non-digital channels as included in the section 2 will enable the marginalized and differently-abled citizens to use the service in a more efficient manner. Also, stakeholders such as intermediators can also help in building capacities or creating awareness.

0.2 Use Case : Urban Analytics KPIs for Traffic Congestion Management in India

Traffic congestion in Indian cities is a persistent issue, driven by rapid urbanization, increasing vehicle ownership, and inadequate infrastructure. Congestion leads to productivity loss, longer commutes, higher pollution levels, and safety concerns.

Objective: To optimize traffic flow and reduce congestion using data-driven strategies, urban analytics KPIs are applied to monitor and improve mobility across cities.

0.2.1 KPIs for Traffic Congestion Management

Traffic Performance Index (TPI)	a) Measures the efficiency of road networks based on average travel speeds and delays during peak hours. b) Helps identify congestion hotspots and prioritize interventions.
Uncongested Mobility Index	a) Tracks travel speeds during non-peak hours to assess baseline infrastructure efficiency. b) Useful for comparing cities and evaluating the impact of infrastructure improvements.
Intersection Efficiency	a) Evaluates the effectiveness of signalized intersections using metrics like average waiting times and vehicle throughput. b) Enables optimization using Indian Road Congress (IRC) guidelines.
Environmental Impact Metrics	a) Monitors pollution levels (e.g., PM2.5 concentrations) caused by idling vehicles in congested areas. b) Supports sustainable transportation initiatives.
Travel Time Reliability Index	a) Assesses variability in travel times to ensure predictability for commuters. b) Important for evaluating congestion pricing policies.

0.2.2 Solutions:

a) Implement smart traffic signal systems that adapt to real-time vehicle density and prioritize emergency vehicles.
b) Use predictive analytics to optimize traffic routes based on historical congestion patterns.
c) Promote sustainable modes of transport like cycling and public transit through targeted campaigns supported by mobility indices.

0.2.3 Outcome KPIs:

a) Reduction in average commute times
b) Improved intersection throughout
c) Lower emissions in congested zones

0.2.4 Policy Implications

a) Infrastructure Upgrades: Expansion of primary roads and regular grid networks improves uncongested mobility.

b) Congestion Pricing: Implementing dynamic pricing models incentivizes off-peak travel, reducing peak-hour congestion.
c) Data-Driven Planning: Regular collection of traffic data enables short-term policy evaluations and long-term urban planning improvements.

0.3 Use Case 2: Urban Analytics KPIs for Smart Waste Management in India

India generates approximately 95 million tonnes of solid waste annually, with urban areas contributing significantly due to rapid urbanization and population growth. Inefficient waste collection, segregation, and disposal lead to environmental pollution, public health issues, and resource wastage.

Objective: To implement data-driven smart waste management systems that optimize collection, segregation, recycling, and disposal processes while ensuring compliance with Solid Waste Management (SWM) Rules 2016 and sustainability goals.

0.3.1 KPIs for Smart Waste Management

Waste Collection Efficiency	a) Measures the percentage of households covered by door-to-door waste collection services. b) Tracks missed pickups and coverage gaps.
Segregation at Source	a) Monitors the percentage of waste segregated into biodegradable, recyclable, and hazardous categories at the source. b) A critical metric for achieving effective recycling and composting.
Waste Processing Rate	a) Tracks the proportion of collected waste processed scientifically (e.g., composting, bio-methanation, waste-to-energy). b) Indicates progress toward reducing landfill dependency.
Recycling Rate	a) Measures the percentage of recyclable materials recovered from municipal solid waste. b) Supports circular economy initiatives.
Landfill Diversion Rate	a) Tracks the volume of waste diverted from landfills through recycling or energy recovery. b) Reduces environmental impact and promotes sustainable practices.
Community Participation Index	a) Assesses public awareness and involvement in waste segregation and recycling programs. b) Indicates success in behavioural change campaigns.

0.3.2 Solutions:

a) Implement 100% door-to-door collection and source segregation in all wards.
b) Establish centralized composting plants and bio-methanation facilities.
c) Introduce IoT-enabled sensors in bins for real-time monitoring of waste levels.
d) Conduct extensive public awareness campaigns to ensure community participation.

0.3.3 Possible Outcome KPIs:

a) 100% door-to-door collection efficiency.

b) Wards start practicing source segregation, enabling significant scientific processing of total waste generated.

c) Reduction in landfill dependency with functional waste-to-compost plants

0.3.4 Policy Implications

a) Integration of Smart Technologies: Use IoT devices for real-time monitoring of bins and routes to optimize collection schedules.

b) Capacity Building: Train urban local bodies (ULBs) on SWM Rules 2016 compliance and advanced waste processing technologies.

c) Public Engagement Campaigns: Raise awareness about source segregation and recycling through targeted IEC (Information, Education, Communication) activities.

d) Sustainable Financing Models: Implement user fees for waste collection services to fund infrastructure upgrades.

1 SCOPE

The scope of this Indian Standard is to provide Key Performance Indicators for Urban Analytics, establishing a standardized approach to assessing city performance through data-driven methodologies. It defines a comprehensive set of Key Performance Indicators (KPIs) and open data points in the urban domain and related sub-domains sectors to support evidence-based decision-making, enhance transparency, and improve service delivery in cities. The standard builds upon existing indices and frameworks to ensure holistic urban assessment while promoting interoperability between IT solutions at national, state, and city levels, such as the Human Development Index (HDI), Global Liveability Index, Urban Outcomes Framework, and National e-Governance Service Delivery Assessment (NeSDA).

The thought process behind these assessments includes:

a) Ease of Living Index: Measures quality of life, sustainability, and economic ability.
b) Human Development Index: Assesses education, income, and life expectancy.
c) Global Liveability Index: Compares global cities based on stability, healthcare, culture, and infrastructure.
d) Urban Outcomes Framework: Establishes a structured approach to urban development by integrating key performance indicators across livability, governance, sustainability, and economic resilience.
e) National E-Governance Service Delivery Assessment (NESDA): Evaluates the effectiveness of e-governance initiatives and digital service delivery in urban areas, ensuring transparency and accessibility.

Despite their significance, these assessments lack a common standardized framework, leading to inconsistencies in urban planning and development. Standardization of these evaluations is needed to enhance urban management and improve citizens' lives.

1.1 Limitations

The standard primarily focuses on defining KPIs and data points but does not prescribe specific technological implementations. It also acknowledges that data availability and quality may vary across cities, affecting standardization efforts. Smaller cities with limited technical capacity may face challenges in comprehensive technical adoption. While the standard aims to align with existing urban frameworks, it does not replace regulatory requirements or policy mandates.

2 REFERENCE

The standards given below contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of these standards.

I. IS 18006 Series -
   A. Part 1: Municipal Governance Reference Architecture.

B. Part 3: Property Tax
C. Part 5: Municipal Grievance Redressal
D. Part 6: Trade License
E. Part 7: Water and Sewerage
F. Part 8: Building Plan Approval

II. SP 7:2016 National Building Code of India (Third Revision)
III. URDPFI Guidelines 2014
IV. CPHEEO Manuals
A. Manual on Water Supply and Treatment (1999)
B. Manual on Sewerage and Sewage Treatment (2013)
C. Manual on Solid Waste Management (2016)
D. Manual on Storm water Drainage (2020)
V. National Disaster Management Guidelines: Management of Urban Flooding
VI. National Municipal Accounting Manual (NMAM), 2004

3 TERMINOLOGY AND ABBREVIATIONS

3.1 Terminology

For the purpose of this standard, the definitions given in IS 18006 and IS 18006 (Part 3/Sec 1): 2021 shall apply, in addition to the following:

3.2 Aadhaar

Aadhaar is a verifiable 12digit identification number issued by Unique Identification Authority of India (UIDAI) to the residents of India.

3.2.1 Application Programming Interface (API)

The term Application Programming Interface (API) means any mechanism that allows a system or service to access data or functionality provided by another system or service. The API is generally used to interact (like query, list, search, and sometimes submit & update) directly with the specific information on a system, to trigger some action on other systems, or to perform some other action on other systems.

3.2.2 Consumer/Customer

A Consumer is a person who purchases a product or avails a service for consideration, either for their personal use or to earn their livelihood by means of self-employment. It also includes a beneficiary of such goods/services when such use is made with the approval of such person. The term Consumer or Customer may be used interchangeably as per the State/ ULB requirement.

3.2.3 Data Elements

A Data Element is a Logical definition of Data. Any unit of Data defined for processing is a Data Element. The basic principle of data modelling is the combination of an Object class and an Attribute to form a more specific ‘data element concept’. For example, Application ID, name, address, ULB, building details that are associated with a Data Entity (Such as Trade License, Fire NOC etc.) and data entities.

3.2.4 Data Entities

Entities were created to help users to locate their data elements from the entire list. However, this grouping should not be confused with data sets. Data sets are lists of data elements required for a certain program or application to function and should be created by choosing relevant data elements from various entities.

3.2.5 Domain

A sub-category under an Information Technology field is a Domain; specific purpose within a “Domain” is known as “Area”. For example, “Document type for Web publishing content” is one Area under the “Presentation” domain.

3.2.6 E-governance

A procedural approach in which the Government and the citizens, businesses, and other stakeholders are able to transact all or part of their activities using Information and Communication Technology tools.

3.2.7 Interoperability

The ability of different information technology systems and software applications to communicate, exchange data, and use the information that has been exchanged.

3.2.8 Metadata

Metadata is data about data. Metadata describes how and when and by whom a particular set of data was collected. Metadata is essential for understanding the information stored.

3.3 Abbreviations

API	Application Programming Interface
KPI	Key Performance Indicators
SWM	Solid Waste Management
ULB	Urban Local Body
AMRUT	Atal Mission for Rejuvenation and Urban Transformation
PMSvanidh	Pradhan Mantri Street Vendor's AtmaNirbhar Nidhi
MeiTY	Ministry of Electronics and Information Technology
DPDP	Digital Personal Data Protection

UN SDGs	United Nations Sustainable Development Goals
UPYOG	Unified Platform for Yojana One Governance
UMEED	Urban Monitoring for Efficient and Effective Decision making
UOF	Urban Outcome Framework
MPI	Municipal Performance Index
EOLI	Ease Of Living Index
HDI	Human Development Index
STP	Sewage Treatment Plant
EPR	Extended Producer Responsibility
MRF	Material Recovery Facility
RDF	Refuse Derived Fuel
ETP	Effluent Treatment Plant
LPCD	Litres per capita per day
TDP	Tons per day
SBM	Swachh Bharat Mission
ETP	Effluent Treatment Plant
CPCB	Central Pollution Control Board
NOC	No Objection Certificate
WWTP	Wastewater Treatment Plant
NRW	Non-Revenue Water
DMP	Disaster Management Plan

4 URBAN ANALYTICS

Urban analytics leverages data, technology, and advanced analytical methods to assess and improve city operations. It helps urban planners, policymakers, and city administrators make data-driven decisions to enhance efficiency, sustainability, and livability.

The Urban Analytics standard builds upon existing frameworks and indices to present a set of Key Performance Indicators (KPIs) supported by background open data points. This methodology aims to provide a comprehensive but scalable urban assessment tool that integrates digital and traditional data sources to guide evidence-based decision-making. The methodology for creating this standard involves the following steps:

4.1 Review of Existing Frameworks

A comprehensive analysis of global and national urban indices, including HDI, Global Liveability Index, Urban Outcomes Framework, and NeSDA was conducted. The review identified strengths, gaps, and areas for integration to create a holistic urban assessment model that aligns with international best practices while addressing local urban challenges.

4.2 Identification of Key Performance Indicators (KPIs)

The methodology focused on selecting relevant KPIs through –

a) Review and analysis of existing frameworks and indices to collate a basic set of KPIs
b) Aligning KPIs with national and global urban policies (e.g., AMRUT, PMSvanidhi, MeiTY, DPDP, UN SDGs, Smart City frameworks, etc.).
c) Ensuring KPIs reflect sustainability, mobility, safety, and economic growth.
d) Inclusion of digital service delivery indicators for urban services mapped in UPYOG.
e) Updating KPIs with a focus on digitalization of city operations
f) Consideration of both core and advanced KPIs to guide cities with varying capacities.
g) Ensuring the KPIs are measurable, actionable, and aligned with policy objectives.
h) Gather input through Domain Working Groups and stakeholder engagement

4.3 Data Collection and Standardization

4.3.1 Data Collection:

Data availability was verified from national and state government databases, international databases, and satellite imagery to complement primary and secondary research sources. For adherence to KPIs, data shall be sourced directly from urban local bodies (ULBs) through surveys, administrative records, and city management systems to capture real-time and ground-level insights.

4.3.2 Standardization Measures:

a) Establishment of common definitions and methodologies to ensure consistency.
b) Defining standard units of measurement across datasets.
c) Implementing rigorous data validation protocols to maintain accuracy and reliability.
d) Ensuring interoperability with national and state-level data repositories.

4.4 Categorization of KPIs

KPIs are categorized into:

a) *Core KPIs*: Essential metrics for fundamental urban assessment, ensuring comparability across all Urban Local Bodies
b) *Advanced KPIs:* Additional indicators providing deeper insights into specific urban dynamics such as resilience, sustainability, and digital governance that may be adopted by advanced cities

4.5 Stakeholder Engagement and Review Process

Domain Working Groups have been created to review the KPIs for all sub-domains. Regular meetings have been conducted to relevance and applicability through an ecosystem driven process. A draft standard will be shared for review to the DWG to incorporate feedback before finalization as well as published for public consultation.

During the creation of technical standards, protocols shall be established for addressing data discrepancies and conflicts among stakeholders to maintain the credibility of the framework.

4.6 Future work

The standards are being developed to be scalable vertically (increasing granularity of KPIs) and horizontally (expanding to more KPIs). As the next step, Urban Analytics technical standards (Data Models and APIs) will be developed in FY 2025 ensuring interoperability through data models and API specifications at national, state, and city levels. These will be mapped against the UMEED Dashboard for a cohesive assessment approach. This integration will facilitate real-time data sharing and analytics-driven insights for urban planning and policy decisions. Future iterations will also include:

a) Additional urban service categories such as climate resilience, mobility, and circular economy.

b) Real-time analytics integration through AI and machine learning models.

c) Strengthening predictive capabilities to aid proactive urban management.

4.7 Implementation Strategy

Indicative Metadata-Driven Framework for KPI Implementation under Urban Analytics

A. Introduction

To support a consistent and scalable framework for urban performance monitoring, a metadata-driven approach for implementing Key Performance Indicators (KPIs) is proposed. This approach outlines the use of standardized metadata schemas to define each KPI in terms of its descriptions, formulae, input data fields, data types, source systems, update frequencies, and other entities.

For example, a KPI such as “Percentage of Area under Green Cover” would include metadata detailing its calculation logic, units of measurement, and associated datasets. The goal is to eventually maintain this information in a centralized registry to ensure uniform interpretation, enable traceability, and support automation across data collection, processing, and visualization layers.

Though this metadata framework is currently indicative, it serves as a foundational step toward improving data consistency, quality, and comparability across urban local bodies. Once adopted, it will help streamline integration with diverse systems and enable more structured and transparent reporting of urban indicators.

This approach also lays the groundwork for a scalable metadata registry where each KPI is codified, versioned, and mapped to its sector. It allows departments to track updates over time, automate validation rules, and align with evolving data governance practices. The registry can support downstream services like ETL pipelines, visualization platforms, and benchmarking tools by exposing consistent definitions and computation logic.

B. Metadata Schema Structure (Indicative)

Field	Description
KPI Code	Unique identifier (e.g., HLTH022, SWM001)
Sector	Relevant thematic area (e.g., Healthcare, Solid Waste Management)
KPI Title	Descriptive name of the indicator
Definition	Clear explanation of what the KPI measures
Formula	Standardized method for KPI computation
Unit for calculation	Unit of calculation (%, per lakh population, Ratio, Count/No.)
Unit for measurement	Unit of measurement (Area, Length, Number etc.)
Core/Advanced	Classification indicating applicability
Data Points Required	List of individual data fields needed
Source Systems	Systems/departments responsible for data provision
Update Frequency	Proposed periodicity of data updates (e.g., monthly, quarterly)
Validation Rules	Logical checks for data integrity
Responsible Department	Agency/department accountable for data submission
Comments/Notes	Additional information, assumptions, or notes

C. Example: KPI – Availability of Hospital Beds (Per Lakh of Population)

KPI Code: HLTH023
Sector: Healthcare
Title: Availability of Hospital Beds (Per Lakh of Population)
D**efinition**: Measures the number of hospital beds available for every 100,000 people in a ULB. This helps assess the adequacy of healthcare infrastructure relative to the population.

Indicative Metadata Schema

Metadata Attribute	Description
KPI Code	HLTH023
Unit	Per 100,000 population
Unit of measurement	Number per 100,000 population
Formula	(Number of hospital beds * 100,000) / Population
Data Points Required	1. Number of hospital beds 2. ULB population
Source Systems	Hospital registry, census or population database
Data Types	Integer (beds), Integer (population)
Update Frequency	Bi-annual
Validation Rules	- Hospital beds > 0- Population > 0- Result within reasonable range
Responsible Department	Department of Health at ULB/state level

5 KEY PERFORMANCE INDICATORS FOR URBAN ANALYTICS

A well-defined set of Key Performance Indicators (KPIs) ensures transparency, efficiency, and financial accountability in Urban Analytics. For this version of the Urban Analytics Standard, the following sub-domains have been considered:

5.1 Flood Monitoring

#	KPI	Definitions	Data Points	Calculation Formula	Unit	Core/ Advanced
5.1.1 **Flood risk and Exposure**						
1	Flood Risk Index (%)	Indicator of flood risk within an urban area	• Flood-Prone Area • Total Urban Area	*(Flood-Prone Area / Total Urban Area) × 100*	%	Core
2	River Basin Flood Risk (%)	Flood risk specific to river basins	• Area in River Basin Floodplain • Total Urban Area	*(Area in River Basin Floodplain / Total Urban Area) × 100*	%	Advanced
3	Flood Casualties	No. of casualties in a flood event	-	*As reported*	No.	Core
4	Flood Hazard Map Analysis	Assessment of flood-prone areas	-	*Analysis-based*	-	Advanced
5	Flood Vulnerability Map Analysis	Analysis of susceptible areas and populations	-	*Analysis-based*	-	Advanced
6	Flood Frequency (%)	Frequency of floods occurrence within a specific timeframe	• Flood Incidents Time Period	*(Flood Incidents / Time Period) × 100*	%	Core
7	Area affected by flood (%)	Impact of flooding on urban land area	• Area Affected by Flood • Total Urban Area	*(Area Affected by Flood / Total Urban Area) × 100*	%	Core
8	Critical Infrastructure at Risk (%)	Share of infrastructure at flood risk	• Critical Infrastructure in Flood Zones • Total Critical Infrastructure	*(Critical Infrastructure in Flood Zones / Total Critical Infrastructure) × 100*	%	Advanced
5.1.2 **Flood Management and Response Efficiency**						
9	Flood Mitigation Efficiency (%)	Effectiveness of measures in mitigating floodwater	• Flood Water Diverted • Total Flood Water Volume	(Flood Water Diverted / Total Flood Water Volume) × 100	%	Advance

10	Flood Management Capacity (%)	Extent of flood management capacity used	• Floodwater Managed • Total Flood Management Capacity	(Floodwater Managed / Total Flood Managed Capacity) × 100	%	Advance
11	Drainage Efficiency (%)	Effectiveness of drainage system upkeep	• Water Drained Successfully • Total Water Collected	(Water Drained Successfully / Total Water Collected) × 100	%	Core
12	Pumping Efficiency (%)	Efficiency of water removal via pumps	• Logged Water Pumped • Total Logged Water	(Logged Water Pumped / Total Logged Water) × 100	%	Core
13	Stormwater Management Efficiency (%)	Effectiveness of Storm water capture systems	• Captured Runoff • Total Runoff	(Captured Runoff / Total Runoff) × 100	%	Advance
14	Floodwater Clearance Time-rate (hrs)	Time required to clear floodwater	• Total Time Taken to Clear Flood Water • Number of Flood Events	Total Time Taken to Clear Flood Water / Number of Flood Events	Hours	Core
15	Flood Emergency Response Time (hrs)	Time taken for emergency response to flood incidents	• Total Time to Respond to Flood Incidents • Number of Incidents	Total Time to Respond to Flood Incidents / Number of Incidents	Hours	Core
16	Investment in Flood Mitigation Infrastructure (%)	Share of budget dedicated to flood mitigation	• Investment in Flood Mitigation • Total City Infrastructure Investment	(Investment in Flood Mitigation / Total City Infrastructure Investment) × 100	%	Advanced
5.1.3 **Flood Monitoring and Early Warning systems**						
17	Flood-prone Areas Covered by Early Warning Systems (%)	Extent of flood-prone areas with early warning coverage	• Flood-Prone Areas with Early Warning Systems • Total Flood-Prone Areas	(Flood-Prone Areas with Early Warning Systems / Total Flood-Prone Areas) × 100	%	Core
18	Flood Monitoring Network Coverage (%)	Measures the percentage of the area covered by flood monitoring systems.	• Coverage Area • Total Area	(Coverage Area / Total Area) × 100	%	Advanced
19	Monitored Water Bodies Ratio (%)	The percentage of water bodies that are actively monitored for floods.	• Monitored Water Bodies • Total Water Bodies	(Monitored Water Bodies / Total Water Bodies) × 100	%	Advanced
20	Sensor Coverage Density	The number of flood monitoring sensors per unit flood-prone area.	• Number of Sensors • Total Flood-Prone Area	Number of Sensors / Total Flood-Prone Area	Sensors per sq. km	Advanced
21	Early Flood Warning System Response (%)	The percentage of flood alerts sent on time.	• Timely Alerts	(Timely Alerts / Total Alerts Sent) × 100	%	Advanced

			• Total Alerts Sent			
22	Floodwater Height Alert Accuracy (%)	The accuracy of flood height alerts compared to actual conditions.	• Correct Heights Alerts • Total Alerts	(Correct Heights Alerts / Total Alerts) × 100	%	Advanced
23	Rainfall Intensity Correlation (%)	Measures how well rainfall intensity in flood-prone areas correlates with overall rainfall.	• Rainfall Intensity in Flood-Prone Areas • Total Rainfall	(Rainfall Intensity in Flood-Prone Areas / Total Rainfall) × 100	%	Advanced
5.1.4 **Social and Humanitarian Impact**						
24	Flood Response Personnel Training Compliance (%)	The percentage of personnel trained for flood response.	• Trained Personnel • Total Personnel	(Trained Personnel / Total Personnel) × 100	%	Advanced
25	Flood Preparedness Awareness (%)	The percentage of the population informed about flood preparedness.	• Informed Population • Total Population	(Informed Population / Total Population) × 100	%	Advanced
26	Average Time Taken to Evacuate Flood-Affected Areas	The average time taken for evacuations during flood events.	• Total Evacuation Time • Total number of Evacuation operations	Total Evacuation Time / Total number of Evacuation operations	Hours	Advanced
27	Total Number of Shelters/Relief Camps per sq. km	The number of shelters or relief camps available per unit area.	• Total number of shelter • Total area	Total Number of Shelters / Area	Shelters per sq. km	Advanced
28	Population Covered by Flood Shelters and Relief Programs (%)	The percentage of flood-affected population covered by shelters and relief programs.	• Population with Access to Shelters • Total Flood-Affected Population	(Population with Access to Shelters / Total Flood-Affected Population) × 100	%	Core
30	Reduction in Flood Damage Costs Over Time (%)	The percentage reduction in flood damage costs over time.	• Previous Flood Losses • Current Flood Losses	(Previous Flood Losses - Current Flood Losses) / Previous Flood Losses × 100	%	Advanced
31	Flood Control Measure Effectiveness (%)	The percentage of flood control measures implemented as planned.	• Implemented Measures • Total Measures Planned	(Implemented Measures / Total Measures Planned) × 100	%	Core
32	Waterlogging Impact (%)	The percentage of flood-prone areas that experience waterlogging.	• Waterlogged Area • Total Flood-Prone Area	(Waterlogged Area / Total Flood-Prone Area) × 100	%	Core

33	Disaster Management Plan	A strategic document outlining policies, procedures, and resources for preventing, mitigating, responding to, and recovering from disasters.	-	a. Does the city have a disaster management plan in place? b. Is the city DP in compliance with the NDMP and DDMP? c. Have you mapped all the identified risk areas in the city?	Number	Core
34	Population Affected by Disasters	The number of people impacted by disasters, including those injured, displaced, or suffering economic and social losses.	• People directly affected due to disasters • Total Population	(People directly affected due to disasters / Population)*100	%	Core
35	Disaster Management Preparedness	Measures taken to ensure readiness for disasters, including early warning systems, training, resource allocation, and emergency response planning.	-	a. Are Early Warning Systems (EWS) in place for hazards? b. Have response teams (e.g. fire stations, police, ambulances) been identified and prepared for disasters?	Number	Core
36	City Climate Action Plan	A strategic framework outlining actions to mitigate and adapt to climate change impacts in urban areas.	• Has the city considered a climate action plan? • Has the city prepared a climate action plan? • Has the climate action plan been implemented in the city? • Does regular monitoring and streamlining of climate-relevant actions happen in the city?	Climate Action Plan not considered, Institutional Mechanism Established and Plan prepared, Implementation, Regular Monitoring and Streamlining	Yes/No	Advanced
37	Disaster Resilience	The ability of a city to anticipate, prepare for, respond to, and recover from disasters effectively.	• Has the city initiated a city level disaster management plan? • Has the city instituted a disaster management cell or emergency operation centre (EOC) within ULB? • Has the city prepared a disaster management plan including ward- level Hazard Risk,	Disaster and Risk Reduction not prioritized. Institutional Mechanism Established. Disaster Management Plan Developed. Plan Implementation. Monitoring, Updating, and Mainstreaming.	Yes/No	Advanced

			Vulnerability and Capacity Assessment along based on NDMA guideline? ● Has the city established early warning systems for priority risks/ hazards? ● Does the city monitor, update and mainstream its disaster management plan?			
38	Is Early warning system in place of hazards?	A mechanism to detect, monitor, and provide timely alerts for potential disasters, enabling preventive actions.	-	Is Early warning system in place of hazards?	Yes/No	Core

5.2 Infrastructure

#	KPI	Definitions	Data Points	Calculation Formula	Unit	Core/ Advanced
1	Expenditure on Road Infrastructure	Total spending on road construction and maintenance.	● Total Expenditure on Road Infrastructure ● Total Road Network Length	Total Expenditure on Road Infrastructure / Total Road Network Length	per km	Core
2	Deviation of Expenditure on Road Maintenance (Carriage Width, Footpath, Cycle Tracks, and On-Road Parking Areas)	Difference between planned and actual road maintenance costs.	● Value of total expenditure on road maintenance ● Planned value of total expenditure on road maintenance	Value of total expenditure on road maintenance - Planned value of total expenditure on road maintenance	Number	Core
3	Road Density	Road length per unit area (km/sq.km).	● Total road length per 100k city Population	(Total road length of city/ Population) *100k Population)	Per lakh Pop.	Core
4	Footpath Coverage (%)	Proportion of roads with pedestrian pathways.	● Total length of footpaths along the street network ● Total road length	(Total length of footpaths along the street network / Total road length)*100	%	Core

5	Footpath Length	Total road length covered by footpaths.	• Footpath Length	Total road length covered by Footpath	Number	Advanced
6	Road Length Coverage	Road network extent compared to total land area.	• Total Road Length • Total Area of City	(Total Road Length / Total Area of City) × 100	%	Core
7	Community Services Centres a) Number of Community Centre b) Crematorium c) Parks d) Music, dance and drama centre e) Care centre for physically /mentally challenged f) Burial grounds/ Cremation ground g) Fitness centres/ GYM h) Working women – men hostel i) Night Shelter j) Old Age Home k) Orphanage/ Children's Centre l) Other	Availability of essential public facilities (parks, gyms, shelters, etc.).	• Number of (Community Centre, Crematorium, Parks, Music/ dance/drama center, Care centre for physically / mentally challenged, Burial grounds/ Cremation ground, Fitness centres/GYM, Working women-men hostel, Night Shelter, Old Age Home, Orphanage/ Children's Centre) per 100k population	[Number of (Community Centre+ Crematorium+ Parks+ Music, dance and drama centre+ Care centre for physically / mentally challenged+ Burial grounds/ Cremation ground+ Fitness centres/GYM+ Working women / men hostel+ Night Shelter+ Old Age Home+ Orphanage/ Children's Centre)/ Population *100k population	Number	Advanced
8	Availability of Public Transport (Seats)	Number of seats available in public transport systems.	• Seats in public transport buses or bus equivalent run/operated by the city	(Seats in public transport buses or bus equivalent	Per lakh Pop.	Core

			• Population	run/operated by the city*100k) / Population		
9	Transport Related Fatalities	Number of deaths from road and transport accidents.	• Fatalities recorded due to road accidents • Population	(Fatalities recorded due to road accidents) / 100k Population)	Per lakh Pop.	Advanced
10	Percentage of Coverage of Non-Motorized Transport Network (Pedestrian and Bicycle) in the City	Share of the network dedicated to walking and cycling.	• Total length of NMT network in the city (km) • Total road network length (km)	(Total length of NMT network in the city (km)/ Total road network length in Kms) * 100	%	Core
11	Cycle Lane Coverage (%)	Percentage of roads with dedicated cycling lanes.	• Total Length of Cycle Lanes • Total Road Network Length	(Total Length of Cycle Lanes / Total Road Network Length) × 100	%	Advanced
12	Sidewalk Coverage (%)	Proportion of streets with pedestrian-friendly sidewalks.	• Total Length of Sidewalks • Total Road Network Length	(Total Length of Sidewalks / Total Road Network Length) × 100	%	Advanced
13	Bus Availability	Number of buses available per 1000 population.	• Number of Buses in Operation • Population	(Number of Buses in Operation)/ Population) * 1000	%	Core
14	Clean Technologies Shared Vehicles	Use of eco-friendly transport options and shared mobility solutions.	• Does the city have clean technology shared vehicles? • Total number of public owned buses, taxis, autos, rickshaws etc (based on clean fuel like CNG, LPG, Hybrid, Biofuels, Electric) in the city. • Total number of privately owned buses, taxis, autos, rickshaws etc (based on clean fuel like CNG, LPG, Hybrid, Biofuels, Electric) in the city. • Total number of commercially owned buses, taxis, autos, rickshaws etc (based on clean	Yes/No Private clean-fuel vehicle/Total Private vehicles (registered) * 100 Public clean-fuel vehicle/Total Public vehicles (registered) * 100 Commercial clean-fuel vehicle/Total Commercial vehicles (registered) * 100 Level 1: No clean technology shared vehicles available Level 2: Clean technology	%	Core

			fuel like CNG, LPG, Hybrid, Biofuels, Electric) in the city. ● Total public registered vehicles in the State ● Total private registered vehicles in the State ● Total commercial registered vehicles in the State	shared vehicles <5% Level 3: Clean technology shared vehicles 5% to <15% Level 4: Clean technology shared vehicles 15% to <25% Level 5: Clean technology shared vehicles >25%		

5.3 Housing and Shelter

#	KPIS	Definitions	Data Points	Calculation Formula	Unit	Core/ Advanced
1	Households with Electricity Connections	Residential units with legal electricity connections, indicating infrastructure access.	• Authorized electrical connections • Number of Households	(Authorized electrical connections / Number of Households) * 100	%	Core
2	Illegal Electricity Leakage (%)	Percentage of total electricity supplied that is lost due to illegal connections, meter tampering, and unauthorized use.	• (Total Transmission & Distribution (T&D) Losses + Estimated Technical Losses) (kWh) \ • Total Electricity Supplied (kWh) Here, Total Transmission & Distribution (T&D) Losses = (Total Electricity Supplied – Total Metered Consumption) Estimated Technical Losses = Energy lost due to grid inefficiencies	((Total Transmission & Distribution (T&D) Losses + Technical Losses) / Total Electricity Supplied) × 100	%	Advanced
3	Beneficiaries under PMAY (U)	Individuals or families receiving affordable housing benefits under PMAY (U).	• Beneficiaries under the PMAY (U) scheme • Eligible applicants under PMAY (U)	(Beneficiaries under the PMAY (U) scheme / Eligible applicants under PMAY (U)) *100	%	Core
4	Slum Population	People living in informal settlements with poor housing and basic services.	• Total number of people residing in slums/unregistered colonies • Population of city	(Total number of people residing in slums / Population)*100	%	Core

5.4 Economy

#	KPIs	Definitions	Data Points	Calculation Formula	Unit	Core/ Advanced

5.4.1 Economic & Business Development						
1	Manufacturing Potential	Industry hubs serving markets per unit area	• Number of manufacturing units • Area of ULB	Number of manufacturing units / Area of ULB	Number per sq Km	Core
2	MSME Density	Number of MSMEs per unit area or population.	• MSMEs in City • Area of ULB	MSME at cities level/ Area of ULB	Number per sq Km	Core
3	Credit Availability and Accessibility	Ease of obtaining financial support for businesses.	Amount of credit disbursed by banks	Score calculated if (Amount of credit disbursed by banks)	Amount	Core
4	Incubation & Skill Development Centres	Facilities for training, mentorship, and business support.	• Total number of incubation centres & skill development centres • Population	(Total number of incubation centres & skill development centres * 100k) / Population	Per Lakh of Pop.	Advanced
5	MSME Loan Approval Rate	Access to financial assistance for small businesses	• Number of MSME loans approved • Total MSME loan applications	Number of MSME loans approved / Total MSME loan applications	Ratio	Advanced
6	Number of MSMEs per 1,000 Residents	Indicates business density and entrepreneurship activity.	• Total MSMEs • Total Population	(Total MSMEs / Total Population) × 1000	MSMEs per 1,000 Residents	Advanced
7	Ease of Doing Business Score (Municipal Level)	Evaluates factors like permit approvals, tax compliance, and regulatory efficiency.	• Municipal Business Regulations Score • Maximum Possible Score	(Municipal Business Regulations Score / Maximum Possible Score) × 100	Score	Core
5.4.2 Employment & Workforce						
8	Female Participation in the Labour Force	Percentage of women engaged in employment or actively seeking work within the economy.	• No. of females employed • No. of females in the labor workforce	(No. of females employed / No. of females in the labor workforce) x 100	%	Advanced
9	Unemployment Rate (%)	Measures job availability in the city.	• Unemployed Population • Total Workforce	(Unemployed Population / Total Workforce) × 100	%	Core

5.4.3 Infrastructure & Investment						
10	Public Infrastructure Investment Ratio (%)	Shows focus on economic enablers like roads, markets, and utilities.	• Infrastructure Spend • Total Municipal Budget	(Infrastructure Spend / Total Municipal Budget) × 100	%	Core
11	Commercial Space Occupancy Rate (%)	Measures demand for business spaces.	• Occupied Commercial Units • Total Available Units	(Occupied Commercial Units / Total Available Units) × 100	%	Advanced
12	Industrial Zone Utilization (%)	Tracks the effectiveness of industrial planning.	• Active Units in Industrial Parks • Total Available Units	(Active Units in Industrial Parks / Total Available Units) × 100	%	Advanced
5.4.4 Digital Economy & Financial Inclusion						
13	Digital Payment Penetration (%)	Tracks adoption of digital finance.	• Digital Transactions • Total Transactions	(Digital Transactions / Total Transactions within ULB) × 100	%	Advanced
14	Internet & Mobile Penetration Rate (%)	Reflects digital accessibility for economic participation.	• Internet Users • Total Population	(Internet Users / Total ULB Population) × 100	%	Core
15	Access to Microfinance & Small Business Loans (%)	Shows financial inclusion for small entrepreneurs.	• Individuals/Businesses Receiving Microfinance • Eligible Entrepreneurs	(Individuals Receiving Microfinance / Eligible Entrepreneurs) × 100	%	Core
5.4.5 Livelihood & Sectoral Growth						
16	Growth in Key Sectors (YoY %)	Tracks growth rates in industries like manufacturing, tourism, IT, and agriculture.	• Sector Growth in Current Year • Sector Growth in Previous Year	((Current Year Sector GDP - Previous Year Sector GDP) / Previous Year Sector GDP) × 100	%	Core
17	Self-Employment Rate (%)	Measures entrepreneurial independence.	• Self-Employed Workforce • Total Workforce	(Self-Employed Workforce / Total Workforce) × 100	%	Advanced
18	GDP per Household (₹)	Indicates economic prosperity levels.	• Total GDP (ULB) • Total Households	(Total ULB GDP / Total Households)	₹	Advanced

5.5 Environment

#	KPIs	Definitions	Data Points	Calculation Formula	Unit	Core/ Advanced
1	Percentage of Area under Green cover	The total land area covered by vegetation, including forests, parks, and green spaces.	• Area under green cover • Total area of ULB	(Area under green cover / Total area of ULB)*100	%	Core
2	Percentage of Households with LPG Connections	Percentage of households with access to liquefied petroleum gas (LPG) for cooking and heating.	• Number of households with LPG connections • Number of Households	(Number of households with LPG connections / Number of Households)*100	%	Advanced
3	Urban Biodiversity	The variety of plant and animal species found in urban areas, contributing to ecological balance.	• Has the city prioritised urban biodiversity management? • Has the city established a city level biodiversity management committee? • Has the city conducted baseline assessment for urban biodiversity management? • Has the city identified measures to increase the urban biodiversity with sufficient resources allocated for its implementation? • Has the city implemented measures identified in level 4?	Level 1: No action initiated Level 2: Institutional set-up Level 3: Baseline assessment Level 4: Urban biodiversity improvement measures Level 5: Implementation of actions.	Yes/No	Advanced
4	Properties with Functional Rainwater Harvesting Structures	Number or percentage of buildings equipped with operational systems for collecting and storing rainwater.	• Properties with functional rainwater harvesting structures Total number of properties	(Properties with functional rainwater harvesting structures / Total number of properties)*100	%	Core

5	Water Quality	The measure of purity and safety of water based on parameters like pH, turbidity, and contaminant levels.	• Samples that met CPCB Norms for assessment of water quality in public surface water bodies Samples tested	(Samples that met CPCB Norms for assessment of water quality in public surface water bodies / Samples tested)*100	%	Core
6	Air Quality	The level of pollutants in the air, assessed using indicators like PM2.5, PM10, and AQI (Air Quality Index)	• Annual mean concentration of NO_2 & PM2.5 & PM10 & SO_2	Annual mean concentration of NO_2 & PM2.5 & PM10 & SO_2/ 4	Number	Core
7	Level of Air Pollution (Monitoring)	Concentration of pollutants in the atmosphere.	• Does the city recognise air pollution levels and its associated hazards? • Does the city monitor PM10, PM2.5, NOx, SOx as per Central Pollution Control Board Guidelines and CO, NH_3, Pb and O_3 etc. as per NAAQS? • Does the city make pollutant data available in the public domain? • Does the city demonstrate a reduction trend or incremental improvements in air pollution? • Does the city's air quality comply with National Ambient Air Quality Standards?	Level 1: No Consideration Level 2: Basic Monitoring Level 3: Availability of Data in Public Domain Level 4: Air Pollution Reduction Trend Level 5: Achievement of National Air Quality Standards	Yes/No	Advanced
8	Clean Air Action Plan (Planning and Implementation)	Policies and strategies to reduce air pollution.	• Are there any existing air pollutant monitoring stations or/and Clean Air Action Plan (CAAP) in the city? • Does the city have monitoring stations for measuring ambient air quality or/and	1. No air pollutant monitoring and/or Clean Air Action Plan in the city. 2. Air pollutant monitoring and/or Clean Air Action Plan in the city.	Yes/No	Core

			Clean Air Action Plan (CAAP)? ● Does the city perform pollutant source identification or emissions inventory? ● Have measures from the clean air action plan been implemented? ● Is an assessment of impacts of the Clean Air Action Plan being conducted?	3. Clean Air Action Plan developed with pollutant source identification. 4. Implementation of the Clean Air Action Plan.\Assessing the impacts of Clean Air Action Plan implementation.		
9	Proportion of Green Cover	The percentage of urban land dedicated to green spaces relative to total land area.	● Area of green cover in sq.km. ● Municipal area in sq.km.	Level 1: 0% to less than 5% green cover Level 2: 5% to 9% green cover Level 3: 9% to less than 12% green cover Level 4: 12% to less than 18% green cover Level 5: 18% or more green cover.	%	Core
10	Green Cover Density	The concentration of vegetation per unit area, indicating the intensity of greenery.	● Green Cover Area ● Total Land Area	(Green Cover Area/Total Land Area)×100	%	Advanced
11	Green Cover Capacity	The ability of green spaces to provide ecological benefits like carbon sequestration and cooling effects.	● Green Cover Area ● Ecological Efficiency Factor	∑(Green Cover Area × Ecological Efficiency Factor)	-	Advanced
12	Humidity/Temperature Rating	A measure of air moisture and heat levels that affect human comfort and environmental conditions.	-	Annual mean Humidity adapted from average weather conditions	-	Advanced
13	Carbon Footprint (Co2 Emissions)	The measure of Co2 Emissions based on	● Electricity Used (kWh) ● Grid Emission Factor	CO_2 emissions=Electricity Used (kWh)×Grid Emission Factor	Tons per capita or	Core

		parameters like Grid energy consumed			Tons per sq. km	
14	Solar Monitoring	The measure of energy generated based on parameters like energy generated, voltage, power, current	• Solar energy generated • Energy consumption requirements for a given area	(Solar energy generated/Energy consumption requirements for a given area) * 100	%	Core
15	Per Capita Water Consumption	Water Source identification (ground water, Rain water, Govt. Supply) based on parameters like water flow, volume, flow rate.	• (Ground Water+ Rainwater) • Water Consumption requirements	Water (Rainwater + Ground Consumption per month/30* ULB population	Litres per capita per day	Advanced
16	Waste Management (Recyclable %) (Pollutants %)	The level of pollutants in the trash bins, assessed using indicators like bin levels, bin status, last cleaning time	• Pollutants emitted for a given amount of waste • Recyclable Waste • Total Amount of waste	(Pollutants emitted/total waste) * 100 (Recyclable Waste/Total Amount of waste) *100	%	Advanced
5.5.1 **Green Building**						
17	Green Building Incentivisation	Policies, benefits, or relaxations to promote green buildings.	-	Has the city implemented any measures that are aimed at incentivizing green buildings?	Yes/No	Core
18	Certified Green Buildings	Certified buildings meeting sustainability and efficiency criteria.	• Buildings that have received green ratings from green building rating/certification agencies • Total number of properties in the city	(Buildings that have received green ratings from green building rating/certification agencies / Total number of properties in the city)*100	%	Core
19	Green Building Adoption	Extent of green building principles in city structures.	• Are there any certified green buildings in the city? • Total built-up area of green buildings in the residential sector, institutional sector, commercial sector, industrial	Level 1: No indication of green buildings in the city Level 2: The occupant load in green buildings is 1-200 persons for every 10,000 population Level 3: The occupant load in green	Yes/No	Advanced

			sector, estimated population of the city.	buildings is 201-400 persons for every 10,000 population Level 4: The occupant load in green buildings is 401-600 persons for every 10,000 population Level 5: The occupant load in green buildings is >600 persons for every 10,000 population		
20	Promotion of Green Buildings	Efforts to raise awareness, provide incentives, and enforce regulations.	• Has the city implemented any measures to promote green buildings? • Has the city implemented the Inclusion of Part 11 of National Building Code (NBC 2016) and/ or Energy Conservation Building Codes (ECBC 2017) & Eco-Niwas Samhita 2018 and/or minim level of green building rating systems notified in City Development Control Regulations (DCRs/ GDCRs) and building rules/bye laws? • Does the city have a functioning Green building cell in ULB for the purpose of knowledge dissemination, creating public awareness, empanelling green building vendors, designing green building schemes and their promotions, verification and faster approvals for green buildings in the city? • Does the city have promotional or penalty schemes available for code	Level 1: No measure implemented Level 2: One measure implemented Level 3: Two measures implemented Level 4: Three measures implemented Level 5: All four measures implemented	Yes/No	Advanced

			compliance, pre- certification, certification of green buildings? ● Does the city have a functioning high-level Green Building committee or equivalent, composed of ULB's commissioner and representatives of ULB's green building cell, SPV, PMC, UDD, town planner, PWD, green building certification agencies, developers and building professional associations. The committee will provide strategic advice for the promotion and adoption of energy efficient and green buildings in the city?			
5.5.2 **Recreation**						
21	Availability of : a. Music, Dance and Drama Centre/ Theatres b. Community Halls c. Restaurants d. Cinema Halls (Number of Screens)	Availability of theatres, halls, restaurants, and cinemas for social engagement.	● (Music, Dance and Drama Centre/ Theatre Community Halls + Restaurants + Cinema Halls (Number of Screens) ● Population	(Music, Dance and Drama Centre/ Theatres+ Community Halls + Restaurants + Cinema Halls (Number of Screens) * 100k / Population	Per lakh pop.	Advanced
22	Share of Total Area of Cities that is Open Space for Public Use	Share of city land as parks, gardens, and recreational areas.	● Open area available for public use ● Area of city	(Open area available for public use / Area of city)*100	%	Core
23	Walking Area	Availability of pedestrian-friendly pathways and sidewalks in the city.	● Total length of walking paths ● Area of city	(Length of designated walking paths / Area of city) * 100	%	Core

24	Cycling Paths	Availability of dedicated cycling lanes for safe and sustainable mobility.	• Total length of cycling paths • Area of city	(Length of designated cycling paths / Area of city) * 100	%	Core
25	Open Gyms	Accessibility of open-air gym facilities for public use.	• Number of open gyms available • Population	(Number of open gyms / Population) * 100k	Per lakh pop.	Advanced
26	Public Transport Facilities	Availability of public transport options for citizens.	• Number of public transport modes (buses, metro, trams, etc.) • Population	(Number of public transport vehicles / Population) * 100k	Per lakh pop.	Advanced

5.6 Energy Consumption

#	KPIs	Definitions	Data Points	Calculation Formula	Unit	Core/ Advanced
1	Sustained Electrical Interruptions	Frequency and duration of prolonged power outages affecting the city.	-	Number of Sustained (> 5 minutes), scheduled electrical interruptions	Number	Core
2	Energy Consumed from Renewable Resources	Share of total energy consumption derived from renewable sources like solar, wind, hydroelectric, and biomass.	• Energy consumed from renewable sources • Energy consumed	(Energy consumed from renewable sources / Energy consumed)*100	%	Core
3	Electricity Consumption in the City	Total amount of electricity used within the city over a given period.	• Total electricity consumption for the city for the assessment year (kWh) • Total population of the city	Level 1: > 10X compared to the city with lowest electricity consumption per capita kWh per capita Level 2: > 4X & < 10X as compared to the city with the lowest electricity consumption per capita Level 3: > 2X & < 4X as compared to the city with the lowest electricity consumption per capita Level 4: > 1.1 X & < 2X as compared to the city with the lowest electricity consumption per capita Level 5: Up to 1.1X as compared to	kWh per capita	Core

				the city with the lowest electricity consumption per capita		
4	Fossil Fuel Consumption in the City	Total usage of non-renewable energy sources such as coal, oil, and natural gas.	• Does the city generate power from renewable sources? • Total electric energy consumption from all on-grid renewable energy sources that are used in the city (kWh) • Total electricity consumption in the city (kWh) • Cumulative installed capacity (kW) of off-grid renewable energy sources for self-consumption • Total connected electrical load in the city (kW)	Level 1: No electrical energy generated from renewable sources Level 2: Renewable Energy contribution of less than 5% Level 3: Renewable Energy contribution of 5- 10% Level 4: Renewable Energy contribution of 10-15% Level 5: Renewable Energy contribution of > 15%	Yes/No %	Advanced

5.7 Education

#	KPIs	Definitions	Data Points	Calculation Formula	Unit	Core/ Advanced
1	Ratio of Public to Private Schools	Ratio of the number of public schools to private schools	• Public schools • Private schools	Public schools / Private schools	Ratio	Core
2	Percentage of Gender Specific Schools (Girls/Boys) (Public and Private)	Proportion of schools exclusively for girls/boys	• Girls-only schools (Public/Private) Boys- only schools (Public/Private) • Total Schools	(Girls- only schools (Public/Private) + Boys- only schools (Public/Private)) / Total Schools) × 100	%	Advanced
3	Percentage of Co-ed. Schools (Public and Private)	Proportion of schools that are co-educational	• Co-ed. Public + Co-ed. Private • Total Schools	((Co-ed. Public + Co-ed. Private) / Total Schools) × 100	%	Advanced

4	Schools with access to Digital Education (%)	Proportion of schools with digital education facilities (Functional Digital Learning Facilities)	• Schools with access to digital education • Schools (Grade 1-10) in the city	(Schools with access to digital education / Schools (Grade 1-10) in the city) × 100	%	Core
5	Teachers Vacancy Rate in Municipal Schools (%)	Proportion of vacant teacher positions in municipal schools	• Total sanctioned Teaching staff strength • Actual Teaching staff strength	((Total sanctioned Teaching staff strength - Actual Teaching staff strength) / Total sanctioned staff strength) × 100	%	Core
6	Teacher-Pupil Ratio (1-10)	Average number of students per teacher	• Actual staff strength of teachers in municipal schools (grade 1-10) • Total students enrolled in municipal schools (grade 1-10)	Actual staff strength of teachers in municipal schools (grade 1-10)/ Total students enrolled in municipal schools (grade 1-10)	Ratio	Core
7	Teacher- Pupil Ratio at the Primary Level	Ratio of students to teachers for grades 1-5	• Actual staff strength of teachers in municipal schools (grade 1-5) • Total students enrolled in municipal schools (grade 1-5)	Actual staff strength of teachers in municipal schools (grade 1-5)/ Total students enrolled in municipal schools (grade 1-5)	Ratio	Advanced
8	Teacher- Pupil Ratio at the Upper Primary Level	Ratio of students to teachers for grades 6-8	• Actual staff strength of teachers in municipal schools (grade 6-8) • Total students enrolled in municipal schools (grade 6-8)	Actual staff strength of teachers in municipal schools (grade 6-8)/ Total students enrolled in municipal schools (grade 6-8)	Ratio	Advanced
9	Teacher- Pupil Ratio at the Secondary Level	Ratio of students to teachers for grades 9-10	• Actual staff strength of teachers in municipal schools (grade 9-10) • Total students enrolled in municipal schools (grade 9-10)	Actual staff strength of teachers in municipal schools (grade 9-10)/ Total students enrolled in municipal schools (grade 9-10)	Ratio	Advanced
10	Avg. Household Expenditure on Education (%)	Share of education expenses in total household income	• Average annual household expenditure on education • Total household Income	(Average annual household expenditure on education / Total household Income) × 100	%	Advanced
11	Dropout Rate	Percentage of students dropping out from grade 1-10	• Dropout rate from grade 1-10 for the academic year	(Dropout rate from grade 1-5) + (Dropout rate from grade 6-8)+ (Dropout rate from grade 8-10)	%	Core

12	Dropout Rate at Primary Level	Dropout rate for grades 1-5	• Dropout rate from grade 1-5 for the academic year	(((Enrollment in Grade 1 −Students Completing Grade 5) / Enrollment in Grade 1) x 100	%	Advanced
13	Dropout Rate at Upper Primary Level	Dropout rate for grades 6-8	• Dropout rate from grade 6-8 for the academic year	((Enrollment in Grade 6 −Students Completing Grade 8) / Enrollment in Grade 6) x 100	%	Advanced
14	Dropout Rate at Secondary Level	Dropout rate for grades 9-10	• Dropout rate from grade 9-10 for the academic year	((Enrollment in Grade 9 −Students Completing Grade 10) / Enrollment in Grade 9) x 100	%	Advanced
15	Percentage of Permanent/ Contractual Staff with B.Ed. Qualification/Requisite Professional Qualification (1-10)	Proportion of permanent/contractual staff with B.Ed qualification	• No. of permanent /contractual staff with B.Ed • Total staff	((No. of permanent/contractual staff with B.Ed) / Total staff) × 100	%	Advanced
16	Percentage of Permanent/ Contractual Staff without B.Ed. Qualification/Requisite Professional Qualification (1-10)	Proportion of permanent/contractual staff without B.Ed qualification	• No. of permanent /contractual staff without B.Ed • Total staff	((No. of permanent/contractual staff without B.Ed / Total staff) × 100	%	Advanced
17	Literacy rate (Population Aged 15 and Above)	Literacy rate of the Population Aged 15+ as per Census data	• Census literacy data	• Census literacy data	%	Core
19	Completion Rate for Primary School	Percentage of students completing the last grade of primary school compared to the official graduation-age population.	• Number of students completing the last grade of primary education • Population of official graduation age for primary education	(Number of students completing last grade of primary education / Population of official graduation age for primary education) x 100	%	Core
20	Completion Rate for Upper Primary School	Percentage of students completing the last grade of upper primary school compared to the official graduation-age population.	• Number of students completing the last grade of upper primary education • Population of official graduation age for upper primary education	(Number of students completing the last grade of upper primary education / Population of official graduation age for upper primary education) x 100	%	Core

21	Completion Rate for Secondary School	Percentage of students completing the last grade of secondary school compared to the official graduation-age population.	• Number of students completing the last grade of secondary education • Population of official graduation age for secondary education	(Number of students completing the last grade of secondary education / Population of official graduation age for secondary education) x 100	%	Core
22	Pass Percentage	Percentage of students passing their respective exams in Govt. and Pvt. schools.	• Govt. students appeared & passed • Pvt. students appeared & passed • Total students appeared & passed	Total Passes/ Total Appeared×100	%	Core
23	Student Attendance Rate	Percentage of students with attendance >75% in a given academic year.	• Total enrolled students • Students with >75% attendance	Students with >75% attendance/ Total enrolled students x 100	%	Core
24	Teacher Attendance Rate	Percentage of teachers with attendance >90% in a given academic year.	• Total teachers • Teachers with >90% attendance	Teachers with >90% attendance / Total teachers x100	%	Core
25	Budget Proportion for Education	Percentage of the Urban Local Body (ULB) budget allocated to education.	• Total ULB budget • ULB budget allocated to education	Education Budget / Total ULB Budget ×100	%	Advanced
26	Expenditure per Student	Average public expenditure on each student in public schools.	• Total education budget • Total students in public schools	Total Education Budget / Total Students in Public Schools	Currency (₹)	Core
27	Public School Infrastructure	Availability of key infrastructure in public schools.	• No. of classrooms • No. of buildings • No. of toilets • % schools with playgrounds • % students with access to clean drinking water and toilets	Number and %	Number & %	Advanced
28	School Enrollment Ratio	Average number of children per school for Grades 1-10.	• Total students (Grades 1-10) • Total public schools	Total Students (Grades 1-10) / Total Public Schools	Number	Core

5.8 Health

#	KPIs	Definitions	Data Points	Calculation Formula	Unit	Core/ Advanced

1	Number of Municipal Primary Healthcare Institutions (U-PHC)	Total number of municipal primary healthcare institutions managed or run by ULB per 100,000 population	• Total number of municipal primary healthcare institutions managed or run by ULB • Population	(Total number of municipal primary healthcare institutions managed or run by ULB * 100,000) / Population	Per 100,000 population	Core
2	Number of Urban Community Health Centres (U-CHCs)	Urban Community Health Centre (U-CHC) is set up as a referral facility for every 4-5 U-PHCs.	• Total number of Urban Community Health Centres (U-CHCs) managed or run by ULB Population	(Total number of Urban Community Health Centres (U-CHCs) managed or run by ULB * 100,000) / Population	Per 100,000 population	Core
3	Vacancy of Medical Doctors, Staff Nurses, and Lab Assistants	Percentage of vacant sanctioned posts for medical doctors, staff nurses, and lab assistants in municipal hospitals	• Total sanctioned staff strength of doctors, nurses, and lab assistants in municipal hospitals • Actual staff strength of doctors, nurses, and lab assistants in municipal hospitals	((Total sanctioned staff strength - Actual staff strength) / Total sanctioned staff strength) * 100	%	Core
4	Vacancy of doctors in municipal hospitals	Percentage of vacant sanctioned posts for medical doctors, staff nurses, and lab assistants in municipal hospitals	• Total sanctioned staff strength of doctors in municipal hospitals • Actual staff strength of doctors in municipal hospitals	((Total sanctioned staff strength of doctors - Actual staff strength of doctors) / Total sanctioned staff strength of doctors) * 100	%	Advanced
5	Vacancy of nurses in municipal hospitals	Number of sanctioned posts for staff nurses in municipal hospitals	• Total sanctioned staff strength of nurses in municipal hospitals • Actual staff strength of nurses in municipal hospitals	((Total sanctioned staff strength of nurses - Actual staff strength of nurses) / Total sanctioned staff strength of nurses) * 100	%	Advanced
6	Vacancy of lab assistants in municipal hospitals	Percentage of vacant sanctioned posts for medical doctors, staff nurses, and lab assistants in municipal hospitals	• Total sanctioned staff strength of lab assistants in municipal hospitals • Actual staff strength of lab assistants in municipal hospitals	((Total sanctioned staff strength of Lab Assistant - Actual staff strength of Lab Assistant) / Total sanctioned staff strength of Lab Assistant) * 100	%	Advanced
7	Ratio of Doctors, Nurses, and Lab Assistants (Permanent vs Contractual)	Ratio of permanent to contractual healthcare staff	• Number of permanent healthcare staff • Number of contractual healthcare staff	Permanent staff (doctors + nurses + lab assistant) / Contractual staff (doctors + nurses + lab assistant)	Ratio	Advanced

8	Deviation of Expenditure on Healthcare (INR)	Difference between ULB expenditure on healthcare and the average expenditure by all ULBs	• Total expenditure on healthcare by the ULB • Average expenditure on healthcare by all ULBs	Total expenditure - Average expenditure	INR	Advanced
9	Number of Multipurpose Healthcare Workers	Number of multipurpose healthcare workers per 100,000 population	• Number of multipurpose healthcare workers • Population	(Number of multipurpose healthcare workers * 100,000) / Population	Per 100,000 population	Advanced
10	Avg. Household Expenditure on Health (INR)	Proportion of household income spent on healthcare	• Average annual household expenditure on healthcare • Average annual household consumption expenditure	(Average annual household expenditure on healthcare / Average annual household consumption expenditure) * 100	%	Advanced
11	Availability of All Healthcare Professionals (Per Lakh of Pop.)	Availability of various registered healthcare professionals per 100,000 population	• (Accredited healthcare activists + Multipurpose healthcare workers + Registered dentists + Registered doctors (Allopathic) + Registered doctors (AYUSH) + Registered licensed pharmacists + Registered trained nurses) Population	(Total number of healthcare professionals * 100,000) / Population	Per 100,000 population	Core
12	Availability of Accredited Healthcare Activists (Per Lakh Pop.)	Number of accredited healthcare activists per lakh population	• Accredited healthcare activists • Population	(Accredited healthcare activists * 100,000) / Population	Per 100,000 population	Advanced
13	Availability of Multipurpose Healthcare Workers (Per Lakh Pop.)	Number of multipurpose healthcare workers per lakh population	• Multipurpose healthcare workers • Population	(Multipurpose healthcare workers * 100,000) / Population	Per 100,000 population	Advanced
14	Availability of Registered Dentists (Per Lakh Pop.)	Number of registered dentists per lakh population	• Registered dentists • Population	(Registered dentists * 100,000) / Population	Per 100,000 population	Advanced
15	Availability of Registered Doctors (Allopathic) (Per Lakh Pop.)	Number of registered allopathic doctors per lakh population	• Registered doctors (Allopathic) • Population	(Registered doctors (Allopathic) * 100,000) / Population	Per 100,000 population	Advanced

16	Availability of Registered Doctors (AYUSH) (Per Lakh Pop.)	Number of registered AYUSH doctors per lakh population	● Registered doctors (AYUSH) ● Population	(Registered doctors (AYUSH) * 100,000) / Population	Per 100,000 population	Advanced
17	Availability of Registered Licensed Pharmacists (Per Lakh Pop.)	Number of registered licensed pharmacists per lakh population	● Registered licensed pharmacists ● Population	(Registered licensed pharmacists * 100,000) / Population	Per 100,000 population	Advanced
18	Availability of Registered Trained Nurses (Per Lakh Pop.)	Number of registered trained nurses per lakh population	● Registered trained nurses ● Population	(Registered trained nurses * 100,000) / Population	Per 100,000 population	Advanced
19	Accredited all Public Health Facilities	Percentage of public health facilities accredited by standard quality assurance programs	● Accredited public facilities (primary, secondary, and tertiary) with accreditation certificates by NQAS/NABH/ISO/AHPI ● Total number of public health facilities	(Accredited public facilities / Total number of public health facilities) * 100	%	Core
20	Accreditation of Primary Healthcare Facilities	Percentage of primary healthcare facilities accredited under NQAS/NABH/ISO/AHPI	● Accredited primary healthcare facilities ● Total primary healthcare facilities	(Accredited primary healthcare facilities / Total primary healthcare facilities) * 100	%	Advanced
21	Accreditation of Secondary Healthcare Facilities	Percentage of secondary healthcare facilities accredited under NQAS/NABH/ISO/AHPI	● Accredited secondary healthcare facilities ● Total secondary healthcare facilities	(Accredited secondary healthcare facilities / Total secondary healthcare facilities) * 100	%	Advanced
22	Accreditation of Tertiary Healthcare Facilities	Percentage of tertiary healthcare facilities accredited under NQAS/NABH/ISO/AHPI	● Accredited tertiary healthcare facilities ● Total tertiary healthcare facilities	(Accredited tertiary healthcare facilities / Total tertiary healthcare facilities) * 100	%	Advanced
23	Availability of Hospital Beds (Per Lakh of Pop.)	Number of hospital beds per 100,000 population	● Number of hospital beds ● Population	(Number of hospital beds * 100,000) / Population	Per 100,000 population	Advanced
24	Ratio of Private Hospital Beds to Public Hospital Beds (Per Lakh of Pop.)	Ratio of private to public hospital beds per 100,000 population	● Number of private hospital beds ● Number of public hospital beds	Private hospital beds / Public hospital beds	Ratio	Advanced

25	Prevalence of Vector-Borne Diseases (Per Lakh of Pop.)	Reported cases of vector-borne diseases (dengue & malaria) per 100,000 population	• Reported cases of dengue & malaria • Population	(Reported cases of dengue & malaria * 100,000) / Population	Per 100,000 population	Advanced

5.9 Solid Waste Management

#	KPIs	Definitions	Data Points	Calculation Formula	Unit	Core/ Advanced
5.9.1	**Waste Collection**					
1	Door-to-Door Collection (%)	Percentage of households from which waste is collected compared to total number of households waste	• Households from which waste is collected • Total number of households	(Waste Collected from Households / Total Waste Collected) * 100	%	Core
2	Collection (%) from Unaccounted Sources	Percentage of waste collected from unaccounted sources	• Waste collected from unaccounted sources • Total waste collected from all sources	(Waste Collected from Unaccounted Sources / Total Waste Collected) * 100	%	Advanced
3	Percentage Coverage of Area (Wards) Under Door-to-Door Collection	Percentage of wards covered under the door-to-door collection system	• Wards covered under the system • Total number of wards	(No. of Wards covered under D2D / Total Wards) * 100	%	Core
4	Percentage of Waste Collected from the Informal Sector	Share of total waste collected by informal sector	• Waste collected from informal sector • Total waste collected	(Total Waste Collected from Informal Sector / Total Waste Collected) * 100	%	Advanced
5	Compliance with Monthly Waste Collection Schedule Frequency	Adherence to planned waste collection schedule in a month	• Total No. of Waste Collection Days in a month • Total No. of Planned Collection Days in a month	(Total No. of Waste Collection Days in a month / Total No. of Planned Collection Days in a month) * 100	%	Core
6	Efficiency of Waste Sorting (%)	Efficiency of sorting waste into different categories	• Amount of correctly sorted waste • Amount of waste	(Quantity of Correctly Sorted Waste/ Total Quantity of Waste) * 100	%	Advanced
7	Extent of MSW Recovered (%)	Percentage of municipal solid waste recovered	• MSW recovered • Total MSW generated	(MSW Recovered / Total MSW Generated) * 100	%	Advanced
8	Extent of segregation of MSW (%)	Percentage of municipal solid waste segregated	• Segregated MSW • Total MSW generated	(Segregated MSW / Total MSW Generated) * 100	%	Advanced

9	Per Capita Organic Waste Collected (kg per capita)	Per capita organic waste collected	• Organic waste collected • Total population	(Organic Waste Collected / Total Population)	kg/person	Advanced
5.9.2 **Waste Generation**						
10	Daily Waste Generation Per Capita (kg/person/day)	Per capita waste generation per day	• Total waste generated daily • Total population	(Total Waste Generated / Total Population)	kg/person /day	Core
11	Waste Composition Rate (%)	Percentage of specific waste type in total waste	• Specific waste type • Total waste generated	(Specific Waste Type / Total Waste Generated) × 100	%	Advanced
12	Segregated Waste Collected (%)	Percentage of segregated waste in total generated waste	• Amount of segregated waste • Total waste generated	(Amount of Segregated Waste / Total Waste Generated) * 100	%	Core
13	Frequency of Collection (times per week)	Number of times waste is collected per week	• Total number of collection • Total number of weeks	(Total Number of Collection / Total Number of Weeks)	Times/week	Core
14	Efficiency of collection of MSW (%)	Efficiency in municipal waste collection.	• Amount of MSW collected • Total waste generated	(Amount of MSW Collected / Total Waste Generated) * 100	%	Core
15	Waste Segregation Compliance Rate (%)	Households complying with segregation rules.	• Households complying with segregation • Total households	(Households Complying with Segregation / Total Households) * 100	%	Advanced
16	Annual Waste Reduction Target (%)	Measures the annual reduction in waste generation	• Reduction in Total Waste Generated • Total Waste Generated in Previous Year	((Reduction in Total Waste Generated Compared to Previous Year) / Total Waste Generated in Previous Year) * 100	%	Core
17	Waste Reduction Rate (%)	Measures the reduction in waste generated over time.	• Current Waste Generation • Initial Waste Generation	(Current Waste Generation / Initial Waste Generation) × 100	%	Advanced
5.9.3 **Operational Efficiency**						
18	Service Response Time (hours)	Measures the efficiency in responding to service requests.	• Average Time Taken to Respond	(Cumulative Response Time / Total No. of Requests)	Hours	Core
19	Route Optimization Efficiency	Measures how effectively routes are optimized.	• Optimized Route Length • Total Route Length	(Optimized Route Length / Total Route Length) × 100	%	Advanced
20	Bin Capacity Monitoring	Tracks bin usage efficiency.	• Actual Bin Usage • Total Bin Capacity	(Average Actual Bin collection / Total Bin Capacity) × 100	%	Core
21	Vehicle Utilization Rate (%)	Measures how effectively vehicles are utilized.	• Operational Time • Total Available Time	(Operational Time / Total Available Time) × 100	%	Advanced

22	Route Deviation Rate (%)	Tracks deviation from planned waste collection routes.	• Deviated Route Length • Planned Route Length	(Deviated Route Length / Planned Route Length) × 100	%	Core
23	Average Stops per Route	Tracks the average number of stops per collection route.	• Total Number of Stops • Number of Routes	Total Number of Stops / Number of Routes	Count	Advanced
24	Waste Diversion Rate (%)	Tracks percentage of waste diverted from landfills.	• Total Waste Diverted • Total Waste Generated	(Total Waste Diverted / Total Waste Generated) × 100	%	Advanced
25	Percentage of Wards with Timely Collection and Transportation	Measures waste collection efficiency by ward.	• No. of Wards Covered as per Schedule • Total No. of Wards	(No. of Wards Covered as per Schedule / Total No. of Wards) × 100	%	Core
26	Percentage of Litter Bins Emptied on Schedule Without Overflow	Tracks timely bin emptying efficiency.	• No. of Bins Emptied on Time • Total No. of Bins	(No. of Bins Emptied on Time / Total No. of Bins) × 100	%	Advanced
27	Percentage of Identified GVPs Cleared and Maintained	Measures cleanliness of identified GVPs.	• No. of GVPs Marked “Yes” for Cleanliness • Total No. of GVPs	(No. of GVPs Marked “Yes” for Cleanliness / Total No. of GVPs) × 100	%	Advanced
28	Percentage of Daily Waste Collection Reported via ICT Platform	Tracks digital reporting compliance.	• No. of Daily Reports Submitted • Total Scheduled Reports	(No. of Daily Reports Submitted / Total Scheduled Reports) × 100	%	Advanced
29	Compliance with Fleet Maintenance Schedule	Tracks adherence to vehicle maintenance plans.	• No. of Maintenance Events • Total Planned Maintenance Events	(No. of Maintenance Events / Total Planned Maintenance Events)	%	Core
5.9.4 **Waste Processing & Recycling**						
30	Waste Processed Rate (%)	Tracks percentage of processed waste.	• Total Waste Processed • Total Waste Collected	(Total Waste Processed / Total Waste Collected) × 100	%	Core
31	Extent of Wet Waste Processed	Measures wet waste processing efficiency.	• Percentage of wet waste generated is actually processed, either by decentralized or centralized facilities.	As per Swachh Survekshan Service Level Indicators	%	Core
32	Extent of Dry Waste Recovered & Recycled	Tracks dry waste recovery and recycling.	• Percentage of generated dry waste (excluding plastic and domestic hazardous waste) collected that is actually	As per Swachh Survekshan Service Level Indicators	%	Advanced

			processed/Reused/recycled, either by decentralized or centralized facilities • Percentage of total plastic waste collected is treated/ Reused/recycled, either by decentralized or centralized processing			
33	Percentage of Wet Waste Treated by Decentralized Planning	Monitors decentralized wet waste treatment.	• Wet Waste Treated in Decentralized Facilities • Total Wet Waste Generated	(Wet Waste Treated in Decentralized Facilities / Total Wet Waste Generated) × 100	%	Advanced
34	Percentage of Wet Waste Treated by Centralized Planning	Monitors centralized wet waste treatment.	• Wet Waste Treated in Centralized Facilities • Total Wet Waste Generated	(Wet Waste Treated in Centralized Facilities / Total Wet Waste Generated) × 100	%	Advanced
35	Recycling Rate of Recoverable Materials (%)	Measures the efficiency of recycling processes.	• Recyclable Materials Recycled • Total Recyclable Materials	(Recyclable Materials Recycled / Total Recyclable Materials) × 100	%	Advanced
36	Biodegradable Waste Processed (%)	Tracks biodegradable waste processing.	• Biodegradable Waste Processed • Total Biodegradable Waste	(Biodegradable Waste Processed / Total Biodegradable Waste) × 100	%	Advanced
37	Waste Conversion Efficiency at WTE Plants (%)	Measures energy recovery efficiency.	• Energy Generated • Total Waste Processed at WTE Plants	(Energy Generated / Total Waste Processed at WTE Plants) × 100	%	Advanced
38	Waste Utilization Rate (%)	Tracks total waste utilization.	• Waste Recycled • Waste Converted • Waste Composted • Total Waste Collected	(Waste Recycled + Waste Converted + Waste Composted / Total Waste Collected) × 100	%	Advanced
39	Recycle Contamination Rate (%)	Measures the percentage of contaminated recycled materials.	• Contaminated Recycled Materials • Total Recycled Materials	(Contaminated Recycled Materials / Total Recycled Materials) * 100	%	Advanced
40	Contamination Rate	Measures the percentage of contaminated material in the collected waste.	• Contaminated Material Weight • Total Collected Weight	(Contaminated Material Weight / Total Collected Weight) * 100	%	Advanced
41	Quality Rate of Recovered Materials (%)	Assesses the proportion of high-quality recovered materials.	• Weight of High-Quality Recovered Materials • Weight of Total Materials Recovered	(Weight of High-Quality Recovered Materials / Weight of Total Materials Recovered) * 100	%	Advanced

42	Overall Recycling Rate (%)	Measures the percentage of total waste that is recycled.	• Total Recycled Waste • Total Waste Collected	(Total Recycled Waste / Total Waste Collected) * 100	%	Advanced
43	Plastic Recycling Efficiency (%)	Evaluates the efficiency of plastic waste recycling.	• Plastic Waste Recycled • Total Plastic Waste Generated	(Plastic Waste Recycled / Total Plastic Waste Generated) * 100	%	Advanced
44	Paper Recycling Efficiency (%)	Measures the percentage of paper waste that is recycled.	• Paper Waste Recycled • Total Paper Waste Generated	(Paper Waste Recycled / Total Paper Waste Generated) * 100	%	Advanced
45	Percentage of Recycled Water from Wastewater	Measures the proportion of wastewater that is recycled.	• Recycled Water • Total Wastewater Generated	(Recycled Water / Total Wastewater Generated) * 100	%	Advanced
46	Circular Economy Index	Assesses the total materials recycled, reused, and remanufactured.	• Total Recycled Materials • Total Reused Materials • Total Remanufactured Materials • Total Materials Used	(Total Recycled + Reused + Remanufactured Materials / Total Materials Used) * 100	%	Advanced
47	Percentage Contribution of Informal Sector in Recycling (%)	Measures the contribution of the informal sector in recycling activities.	• Recycled Materials by Informal Sector • Total Recycled Materials	(Recycled Materials by Informal Sector / Total Recycled Materials) * 100	%	Advanced
48	Waste-to-Product Conversion Rate	Measures the amount of waste converted into usable products.	• Amount of Waste Converted to Products • Total Waste Processed	(Amount of Waste Converted to Products / Total Waste Processed) * 100	%	Advanced
49	Percentage of Waste Treated through Eco-Friendly Methods	Assesses the proportion of waste treated using environmentally friendly techniques.	• Waste Processed Using Eco-Friendly Methods • Total Waste Processed	(Waste Processed Using Eco-Friendly Methods / Total Waste Processed) * 100	%	Advanced
50	Waste to RDF Conversion Efficiency (%)	Measures the efficiency of converting waste into RDF.	• Amount of Waste Converted to RDF • Total Waste Processed	(Total Waste Processed / Amount of Waste Converted to RDF) * 100	%	Advanced
51	Plastic Waste to Fuel Conversion Efficiency (%)	Assesses the efficiency of converting plastic waste into fuel.	• Plastic Waste Converted to Fuel • Total Plastic Waste Processed	(Plastic Waste Converted to Fuel / Total Plastic Waste Processed) * 100	%	Advanced

5.9.5 Waste disposal & landfills

52	Landfill Life Expectancy (years)	Estimates the remaining lifespan of a landfill.	• Remaining Landfill Capacity • Average Annual Waste Disposal Rate	Remaining Landfill Capacity / Average Annual Waste Disposal Rate	Years	Advanced
53	Waste to Landfills (%)	Measures the proportion of collected waste sent to landfills.	• Waste Sent to Landfills • Total Waste Collected	(Waste Sent to Landfills / Total Waste Collected) * 100	%	Core
54	Waste to Sanitary Landfills (%)	Measures the proportion of collected waste sent to sanitary landfills.	• Waste Sent to Sanitary Landfills • Total Waste Collected	(Waste Sent to Sanitary Landfills / Total Waste Collected) * 100	%	Core
55	Waste to Open Dumping Sites (%)	Measures the proportion of waste sent to open dumping sites.	• Waste Sent to Open Dumping Sites • Total Waste Collected	(Waste Sent to Open Dumping Sites / Total Waste Collected) * 100	%	Core
56	Amount of Leachate Generated per m² of Landfill (m²)	Measures the amount of leachate produced per unit area.	• Total Leachate Generated • Total Landfill Area	Total Leachate Generated / Total Landfill Area	Volume	Advanced
57	Amount of Leachate Treated per m² of Landfill (m²)	Measures the amount of leachate treated per unit area.	• Total Leachate Treated • Total Landfill Area	Total Leachate Treated / Total Landfill Area	Volume	Advanced
58	Leachate Treatment Efficiency (%)	Assesses the effectiveness of leachate treatment.	• Leachate Treated • Total Leachate Generated	(Leachate Treated / Total Leachate Generated) * 100	%	Advanced
59	Amount of Methane Generated per m² of Landfill	Measures methane production per unit area.	• Total Methane Generated • Total Landfill Area	Total Methane Generated / Total Landfill Area	Volume	Advanced
60	Amount of Methane Recovered per m² of Landfill	Measures methane recovery per unit area.	• Total Methane Recovered • Total Methane Generated	Total Methane Recovered / Total Methane Generated	Volume	Advanced
61	Methane Recovery Efficiency (%)	Evaluates how efficiently methane is recovered.	• Methane Recovered • Total Methane Generated	(Methane Recovered / Total Methane Generated) * 100	%	Advanced
62	Extent of Scientific Disposal of MSW (%)	Measures the proportion of waste scientifically disposed of.	• Scientifically Disposed MSW • Total MSW Generated	(Scientifically Disposed MSW / Total MSW Generated) * 100	%	Core
63	Scientific Landfill Availability & Operations	Evaluates the availability and efficiency of scientific landfill operations	• Is the landfill in the city a sanitary landfill? Or landfill not required/ Zero landfill city	As per Swachh Survekshan Service Level Indicators	%	Advanced
64	Landfill/Dumpsite Scientific Remediation	Assesses the extent of scientific remediation efforts in landfills/dumpsites	• Remediation of existing dumpsites undertaken and the stage of the same or no legacy waste (dumpsite)	As per Swachh Survekshan Service Level Indicators	%	Advanced

5.9.6 Energy Optimization						
65	Energy Consumption Rate (kWh/ton)	Measures energy usage per ton of waste processed	• Energy Consumed • Total Waste Processed	(Energy Consumed / Total Waste Processed)	kWh/ton	Core
66	Revenue Generation Rate from WTE Plants	Assesses revenue per ton of waste processed	• Revenue from WTE Plants • Total Waste Processed	(Revenue from WTE Plants / Total Waste Processed)	-	Advanced
67	Resource Allocation Optimization (%)	Evaluates resource utilization efficiency	• Total Resources Optimized • Total Resources Allocated	(Total Resources Optimized / Total Resources Allocated) * 100	%	Advanced
68	Fuel Consumption Reduction (%)	Percentage reduction in fuel consumption due to optimization	• Fuel Consumption Before Optimization • Fuel Consumption After Optimization	((Fuel Consumption Before Optimization - Fuel Consumption After Optimization) / Fuel Consumption Before Optimization) * 100	%	Advanced
69	Energy Generated from Waste per Ton	Measures energy output per ton of waste	• Energy Generated • Total Waste Processed	(Energy Generated / Total Waste Processed)	kWh/ton	Advanced
70	Energy Savings from Waste Processing (MWh/year)	Energy savings from processing waste	• Energy Consumed Before Processing • Energy Consumed After Processing	(Energy Consumed Before Processing - Energy Consumed After Processing)	MWh/year	Advanced
71	Cost savings from route optimization (% of total collection cost)	Measures cost efficiency through route optimization	• Total Collection Costs Before Optimization • Total Collection Costs After Optimization	((Total Collection Costs Before Optimization - Total Collection Costs After Optimization) / Total Collection Costs Before Optimization) * 100	%	Advanced
5.9.7 Public Awareness						
72	Reduction in Citizen Complaints Over Time (%)	Measures reduction in waste-related complaints	• Complaints Previous Year • Complaints Previous Year	((Complaints Previous Year - Complaints Current Year) / Complaints Previous Year) * 100	%	Advanced
73	Schools Incorporating Waste Management Programs (%)	Tracks school participation in waste management programs	• Schools with Waste Programs • Total Schools	(Schools with Waste Programs / Total Schools) * 100	%	Advanced
74	Population Actively Participating in Waste Segregation Programs (%)	Measures active participation in segregation programs	• Population Participating in Segregation • Total Population	(Population Participating in Segregation / Total Population) * 100	%	Advanced

75	Training Programs Completed by Waste Workers (% of workforce)	Tracks training completion rate for waste workers	• Waste Workers Completed Training • Total Waste Workers	(Waste Workers Completed Training / Total Waste Workers) * 100	%	Advanced
5.9.8 **Financials of SWM**						
76	Carbon Emission/Footprint Reduction Rate (%)	Measures reduction in carbon emissions	• Carbon Emissions After • Carbon Emissions Before	((Carbon Emissions Before - Carbon Emissions After) / Carbon Emissions Before) * 100	%	Advanced
77	Revenue Generated from Recycled Materials ($/ton)	Revenue from recycling per ton of material	• Revenue from Recycled Materials • Total Recycled Materials	(Revenue from Recycled Materials / Total Recycled Materials)	$/ton	Advanced
78	Revenue Growth from Waste Management Operations (%)	Measures annual revenue growth in waste management	• Revenue Current Year • Revenue Previous Year	((Revenue Current Year - Revenue Previous Year) / Revenue Previous Year) * 100	% per year	Advanced
79	Employment Rate in Waste Sector (%)	Tracks employment in waste management	• Employees in Waste Sector • Total Working Population	(Employees in Waste Sector / Total Working Population) * 100	%	Advanced
80	No. of Employees (Male + Female) Working at MRF per Ton of Daily Waste Generated	Measures workforce efficiency in MRF operations	• Employees at MRF • Total Waste Processed per Day	(Employees at MRF / Total Waste Processed per Day)	Employees/ton	Advanced
81	Revenue from SWM Services (%)	Evaluates financial sustainability of SWM services	• Revenue from SWM Services • Total Cost of SWM Services	(Revenue from SWM Services / Total Cost of SWM Services) * 100	%	Advanced
82	Efficiency in Collection of SWM Charges (%)	Measures effectiveness of SWM fee collection	• SWM Charges Collected • Total SWM Charges Due	(SWM Charges Collected / Total SWM Charges Due) * 100	%	Advanced
83	Revenue from Wastewater Management (%)	Evaluates financial sustainability of wastewater management	• Revenue from Wastewater Management • Total Cost of Wastewater Management	(Revenue from Wastewater Management / Total Cost of Wastewater Management) * 100	%	Advanced
84	Efficiency in Collection of Sewerage Charges (%)	Measures effectiveness of sewerage fee collection	• Sewerage Charges Collected • Total Sewerage Charges Due	(Sewerage Charges Collected / Total Sewerage Charges Due) * 100	%	Advanced
5.9.9 **Sanitation Coverage & Hygiene**						

85	Household Sanitation Coverage (%)	Measures sanitation access for households	• No. of Households Connected to a Closed Sanitation System • Total No. of Households in the City	(No. of Households Connected to a Closed Sanitation System / Total No. of Households in the City) * 100	%	Core
86	Commercial Establishment Sanitation Coverage (%)	Tracks sanitation coverage for commercial units	• No. of Commercial Establishments with a Closed Sanitation System • Total No. of Commercial Establishments in the City	(No. of Commercial Establishments with a Closed Sanitation System / Total No. of Commercial Establishments in the City) * 100	%	Core
87	Community & Public Toilets (CTs/PTs) Connected to a Closed System (%)	Assesses sanitation coverage for public toilets	• No. of CTs/PTs Connected to a Closed System • Total No. of CTs/PTs in the City	(No. of CTs/PTs Connected to a Closed System / Total No. of CTs/PTs in the City) * 100	%	Advanced
88	On-site Sanitation Coverage (%)	Tracks households using on-site sanitation	• No. of Households with Septic Tank + Soak Pit or Twin-Pit System • Total No. of Households in the City	(No. of Households with Septic Tank + Soak Pit or Twin-Pit System / Total No. of Households in the City) * 100	%	Advanced
89	Coverage of Toilets (%)	Evaluates availability of toilets in urban areas	• No. of Households with Access to Toilets • Total No. of Households in the City	(No. of Households with Access to Toilets / Total No. of Households in the City) * 100	%	Core
90	Households Connected to Sewerage Network / Septic Tanks (%)	Evaluates sanitation network connectivity	• Total No. of Households Connected to Sewerage Network/Septic Tank • Total No. of Households	(Total No. of Households Connected to Sewerage Network/Septic Tank / Total No. of Households) * 100	%	Core
91	Coverage of IHHT in Slums Vs total HHs (%)	Measures sanitation access for households in slums	• Coverage of individual toilets in slums • Coverage of IHHT	(Coverage of individual toilets in slums/Coverage of IHHT)	%	Advanced
5.9.10 **Customer Satisfaction**						
92	Efficiency in Redressal of Customer Complaints (%)	Tracks response efficiency in SWM services	• No. of Complaints Resolved • Total No. of Complaints Received	(No. of Complaints Resolved / Total No. of Complaints Received) * 100	%	Core
93	Composite Solid Waste Management Score	Measures overall SWM system performance	• Total Score Obtained • Maximum Possible Score	(Total Score Obtained / Maximum Possible Score) * 100	%	Advanced

94	Composite Sanitation Score	Evaluates sanitation system performance	• Total Score Obtained • Maximum Possible Score	(Total Score Obtained / Maximum Possible Score) * 100	%	Advanced
95	Waste Minimization Initiatives Undertaken by the City	Tracks efforts in waste minimization	• Plastic Waste Management Rules: Whether the City has banned single use plastic including plastic with <50 micron during all festivals/ social gatherings/events? • 3R Principles: Whether measures taken to reduce generation of Dry/ Wet Waste? If yes, share details Percentage of total domestic hazardous waste collected is treated, either by decentralized or centralized processing • Percentage of Bulk Waste Generators (BWG), including those generating more than 100 Kgs (or less as notified by the State/city) of waste per day, practicing on site processing of their wet waste or outsourced to private agency -processing not outsourced to ULB • However, cities with <1 Lakh population can outsource to ULB on a commercial rate. • Percentage of households processing their wet waste at Home/ Community Level (Households under RWAs will qualify under the BWG definition)	As per Swachh Survekshan Service Level Indicators	%	Advanced

5.10 Water & Wastewater

#	KPIs	Definitions	Data Points	Calculation Formula	Unit	Core/ Advanced
5.10.1 **Water Supply and Coverage**						
1	Per Capita Availability of Water at Consumer End (LPCD)	Measures the average quantity of water available per person per day at the consumer end.	• Total Water Supplied (litres) per day • Total Population	Total Water Supplied per day / Total Population	LPCD	Core
2	Per Capita Water Consumption (LPCD)	Indicates the total water consumption per person per day.	• Total Water Consumption per day (litres) • Total Population Served	Total Water Consumption / Total Population	LPCD	Core
3	Household Covered by Piped Connection	The number of households with access to a piped water supply connection.	• Households with piped connection • Total households	(Households with piped connection/ Total households) × 100	%	Core
4	Unauthorized Water Connections Rate (%)	Measures the proportion of unauthorized water connections.	• Unauthorized connections • Total connections	(Unauthorized Connections / Total Connections) * 100	%	Advanced
5	Ratio of Metered vs Non-Metered Water Connection by ULB	Evaluates the proportion of metered vs non-metered connections across ULBs.	• Metered connections • Non-metered connections	Metered connections / Non-metered connections	Ratio	Advanced
6	24x7 Water Supply Coverage (%)	Assesses the percentage of households with round-the-clock water supply.	• Households with 24x7 water supply • Total households	(Households with 24x7 Water Supply / Total Households) * 100	%	Advanced
5.10.2 **Water Distribution**						
7	Water Supply per Sq. Km (litres per sq. km)	Measures the water supplied per unit area.	• Total water supplied (litres) • Total area (sq. km)	Total water supplied / Total area	Litres per sq. km	Core
8	Operational Efficiency of Sensors Connected in Water Distribution System	Tracks the operational efficiency of sensors in water distribution.	• Number of active sensors • Total sensors connected	(Active Sensors / Total Sensors Connected) * 100	%	Advanced

9	Water Demand-Supply Ratio	Evaluates the balance between water demand and supply.	• Total water demand • Total water supplied	Total Water Demand / Total Water Supplied	Ratio	Core
10	Peak Water Demand Index	Measures peak demand in comparison to average demand.	• Peak water demand • Average water demand	Peak Water Demand / Average Water Demand	Ratio	Advanced
11	Continuity of Water Supply (Hours)	Monitors the duration of uninterrupted water supply.	• Total hours of continuous supply	Total hours of continuous supply/ 24	Hours	Core
12	Deviation of Total Water Supplied from Service Level Benchmark (%)	Tracks the gap between actual and benchmarked supply.	• Total water supplied • Service Level Benchmark	((Total Water Supplied - SLB) / SLB) * 100	%	Advanced
13	Non-Revenue Water (%)	Measures water loss due to leakages, theft, or billing inefficiencies.	• Total water supplied • Billed Authorized consumption	(Total Water Supplied - Billed Authorized consumption/ Total Water Supplied) * 100	%	Core
14	Unaccounted-for Water Loss (%)	Tracks water that is not billed or lost in the system.	• Unaccounted-for water loss • Total water supplied	(Unaccounted Water Loss / Total Water Supplied) * 100	%	Advanced
5.10.3 **Water Resource Management**						
15	Alternative Water Source Coverage (%)	Measures population reliant on backup water sources.	• Population with backup water • Total population	(Population with Backup Water / Total Population) * 100	%	Core
16	Surface Water Dependency Ratio (%)	Evaluates dependency on surface water sources.	• Surface water sourced • Total water supply	(Surface Water Sourced / Total Water Supply) * 100	%	Advanced
17	Rooftop Rainwater Harvesting Rate	Assesses the proportion of buildings with rooftop rainwater harvesting systems.	• Buildings with RWH • Total Buildings	(Buildings with RWH / Total Buildings) × 100	%	Core
18	Rainwater Harvesting Efficiency	Determines the efficiency of rainwater collection against the potential availability.	• Actual rainwater collected • Potential rainwater available	(Actual rainwater collected / Potential rainwater available) × 100	%	Advanced
19	Harvested Rainwater Efficiency (L/m²)	Measures the amount of harvested rainwater per unit of land use area.	• Total harvested water • Total land use area	Total harvested water / Total land use area	L/m²	Advanced
20	Renewable Water Availability per Capita (m³/person/year)	Measures the total renewable water resources available per person annually.	• Total Renewable Water Volume per year • Population	(Total Renewable Water Volume per year / Population)	m³/person /year	Advanced

21	Percentage of Water Consumed from Freshwater Sources	Indicates dependency on freshwater sources for water consumption.	• Water Consumed from Freshwater Sources • Total Water Consumption	(Water Consumed from Freshwater Sources / Total Water Consumption) × 100	%	Core
22	Coverage of Storm water Drainage Network	Determines the extent of Storm water drainage network coverage.	• Length of Covered Storm water Drains • Total Road Length	(Length of covered Storm water drains / Total road length) × 100	%	Core
5.10.4 **Water Supply Efficiency**						
23	Hourly Water Flow Rate	Indicates the amount of water flowing per hour.	• Total Water Flow • Time	Total Water Flow / Time	m^3/hr or L/min	Core
24	Water Pressure Variation	Monitors variations in water pressure in the distribution system.	• Pressure Variations • Measurement Instances	Pressure Variations / Measurement Instances	bar or psi	Advanced
25	Distribution Pressure Consistency (%)	Evaluates the consistency of water pressure in the distribution system.	• Stable Pressure Instances • Total Pressure Monitoring Instances	(Stable Pressure Instances / Total Pressure Monitoring Instances) × 100	%	Advanced
26	Real-Time Water Supply Efficiency Score	Assesses the efficiency of real-time water supply performance.	• Actual Water Supply • Expected Water Supply	(Actual Water Supply / Total Supply Capacity) × 100	%	Advanced
27	Disaster Response Time for Water Supply	Measures the efficiency of response to water supply emergencies.	• Total Response Time • Number of Emergencies	(Total Response Time / Number of Emergencies)	Hours	Advanced
28	Water Supply ICT Monitoring	Indicates the percentage of the water distribution length monitored by ICT/sensors.	• ICT-Monitored Distribution length • Total Water Distribution length	(ICT-Monitored Distribution Length / Total Water Distribution Length) × 100	%	Advanced
29	Sectoral Water Efficiency (%)	Assesses the efficiency of water usage per sector against benchmarks.	• Sectoral Water Usage per Capita • Standard Water Usage Benchmark	(Sectoral Water Usage per capita / Standard Water Usage Benchmark) × 100	%	Advanced
30	Energy Consumption per KL of Water Supplied (kWh/KL)	Measures energy usage efficiency for water supply.	• Total Energy Consumption for Water Supply • Total Water Supplied	(Total Energy Consumption for Water Supply / Total Water Supplied)	kWh/KL	Advanced
31	Pumping Efficiency (%)	Evaluates the efficiency of water pumping systems.	• Output Water Flow • Input Power	(Output Water Flow / Input Power) × 100	%	Advanced
5.10.5 **Water Quality**						

32	Water Supply Quality Compliance (%)	Measures the overall compliance of supplied water with quality standards.	• Total samples within permissible limits • Total samples tested	(Total samples within permissible limits / Total samples tested) × 100	%	Core
33	Potable Water Quality Compliance (%)	Assesses the percentage of potable water samples that meet quality standards.	• Potable Water Quality Tests Passed Total • Tests Conducted	(Potable Water Quality Tests Passed / Total Tests Conducted) × 100	%	Core
34	Non-Potable Water Quality Compliance (%)	Measures the compliance of non-potable water with established standards.	• Non-Potable Water Quality Tests Passed Total • Tests Conducted	(Non-Potable Water Quality Tests Passed / Total Tests Conducted) × 100	%	Core
35	Turbidity Compliance Rate (%)	Evaluates the proportion of water samples that meet turbidity limits.	• Samples within turbidity limit (<5 NTU) • Total samples tested	(Samples within turbidity limit (<5 NTU) / Total samples tested) × 100	%	Advanced
36	Color Compliance Rate (%)	Assesses the percentage of samples meeting the permissible color limit.	• Samples within color limit (<15 Hazen) • Total samples tested	(Samples within color limit (<15 Hazen) / Total samples tested) × 100	%	Advanced
37	Odor & Taste Acceptability Rate (%)	Determines the acceptability of supplied water based on odor and taste.	• Samples with no odor/taste issues • Total samples tested	(Samples with no odor/taste issues / Total samples tested) × 100	%	Advanced
38	TSS Levels in Supplied Water (mg/L)	Measures the concentration of total suspended solids in water.	• Total Volume of Water Sample (L) • Total Suspended Solids (mg)	Total Volume of Water Sample (L) / Total Suspended Solids (mg)	mg/L	Advanced
39	TSS Compliance Rate (%)	Indicates the percentage of compliant samples for TSS levels.	• Compliant Water Samples (mg/L) • Total Water Samples Tested	(Compliant Water Samples (mg/L) / Total Water Samples Tested) × 100	%	Advanced
40	BOD Levels in Supplied Water (mg/L)	Measures the biochemical oxygen demand in water.	• BOD Concentration (mg/L) • Volume of Water Sample (L)	BOD Concentration (mg/L) / Volume of Water Sample (L)	mg/L	Advanced
41	BOD Compliance Rate (%)	Indicates compliance of BOD levels with water quality standards.	• Compliant Water Samples (mg/L) • Total Water Samples Tested	(Compliant Water Samples (mg/L) / Total Water Samples Tested) × 100	%	Advanced
42	COD Levels in Supplied Water (mg/L)	Measures the chemical oxygen demand in water samples.	• COD Concentration (mg/L) • Volume of Water Sample (L)	COD Concentration (mg/L) / Volume of Water Sample (L)	mg/L	Advanced
43	COD Compliance Rate (%)	Evaluates the percentage of samples meeting COD compliance.	• Compliant Water Samples (mg/L) • Total Water Samples Tested	(Compliant Water Samples (mg/L) / Total Water Samples Tested) × 100	%	Advanced
44	PH Compliance Rate (%)	Measures the percentage of samples within the acceptable pH range.	• Samples within pH range 6.5-8.5 • Total samples tested	(Samples within pH range 6.5-8.5 / Total samples tested) × 100	%	Advanced

45	TDS Levels in Supplied Water (mg/L)	Measures total dissolved solids in the supplied water.	• TDS Concentration (mg/L) • Volume of Water Sample (L)	TDS Concentration (mg/L) / Volume of Water Sample (L)	mg/L	Advanced
46	TDS Compliance Rate (%)	Indicates the compliance of TDS levels in water samples.	• Compliant Water Samples (mg/L) • Total Water Samples Tested	(Compliant Water Samples (mg/L) / Total Water Samples Tested) × 100	%	Advanced
47	DO Levels in Treated Water (mg/L)	Measures dissolved oxygen levels in treated water.	• DO Concentration (mg/L) • Volume of Water Sample (L)	DO Concentration (mg/L) / Volume of Water Sample (L)	mg/L	Advanced
48	Nitrate Compliance Rate (%)	Assesses compliance of nitrate levels in water samples.	• Samples within permissible nitrate limits • Total samples tested	(Samples within permissible nitrate limits / Total samples tested) × 100	%	Advanced
49	Heavy Metal Compliance Rate (%)	Measures compliance of heavy metal levels in water samples.	• Samples meeting heavy metal limits • Total samples tested	(Samples meeting heavy metal limits / Total samples tested) × 100	%	Advanced
50	Chlorination Efficiency (%)	Evaluates the effectiveness of water chlorination processes.	• Properly chlorinated samples • Total samples tested	(Properly chlorinated samples / Total samples tested) × 100	%	Advanced
51	Water Quality Testing Frequency (Tests per Month/Year)	Measures how often water quality tests are conducted.	• Total tests conducted • Total required tests	(Total tests conducted / Total required tests) × 100	%	Advanced
52	Percentage of Water Samples Meeting WHO Standards (%)	Indicates the proportion of water samples that meet WHO quality standards.	• Samples meeting WHO standards • Total samples tested	(Samples meeting WHO standards / Total samples tested) × 100	%	Advanced
5.10.6 **Pipeline Network**						
53	Pipeline Maintenance/Replacement Ratio (%)	Measures the proportion of pipelines maintained or replaced compared to the total pipeline network length.	• Pipelines Maintained or Replaced • Total Pipeline Network Length	(Pipelines Maintained or Replaced / Total Pipeline Network Length) × 100	%	Advanced
54	Leakage Detection Efficiency (%)	Measures the effectiveness of detecting and repairing leaks in the pipeline network.	• Total Leaks Repaired • Total Leaks Detected	(Leaks Repaired / Total Leaks Detected) × 100	%	Advanced
55	Pipeline Network Leakage Rate (%)	Measures the percentage of pipeline length affected by leakage.	• Leaking Pipeline Length • Total Pipeline Network Length	(Leaking Pipeline Length / Total Pipeline Network Length) × 100	%	Advanced
56	Percentage of the wastewater pipeline network monitored by a real-time	Proportion of the wastewater pipeline network equipped with real-time monitoring sensors.	• Length of wastewater pipeline with real-time sensors	(Length of wastewater pipeline with real-time sensors / Total wastewater pipeline network length) × 100	%	Advanced

	data-tracking sensor system		• Total wastewater pipeline network length			
5.10.7 **Waste water Treatment**						
57	Coverage of Wastewater Network Services (%)	The percentage of the population covered by wastewater network services	• Population covered by wastewater network • Total population	(Population covered by wastewater network / Total population) × 100	%	Core
58	Collection Efficiency of Wastewater Networks (%)	The percentage of generated wastewater that is collected through the network	• Wastewater collected • Total wastewater generated	(Wastewater collected / Total wastewater generated) × 100	%	Core
59	Amount of Wastewater Treated (%)	The proportion of wastewater that undergoes treatment	• Amount of wastewater treated • Amount of wastewater collected	(Amount of wastewater treated / Amount of wastewater collected) × 100	%	Core
60	Quality of Wastewater Treatment (%)	The percentage of treated wastewater meeting quality standards	• Amount of compliant treated wastewater • Total treated wastewater	(Amount of compliant treated wastewater / Total treated wastewater) × 100	%	Advanced
61	Adequacy of Wastewater Treatment Capacity (%)	The adequacy of existing treatment facilities to treat the generated wastewater	• Installed treatment capacity • Total wastewater generated	(Installed treatment capacity / Total wastewater generated) × 100	%	Advanced
62	Extent of Reuse and Recycling of Treated Wastewater (%)	The proportion of treated wastewater that is reused or recycled	• Amount of secondary/tertiary treated wastewater recycled and reused • Amount of wastewater treated	(Amount of secondary/tertiary treated wastewater recycled and reused / Amount of wastewater treated) × 100	%	Advanced
63	Recycled Water Utilization Rate (%)	The percentage of total water supply coming from recycled water	• Recycled water used • Total water treated & supplied	(Recycled water used / Total water treated & supplied) × 100	%	Advanced
64	Industrial Recycled Water Use (%)	The percentage of industrial water demand met through recycled water	• Recycled water used in industries • Total industrial water demand	(Recycled water used in industries / Total industrial water demand) × 100	%	Advanced
65	Percentage of City's Wastewater Receiving Centralized Treatment (%)	The proportion of wastewater undergoing treatment in centralized plants	• Volume of wastewater treated in centralized plants • Total volume of wastewater generated	(Volume of wastewater treated in centralized plants / Total volume of wastewater generated) × 100	%	Advanced

66	Percentage of City's Wastewater Receiving Decentralized Treatment (%)	The proportion of wastewater undergoing treatment in decentralized plants	• Volume of wastewater treated in decentralized plants • Total volume of wastewater generated	(Volume of wastewater treated in decentralized plants / Total volume of wastewater generated) × 100	%	Advanced
67	Total Amount of Wastewater Used to Generate Energy (%)	The percentage of total wastewater used for energy generation	• Volume of wastewater used for energy generation • Total volume of wastewater generated	(Volume of wastewater used for energy generation / Total volume of wastewater generated) × 100	%	Advanced
68	Sludge Reuse Efficiency (%)	The proportion of sludge that is successfully processed for reuse	• Sludge processed for reuse • Total sludge generated	(Sludge processed for reuse / Total sludge generated) × 100	%	Advanced
69	Coverage of Sewerage Network	Percentage of households connected to the sewerage system	• Number of households connected to sewerage network • Total number of households	(Number of households connected to sewerage network / Number of households) * 100	%	Core
70	Wastewater Treatment Plant Efficiency (%)	Efficiency of wastewater treatment processes	• Total wastewater entering plant • Amount of wastewater treated	(Total Wastewater Entering Plant / Amount of Wastewater Treated) * 100	%	Advanced
71	Treated Effluent Compliance Rate (%)	Percentage of treated wastewater meeting quality standards	• Number of Compliant samples • Total no. of samples tested	(Number of Compliant samples/ Total no. of samples tested) * 100	%	Advanced
72	Open Discharge Reduction Rate (%)	Measures reduction in open waste discharge	• Reduction in Households Discharging Waste Openly Last Year • Total Households with Open Discharge Last Year	(Reduction in Households Discharging Waste Openly Last Year / Total Households with Open Discharge Last Year) * 100	%	Advanced
73	Desludging Compliance Rate (%)	Tracks regular desludging of on-site sanitation systems	• No. of Properties Following Regular Desludging • Total No. of Households with On-Site Sanitation	(No. of Properties Following Regular Desludging / Total No. of Households with On-Site Sanitation) * 100	%	Advanced
74	Total Sewage Treatment Capacity of the ULB (%)	Measures sewage treatment efficiency	• Total Installed Sewage Treatment Capacity • Total Sewage Generated	(Total Installed Sewage Treatment Capacity / Total Sewage Generated) * 100	%	Advanced
75	Households Connected to	Evaluates sanitation network connectivity	• Total No. of Households Connected to Sewerage Network/Septic Tank	(Total No. of Households Connected to Sewerage	%	Core

	Sewerage Network / Septic Tanks (%)		• Total No. of Households	Network/Septic Tank / Total No. of Households) * 100		
5.10.8 **Financial Aspect**						
76	Water Tariff Recovery Rate (%)	Percentage of revenue recovered from water tariffs	• Revenue collected from water bills • Total water supply cost	(Revenue Collected from Water Bills / Total Water Supply Cost) * 100	%	Core
77	Extent of Non-Revenue Water (%)	Percentage of water lost due to leaks, theft, or unbilled consumption	• Total water produced • Total water sold	((Total water produced - Total water sold) / Total water produced) * 100	%	Core
78	Cost Recovery in Water Supply (%)	Ratio of total revenue to total expenditure on water supply	• Total revenue collected • Total operational cost	(Total Revenue / Total Operational Cost) * 100	%	Core
79	O&M Cost as % of Revenue (%)	Percentage of revenue spent on operations and maintenance	• O&M cost • Total revenue collected	(O&M Cost / Total Revenue) * 100	%	Advanced
5.10.9 **Policy & Governance**						
80	Waterborne Disease Incidence Rate	Cases of waterborne diseases per 1,000 population	• Waterborne disease cases • Total population	(Waterborne Disease Cases / Total Population) * 1000	Cases per 1,000	Advanced
81	Water Policy Implementation Score (%)	Extent of implementation of proposed water policies	• Implemented policies • Total proposed policies	(Implemented Policies / Total Proposed Policies) * 100	%	Advanced
82	Compliance with EPR guidelines (%)	Compliance rate with Extended Producer Responsibility (EPR) guidelines	• Compliant entities • Total regulated entities	(Compliant Entities / Total Regulated Entities) * 100	%	Advanced
83	Customer Satisfaction with Water Services (%)	Percentage of customers satisfied with water services	• Satisfied customers • Total customers surveyed	(Satisfied Customers / Total Customers Surveyed) * 100	%	Advanced
84	Efficiency in Redressal of Customer Complaints (%)	Percentage of customer complaints resolved efficiently	• Resolved complaints • Total complaints received	(Resolved Complaints / Total Complaints Received) * 100	%	Core
85	Swachh Survekshan Score	Performance score based on Swachh Survekshan survey	• Maximum possible performance achieved • Maximum score for indicator	(Maximum Possible Performance Achieved / Maximum Score for Indicator) * 100	%	Advanced

5.10.10 **Resilience**						
86	Emergency Water Resilience Index (%)	Availability of emergency water supply facilities per population served	• Emergency water facilities • Total population served	(Emergency Water Facilities / Total Population Served) * 100	%	Advanced

5.11 Centralised Streetlight

#	KPIs	Definitions	Data Points	Calculation Formula	Unit	Core/ Advanced
5.11.1 **Streetlight Availability & Performance**						
1	% of Operational street lights	Measures the percentage of operational streetlights.	• Operational Streetlights • Total Streetlights	(Operational Streetlights / Total Streetlights) × 100	%	Core
2	Faulty Streetlights Rate (%)	Measures the percentage of faulty streetlights in the network.	• Faulty Streetlights • Total Streetlights	(Faulty Streetlights / Total Streetlights) × 100	%	Core
3	Smart Streetlight Deployment Rate (%)	Measures the proportion of smart streetlights installed.	• Smart Streetlights • Total Streetlights	(Smart Streetlights / Total Streetlights) × 100	%	Advanced
4	Streetlight Failure Frequency (per month)	Measures the failure rate of streetlights.	• Number of Failures • Total Streetlights	(Number of Failures / Total Streetlights) per Month	Count/Month	Core
5	Roads with Streetlights (%)	Measures the percentage of roads covered with street lighting.	• Road Length of ULB Provided with Streetlights • Total Road Length	(Road Length of ULB Provided with Streetlights / Total Road Length) × 100	%	Core
6	Energy Efficient Street Lighting (%)	Measures the proportion of energy-efficient streetlights installed.	• Total Number of Energy-Efficient Streetlights • Total Number of Streetlights	(Total Number of Energy-Efficient Streetlights / Total Number of Streetlights) × 100	%	Advanced
7	Mean Time to Failure (MTTF) for Streetlights	Measures the average operational time before failure.	• Total Operational Time • Number of Failures	Total Operational Time / Number of Failures	Hours	Advanced
8	Streetlight Density per Square Kilo-meter (lights/km²)	Measures the streetlight density per unit area.	• Total Streetlights • Total Area of City	Total Streetlights / Total Area of City in km²	Lights/km²	Advanced
9	Deficient Streetlight Coverage (%)	Measures the gap in required vs. available streetlights.	• Total Streetlights Required • Total Installed Streetlights	(Total Streetlights Required−Total Installed Streetlights)/Total Streetlights × 100	%	Advanced

5.11.2 Operational Efficiency						
10	Energy Consumption per Hour (kWh/Streetlight)	Measures the energy consumption per streetlight.	• Total Energy Consumed Total Streetlight Operational Hours	Total Energy Consumed / Total Streetlight Operational Hours	kWh/streetlight	Advanced
11	Energy Savings (%)	Measures the percentage reduction in energy consumption.	• Baseline Energy Consumption Actual Energy Consumption	{{Baseline Energy Consumption} - {Actual Energy Consumption}{Baseline Energy Consumption}} × 100	%	Advanced
12	Streetlight Energy Cost ($/month)	Measures the monthly energy cost per streetlight.	• Total Energy Cost for Streetlights • Number of Streetlights	Total Energy Cost for Streetlights / Number of Streetlights	$/Month	Core
13	Solar-powered Streetlights (%)	Measures the proportion of solar-powered streetlights.	• Number of Solar-Powered Streetlights • Total Number of Streetlights	(Number of Solar-Powered Streetlights / Total Number of Streetlights) × 100	%	Core
14	Luminaire Efficiency	Luminous efficacy of installed LED fixtures.	• Total lumens emitted • Total power consumed (W)	Total lumens emitted / Total power consumed	lm/W	Advanced
15	Lux Levels on Roads (lx)	Measures the intensity of light falling on a surface (illuminance). Adequate lux levels ensure proper visibility, reducing accidents and enhancing safety. Standard values vary based on road type (e.g., 10-30 lux for urban roads).	• Measured lux value at specific road points	Measured using lux meter	Lux (lx)	Advanced
16	Illumination Sufficiency as per Traffic Volume	Ensures streetlight brightness meets required standards based on varying traffic densities (low, medium, high).	• Measured lux level on the road for specific traffic conditions • Recommended lux level for respective traffic volume	Compliance = (Measured Lux / Recommended Lux) × 100	%	Advanced
5.11.3 Maintenance & Repair						
17	Average Repair Time (hours)	Measures the average time taken to repair faulty streetlights.	• Total Time Taken for Repairs • Number of Faulty Streetlights	Total Time Taken for Repairs / Number of Faulty Streetlights	Hours	Core

18	Streetlight Maintenance Cost per Unit	Measures the maintenance cost per streetlight.	• Total Maintenance Cost • Total no of Streetlights Maintained	Total Maintenance Cost / Total no of Streetlights Maintained	$/Unit	Advanced
19	Scheduled Maintenance Task Completion (%)	Measures the percentage of completed maintenance tasks.	• Completed Scheduled Maintenance Tasks • Total Scheduled Maintenance Tasks	(Completed Scheduled Maintenance Tasks / Total Scheduled Maintenance Tasks) × 100	%	Advanced
20	Frequency of Maintenance per Streetlight per Year	Measures how often streetlights undergo maintenance.	• Total Number of Maintenance Operations Performed • Total Number of Streetlights	Total Number of Maintenance Operations Performed / Total Number of Streetlights	Count/Year	Advanced
21	Pole Spacing Efficiency (%)	Measures how well pole spacing adheres to recommendations.	• Actual Pole Spacing Distance • Recommended Pole Spacing Distance	(Actual Pole Spacing Distance / Recommended Pole Spacing Distance) × 100	%	Advanced
5.11.4 **Control & Smart system**						
22	Control System Coverage (%)	Measures the proportion of streetlights connected to a central control system.	• Streetlights Connected to Control System Total Streetlights	(Streetlights Connected to Control System / Total Streetlights) × 100	%	Advanced
23	Traffic Volume Adaptation (%)	Measures the percentage of streetlights adjusting based on traffic flow.	• Streetlights Adjusted Based on Traffic Total Streetlights	(Streetlights Adjusted Based on Traffic / Total Streetlights) × 100	%	Advanced
24	Streetlight Contribution to Safety (%)	Measures the reduction in incidents due to street lighting.	• Reduction in Incidents with Streetlight Total Incidents	(Reduction in Incidents with Streetlight / Total Incidents) × 100	%	Advanced
25	Streets Well-lit Without Dark Spots (%)	Measures the proportion of well-lit streets.	• Number of Well-Lit Streets Without Dark Spots Total Streets Surveyed	(Number of Well-Lit Streets Without Dark Spots / Total Streets Surveyed) × 100	%	Core
5.11.5 **Financial & Environmental Aspect**						
26	Cost Savings	Reduction in operational costs due to efficient lighting.	• Energy Saving • Tariff Rate	(Energy Saving (kwh) / Tariff Rate (per kwh) * 100	₹	Core
27	Return on Investment (ROI)	Financial returns from streetlight modernization.	• Net profit from lighting upgrades • Investment cost	(Net profit from lighting upgrades / Investment cost) * 100	%	Advanced

28	Percentage of Budget Adherence	Actual project expenditure vs. allocated budget.	• Actual expenditure • Allocated budget	(Actual expenditure / Allocated budget) * 100	%	Advanced
29	Payback Period	Time to recover investment in energy-efficient lighting.	• Initial investment • Annual cost savings	Initial investment / Annual cost savings	Years	Advanced
30	Revenue from Carbon Credits	Earnings from carbon reduction programs.	• Carbon credit revenue per year • Total carbon credits earned	Carbon credit revenue per year / Total carbon credits earned	₹ or $ per year	Advanced
31	Cost per km of Lighting Infrastructure	Average cost of installing and maintaining streetlights.	• Total cost of streetlight infrastructure • Total km of streets covered	Total cost of streetlight infrastructure / Total km of streets covered	₹ or $ per km	Core
32	Carbon Emission Reduction	Reduction in emissions due to energy savings.	• Emissions reduced (tons CO_2) • Baseline emissions (tons CO_2)	(Emissions reduced / Baseline emissions) * 100	Tons CO_2 per year	Advanced
33	Heat Emission Reduction	Measures lower heat output compared to traditional lights.	• Heat Emission from Traditional Lights • Heat Emission from Energy-efficient Lights	(Heat Emission from Traditional Lights−Heat Emission from Energy-efficient Lights)/ Heat emitted by traditional lighting) * 100	%	Advanced
34	Light Pollution Reduction	Controlled light dispersion to avoid unnecessary spill over.	• Reduction in excess light dispersion • Total baseline light dispersion	(Reduction in excess light dispersion / Total baseline light dispersion) * 100	%	Advanced
35	Disposal & Recycling Compliance	Tracks how efficiently old streetlights and components are disposed of or recycled to ensure environmental sustainability. Higher compliance reduces hazardous waste.	• Properly disposed or recycled lights • Total replaced lights	(Properly Disposed Lights / Total Replaced Lights) × 100	%	Advanced

5.12 Planning

#	KPIs	Definitions	Data Points	Calculation Formula	Unit	Core/ Advanced

5.12.1 Plan Preparation						
1	Does the City have an updated development plan? (Updated in the last ten years)	Indicates whether the city has a development plan that has been updated within the last ten years.	-	Yes-1, No-0	Number	Core
2	Is the current development plan of the city built on a geographic information system (GIS)?	Determines whether the city's development plan is integrated with a Geographic Information System (GIS) for spatial analysis and planning.	-	Yes-1, No-0	Number	Core
3	Is the Land Use Masterplan Preparation and Implementation done by Qualified Town Planners?	Evaluates if the Land Use Masterplan is prepared and implemented by certified and qualified town planners.	-	Yes-1, No-0	Number	Core
4	Has the Town Planner Implemented Plan through Town Planning Schemes (TPS Schemes)	Assesses whether the Town Planner has executed the development plan through TPS, ensuring systematic urban growth.	-	Yes-1, No-0	Number	Advanced
5	Total area under town planning scheme	Measures the total land area that has been planned and developed through TPS to ensure organized urban expansion.	• Area under TPS • Total ULB area	(Area under TPS / Total ULB area) * 100	%	Core
5.12.2 Plan Implementation						
6	Land titling laws	Examines the presence and effectiveness of land titling laws, ensuring clear land ownership and reducing disputes.	• Does city have titling laws enforced?	Yes-1, No-0	Number	Core
7	Digitization of Land Records	Percentage of land records digitized under the Digital India Land Records	• Number of land records digitized under DILRMP	(Number of land records digitized under DILRMP / Total number of land records targeted for digitization) × 100	%	Core

		Modernization Programme (DILRMP).	• Total number of land records targeted for digitization.			
8	Unique Land Parcel Identification Number (ULPIN) Implementation	Number of land parcels assigned ULPIN (Bhu-Aadhaar) for unique identification.	• Number of land parcels assigned ULPIN • Total land parcels in the system	(Number of land parcels assigned ULPIN / Total land parcels) × 100	%	Core
9	Survey and Re-Survey Coverage	Percentage of areas surveyed or re-surveyed to update outdated maps and boundaries.	• Total area surveyed and digitized • Total land area planned for survey	(Total area surveyed and digitized / Total land area planned for survey) × 100	%	Core
10	Integration with Aadhaar	Proportion of land records linked with Aadhaar numbers to enhance ownership verification.	• Number of land records linked with Aadhaar • Total number of land records	(Number of land records linked with Aadhaar / Total land records) × 100	%	Advanced
11	Dispute Resolution Efficiency	Average time taken to resolve land ownership disputes.	• Number of land disputes resolved • Total number of land disputes raised	(Number of land disputes resolved / Total land disputes raised) × 100	%	Core
12	Capacity Building	Number of government officials trained in modern land record management techniques.	• Number of officials trained in digital land management • Total officials handling land records	(Number of officials trained / Total officials handling land records) × 100	%	Advanced
13	Transparency in Transactions	Increase in online access to land records and property transaction platforms.	• Number of land transactions processed digitally • Total land transactions	(Number of land transactions processed digitally / Total land transactions) × 100	%	Advanced
14	Revenue Generation	Improvement in property tax collection due to clear ownership data.	• Total revenue generated from digital land services • Total number of digital transactions	(Total revenue generated from digital land services / Total number of digital transactions)	Currency per transaction	Advanced
15	Public Trust and Accessibility	Citizen satisfaction levels regarding access to accurate land records.	• Number of positive user feedback/responses • Total user feedback received	(Number of positive user feedback responses / Total user feedback received) × 100	%	Advanced
16	Adoption of Title Insurance	Implementation rate of title insurance as a complementary measure to conclusive titling.	• Number of land parcels covered under title insurance	(Number of land parcels covered under title insurance / Total land parcels) × 100	%	Advanced

			• Total land parcels			
17	Land pooling laws	Evaluates the existence of land pooling regulations that facilitate large-scale urban development while ensuring fair landowner compensation.	• Does large scale pooling laws exist?	Yes-1, No-0	Number	Core
18	Percentage of Land Pooling Agreements Finalized	Measure the number of land pooling agreements successfully executed compared to the total proposals submitted.	• Number of finalized agreements • Total proposals submitted	(Number of finalized agreements / Total proposals submitted) × 100	%	Advanced
19	Time Taken for Land Pooling Process	Average duration from the initiation of the land pooling proposal to the finalization of agreements and development plans.	• Total time taken (in days) for all completed proposals • Number of proposals completed	(Total time taken for all completed proposals / Number of proposals completed)	Days	Advanced
20	Stakeholder Satisfaction Levels	Assess the satisfaction of landowners and stakeholders on transparency, fairness, and benefits.	• Sum of satisfaction scores from surveys • Total number of respondents	(Sum of satisfaction scores / Total number of respondents) × 100	%	Advanced
21	Dispute Resolution Rate	Percentage of disputes resolved amicably in land pooling projects.	• Number of resolved disputes • Total disputes raised	(Number of resolved disputes / Total disputes raised) × 100	%	Advanced
22	Infrastructure Development Timelines	Measure adherence to timelines for infrastructure projects linked to land pooling agreements.	• Number of projects completed within the stipulated timeline • Total planned infrastructure projects	(Number of projects completed on time / Total planned infrastructure projects) × 100	%	Advanced
23	Economic Impact Assessment	Evaluate changes in land value post-development compared to pre-development values.	• Average land value post-development • Average land value pre-development	((Average land value post-development – Average land value pre-development) / Average land value pre-development) × 100	%	Core
24	Land Utilization Efficiency	Ratio of developed land returned to original owners versus total pooled land.	• Area of developed land returned to owners • Total pooled land	(Area of developed land returned to owners / Total pooled land) × 100	%	Core

25	Community Engagement Metrics	Assess level of community involvement and feedback during land pooling.	• Number of engagement activities conducted • Total planned engagement activities	(Number of engagement activities conducted / Total planned engagement activities) × 100	%	Advanced
26	Compliance with Legal Frameworks	Percentage of projects that adhere to established legal guidelines.	• Number of projects compliant with regulations • Total land pooling projects	(Number of projects compliant with regulations / Total land pooling projects) × 100	%	Core
27	Revenue Generation from Developed Land	Measure revenue generated from taxes or fees associated with developed lands post-pooling.	• Total revenue generated from developed land • Total developed land area	(Total revenue generated from developed land / Total developed land area)	Currency per unit area	Core
28	Does the City Incentivise Green Buildings?	Determines whether the city provides financial or regulatory incentives (such as tax benefits or relaxed FSI norms) for adopting green building practices.	-	Yes-1, No-0	Number	Advanced
5.12.3 **Plan Enforcement**						
29	Development Plan Violation Rate	Measures the number of unauthorized constructions and deviations from approved land use plans.	• No. of violations detected • Total inspections conducted	(No. of violations detected / Total inspections conducted) * 100	%	Advanced
30	Penalty Efficiency for Plan Violations	Assesses how efficiently penalties are enforced for planning violations to ensure compliance with urban regulations.	• Fines collected for violations • Total fines imposed	(Fines collected for violations / Total fines imposed) * 100	%	Advanced
31	Land under Encroachment	Measures the percentage or total area of public or private land that is occupied illegally.	• Total ULB land encroached • Total city area	(Total ULB land encroached / Total city area) * 100	%	Core
32	Average time for Building Plan Approval	Measures the average time required for approving any building plan	• Total approval time for all applications • Number of applications processed	(Total approval time for all applications) / (Number of applications processed)	Ratio	Advanced

5.13 Governance

#	KPIs	Definitions	Data Points	Calculation Formula	Unit	Core/ Advanced
5.13.1 **Effectiveness**						
1	Establishment Expenditure vs Total Human Resources	Share of municipal budget spent on salaries and administration compared to total staff.	• Value of the establishment expenditure Total staff (permanent plus contractual) • Average establishment expenditure per staff by all municipalities	Value of the establishment expenditure / Total staff (permanent plus contractual) - Average establishment expenditure per staff by all municipalities	Number	Core
2	Citizen Charter	A document outlining municipal services, timelines, and grievance redressal.	• Published citizen charter	Does the ULB have a citizen charter? (Yes -1, No-0)	Number	Core
3	Capacity Building	Training programs to improve municipal staff skills and efficiency.	• Total number of staff that underwent training • Total staff (permanent plus contractual) available with the authority	Total number of staff that underwent training / Total staff (permanent plus contractual) available with the authority * 100	%	Advanced
4	Presence of Ombudsman	Availability of an independent authority for addressing complaints.	-	Is an ombudsman present for service-level related queries and grievance redressal? (Yes -1, No-0)	Number	Advanced
5	Complaint Redressal	System for receiving and resolving citizen grievances.	• Total number of active channels in ULBs for citizen complaint registration	How many active channels are being run by the ULB where citizens can register complaints	Number	Core
5.13.2 **Transparency & Accountability**						
6	Budget publication	Public disclosure of the municipal budget for transparency.	• Published ULB budget in public domain for last 4 FY's? (2021-22, 2022-23,2023-24)	Number of many active channels being run by the ULB for citizens to register complaints (1. 2021-22 (Yes-1, No-0) + 2. 2022-23	Number	Core

				(Yes-1, No-0) + 3. 2023-24 (Yes-1, No-0) / 3)		
7	Publication of Performance and Reports	Regular reports on municipal services and governance.	-	Are service-level performance reports regularly published in the public domain by the ULB every year? (Yes-1, No-0)	Number	Advanced
8	Published of Environmental Status Report	Annual report on environmental conditions and sustainability efforts.	-	Has the ULB published an environmental status report with action plans for the following periods? (1. 2021-22 (Yes-1, No-0) + 2. 2022-23 (Yes-1, No-0) + 3. 2023-24 (Yes-1, No-0) / 3)	Number	Advanced
9	Number of Municipal Employees Registered under Corruption Cases in the Last Year	Number of employees charged with corruption in the previous year.	• Total number of employees (permanent) that were registered with corruption cases • Total staff (permanent) on roll with the authority	Total number of employees (permanent) that were registered with corruption cases / Total staff (permanent) on roll with the authority *100	%	Advanced
10	Public Budget Disclosure Rate (%)	Measures commitment to financial transparency	• Number of Budget Reports Published • Required Reports	(Number of Budget Reports Published / Required Reports) × 100	%	Advanced
11	Procurement Compliance Rate (%)	Ensures fair and transparent procurement processes	• Compliant Contracts • Total Contracts	(Compliant Contracts / Total Contracts) × 100	%	Advanced
12	Ease of Reading the Budget	Budget availability in regional language & English	• Bilingual Budget Documents	Binary (Yes/No)	Yes/No	Core
13	Corruption Perception Index	Transparency in public administration	• Corruption Cases Reported	Perception Index Score	Index	Advanced
14	E-Governance Adoption Rate (%)	Percentage of services available online	• Online Services • Total Services	(Online Services / Total Services) × 100	%	Core
15	Publication of Contracts & Tenders	Availability of tenders on the ULB portal	• Published Tenders • Total Tenders	(Published Tenders / Total Tenders) × 100	%	Core
5.13.3 **Human Resources**						
16	Adequacy of ULB staff	Sufficiency of municipal employees for effective service delivery.	• Total staff (permanent) on roll with the authority • Total staff (permanent) sanctioned for the authority	Total staff (permanent) on roll with the authority / Total staff (permanent) sanctioned for the authority *100	%	Core

17	Leadership and Stability	Consistency and effectiveness of municipal leadership.	• Number of commissioners (or equivalent designation) in the ULB	Number of commissioners (or equivalent designation) in the ULB	Number	Core
18	Gender Equality	Representation of women in municipal governance and workforce.	• Number of permanent female employees in the Urban Local Body • Total number of permanent employees in the ULB, including all genders • Percentage of women holding elected positions within the ULB	(((Total number of women working (permanent) in the ULB / Total staff (permanent) on roll with the authority) *100) + Percentage of elected women officials in the ULB) / 2	%	Core
19	Average Tenure of Mayor in the last 5 years	Average time a mayor has served in the past five years.	• Total number of mayors in the ULB in last 5 years	5 / Total number of mayors in the ULB in last 5 years	Number	Core
5.13.4 **Public Participation & Fiscal Decentralisation**						
20	Public Participation in Budgeting (%)	Evaluates citizen involvement in budget decisions	• Residents Engaged • Total Population	(Residents Engaged / Total Population) × 100	%	Advanced
21	Voter Turnout: Voter Turnout in Municipal Elections	Percentage of eligible voters who participated in local elections.	• Voter turnout • Eligible voters	(Voter turnout / Eligible voters) * 100	%	Core
22	Community Involvement	Citizen participation in municipal planning and decision-making.	• Total number of ward committees formed • Total number of administrative wards	Total number of ward committees formed / Total number of administrative wards *100	%	Advanced
23	Civic Associations	Number of voluntary non-profit organizations per 10,000 people	• Registered Associations Population per 10,000	(Registered Associations / (Population / 10,000))	Count	Advanced
24	Properties Mapped on GIS	Refers to the number of properties accurately mapped using Geographic Information Systems (GIS) for better tax assessment.	• Total Number of Properties Mapped on GIS • Total Number of Properties within the ULB	(Total Number of Properties Mapped on GIS / Total Number of Properties within the ULB) * 100	%	Core
25	Participatory Budgeting	Measures the proportion of the ULB's budget allocated through participatory budgeting, where citizens contribute to decision-making.	• Percentage of the proportion of the ULB budget allocated through participatory budgeting for FY	(Percentage of the proportion of the ULB budget allocated through participatory budgeting for 2021-22 + Percentage of the proportion of the ULB budget	%	Core

			(2021-22,2022-23,2023-24)	allocated through participatory budgeting for 2022-2023 + Percentage of budget deficit/surplus of 2023-24) / 3		
5.13.5 **Budget Efficiency & Utilization**						
26	Budget Execution Rate (%)	Measures how effectively the city utilizes allocated funds	• Actual Expenditure • Approved Budget	(Actual Expenditure / Approved Budget) × 100	%	Core
27	Percentage of Unused Budget (%)	Indicates inefficiencies in fund allocation or spending	• Unspent Funds • Approved Budget	(Unspent Funds / Approved Budget) × 100	%	Core
28	Deviation from Budget Forecast (%)	Tracks adherence to financial planning	• Actual Spending • Budgeted Spending	((Actual Spending - Budgeted Spending) / Budgeted Spending) × 100	%	Core
29	Alternate Sources of Financing Raised by ULB (PPP, Municipality bonds, CSR, Land Monetisation, Open Market Borrowings, Value Capture Finance, External Financing)	Captures the extent to which the ULB has leveraged additional financial sources such as public-private partnerships (PPP), municipal bonds, corporate social responsibility (CSR), and other innovative financing mechanisms.	• Amount of earnings/ borrowings raised by the ULB from alternate sources of financing (excluding state and central grants) • Total revenue generated	(Amount of earnings/ borrowings raised by the ULB from alternate sources of financing (excluding state and central grants) / Total revenue generated) * 100	%	Advanced
30	Budget Efficiency for the Last Three Years (Actual- Budgeted)	Assesses the accuracy of budget planning by comparing actual expenditure with budgeted estimates over three years.	• Total Actual Revenue for FY (2021-22,2022-23,2023-24) • Total Budgeted Revenue (Revised Estimates) for FY (2021-22,2022-23,2023-24)	((Total Actual Revenue (2021-22) / Budgeted Revenue (Revised Estimates) (2021-22)) + (Total Actual Revenue (2022-23) / Budgeted Revenue (Revised Estimates) (2022-23)) + (Total Actual Revenue (2023-24) / Budgeted Revenue (Revised Estimates) (2023-24))) * 100 / 3	%	Core
31	Central Grants Expenditure Efficiency (Three Year Average)	Measures how effectively the ULB utilizes central government grants by comparing actual spending to allocated funds.	• Central Grants Spent for FY (2021-22,2022-23,2023-24) • Central Grants Received for FY	((Central Grants Spent (2021-22) / Central Grants Received (2021-22)) + (Central Grants Spent (2022-23) / Central Grants Received (2022-23)) + (Central Grants Spent (2023-24) / Central	%	Core

			(2021-22,2022-23,2023-24)	Grants Received (2023-24))) * 100 / 3		
32	State Grants Expenditure Efficiency (Three Year Average)	Evaluates the efficiency in utilizing state government grants by comparing actual expenditure to allocated funds.	• State Grants Spent for FY (2021-22,2022-23,2023-24) • State Grants Received for FY (2021-22,2022-23,2023-24)	((State Grants Spent (2021-22) / State Grants Received (2021-22)) + (State Grants Spent (2022-23) / State Grants Received (2022-23)) + (State Grants Spent (2023-24) / State Grants Received (2023-24))) * 100 / 3	%	Core
33	Capital Expenditure Vs Total Expenditure (Three Year Average)	Examines the proportion of spending allocated to capital investments relative to total expenditure over three years.	• Capital Expenditure for FY (2021-22,2022-23,2023-24) • Total Expenditure for FY (2021-22,2022-23,2023-24)	((Capital Expenditure (2021-22) / Total Expenditure (2021-22)) + (Capital Expenditure (2022-23) / Total Expenditure (2022-23)) + (Capital Expenditure (2023-24) / Total Expenditure (2023-24))) * 100 / 3	%	Core
34	Establishment Expenditure Vs Total Expenditure (Three Year Average)	Represents the share of establishment-related expenses, such as salaries and administration costs, within total expenditure.	• Value of the establishment expenditure for FY (2021-22,2022-23,2023-24) • Value of the total expenditure for FY (2021-22,2022-23,2023-24)	(Value of the establishment expenditure for 2021-22 / Value of the total expenditure for 2021-22) + (Value of the establishment expenditure for 2022-23 / Value of the total expenditure for 2022-23) + (Value of the establishment expenditure for 2023-24 / Value of the total expenditure for 2023-24) * 100	%	Core
35	Salary Expenses Vs Total Own Revenue (Three Year Average)	Assesses the financial commitment of salary expenses on the ULB's own revenue.	• Total own revenue for the ULB for FY (2021-22,2022-23,2023-24) • Total Salary expense for the ULB for FY (2021-22,2022-23,2023-24)	((Total own revenue for the ULB for 2021-22 - Total Salary expenses for the ULB for 2021-22) / Total own revenue for 2021-22) + ((Total own revenue for the ULB for 2022-23 - Total Salary expenses for the ULB for 2022-23) / Total own revenue for 2022-23) + ((Total own revenue for the ULB for 2023-24 - Total Salary expenses for the ULB for	%	Advanced

				2023-24) / Total own revenue for 2023-24) * 100		
36	Preparation of Budget Estimate	Indicates whether the ULB prepares and follows budget estimates for financial planning.	-	1 if "Yes", 0 if "No"	Number	Core
37	Capital Expenditure per capita (Three Year Average)	Measures the capital expenditure incurred per resident over three years, reflecting investment in infrastructure and development.	• Capital expenditure per capita (Actuals) for FY (2021-22,2022-23,2023-24)	(Capital expenditure per capita (Actuals) 2021-22 + Capital expenditure per capita (Actuals) 2022-23 + Capital expenditure per capita (Actuals) 2023-24) / 3	Ratio (INR/ person)	Advanced
38	Establishment Expenditure per capita (Three Year Average)	Represents the per capita cost of administrative and operational expenses incurred by the ULB over three years.	• Establishment expenditure per capita (Actuals) for FY (2021-22,2022-23,2023-24)	(Establishment expenditure per capita (Actuals) 2021-22 + Establishment expenditure per capita (Actuals) 2022-23 + Establishment expenditure per capita (Actuals) 2023-24) / 3	Ratio (INR/ person)	Advanced
39	Budget Deficit / Surplus (Three Year)	Indicates the financial health of the ULB by assessing whether it operates with a budget deficit or surplus over three years.	• Percentage of budget deficit/surplus for FY (2021-22,2022-23,2023-24)	(Percentage of budget deficit/surplus of 2021-22 + Percentage of budget deficit/surplus of 2022-2023 + Percentage of budget deficit/surplus of 2023-24) / 3	%	Core
40	Average Absolute Budget Variance	Evaluates the extent of deviation between budgeted estimates and actual expenditure over three years.	• Absolute((Total expenditure) for FY (2021-22,2022-23,2023-24) • Amount of budgeted expenditure (revised) for FY (2021-22,2022-23,2023-24)	(Absolute(Total expenditure of 2021-22 - Amount of budgeted expenditure (revised) of 2021-22) + Absolute(Total expenditure of 2022-2023 - Amount of budgeted expenditure (revised) of 2022-2023) + Absolute(Total expenditure of 2023-24 - Amount of budgeted expenditure (revised) of 2023-24)) / 3	INR	Advanced
5.13.6 **Revenue Generation & Financial Sustainability**						
41	Revenue Collection Efficiency (%)	Measures effectiveness of tax and fee collection	• Actual Revenue Collected • Projected Revenue	(Actual Revenue Collected / Projected Revenue) × 100	%	Core

42	Own-Source Revenue Ratio (%)	Assesses financial independence from state/federal transfers	• Local Revenues • Total Budget	(Local Revenues / Total Budget) × 100	%	Core
43	Tax Collection Rate (%)	Evaluates efficiency in tax administration	• Collected Taxes • Total Taxes Due	(Collected Taxes / Total Taxes Due) × 100	%	Core
44	Diversification of Revenue Streams	Number of revenue sources beyond traditional taxes	• Number of Revenue Sources	Count of revenue sources beyond taxes	Count	Advanced
45	Own Revenue Vs Total Revenue (Three-year Average)	Measures the proportion of own revenue generated by the Urban Local Body (ULB) compared to its total revenue over three years.	• Total Own Revenue for FY (2021-22,2022-23,2023-24) • Total Revenue for FY (2021-22,2022-23,2023-24)	((Total Own Revenue (2021-22) / Total Revenue (2021-22)) + (Total Own Revenue (2022-23) / Total Revenue (2022-23)) + (Total Own Revenue (2023-24) / Total Revenue (2023-24))) * 100 / 3	%	Core
46	Tax Revenue Vs Total Own Revenue (Three Year Average)	Indicates the share of tax revenue within the total own revenue of the ULB over three years.	• Total Tax Revenue for FY (2021-22,2022-23,2023-24) • Total Own Revenue for FY (2021-22,2022-23,2023-24)	((Total Tax Revenue (2021-22) / Total Own Revenue (2021-22)) + (Total Tax Revenue (2022-23) / Total Own Revenue (2022-23)) + (Total Tax Revenue (2023-24) / Total Own Revenue (2023-24))) * 100 / 3	%	Core
47	Tax Coverage Efficiency	Assesses the extent to which taxable properties are identified and included in the tax system.	• Number of Properties Covered Under Tax Net • Total Number of Properties in ULB	(Number of Properties Covered Under Tax Net / Total Number of Properties in ULB) * 100	%	Core
48	Tax Collection Efficiency (Three Year Average)	Evaluates the effectiveness of the ULB in collecting property tax as a percentage of total tax demand over three years.	• Total Property Tax Collected for FY (2021-22,2022-23,2023-24) • Total Property Tax Billed for FY (2021-22,2022-23,2023-24)	((Total Property Tax Collected (2021-22) / Total Property Tax Billed (2021-22)) + (Total Property Tax Collected (2022-23) / Total Property Tax Billed (2022-23)) + (Total Property Tax Collected (2023-24) / Total Property Tax Billed (2023-24))) * 100 / 3	%	Core
49	Tax Collection Powers	Evaluates the ability of the ULB to impose and collect various local taxes, such as property tax, professional tax, and advertisement tax.	• Property tax (Yes-1, No-0) Local body tax (Yes-1, No-0) • Professional tax (Yes-1, No-0)	(Property tax (Yes-1, No-0) + Local body tax (Yes-1, No-0) + Professional tax (Yes-1, No-0) + Advertisement rights (Yes-1, No-0) + Entertainment tax (Yes-1,	Number	Core

			• Advertisement rights (Yes-1, No-0) • Entertainment tax (Yes-1, No-0)	No-0)) / 5; AW, NF, NA awarded zero		
50	Borrowing Powers	Determines whether the ULB has the authority to raise funds through borrowing mechanisms such as loans or municipal bonds.	-	Yes-0, No-1; AW, NF, NA awarded zero	Number	Advanced
51	Credit Rating	Represents the creditworthiness of the ULB based on its financial performance and ability to repay debts.	-	Average of 3-year credit rating; AW, NF, NA awarded zero	Number	Advanced
52	Is the ULB Mandated to Review Property Tax Rates from Time to Time as per the Applicable Municipal Act?	Identifies whether the municipal act requires periodic revision of property tax rates.	-	Yes=1, No=0	Number	Core
53	Accrual Based Double Entry Accounting System	Determines if the ULB follows an accrual-based double-entry accounting system for financial management.	-	Yes=1, No=0	Number	Core
54	External Audit (Last Three Years)	Determines whether the ULB has undergone external audits in the past three years to ensure financial accountability.	• Response(Yes-1/No-0) for FY (2021-22,2022-23,2023-24)	(Response for (Yes-1, No-0) of 2021-22 + Response for (Yes-1, No-0) of 2022-23 + Response for (Yes-1, No-0) of 2023-24) / 3; AW, NF, NA awarded zero	Number	Core
55	Data Sharing	Assesses whether the ULB shares financial and operational data transparently with stakeholders and the public.	-	Yes-1, No-0; AW, NF, NA awarded zero	Number	-
56	Internal Audit	Indicates whether the ULB conducts internal audits to monitor financial processes and compliance.	-	Yes-1, No-0; AW, NF, NA awarded zero	Number	Core

57	Publication of Audited Accounts	Identifies whether the ULB publishes audited financial accounts for public access and transparency.	-	Were the audited accounts (internal and external) published? Yes-1, No-0; AW, NF, NA awarded zero	Number	Core
5.13.7 **Debt & Financial Health**						
58	Debt-to-Revenue Ratio (%)	Indicates ability to manage debt obligations	• Total Debt • Total Annual Revenue	(Total Debt / Total Annual Revenue) × 100	%	Core
59	Debt Service Coverage Ratio	Measures capacity to cover debt obligations	• Net Operating Income • Debt Service	(Net Operating Income / Debt Service)	Ratio	Advanced
60	Operating Surplus/Deficit (%)	Assesses financial stability	• Revenue • Expenses	((Revenue - Expenses) / Revenue) × 100	%	Advanced
5.13.8 **Service Delivery & ROI on Public Spending**						
61	Public Service Cost Efficiency	Assesses cost-effectiveness of city services	• Total Expenditure on Services • Number of Citizens Served	(Total Expenditure on Services / Number of Citizens Served)	Cost per Citizen	Advanced
62	Infrastructure Investment Efficiency (%)	Measures adherence to infrastructure project budgets	• Actual Infrastructure Spend • Budgeted Amount	(Actual Infrastructure Spend / Budgeted Amount) × 100	%	Advanced
63	Social Services Expenditure Ratio (%)	Indicates prioritization of social welfare	• Health, Education & Welfare Budget • Total Budget	(Health, Education & Welfare Budget / Total Budget) × 100	%	Advanced
64	Services with SLA Defined (%)	Proportion of services with agreed timelines	• Services with SLA • Total Services	(Services with SLA / Total Services) × 100	%	Advanced
65	Complaints Resolved within SLA (%)	Percentage of complaints resolved within SLA	• Resolved Complaints • Total Complaints	(Resolved Complaints / Total Complaints) × 100	%	Core
66	Public Service Satisfaction Rate (%)	Percentage of citizens satisfied with city services	• Satisfied Citizens • Total Respondents	(Satisfied Citizens / Total Respondents) × 100	%	Core
67	Response Time to Citizen Inquiries/Complaints	Average time taken to address complaints	• Total Response Time • Number of Complaints	(Total Response Time / Number of Complaints)	Hours	Core

5.14 Technology

#	KPIs	Definitions	Data Points	Calculation Formula	Unit	Core/

						Advanced
5.14.1 **Digital Governance**						
1	Does the ULB have the Following e-Governance Initiatives: Web Portal • Online Grievance Redressal • Online Grievance Redressal on mobile • Online public service delivery • Online public service delivery on mobile	Measures the presence of e-Governance initiatives in the ULB by evaluating the availability of a web portal, online grievance redressal, and online public service delivery.	• Web Portal Availability • Online Grievance Redressal Availability • Online Grievance Redressal on Mobile • Online Public Service Delivery Availability • Online Public Service Delivery on Mobile.	(Web portal (Yes-1, No-0) + Online grievance redressal on mobile (Yes-1, No-0) + Online grievance redressal (Yes-1, No-0) + Online public service delivery on mobile (Yes-1, No-0) + Online public service delivery (Yes-1, No-0)) / 5	Number	Core
2	Does the City have an Open Data Policy?	Indicates whether the city has adopted an Open Data Policy, which promotes transparency and accessibility of public data.	• -	Yes-1, No-0	Number	Core
3	City Data Officer	Has your city appointed a City Data Officer (CDO)?	• Does your city currently have a City Data Officer? If Yes, choose from: • CDO appointed, but not full-time • Full-time CDO but not as per Job Description • Full-time CDO as per Job Description	Yes-1, No-0	Number	Core
4	Status City data officer	status of the CDO appointment?	• CDO appointed, but not full-time • Full-time CDO as per Job Description	Yes-1, No-0	Number	Core
5	Has the City Formed a City Data Alliance?	Indicates whether the city has established a City Data Alliance to promote data sharing and collaboration.	-	Yes-1, No-0	Number	Advanced
6	Does the City have Presence on an Open Data Portal?	Identifies if the city has an open data portal where municipal data is publicly accessible.	-	Yes-1, No-0	Number	Core

7	Completion ratio for digitally accessible services	To measure the ULBs adherence to digital measures, Completion ratio should be the metric to track. All the requests raised via digital services are to be tracked.	• Number of completed digitally raised requests • Total Number of digitally raised requests	(Number of completed digitally raised requests / Total Number of digitally raised requests) X 100	Percentage	Core
8	Cybersecurity compliance	Certification of secure digital systems and last review date	-	Now - Date > 1 Year	Date	Advanced
9	Service uptime monitoring	Number of jobs/actions being taken by the ULB on a per hour basis. It should be a publicly available status page as well. The objective is to establish two things: Are ULBs taking actions digitally or not and what is their efficiency. By making this information open, there would be adequate accountability This will be a time-series data.	• Number of key jobs or actions taken	Number of key jobs or actions taken / 1 hour	Number	Advanced
5.14.2 **Digital Access**						
10	WiFi Hotspot Coverage	Measures the coverage of WiFi hotspots installed by the ULB.	• Total coverage area of ULB-run WiFi hotspots. • Total area of the ULB	(Total coverage area of ULB-run WiFi hotspots / Total area of the ULB) *100	%	Advanced
11	Resident Participation	Measures the awareness and accessibility of ULBs digital presence	• Number of unique resident accounts • Number of Residents	(Number of unique resident accounts across services / Total Number of Residents) *100	Percentage	Advanced
5.14.3 **Digital Literacy**						
12	Does the ULB-Run Digital Literacy Programmes?	Indicates whether the ULB conducts digital literacy	• -	Yes-1, No-0	Number	Advanced

		programs to enhance public digital skills.				
13	Number of Digital Literacy Centres Run by the ULB	Measures the number of digital literacy centers managed by the ULB per lakh population.	• Number of digital literacy centers • Population	(Number of digital literacy centers / Population) * 100k	Per Lakh of Pop.	Advanced
14	Number of People who have Completed Digital Literacy Courses Provided by ULB or Smart City Company as a Proportion of Total Population in Slums	Represents the number of individuals from slum areas who have completed digital literacy training offered by the ULB or Smart City Company per lakh population.	• Number of people who have completed digital literacy courses provided by ULB or smart city company • Population	(Number of people who have completed digital literacy courses provided by ULB or smart city company / Population) * 100k	Per Lakh of Pop.	Advanced
15	Digital Inclusion: Percentage Participation of marginalized groups	For every marginalized group like women and elderly or EWS, how many have their accounts linked.	• Total marginalized individuals with linked digital accounts • Total marginalized individuals in the target population	(Total marginalized individuals with linked digital accounts / Total marginalized individuals in the target population) × 100	Percentage	Core
5.14.4 **Policy**						
16	City data policy components	The City Data Policy must preferably have the mentioned sections, SOPs, and guidelines for setting up an inclusive data ecosystem at the city level. For further details, please refer to the National Data Sharing and Accessibility Policy (NDSAP), the Data Smart Cities Strategy and the City Data Policy Guidance document.	• Does the City Data Policy have the following sections/components? 1 - Data Classification 2 - Data Categorization 3 - Data Flow / Approval Framework 4 - Data Archival and Retention 5 - Data Security and Privacy 6 - SoP for data collection 7 - SoP for electronic data collection 8 - SoP for data processing and cleaning 9 - SoP for quality assessment of datasets 10 - SoP for data publishing as per Open Data Norms	Yes/No	Number	Advanced

			11 - SoP for engaging stakeholders to assess the data needs 12 - SoP for data collection, processing, and analysis for on-field survey 13 - Do the processes defined include provisions for data analysis?			
17	Budget for data-related initiatives (last year)	Includes any budget that the smart city has earmarked for the implementation of activities specified in the City Data Policy, other data-related activities, including training, workshops, etc., to build capacities for data handling.	● Has the city/municipality earmarked a budget in its Annual Budget 2020-21 for data-related initiatives/activities? If Yes, provide details on: ● Allocated Budget for data initiatives ● Budget Spent on data activities ● Total Municipal Budget	Yes/No	INR	Advanced
18	Budget for data-related initiatives (latest year)	Includes any budget that the smart city has earmarked for the implementation of activities specified in the City Data Policy, other data-related activities, including training, workshops, etc., to build capacities for data handling.	● Has the city/municipality earmarked a budget in its Annual Budget 2021-22 for data-related initiatives/activities? If Yes, provide details on: ● Allocated Budget ● Total Municipal Budget	Yes/No	INR	Advanced
5.14.5 **People**						
19	Data Coordinators	Appointment of Data Coordinators in Government Departments as per the Data Smart Cities Strategy. In case there is more than one data coordinator in one	● What is the percentage of departments that have appointed Data Coordinators? ● Total number of departments in which data coordinators have been appointed	(No. of Departments with Data Coordinators/Total Departments in ULB) * 100	Percentage; Number	Advanced

		department, it will be counted as one for calculation purposes.	• Total number of departments in the ULB			
20	Data team	Includes all other team members in the data initiative, including Data Scientists, Architects, Analysts, Open Data Experts, Interns, Outreach Experts, and excluding the CDO, Data Coordinators, and Data Champions.	• What are the number of members in your data team with their roles and responsibilities?	Sum Total	Number	Advanced
5.14.6 Process						
21	Capacity building- Ministry Initiatives	Includes all trainings, workshops, VCs etc. for city officials.	• How many trainings or workshops on data has the city attended to build capacity of its data team for executing the Data Smart Cities Strategy from 1st Jan 2021 onwards?	Sum Total	Number	Advanced
22	Capacity building- City Initiatives	Includes all trainings, workshops, VCs etc. for city officials.	• How many trainings or workshops on data has the city conducted to build capacity of its data team for executing the Data Smart Cities Strategy from 1st Jan 2021 onwards?	Sum Total	Number	Advanced
23	Analytics capability	Does the city have a structured approach to data analytics, including descriptive, diagnostic, predictive, or prescriptive analytics?	• Does the city have an established data analytics framework for decision-making? • Is there a dedicated team for data analytics within the city administration? • Are data-driven insights regularly used to improve urban planning and governance? • Does the city use historical data for trend analysis and forecasting?	yes/no	Number	Advanced

			• Are machine learning or AI-based analytics implemented for predictive insights? • Is there a data-sharing mechanism between different city departments for better analytics?			
5.14.7 **Technology**						
24	Dynamic data sharing	Data sharing through customized APIs or IUDX.	• Does the city share any data through APIs/IUDX?	Yes/No	Yes/No	Core
25	Spatial readiness	GIS refers to the geospatial data that the city may have collected. Data may be in the form of shape files, GeoJSON, or KML.	• How many data layers of the city (such as roads, water bodies, properties, etc.) are mapped on GIS?	Sum Total	Number	Core
5.14.8 **Outcome**						
26	Development of Portals/ Applications	The city may have developed digital portals or applications to enhance service delivery and support data-driven decision-making.	• Has the city developed any portals or applications for service delivery or data analytics?	Yes/No	Number	Core
27	Multi-stakeholder usage rate	These applications could be used by citizens and government departments for various services.	• Are these applications actively used by citizens and government departments?	Yes/No	Number	Core
28	Decision making through Datasets	Some applications may integrate city datasets for better decision-making.	• Do these applications use city datasets to improve services?	Yes/No	Number	Core
5.14.9 **Data Availability**						
29	Electronic data collection process	Data may be collected via web-based or mobile-based applications,	• How many of these datasets are collected electronically for this sector?	Sum Total	Number	Core

		IVR systems, online surveys, sensors, etc.				
5.14.10 **Data Shareability**						
30	Data sharing process-government bodies	Are there processes through which data is getting shared with State or Central Government, Autonomous Bodies, and Parastatal Agencies under the government.	• Are there any processes adopted by the city for sharing data under this sector with government bodies?	Yes/No	Number	Core
31	Data sharing process-External stakeholders	Are there processes through which data is getting shared with Academia, Industry, Civil Society, etc.	• Are there any processes adopted by the city for sharing data under this sector with external stakeholders?	Yes/No	Number	Core
32	Data Anonymization	Data anonymization is one of the techniques that can be used to adhere to strict data privacy regulations that require the security of personally identifiable information (PII), such as health reports, contact information, and financial details.	• Does the city follow any standard processes for anonymization of personal datasets/feeds for sharing the information and data for this sector?	Yes/No	Number	Core
5.14.11 **Data Management**						
33	Service-Level Performance Reports Published Annually	Assesses whether the ULB publishes performance reports on public services in the public domain annually.	• Number of years in which reports were published • Total years under review	(Number of years in which reports were published / Total years under review) * 100	%	Core
34	Data Retention Policy Existence	Identifies whether the ULB is following a formal policy for data retention.	-	Yes-1, No-0	Number	Core

35	Data Security Policy Existence	Evaluates if the city is following a formalized data security policy to protect sensitive information.	-	Yes-1, No-0	Number	Core
36	Number of Datasets Collected	Tracks the total number of datasets collected under urban governance.	• Total number of datasets collected	-	Number	Advanced
37	Number of datasets in Negative List	Datasets that cannot be shared or published due to national security, confidentiality, or legal restrictions.	• Count of datasets in Negative List	-	Count	Advanced
38	Number of Sensitive datasets	Datasets containing personal, financial, or health-related information that require restricted access.	• Count of datasets classified as Sensitive	-	Count	Advanced
39	Number of Restricted datasets	Datasets that are available only to specific government agencies or authorized entities.	• Count of datasets classified as Restricted	-	Count	Advanced
40	Number of Shareable datasets	Datasets that can be openly shared with the public or other organizations without restrictions.	• Count of datasets classified as Shareable	-	Count	Advanced
41	Percentage of Negative List datasets	The proportion of datasets classified as Negative List relative to the total datasets collected.	• Negative List datasets • Total datasets	(Negative List datasets / Total datasets) * 100	%	Advanced
42	Percentage of Sensitive datasets	The proportion of datasets classified as Sensitive relative to the total datasets collected.	• Sensitive datasets • Total datasets	(Sensitive datasets / Total datasets) * 100	%	Core
43	Percentage of Restricted datasets	The proportion of datasets classified as Restricted relative to the total datasets collected.	• Restricted datasets • Total datasets	(Restricted datasets / Total datasets) * 100	%	Advanced

44	Percentage of Shareable datasets	The proportion of datasets classified as Shareable relative to the total datasets collected.	• Shareable datasets • Total datasets	(Shareable datasets / Total datasets) * 100	%	Advanced
45	Data Encryption Implementation Rate	Tracks the percentage of sensitive datasets encrypted as per IT Act norms.	• Number of datasets with encryption • Total sensitive datasets	(Number of datasets with encryption / Total sensitive datasets) * 100	%	Advanced
46	Aadhaar Seeding Rate for ULB Services	Tracks the percentage of ULB service databases linked with Aadhaar.	• Number of urban service records linked with Aadhaar • Total urban service records	(Number of urban service records linked with Aadhaar / Total urban service records) * 100	%	Core
47	Aadhaar-Based Service Delivery Efficiency	Evaluates how many urban welfare services are effectively delivered using Aadhaar authentication.	• Number of urban services successfully provided using Aadhaar • Total urban service requests requiring Aadhaar authentication	(Number of urban services successfully provided using Aadhaar/ Total urban service requests requiring Aadhaar authentication) * 100	%	Core
48	Aadhaar Data Retention Compliance Rate	Ensures compliance with Aadhaar Act guidelines on data retention and deletion.	• Number of Aadhaar datasets deleted as per retention policy • Total Aadhaar datasets processed	(Number of Aadhaar datasets deleted as per retention policy / Total Aadhaar datasets processed) * 100	%	Core
49	Data Security Compliance	Refers to adherence to legal, regulatory, and organizational policies to protect data from unauthorized access, breaches, and misuse.	• -	Yes-1, No-0	Number	Core
50	Cyber Incident Response Time	Evaluates the average time taken to respond to cyber incidents in urban governance.	• Total time taken to respond to cyber incidents • Total cyber incidents reported	(Total time taken to respond to cyber incidents /Total cyber incidents reported)	Hours	Core
51	Cybersecurity Awareness Training Coverage	Tracks the percentage of employees trained on cybersecurity best practices.	• Number of employees trained in cybersecurity • Total employees handling urban digital services	(Number of employees trained in cybersecurity / Total employees handling urban digital services) * 100	%	Advanced
52	Critical IT Infrastructure Downtime	Measures the duration of outages in IT systems	• Total downtime of critical IT infrastructure • Total operational time	(Total downtime of critical IT infrastructure /Total operational time) * 100	%	Core

		essential for urban services.				
53	Data Encryption Implementation Rate	Tracks the percentage of sensitive datasets encrypted as per IT Act norms.	• Number of datasets with encryption • Total sensitive datasets	(Number of datasets with encryption / Total sensitive datasets) * 100	%	Advanced
54	Two-Factor Authentication (2FA) Implementation	Process of adding an extra layer of security by requiring two forms of verification (e.g., password and OTP) to access a system.	• -	Yes-1, No-0	Number	Core
55	Compliance Rate for IT Act Sections (66, 72A, 43A, etc.)	Measures adherence to key IT Act provisions (cyber fraud, data disclosure, corporate security).	• Number of compliance checks passed • Total compliance checks conducted	(Number of compliance checks passed / Total compliance checks conducted) * 100	%	Core
56	Data Latency in System Integration	Assesses the time delay in data synchronization between systems.	• Total time taken for data updates across integrated systems • Number of data updates	(Total time taken for data updates across integrated systems / Number of data updates)	Seconds	Advanced
57	Automated Data Synchronization Rate	Tracks how many datasets are automatically synchronized across platforms.	• Number of datasets with real-time synchronization • Total datasets exchanged	(Number of datasets with real-time synchronization /Total datasets exchanged) * 100	%	Advanced
58	Number of Open APIs Published	Monitors how many APIs are available for public and government use.	• Number of open APIs published • Total APIs developed	(Number of open APIs published / Total APIs developed) * 100	%	Core
59	Interoperability Compliance Score	Evaluates the extent to which urban governance systems comply with national interoperability guidelines.	• Number of systems compliant with interoperability standards • Total systems integrated	(Number of systems compliant with interoperability standards /Total systems integrated) * 100	%	Advanced
60	Data Reusability Index	Assesses the percentage of datasets that can be reused across multiple platforms.	• Number of reusable datasets • Total datasets in the system	(Number of reusable datasets /Total datasets in the system) * 100	%	Core

61	Machine-Readable Data Format Compliance Rate	Tracks the percentage of datasets available in machine-readable formats (CSV, JSON, RDF).	• Number of datasets in machine-readable formats • Total datasets	(Number of datasets in machine-readable formats / Total datasets) * 100	%	Core
62	Is your application built on open-source technology?	Measures the adoption of open-source software in government projects.	•	Yes-1, No-0	Number	Core
63	Security Audit Compliance Rate	Measures how many government OSS projects undergo regular security audits.	• OSS projects with completed security audits • Total OSS projects in use	(OSS projects with completed security audits /Total OSS projects in use) * 100	%	Core
5.14.12 **Disaster recovery**						
64	Do you have a formal data backup policy in place?	A documented backup policy for disaster recovery is needed.	-	Binary (Yes/No)	Number	Core
65	How frequently are backups taken? (Daily/Weekly/Monthly/ Ad-hoc)	Frequency at which data is backed up.	• Backup schedule details	Descriptive	Number	Core
66	Are backups stored On-Premise?	Indicates whether backups are store on premises	• Storage type details	Binary (yes.no)	Number	Core
67	Where are your backups stored? (On-premise/Cloud/Hybrid)	Indicates whether backups are stored in cloud	• Storage type details	Binary (Yes/No)	Number	Core
68	Where are your backups stored? (On-premise/Cloud/Hybrid)	Indicates whether backups are store both on premises and cloud	• Storage type details	Binary (Yes/No)	Number	Core
69	Do you test your backups regularly?	Regular testing of backup data for recoverability.	• Yes/No	Binary (Yes/No)	Number	Core
70	Do backups meet the defined Recovery Point Objective (RPO)?	Percentage of backups that meet the RPO (maximum acceptable data loss).	• Backups within RPO limit • Total backups	(Compliant Backups / Total Backups) × 100	%	Core

71	Are recovery processes completed within the defined Recovery Time Objective (RTO)?	Percentage of recoveries completed within the RTO (maximum downtime allowed).	• Recoveries within RTO • Total recoveries	(Compliant Recoveries / Total Recoveries) × 100	%	Core
72	On average, how long does it take to restore systems after a failure?	Average time taken to restore systems after a failure.	• Total downtime • Number of recovery incidents	Total Downtime / Total Incidents	Hours	Advanced
73	How frequently are disaster recovery tests conducted?	Percentage of successful DR tests conducted.	• Number of successful DR tests • Total DR tests performed	(Successful DR Tests / Total DR Tests) × 100	%	Advanced

5.15 E- Governance

#	KPIs	Definitions	Data Points	Calculation Formula	Unit	Core/ Advanced	Time (Daily, Monthly, Yearly)
5.15.1 **Accessibility**							
1	% of services linked to NGSP	The percentage of state government services integrated with the National Government Service Portal (NGSP) for seamless access.	• No. of services listed on NGSP • Total services available	(No. of services on NGSP / Total services) × 100	%	Core	-
2	% of services available across multiple channels	The percentage of services that can be accessed through different mediums such as web portals, mobile apps, kiosks, and call centers.	• No. of services available via portal, mobile, kiosk, etc. • Total services available	(No. of services available across multiple channels / Total services) × 100	%	Core	-
3	% of services available in both English and regional languages	The percentage of services that are offered in both English and at least one regional language to ensure inclusivity.	• No. of services available in both languages • Total services available	(No. of services available in multiple languages / Total services) × 100	%	Core	-

4	% of services with Single Sign-On (SSO) authentication	The percentage of services that allow users to log in once and access multiple services without needing separate credentials.	• No. of services with SSO authentication • Total services available	(No. of services with SSO authentication / Total services) × 100	%	Core	-
5	% of web pages that auto-adjust to mobile/tablet screens	The percentage of web pages that are responsive and adjust dynamically to different screen sizes for an optimal user experience.	• No. of responsive web pages • Total web pages	(No. of mobile-responsive web pages / Total web pages) × 100	%	Core	-
6	% of services compliant with GIGW guidelines	The percentage of services that adhere to the Guidelines for Indian Government Websites (GIGW) to ensure usability, accessibility, and security.	• No. of services that meet GIGW compliance • Total services	(No. of services compliant with GIGW guidelines / Total services) × 100	%	Core	-
7	State portal link on NGSP	Indicates whether the state's official portal is linked to the National Government Service Portal for centralized access.	• State portal listed on NGSP	1 if linked, else 0	Binary (Yes=1, No=0)	Advanced	
8	Availability of mobile app for services	Indicates whether a dedicated mobile application is available for citizens to access government services conveniently.	• Mobile app exists	1 if available, else 0	Binary (Yes=1, No=0)	Core	-
9	Presence of key call center contact numbers	The availability of essential call center numbers for citizens to seek assistance regarding government services.	• Call center contact details provided	1 if available, else 0	Binary (Yes=1, No=0)	Core	-
10	Availability of multiple navigation routes	Ensuring that users can find services through various paths such as search bars, category lists, and quick links.	• Multiple navigation options exist	1 if available, else 0	Binary (Yes=1, No=0)	Advanced	
11	Existence of a separate 'Contact Us' section	The presence of a dedicated section on the website that provides contact details for	• Separate 'Contact Us' section exists	1 if available, else 0	Binary (Yes=1, No=0)	Core	-

		various government departments and services.					
12	Availability of downloadable forms for offline services	The availability of digital forms that users can download, print, and submit offline for government services.	• Downloadable forms provided	1 if available, else 0	Binary (Yes=1, No=0)	Core	-
13	Availability of accessibility features for disabled users	The presence of features such as screen readers, text-to-speech, high contrast mode, and keyboard navigation for disabled individuals.	• Accessibility features exist	1 if available, else 0	Binary (Yes=1, No=0)	Core	-
14	Availability of user login/sign-in feature	The option for users to create an account and log in to access personalized government services.	• User login feature exists	1 if available, else 0	Binary (Yes=1, No=0)	Core	-
15	Availability of transaction history for registered users	The ability for logged-in users to view their past transactions related to government services.	• Transaction history feature exists	1 if available, else 0	Binary (Yes=1, No=0)	Core	-
16	No. of promotional campaigns conducted	The number of awareness and promotional campaigns conducted to inform citizens about available government services.	• Total number of promotional campaigns	Direct count	Number	Advanced	-
5.15.2 **Content Availability**							
17	User Feedback Transparency	Assesses whether the portal displays summarized results of user feedback on services.	• Number of portals displaying feedback results Total number of portals	(No. of portals displaying feedback results / Total no. of portals) × 100	%	Core	-
18	Help Section Accessibility	Checks whether the portal has a dedicated help section for user assistance.	• Number of portals with a Help section • Total number of portals	(No. of portals with a separate Help section / Total no. of portals) × 100	%	Advanced	
19	FAQ Section Availability	Determines whether the portal includes a Frequently	• Number of portals with an FAQ section • Total number of portals	(No. of portals with an FAQ section / Total no. of portals) × 100	%	Core	-

		Asked Questions (FAQ) section.					
20	Page Last Updated Timestamp Presence	Checks if a timestamp indicating the last content update is present on each page.	• Number of pages with a timestamp • Total number of pages	(No. of pages with timestamp / Total no. of pages) × 100	%	Advanced	
21	Transaction Data Transparency	Evaluates whether data on the number of transactions for services is available.	• Number of portals displaying transaction statistics • Total number of portals	(No. of portals displaying transaction statistics / Total no. of portals) × 100	%	Advanced	
22	Digital Signature Information Availability	Checks whether the portal provides information on availing electronic/digital signatures for services.	• Number of portals providing digital signature info • Total number of portals	(No. of portals providing digital signature info / Total no. of portals) × 100	%	Core	-
23	State Department Contact Transparency	Presence of a section listing state departments with contact details of ministers and senior officials.	• Number of state departments listed • Total state departments	(No. of state departments listed / Total state departments) × 100	%	Core	-
24	District Administration Contact Availability	Availability of a section listing districts with contact details of DM and senior officials.	• Number of districts listed with contacts • Total districts	(No. of districts listed with contacts / Total districts) × 100	%	Core	-
25	User Communication & Alert Availability	Availability of SMS alerts, eParticipation updates, and confirmations on portal activities.	• Number of SMS alert features enabled • Total expected features	(No. of SMS alert features enabled / Total expected features) × 100	%	Core	-
5.15.3 **Ease of Use**							
26	Service Application Form Availability	Measures whether users can download service application forms online.	• Number of portals with downloadable service application forms • Total number of portals	(Number of portals with downloadable service application forms / Total number of portals) × 100	%	Advanced	
27	eService Accessibility Efficiency	Evaluates if eServices are accessible within two clicks from the homepage.	• Number of portals where eServices are within two clicks • Total number of portals	(Number of portals where eServices are within two clicks / Total number of portals) × 100	%	Advanced	
28	What's New Section Presence	Indicates whether portals provide a section detailing recent updates/changes.	• Number of portals with a "What's New" section • Total number of portals	(Number of portals with a "What's New" section /	%	Advanced	

				Total number of portals) × 100			
29	Search Engine Optimization Effectiveness	Assesses if the portal appears in top search engine results.	• Number of portals optimized for search engines • Total number of portals	(Number of portals optimized for search engines / Total number of portals) × 100	%	Core	-
30	Service Guide Availability	Measures availability of guides/tutorials to help users fill out forms.	• Number of portals with "How-to" guides • Total number of portals	(Number of portals with "How-to" guides / Total number of portals) × 100	%	Advanced	
31	Search Feature Presence	Determines if the portal has a functional search feature.	• Number of portals with a search feature • Total number of portals	(Number of portals with a search feature / Total number of portals) × 100	%	Core	-
32	Cross-Browser Compatibility	Measures if portals are accessible across multiple browsers.	• Number of portals compatible with multiple browsers • Total number of portals	(Number of portals compatible with multiple browsers / Total number of portals) × 100	%	Advanced	
33	Personalized User Experience Enablement	Evaluates whether portals dynamically adjust content based on user activity.	• Number of portals with content personalization • Total number of portals	(Number of portals with content personalization / Total number of portals) × 100	%	Advanced	
34	Service Request Workflow Definition	Determines whether portals have an internal workflow for processing service requests.	• Number of portals with defined workflows • Total number of portals	(Number of portals with defined workflows / Total number of portals) × 100	%	Core	-
35	User Manual Availability	Assesses the presence of a user manual to guide users.	• Number of portals with user manuals • Total number of portals	(Number of portals with user manuals / Total number of portals) × 100	%	Core	-
36	Government Contact Information Transparency	Measures if portals display contact details of responsible officials.	• Number of portals with government official contact details • Total number of portals	(Number of portals with government official contact details / Total number of portals) × 100	%	Advanced	
37	Dedicated Contact Us Section Presence	Determines if there is a separate "Contact Us" section.	• Number of portals with a dedicated "Contact Us" section • Total number of portals	(Number of portals with a dedicated "Contact Us" section / Total number of portals) × 100	%	Core	-
38	Grievance Logging Facility Availability	Evaluates whether users can log complaints/grievances online.	• Number of portals with grievance lodging features • Total number of portals	(Number of portals with grievance lodging features / Total number of portals) × 100	%	Core	-

39	Multiple Navigation Routes for Services	Measures the availability of various ways to navigate services (A-Z index, category-wise, etc.).	• Number of portals with multiple navigation routes • Total number of portals	(Number of portals with multiple navigation routes / Total number of portals) × 100	%	Advanced	
40	Browser & Screen Resolution Guidance	Assesses whether portals provide recommendations for compatible browsers and screen resolutions.	• Number of portals with compatibility guidelines • Total number of portals	(Number of portals with compatibility guidelines / Total number of portals) × 100	%	Advanced	
41	Multi-Language Support	Evaluates the availability of multilingual functionality.	• Number of portals with multi-language support • Total number of portals	(Number of portals with multi-language support / Total number of portals) × 100	%	Core	-
42	Dedicated Help Section Presence	Determines if there is a separate help section on the portal.	• Number of portals with a help section • Total number of portals	(Number of portals with a help section / Total number of portals) × 100	%	Core	-
43	Accessibility Features for Disabled Users	Measures if the portal provides accessibility features for visually, audio, or motor-impaired users.	• Number of portals with accessibility features • Total number of portals	(Number of portals with accessibility features / Total number of portals) × 100	%	Advanced	
44	Portal Sitemap Availability	Evaluates whether the portal has a structured sitemap for navigation.	• Number of portals with a sitemap • Total number of portals	(Number of portals with a sitemap / Total number of portals) × 100	%	Core	-
45	Audio & Video Support	Determines whether portals can play audio/video content.	• Number of portals supporting audio/video playback • Total number of portals	(Number of portals supporting audio/video playback / Total number of portals) × 100	%	Advanced	
5.15.4 **Information Security and Privacy**							
46	Mobile Alerts for Unauthorized Access	Measures if mobile alerts are available for unauthorized access or password changes.	• No. of mobile alerts sent • Total unauthorized access attempts	(No. of mobile alerts sent / Total unauthorized access attempts) * 100	%	Core	-
47	Online Security Measures Visibility	Checks if security measures (HTTPS, lock symbol, third-party security) are indicated on the webpage.	• No. of security indicators present • Total required indicators	(No. of security indicators present / Total required indicators) * 100	%	Core	-
48	Password Recovery & Reset Facility	Measures whether users have access to password recovery/reset.	• No. of users with recovery/reset access • Total users	(No. of users with password recovery/reset access / Total users) * 100	%	Core	-

49	Third-Party Assessment (TPA)	Assesses whether the webpage has undergone third-party assessment for security.	• No. of pages assessed by TPA • Total webpages	(No. of pages assessed by TPA / Total webpages) * 100	%	Core	-
50	Two-Factor Authentication	Measures if the webpage has mandated three-factor authentication.	• No. of users with 2FA enabled • Total users	(No. of users with three-factor authentication enabled / Total users) * 100	%	Core	-
51	Email Notifications for Security Events	Checks if users receive email alerts for password expiry, reset, profile changes.	• No. of email alerts sent • Total security events	(No. of email alerts sent / Total security events) * 100	%	Core	-
52	W3C Compliance Indication	Evaluates whether W3C compliance is clearly mentioned on the home page.	• No. of compliance indicators	No. of compliance indicators on homepage	Number	Core	-
53	HTTPS Protocol Hosting	Ensures that the website is hosted on HTTPS for security.	• No. of HTTPS-hosted webpages • Total webpages	(No. of webpages hosted on HTTPS / Total webpages) * 100	%	Core	-
54	Personal Data Protection Policy	Determines if personal data of citizens is safeguarded by a government security policy.	• No. of security policies addressing personal data	No. of security policies addressing personal data	Number	Core	-
55	Copyright Statement Availability	Ensures that copyright statements are present on the portal.	• No. of copyright statements	No. of copyright statements present	Number	Core	-
56	Copyright Statement Update	Verifies whether copyright statements are updated for the current year.	• No. of current-year copyright statements • Total copyright statements	(No. of current-year copyright statements / Total copyright statements) * 100	%	Core	-
57	Disclaimer & Privacy Policy Availability	Assesses if a disclaimer and privacy policy for user data are available online.	• No. of portals with disclaimer/privacy policy	No. of portals with disclaimer/privacy policy	Number	Core	-
5.15.5 **End Service Delivery**							
58	Digital Service Availability Rate	Measures the percentage of end services available via email or online (downloadable) compared to all end services.	• No. of services available through email or online (downloadable) • Total no. of end services	(No. of services available through email or online (downloadable) / Total no. of end services) × 100	%	Advanced	

59	In-Person Service Requirement Rate	Measures the proportion of end services that require a physical visit to a center/department.	• No. of services requiring a visit • Total no. of end services	(No. of services requiring a visit / Total no. of end services) × 100	%	Advanced	
60	OTP-Based Authentication Coverage	Measures the percentage of end services that offer OTP authentication during final service delivery.	• No. of services with OTP authentication available • Total no. of end services	(No. of services with OTP authentication available / Total no. of end services) × 100	%	Core	-
61	Service Delivery Transparency Rate	Measures the proportion of services with publicly available timelines on the website.	• No. of services with timelines published on the website • Total no. of end services	(No. of services with timelines published on the website / Total no. of end services) × 100	%	Advanced	
62	Manual Service Phase-Out Rate	Measures the extent to which manual service provision has been eliminated in favor of digital services.	• No. of services fully digitized (manual service eliminated) • Total no. of end services	(No. of services fully digitized (manual service eliminated) / Total no. of end services) × 100	%	Advanced	
5.15.6 **Integrated Service Delivery**							
63	Online Service Submission Rate	Measures the percentage of services that allow online form submission.	• Number of services with online form submission • Total number of services	(Number of services with online form submission / Total number of services) × 100	%	Advanced	
64	Online Payment Adoption Rate	Percentage of services that support online payments.	• Number of services with online payment • Total number of services	(Number of services with online payment facility / Total number of services) × 100	%	Core	-
65	Digital Signature Adoption Rate	Measures the percentage of services utilizing digital signatures.	• Number of services supporting digital signatures • Total number of services	(Number of services that support digital signatures / Total number of services) × 100	%	Core	-
66	Multi-Channel Service Access Rate	Percentage of services accessible through multiple platforms (web, mobile, kiosk, etc.).	• Number of multi-channel accessible services • Total number of services	(Number of services accessible through multiple channels / Total number of services) × 100	%	Core	-

67	Single Payment Gateway Utilization Rate	Measures how many services use a unified payment gateway.	• Number of services using a single payment gateway • Total number of services	(Number of services using a single payment gateway / Total number of services) × 100	%	Core	-
68	Digital-Only Service Availability Rate	Percentage of services that do not require physical visits.	• Number of fully online services • Total number of services	(Number of services available fully online / Total number of services) × 100	%	Core	-
69	Single Sign-On (SSO) Adoption Rate	Percentage of services that allow login via Aadhaar/Unique ID.	• Number of services with SSO • Total number of services	(Number of services supporting Single Sign-On / Total number of services) × 100	%	Core	-
70	Digital Locker Integration Rate	Percentage of services linked to Digital Locker for document storage.	• Number of Digital Locker-integrated services • Total number of services	(Number of services integrated with Digital Locker / Total number of services) × 100	%	Core	-
71	Mobile Payment Adoption Rate	Percentage of services that allow mobile payments.	• Number of services supporting mobile payments • Total number of services	(Number of services with mobile payment support / Total number of services) × 100	%	Core	-
72	Payment Method Diversity Index	Measures the variety of payment options available per service.	• Total number of payment options • Total number of services	Total number of payment options available / Total number of services	Ratio	Core	-
73	Auto-Population of Data Rate	Percentage of services integrating data from dependent sources for auto-filling.	• Number of services with auto-population • Total number of services	(Number of services with auto-populated data / Total number of services) × 100	%	Core	-
74	Auto-Calculation Feature Adoption	Percentage of services performing automatic calculations.	• Number of services with auto-calculation • Total number of services	(Number of services with auto-calculation features / Total number of services) × 100	%	Core	-
75	Mobile App Availability Rate	Percentage of services with a dedicated mobile application.	• Number of services with mobile apps	(Number of services with mobile apps / Total number of services) × 100	%	Core	-

			• Total number of services				
76	Social Media Integration Rate	Percentage of services linked to social media platforms.	• Number of services linked to social media • Total number of services	(Number of services integrated with social media / Total number of services) × 100	%	Core	-
5.15.7 **Status and Request Tracking**							
77	Online Service Application Tracking	Availability of feature to track service applications or requests online.	• Number of services with online tracking • Total number of services	(Number of services with online tracking / Total number of services) × 100	%	Core	-
78	Grievance Logging Facility	Availability of an online system to log grievances or complaints.	• Number of services with grievance logging • Total number of services	(Number of services with grievance logging / Total number of services) × 100	%	Core	-
79	Ticket/Complaint Number Availability	Availability of unique ticket/complaint numbers for tracking and follow-ups.	• Number of services providing ticketing system • Total number of services	(Number of services providing ticketing system / Total number of services) × 100	%	Core	-
80	SMS Alerts for Service Updates	Whether service update alerts are sent through SMS notifications.	• Number of services providing SMS alerts • Total number of services	(Number of services providing SMS alerts / Total number of services) × 100	%	Core	-
81	Alerts at Each Service Stage	Availability of alerts to citizens at various stages of service lifecycle via SMS or calls.	• Number of services with staged notifications • Total number of services	(Number of services with staged notifications / Total number of services) × 100	%	Core	-
82	User Feedback on Complaints	Availability of a system to provide users with feedback on their complaints (via email, call, etc.).	• Number of services offering complaint feedback • Total number of services	(Number of services offering complaint feedback / Total number of services) × 100	%	Core	-
83	Online Payment Issue Helpline Information	Availability of online helpline information regarding payment issues.	• Number of services providing payment issue helpline	(Number of services providing payment issue helpline / Total number of services) × 100	%	Core	-

			• Total number of services				
84	Customer Support & Assistance Availability	Whether the webpage provides a help desk, online support, and a call center for users.	• Number of services offering online support/help desk • Total number of services	(Number of services offering online support/help desk / Total number of services) × 100	%	Core	-
5.15.8 **Property Tax Assessment & Payment Dashboard**							
85	Target Revenue of this FY	Sum of target revenue set by the state for property tax collections	• Target revenue set by the state for Property Tax	Direct sum of target revenue	Lakh	Core	Yearly
86	Target Achievement	Percentage of total collection from April 1 till date against the target collection for the financial year	• Total collection from 1st April till date • Target collection for FY	(Total collection from April 1 till date / Target collection for FY) x 100	%	Core	Daily
87	This FY Revenue till Date	Sum of property tax revenue collected for the applied date filter	• Property Tax revenue collected till date in FY	Direct sum of revenue collected for the selected date range	Lakh	Core	Daily
88	Previous Year Revenue till <date>	Total collection till the same date in the previous year	• Property Tax revenue collected till the same date last year	Direct sum of last year's collection till the same date	Lakh	Core	Daily
89	Revenue collected on <date>	Last data ingestion date on the national dashboard for the module	• Property Tax revenue collected on <date>	Direct timestamp of last data ingestion	Lakh	Core	Daily
90	Average Property Tax Collection per Property	Average property tax collected per property	• Total property tax collected • Total number of properties	Total property tax collected / Total number of properties	Rs.	Advanced	Daily
91	Share of Property Tax in total collection (%)	Property tax share in total revenue collection	• Total property tax collected • Total collection	(Total property tax collected / Total collection) x 100	%	Core	Daily
92	SLA achievement (%) for Property Tax Services	Percentage of applications approved within SLA	• No. of applications approved within SLA • Total No. of applications approved	(No. of applications approved within SLA * 100) / Total no. of applications approved	%	Advanced	Daily

93	Average Number of Days for Property Tax Service Approval	Average turnaround time (TAT) for applications	• Sum of all application TAT • Total applications approved	Sum of all application TAT / Total applications approved	Number	Advanced	Daily
94	Stipulated Time Frame for delivery of an urban service.	Number of days taken for application approval	• Date of application received • Date of approval	Date of approval - Date of application received	Number	Advanced	Yearly
95	Property Tax Revenue Collection per GDP	Property tax collection as a percentage of State GDP	• Total Property Tax Collection • State GDP	(Total property tax collection) / (State GDP)	%	Core	Daily
96	Property Tax Revenue Collection per Urban Household	Property tax collection per urban household	• Total Property Tax Collection • No. of Urban Households	(Total property tax collection) / (No. of urban households)	Rs.	Advanced	Daily
97	Total Applications	Total applications for adding, editing, or transferring property	• Total number of property-related applications received	Direct sum of applications received	Number	Advanced	Daily
98	Total Properties Available	Total properties registered in the system	• Total number of properties in the system	Direct sum of registered properties	Number	Core	Daily
99	Total Properties Assessed	Sum of properties for which assessments were generated	• Total number of properties assessed	Direct sum of properties assessed	Number	Core	Daily
100	Total Assessments	Total property assessments multiplied by the sum of financial years for which assessments were sent out	• Total properties assessed • Sum of financial years	Total properties assessed x Sum of financial years for which assessments were sent out	Number	Core	Daily
101	Completion Rate	Property assessment coverage rate	• Total Properties Assessed • Total Properties Available	(Total properties assessed / Total properties available) x 100	%	Advanced	Daily
102	Pendency	Percentage of unresolved applications	• Total applications received • Total applications resolved	(Total applications received – Total applications resolved) / Total applications received x 100	%	Advanced	Daily
103	Citizen Feedback Score	Average citizen rating for service requests	• Sum of citizen ratings • Total number of requests for which rating was provided	Sum of citizen ratings / Total number of requests for which the rating was provided	Number	Advanced	Daily

104	Citizen Service Delivery Index	Composite score for service efficiency	• Aggregated SLA • Citizen Feedback score%	(0.5 x Aggregated SLA) + (0.5 x Citizen Feedback Score%)	%	Advanced	Daily
5.15.9 **Trade License Issuance & Payment Dashboard**							
105	Target Revenue of this FY	Sum of target revenue for trade license set by the state/ULB	• Target revenue for trade licenses	Direct sum of target revenue	Lakhs	Core	Yearly
106	Target Achievement	Percentage of total collection against the target collection	• Total Collection • Target Collection	(Total Collection / Target Collection) x 100	%	Core	Daily
107	This FY Revenue till Date	Sum of Trade License revenue collected for the applied date filter	• Trade License revenue collected till date in FY	Direct sum of revenue collected for the selected date range	Lakhs	Core	Daily
108	Previous Year Revenue till <date>	Total collection till the same date in the previous year	• Trade License revenue collected till the same date last year	Direct sum of last year's collection till the same date	Lakhs	Core	ALREADY TAKEN
109	Revenue collected on <date>	Last data ingestion date on the national dashboard for the module	• Trade License revenue collected on <date>	Direct timestamp of last data ingestion	Lakhs	Core	Daily
110	SLA achievement (%) for Trade License (TL)	Percentage of applications approved within SLA	• No. of applications approved within SLA • Total No. of applications approved	(No. of applications approved within SLA * 100) / Total no. of applications approved	%	Advanced	Daily
111	Growth Rate of Non-tax revenue (%)	Year-over-year growth rate in non-tax revenue collection	• Non-tax revenue collection FY2 • Non-tax revenue collection FY1	((Non-tax revenue collection FY2 – Non-tax revenue collection FY1) / Non-tax revenue collection FY1) x 100	%	Advanced	Daily
112	Average Number of Days to Issue Trade License	Average number of days to issue a trade license	• Sum of days taken to issue trade licenses • Total number of trade licenses issued	Direct average of days taken for trade license issuance	Number	Advanced	Daily
113	Stipulated Time Frame for delivery of an urban service.	Stipulated time frame for delivery of an urban service	• -	-	Number	Advanced	Yearly

114	Total Applications	Total applications received for both new and renewal of trade licenses	• Total applications received (new + renewal)	Direct sum of applications received	Number	Advanced	Daily
115	Total licenses	Total number of trade licenses issued by the concerned authority	• Total trade licenses issued	Direct sum of issued trade licenses	Number	Advanced	Daily
116	Pendency	Percentage of unresolved applications for trade licenses	• Total applications received during current FY • Total applications resolved as on date	(Total applications received during current FY – Total applications resolved as of today) / Total applications received x 100	%	Advanced	Daily
5.15.10	**Public Grievance Redressal**						
117	Total Complaints	Unique sum of complaints raised by citizens or employees	• Total number of complaints received	Direct sum of unique complaints raised	Number	Core	Daily
118	Closed Complaints	Sum of complaints successfully resolved by the concerned authorities	• Total number of complaints successfully resolved	Direct sum of resolved complaints	Number	Core	Daily
119	SLA Achievement	Percentage of complaints resolved within SLA	• Complaints resolved within SLA • Total complaints received	(Complaints resolved within SLA * 100) / Total complaints received	%	Core	Daily
120	Completion Rate	Complaint resolution rate	• Closed Complaints • Total Complaints	(Closed Complaints / Total Complaints) x 100	%	Core	Daily
121	Average time taken to address a grievance (service as a whole)	Average turnaround time (TAT) for applications	• Sum of all application Turnaround Time (TAT) • Total applications received	Sum of all application TAT / Total applications received	Number	Advanced	Daily
122	Stipulated Time Frame for delivery of an urban service	Stipulated time frame for delivery of an urban service	• -	-	Number	Advanced	Yearly
123	Pending Applications Rate	Pending applications rate	• Total applications received • Total applications resolved	(Total applications received – Total applications resolved) / Total applications received x 100	%	Advanced	Daily

5.15.11 Desludging Service Dashboard							
124	Total Requests	Unique # of requests raised by citizen or employee	• Unique number of requests raised	Direct sum of unique requests	Number	Core	Daily
125	Total Sludge Disposed	Total Sludge disposed at the FSTP	• Total sludge disposed	Direct sum of sludge disposed	KL	Core	Daily
126	Average FSM Cost	Average of field amount Paid	• Sum of FSM amount paid • Total FSM transactions	(Sum of FSM amount paid/ Total FSM transactions)	Rs.	Core	Daily
127	This FY Revenue till Date	Sum of FSM revenue collected for the applied date filter	• Sum of FSM revenue collected	Direct sum of revenue collected	Lakh	Core	Daily
128	SLA Compliance	Total number of application closed within SLA	• Total applications closed within SLA • Total applications received	(Total applications closed within SLA/ Total applications received)	Lakh	Core	Daily
129	Average Citizen Rating	Average of field average Citizen Rating	• Sum of all citizen ratings • Total number of requests for which ratings were provided	(Sum of all citizen ratings / Total number of requests for which ratings were provided)	%	Core	Daily
5.15.12 Water & Sewerage							
130	Target Revenue of this FY	Sum of target revenue set by the state for W&S collections	• Target revenue set by the state	Sum of target revenue set by the state	Lakh	Core	Yearly
131	Target Achievement	Collection Efficiency	• Total W&S collection • Target W&S collection	Total Collection / Target Collection	%	Core	Daily
132	This FY Collection till Date	Sum of W&S revenue collected for the applied date filter	• Revenue collected till date in FY	Sum of W&S revenue collected within the selected date range	Lakh	Core	Daily
133	Previous Year Revenue till <date>	Collection Till Same Date Last Year	• Revenue collected till the same date last year	Amount collected till the same date of the previous year	Lakh	Core	ALREADY TAKEN
134	Revenue Collected on <date>	Last Data Ingestion on National Dashboard	• Revenue collected on <date>	Timestamp of the last data update for that module	Lakh	Advanced	Daily

135	Average number of days for approval for W&S Connection	Average Turnaround Time (TAT) for Applications	• Sum of TAT for all applications • Total applications approved	Sum of all application (TAT) / Total applications approved	Number	Core	Daily
136	Stipulated Time Frame for delivery of an urban service.	Number of Days for Approval	• Total No. of days taken • Total applications approved	Date of application received - Date of approval	Number	Advanced	Daily
137	Total Applications	Total Number of Applications (New, Modify, Disconnection)	• Total No. of applications received	Sum of applications for new, modify, and disconnection requests	Number	Advanced	Daily
138	SLA Compliance	SLA Compliance Percentage	• No. of applications completed within SLA • Total No. of applications received	(% of applications completed within SLA)	%	Core	Daily
139	Total Active Connections	Total Active W&S Connections	• Total active water + sewerage connections	Total sum of active water + sewerage connections	Number	Advanced	Daily
140	Water - Metered Connections	Total Active Metered Water Connections	• Total active metered water connections	Total sum of active metered water connections	Number	Core	Daily
141	Water - Non Metered Connections	Total Active Non-Metered Water Connections	• Total active non-metered water connections	Total sum of active non-metered water connections	Number	Core	Daily
142	Sewerage Connections	Total Active Sewerage Connections	• Total active sewerage connections	Total sum of active sewerage connections	Number	Core	Daily
143	Pendency	Pending Applications Percentage	• Total applications received • Total applications resolved	(Total applications received – Total applications resolved) / Total applications received × 100	%	Core	Daily
5.15.13	**Building Plan Approval System**						
144	This FY Revenue till Date	Sum of revenue collected from OBPS for the applied date filter	• Revenue collected till date in FY	Sum of revenue collected from OBPS within the selected date range	Lakh	Core	Daily
145	Previous Year revenue till <date>	Collection Till Same Date Last Year	• Revenue collected till the same date last year	Amount collected till the same date of the previous year	Lakh	Core	ALREADY TAKEN
146	Revenue collected on <date>	Last Data Ingestion on National Dashboard	• Revenue collected on <date>	Timestamp of the last data update for that module	Lakh	Core	Daily

147	SLA achievement (%) for OBPS	SLA Compliance for Approved Applications	• No. of applications approved within SLA • Total No. of applications approved	(No. of applications approved within SLA * 100) / Total No. of applications approved	%	Core	Daily
148	Average Number of Days to Issue OBPS Certificate	Average Turnaround Time (TAT) for Applications	• Sum of TAT for all applications • Total applications approved	Sum of all application (TAT) / Total applications approved	Number	Core	Daily
149	Stipulated Time Frame for delivery of an urban service.	Number of Days for Approval	• Total No. of days taken • Total applications approved	Date of application received - Date of approval	Number	Core	Daily
150	Total plans scrutinized	Total Plans Submitted for Scrutiny	• Total No. of plans submitted	Total number of plans submitted by an architect for scrutiny for new construction to the concerned authority	Number	Core	Daily
151	Total permits issued	Total New Permits Issued	• Total No. of new permits issued	Total number of new permits issued by the concerned authority	Number	Core	Daily
152	Total OC issued	Total Occupancy Certificates (OC) Issued	• Total No. of occupancy certificates issued	Total number of occupancy certificates issued by the concerned authority for new construction	Number	Core	Daily
153	Total sq m of land applied in BPA system	Approved Construction Area	• Total area (sq. m) approved	Total area in square meters approved for construction	Sq. mt	Advanced	Daily
154	Avg. days to issue permit	Average Time to Issue a Permit	• Total No. of days taken to issue permits • Total No. of permits issued	Total number of days taken to issue a permit / Total permits issued	Number	Advanced	Daily
155	SLA Compliance (Permits)	SLA Compliance for Permit Issuance	• No. of permits issued within SLA • Total No. of permits issued	% of permits issued within SLA	%	Advanced	Daily
156	Avg. days to issue OC	Average Time to Issue an OC	• Total No. of days taken to issue OCs • Total No. of OCs issued	Total number of days taken to issue an OC / Total OCs issued	Number	Advanced	Daily
157	SLA Compliance (OC)	SLA Compliance for OC Issuance	• No. of OCs issued within SLA	% of OCs issued within SLA	%	Advanced	Daily

			• Total No. of OCs issued				
158	Pendency	Pending Applications Percentage	• Total applications received • Total applications resolved	(Total applications received – Total applications resolved) / Total applications received × 100	%	Advanced	Daily
5.15.14	**No Objection Certificate Dashboard**						
159	This FY Revenue till Date	Sum of revenue collected from Fire NOC for the applied date filter	• Revenue Collected from Fire NOC till Date	Sum of revenue collected from Fire NOC within the selected date range	Lakh	Core	Daily
160	Previous Year Revenue till <date>	Collection Till Same Date Last Year	• Revenue Collected from Fire NOC till the Same Date Last Year	Amount collected till the same date of the previous year	Lakh	Core	ALREADY TAKEN
161	Revenue collected on <date>	Last Data Ingestion on National Dashboard	• Revenue Collected on <date>	Timestamp of the last data update for that module	Lakh	Core	Daily
162	SLA achievement (%) for Fire NOC	SLA Compliance for Approved Applications	• No. of Fire NOC Applications Approved Within SLA • Total No. of Fire NOC Applications Approved	(No. of applications approved within SLA * 100) / Total No. of applications approved	%	Core	Daily
163	Average Number of Days to Issue NOC	Average Turnaround Time (TAT) for Applications	• Sum of Turnaround Time (TAT) for Fire NOCs • Total No. of Fire NOC Applications Approved	Sum of all application (TAT) / Total applications approved	Number	Advanced	Daily
164	Stipulated Time Frame for delivery of an urban service.	Number of Days for Approval	• Date of Application Received • Date of Approval	Date of application received - Date of approval	Number	Advanced	Daily
165	Total Applications	Total Applications for Provisional and New NOC	• Total Fire NOC • Applications Submitted	Total number of applications submitted for Provisional and New NOC	Number	Core	Daily
166	Provisional NOCs Issued	Total Provisional NOCs Issued	• Total Provisional NOCs Issued	Total number of Provisional NOCs issued	Number	Core	Daily
167	New NOCs Issued	Total Applications for New Fire NOC	• Total New Fire NOCs Issued	Total number of applications submitted for New Fire NOC	Number	Core	Daily

168	SLA Compliance (Provisional Fire NOC)	SLA Compliance for Provisional NOCs	• Provisional NOCs Issued Within SLA • Total Provisional NOCs Issued	% of Provisional NOCs issued within SLA	%	Advanced	Daily
169	SLA Compliance (New Fire NOC)	SLA Compliance for New Fire NOCs	• New Fire NOCs Issued Within SLA • Total New Fire NOCs Issued	% of New NOCs issued within SLA	%	Core	Daily
170	Pendency	Pending Applications Percentage	• Total Applications Received • Total Applications Resolved	(Total applications received – Total applications resolved) / Total applications received × 100	%	Core	Daily
5.15.15	**Birth & Death Certificate Dashboard**						
171	Total Certificate Downloads (Birth)	Total number of Birth Certificates downloaded	• Total Birth Certificates Downloaded	Count of downloaded birth certificates	Number	Core	Daily
172	Total Collection (Birth)	Total revenue collected for downloading birth certificates for the applied date filter	• Revenue Collected for Birth Certificate Downloads	Sum of revenue from birth certificate downloads	Lakh	Core	Daily
173	SLA achievement (%) for Birth Certificate (Birth)	Percentage of applications approved within SLA	• No. of Birth Certificate Applications Approved Within SLA • Total No. of Birth Certificate Applications Approved	(No. of applications approved within SLA * 100) / Total No. of applications approved	%	Core	Daily
174	Average Number of Days to Issue Birth Certificate (Birth)	Average Turnaround Time (TAT) for applications	• Sum of Turnaround Time (TAT) for Birth Certificates • Total No. of Birth Certificate Applications Approved	Sum of all application (TAT) / Total applications approved	Number	Core	Daily
175	Stipulated Time Frame for delivery of an urban service(Birth)	Number of days taken for approval	• Date of Application Received • Date of Approval	Date of application received - Date of approval	Number	Core	Daily
176	Total Certificate Downloads (Death)	Total number of Death Certificates downloaded	• Total Death Certificates Downloaded	Count of downloaded death certificates	Number	Core	Daily

177	Total Collection (Death)	Total revenue collected for downloading death certificates for the applied date filter	• Revenue Collected for Death Certificate Downloads	Sum of revenue from death certificate downloads	Lakh	Core	Daily
178	SLA achievement (%) for Death Certificate (Death)	Percentage of applications approved within SLA	• No. of Death Certificate Applications Approved Within SLA • Total No. of Death Certificate Applications Approved	(No. of applications approved within SLA * 100) / Total No. of applications approved	%	Core	Daily
179	Average Number of Days to Issue Death Certificate (Death)	Average Turnaround Time (TAT) for applications	• Sum of Turnaround Time (TAT) for Death Certificates • Total No. of Death Certificate Applications Approved	Sum of all application (TAT) / Total applications approved	Number	Core	Daily
180	Stipulated Time Frame for delivery of an urban service (Death)	Number of days taken for approval	• Date of Application Received • Date of Approval	Date of application received - Date of approval	Number	Core	Daily
5.15.16	**Community Hall/Venue Booking**						
181	This FY Collection till Date	Sum of Venue Booking revenue collected for the applied date filter	• Venue Booking revenue collected till date in FY	Sum of revenue from venue bookings for the selected date range	Lakh	Core	Daily
182	Target Achievement	Percentage of revenue collection against target or previous year	• Total Venue Booking revenue collected • Target Collection OR Previous Year Collection	(Total Collection / Target Collection) * 100 OR (Total Collection / Previous Year Collection) * 100	%	Core	Daily
183	Previous Year Revenue till <date>	Total collection from Community Hall/Venue Booking till date (previous year - T-1)	• Venue Booking revenue collected till the same date last year	Sum of revenue collected from venue bookings till date in the previous year	Lakh	Core	ALREADY TAKEN
184	Latest Data Ingestion Date	Last data ingestion date for venue booking module on the national dashboard	• Date of last data ingestion	Date of last data update on the national dashboard for the venue booking module	Number	Advanced	Daily

185	Total Applications <Date Filter>	Total sum of applications for venue bookings (including and excluding rejected)	• Total Venue Booking Applications	Count of all applications for venue bookings as per date filter (including rejected/excluding rejected)	Number	Advanced	Daily
186	Revenue Potential	Total number of venues available for booking	• Total Venues available for booking	Count of all available venues for booking	Number	Advanced	Daily
187	Revenue Potential (t-1)	Total number of venues available for booking in the previous year (T-1)	• Total Venues available for booking in (t-1)	Count of all venues available for booking in the previous year	Number	Advanced	Daily
188	Booking Rate (annual)	Utilization of halls for the financial year	• No. of days booked in FY • No. of Halls Booked in an FY • Total No. of halls available	(No. of days booked in FY * No. of halls booked in FY) / (300 * Total No. of halls available) (*Graph Representation*)	%	Advanced	Yearly
189	Booking Rate (monthly)	Utilization of halls for the month	• No. of days booked in a month • No. of Halls Booked in an FY • Total No. of halls available	(No. of days booked in month * No. of halls booked in FY) / (30 * Total No. of halls available) (*Graph Representation*)	%	Advanced	Monthly
190	Pendency	Percentage of unresolved applications	• Total applications received • Total applications resolved	(Total applications received – Total applications resolved) / Total applications received * 100	%	Core	Daily
5.15.17	**Asset Management**						
191	Total Registered Assets	Total number of assets recorded in the system.	• Number of registered assets • Total Assets registered	(Number of Registered Assets / Total Assets registered) * 100	%	Core	Daily
192	Total Asset Value	Cumulative value of all Assets registered by ULBs, states, or nationally.	• Total value of assets	Total Value of Assets	Number	Core	Daily
193	Revaluated Assets Percentage	Percentage of assets revaluated in the last financial year.	• Number of revaluated assets • Total Assets registered	(Number of Revaluated Assets / Total Assets registered) * 100	%	Core	Daily

194	Percentage of Assets in Good Condition	Ratio of assets in good condition vs. total assets.	• Number of assets in good condition • Total Assets registered	(Number of Assets in Good Condition / Total Assets registered) * 100 (*Graph Representation- pi chart*)	%	Core	Daily
195	Percentage of Assets Needing Repair	Ratio of assets requiring maintenance or replacement.	• Number of assets needing repair • Total Assets registered	(Number of Assets Needing Repair / Total Assets registered) * 100 (*Graph Representation- pi chart*)	%	Advanced	Daily
196	Annual Depreciation Rate	Average depreciation percentage of assets per year.	• Total depreciation in a year • Total asset value	(Total Depreciation in a Year / Total Asset Value) * 100	%	Advanced	Daily
197	Utilization Rate of Assets	Percentage of assets actively used vs. total assets.	• Number of actively used assets • Total Assets registered	(Number of Actively Used Assets / Total Assets registered) * 100	%	Advanced	Daily
198	Number of Assets Disposed	Count of assets decommissioned or sold in a financial year.	• Number of assets disposed • Total Assets registered	(Number of Assets Disposed / Total Assets registered) * 100	%	Core	Daily
199	Revenue from Asset Disposal	Total revenue generated from asset sales or disposals.	• Total revenue from asset disposal	Total Revenue from Asset Disposal	Lakh	Core	Daily
200	Annual Maintenance Expenditure	Total expenses incurred for asset maintenance and repairs.	• Total maintenance expenses	Total Maintenance Expenses	Lakh	Core	Daily
201	Average Maintenance Cost per Asset	Total maintenance cost divided by the number of assets maintained.	• Total maintenance cost • Number of assets maintained	Total Maintenance Cost / Number of Assets Maintained	Lakh	Advanced	Daily
202	Percentage of Assets Mapped on GIS	Ratio of assets geo-tagged vs. total Assets registered.	• Number of geo-tagged assets • Total Assets registered	(Number of Geo-Tagged Assets / Total Assets registered) * 100	%	Core	Daily
203	Capital Expenditure on New Assets	Total budget allocated for new asset procurement.	• Total budget for new assets	Total Budget for New Assets	Lakh	Core	Daily
204	Asset Category	All categories will be reflected e.g., Infra etc.	• Number of asset categories	Number of Asset Categories	Number	Core	Yearly

				(*Graph Representation- pi chart*)			
High Level KPI							
205	Asset Condition Index	Indicator of the overall condition of assets based on inspections and assessments.	• Total asset condition score • Maximum possible score	(Total asset condition score / Maximum possible score) * 100	%	Advanced	-
206	Revaluation Impact (%)	Percentage change in asset value due to revaluation.	• Change in asset value due to revaluation • Total asset value before revaluation	(Change in asset value due to revaluation / Total asset value before revaluation) * 100	%	Advanced	-
207	Maintenance Completion Rate (%)	Percentage of planned maintenance activities completed within the defined period.	• Completed maintenance activities • Total planned maintenance activities	(Completed maintenance activities / Total planned maintenance activities) * 100	%	Advanced	-
208	Unutilized Assets (%)	Percentage of assets not in use compared to total available assets.	• Unutilized assets • Total available assets	(Unutilized assets / Total available assets) * 100	%	Advanced	-
209	Asset Replacement Ratio	Ratio of replaced assets to total assets.	• Number of replaced assets • Total number of assets	(Number of replaced assets / Total number of assets) * 100	%	Advanced	-
210	Asset Value Growth Rate (%)	Percentage increase or decrease in total asset value over a defined period.	• Change in asset value over the period • Total asset value at the beginning of the period	(Change in asset value over the period / Total asset value at the beginning of the period) * 100	%	Advanced	-
211	Data Completeness Rate (%)	Percentage of assets with complete and accurate data in the system.	• Number of assets with complete data • Total number of assets	(Number of assets with complete data / Total number of assets) * 100	%	Advanced	-
5.15.18	**E-Waste**						
212	Total E-Waste Collected	Total quantity of e-waste collected per month/year.	• Total collected e-waste (tons)	Total E-Waste Collected	Tons/month or year	Core	Daily
213	Number of Collection Centres per Urban Area	Total operational collection centres in urban areas.	• Total number of collection centres • Total urban areas	(Total Collection Centres / Total Urban Areas)	Ratio	Core	Yearly

214	Percentage of Vendors Empanelled	Total number of active and inactive vendors handling e-waste.	• Active vendors • Total vendors empanelled	(Active Vendors / Total Vendors) * 100	%	Core	Monthly
215	Percentage of Applications Received	Total requests for e-waste collection or disposal.	• Number of applications received • Total population using service	(Applications Received / Total Users) * 100	%	Core	Daily
216	Percentage of Applications Closed/Resolved	Total e-waste applications processed successfully.	• Applications closed • Applications received	(Applications Closed / Applications Received) * 100	%	Core	Daily
217	Processing Efficiency	Efficiency in collection and processing.	• Processed e-waste • Collected e-waste	(Processed E-Waste / Collected E-Waste) * 100	%	Core	Daily
218	Year-wise Growth in E-Waste Collection	Year-over-year growth rate of e-waste collected.	• Current year collection • Previous year collection	((Current Year Collection - Previous Year Collection) / Previous Year Collection) * 100	%	Core	Daily
219	Categorization of Waste (Residential & Commercial)	Breakdown of e-waste sources by category.	• Residential or commercial waste collected • Total collected e-waste	(Category Waste / Total E-Waste Collected) * 100	%	Core	Daily
220	Turnaround Time for Application Processing	Average time taken to resolve e-waste requests.	• Total processing time Number of requests	(Total Processing Time / Number of Requests)	Ratio	Core	Daily
5.15.19	**Street Vending**						
221	Total number of Street Vendors	Total count of street vendors operating in the region	-	Count of all street vendors in the region	Number	Core	Daily
222	Total number of Street Vendor Zones	Total count of officially designated street vending zones in the region	-	Count of all designated street vending zones	Number	Core	Monthly
223	Total no. of street Vending Licence applications	Cumulative count of all applications received for street vending licenses	• Total applications received	Total number of applications received for street vending licenses	Number	Core	Daily
224	Total Street Vending Licence issued	Cumulative count of all street vending licenses officially granted	• Total licenses issued	Total number of street vending licenses issued	Number	Core	Daily

225	Percentage of total number of Street vending Licenses issued / applied	Percentage of applications approved for street vending licenses	• Total licenses issued • Total applications received	(Total street vending licenses issued / Total applications received) * 100	%	Core	Daily
226	Average TAT (Turn Around Time) of street vending license issued	Average time taken to process and issue a street vending license	• Total processing days for all applications • Total licenses issued	Sum of processing time for all applications / Total applications processed	Number	Core	Daily
227	Street Vending License by age (18-30, 30-45, 45-60 & 60+)	Distribution of street vending license holders by age groups	-	Categorization of license holders by age brackets	Number	Advanced	Daily
228	Street Vending License by gender (male vs female)	Distribution of street vending license holders by gender	-	Categorization of license holders by gender	Number	Core	Daily
229	Type of registration (Stationary, Mobile)	Categorization of street vending licenses by vendor type (fixed/mobile)	-	Classification of licenses based on vendor type	Number	Core	Daily
230	No. of applications rejected	Total number of street vending license applications denied	• Total applications rejected	Count of applications that were rejected	Number	Advanced	Daily
231	Rejection rate	Percentage of street vending applications that were approved	• Total applications rejected • Total applications received	(Total street vending licenses issued / Total applications for street vending) * 100	%	Advanced	Daily
232	No. of fixed street vending spots offered by the state/UT	Total number of designated, permanent locations for street vending	-	Count of designated permanent vending locations	Number	Advanced	Monthly
233	No. of fixed street vending spots offered by the ULB	Total number of designated, permanent locations for street vending within a particular ULB	-	Count of permanent vending locations in a specific ULB	Number	Advanced	Monthly
234	Total revenue targeted	Projected revenue from street vending-related fees and penalties	-	Estimated revenue from fees and penalties	Lakh	Core	Yearly
235	Total revenue collected	Actual revenue generated from street vending-related	-	Sum of actual revenue collected from fees and penalties	Lakh	Core	Daily

		registration fees and penalties					
236	Target Achievement (%)	Percentage of revenue target achieved through street vending activities	• Total revenue collected • Total revenue targeted	(Total revenue collected / Total revenue targeted) * 100	%	Core	Daily
5.15.20	**Finance**						
237	Total Registered ULBs	Total number of ULBs registered in the system.	• Number of registered ULBs	Number of Registered ULBs	Number	Core	Yearly
238	Total Revenue Collected	Sum of revenue collected across all ULBs.	• Total revenue collected from all ULBs • Total revenue target	(Total Revenue Collected / Total Revenue Target) * 100	%	Core	Daily
239	Audit Completion Rate	Percentage of ULBs with completed audits.	• Number of ULBs with completed audits • Total ULBs	(Number of ULBs with Audits Completed / Total ULBs) * 100	%	Core	Daily
240	Outstanding Debt	Total outstanding debt.	• Total outstanding debt • Total revenue	(Outstanding Debt / Total Revenue) * 100	%	Core	Daily
241	Debt to Revenue Ratio	Ratio of outstanding debt to total revenue.	• Total debt • Total revenue	(Total Debt / Total Revenue)	Ratio	Core	Daily
242	Budget Utilization	Percentage of allocated budget utilized.	• Total expenditure • Total budget allocated	(Total Expenditure / Total Budget) * 100	%	Core	Daily
243	Revenue Growth Rate	Year-over-year percentage increase in total revenue.	• Current year revenue • Previous year revenue	((Current Year Revenue - Previous Year Revenue) / Previous Year Revenue) * 100	%	Core	Daily
244	Expenditure Growth Rate	Year-over-year percentage increase in total expenditure.	• Current year expenditure • Previous year expenditure	((Current Year Expenditure - Previous Year Expenditure) / Previous Year Expenditure) * 100	%	Core	Daily
245	Pending Bills	Total amount of pending bills	• Total pending bills • Total bills raised	(Pending Bills / Total Bills) * 100	%	Core	Daily
246	Payment Cycle	Average time to clear payments.	• Total days for payment completion • Number of payments	(Total Days for Payment Completion / Number of Payments)	Ratio	Core	Monthly
247	Fund Balance	Total available balance.	• Total fund balance • Total fund requirement	(Fund Balance / Fund Requirement) * 100	%	Core	Daily

248	Running Bills Status	Number of running bills under processing.	• Number of running bills • Total bills raised	(Running Bills / Total Bills) * 100	%	Core	Daily
249	Interest Coverage Ratio	Ratio of operating profit to interest expenses.	• Operating profit • Interest expenses	(Operating Profit / Interest Expenses)	Ratio	Core	Daily
250	Operating Ratio	Operating expenditure as a percentage of revenue.	• Operating expenditure • Total revenue	(Operating Expenditure / Total Revenue) * 100	%	Core	Daily
251	Revenue to Expenditure Ratio	Ratio of total revenue to total expenditure.	• Total revenue • Total expenditure	(Total Revenue / Total Expenditure)	Ratio	Core	Daily
5.15.21	**Advertisement/Hoarding/Signage Booking**						
252	Target/Previous Year Revenue	Target / Previous Year Revenue set by the state for Advertisement Tax/Fees collections	• Target/Previous Year Revenue for Advertisement Tax/Fees	Given directly by the state	Lakh	Core	Yearly
253	This FY Collection till Date	Sum of Advertisement Tax/Fees revenue collected for the applied date filter	• Advertisement Tax/Fees revenue collected till date in FY	Sum of collected revenue for the filtered period	Lakh	Core	Daily
254	Revenue Target Achievement	Percentage of collection compared to the target or previous year	• Total Collection • Target Collection • Previous Year Collection	(Total Collection / Target Collection) * 100 or (Total Collection / Previous Year Collection) * 100	%	Core	Daily
255	Previous Year Revenue till <date>	Collection done till the same date of the previous year	• Advertisement Tax/Fees revenue collected till the same date last year	Sum of Advertisement Tax/Fees collected for the same date in the previous year	Lakh	Core	Daily
256	Latest Data Ingestion Date	Last data ingestion on the national dashboard for the Advertisement module	• Date of last data ingestion	Timestamp of the last update on the dashboard	Number	Advanced	Daily
257	Application Acceptance Rate	Percentage of rejected Advertisement Booking requests	• Total Advertisement Bookings Rejected • Total Advertisement Booking Requests	(Total Advertisement Bookings Rejected / Total Advertisement Booking Requests) * 100	%	Advanced	Daily
258	Pendency	Percentage of unresolved Advertisement Booking applications	• Total applications received • Total applications resolved	(Total applications received – Total applications resolved) / Total applications received * 100	%	Core	Daily

5.15.22	**Pet Registration**						
259	Total Pet Registrations	Number of pets registered per month/quarter/year.	-	Total number of pet registrations in a given period	Count	Core	Daily
260	Renewal Rate	Percentage of registrations renewed on time	• Number of renewals processed before expiry • Total number of registrations due for renewal	(Number of timely renewals / Total registrations due for renewal) × 100	%	Core	Daily
261	Unregistered Pet Estimates	Estimated number of unregistered pets based on surveys and reports	• Estimated total pet population • Registered pets	Estimated total pet population - Registered pets	Count	Core	Daily
262	Percentage of registrations completed online vs offline	Ratio of registrations completed via the online/ offline platform	• Number of online/offline registrations • Total registrations	(Number of online OR offline registrations / Total registrations) × 100 (*Graph Representation*)	%	Core	Daily
263	Number of pet-related complaints addressed within SLA timelines.	Number of pet-related complaints resolved within the defined Service Level Agreement (SLA)	• Number of complaints resolved within SLA • Total number of complaints received	(Number of timely resolved complaints / Total complaints) × 100	%	Core	Daily
264	Percentage of transactions completed via digital vs non-digital payment methods	Share of registration transactions completed through digital vs non-digital payment options	• Number of digital payment + non-digital payments • Total transactions	(Number of digital OR non-digital payments / Total transactions) × 100 (*Graph Representation*)	%	Core	Daily
265	Percentage of registered pets with updated vaccination records	Share of registered pets with up-to-date vaccination records	• Number of registered pets with updated records • Total registered pets	(Number of vaccinated pets / Total registered pets) × 100	%	Core	Daily
266	Number of registered pets with verified rabies-free certification	Number of registered pets with a verified rabies-free certificate	-	Total number of pets with rabies-free certification	Count	Core	Daily
267	Target/Previous Year Revenue	Target /Previous Year Revenue set by the state for Pet	-	Target/Previous Year Revenue for Pet	Lakh	Core	Daily

268	This FY Collection till Date	Sum of Pet revenue collected for the applied date filter	-	Pet revenue collected till date in FY	Lakh	Core	Daily
269	Revenue Target Achievement	Total Collection Target Collection OR Previous Year Collection	• Total Collection • Target Collection • Previous Year Collection	(Total Collection / Target Collection) * 100 or (Total Collection/ Previous Year Collection) * 100	%	Core	Daily
270	Previous Year Revenue till <date>	How much collection was done till the same date of previous year	-	Pet revenue collected till the same date last year	Lakh	Core	ALREADY TAKEN
5.15.23	**Miscellaneous Collections**						
271	Total Collection	Sum of revenue collections from mCollect module (excluding other live revenue modules)	• Total mCollect Revenue Collected	Sum of revenue collected from mCollect module only	Lakh	Core	Daily
272	Previous Year Revenue till <date>	Collection done till the same date of the previous year	• Previous Year's mCollect Revenue Collected	Sum of revenue collected from mCollect module till the same date last year	Lakh	Core	ALREADY TAKEN
273	Revenue collected on <date>	Last data ingestion on the national dashboard for the mCollect module	• Last Data Ingestion Timestamp	Timestamp of the last update on the national dashboard	Lakh	Core	Daily
274	Total Challans Generated	Total Challans created	• Total Challans Created	Total number of challans generated in the applied date filter	Number	Core	Daily
275	Total Receipts	Sum of receipts issued to citizens after payment for a service	• Total Receipts Issued	Total number of receipts generated post-payment	Number	Core	Daily
276	Number of Categories	Total categories against which miscellaneous collections have been made	• Total Miscellaneous Collection Categories	Count of unique categories under miscellaneous collections	Number	Core	Daily
277	Contribution of Miscellaneous to Collection to Total Revenue	Assesses the significance of miscellaneous income in overall finances.	• Miscellaneous Revenue • Total Municipal Revenue	(Miscellaneous Revenue / Total Municipal Revenue) × 100	%	Core	-

278	Growth Rate of Miscellaneous Revenue	Tracks year-over-year growth in miscellaneous income.	• Current Period Revenue • Previous Period Revenue	((Current Period Revenue – Previous Period Revenue) / Previous Period Revenue) × 100	%	Core	-
279	Variance in Revenue Recognition vs. Realization	Identifies gaps between expected and actual revenue.	• Recognized Revenue • Realized Revenue	(Recognized Revenue – Realized Revenue)	ratio	Core	-
280	Revenue Recovery Rate	Measures efficiency in revenue collection.	• Collected Amount • Total Due	(Collected Amount / Total Due) × 100	%	Core	-
281	Profit on Disposal of Fixed Assets	Evaluates financial gains from asset disposals.	• Selling Price • Written Down Value	(Selling Price – Written Down Value)	Number	Core	-
282	Insurance Claim Settlement Ratio	Assesses the success rate of insurance claim recoveries.	• Recovered Amount • Total Claimed Amount	(Recovered Amount / Total Claimed Amount) × 100	%	Core	-
283	Percentage of Digital Transactions	Tracks the adoption of digital payment modes.	• Digital Payments • Total Transactions	(Digital Payments / Total Transactions) × 100	%	Core	-
284	Unclaimed Refund Settlement Rate	Tracks efficiency in refund reconciliation.	• Settled Unclaimed Refunds • Total Unclaimed Refunds	(Settled Unclaimed Refunds / Total Unclaimed Refunds) × 100	%	Core	-
285	Percentage of Transactions Cleared in Audits	Ensures accuracy and adherence to financial guidelines.	• Audited & Cleared Transactions • Total Transactions	(Audited & Cleared Transactions / Total Transactions) × 100	%	Advanced	-
286	SLA for submission of report	Measures adherence to reporting schedules.	• Reports Submitted on Time • Total Reports	(Reports Submitted on Time / Total Reports) × 100	%	Advanced	-
287	Variance in Budget vs. Actual Miscellaneous Income	Identifies financial planning accuracy.	• Budgeted Misc. Income • Actual Misc. Income	(Budgeted Misc. Income – Actual Misc. Income) / Budgeted Misc. Income × 100	%	Core	-
288	Percentage of Miscellaneous Income Allocated to Budgeted Expenses	Tracks fund utilization efficiency.	• Allocated Miscellaneous Income • Total Miscellaneous Income	(Allocated Miscellaneous Income / Total Miscellaneous Income) × 100	%	Core	-
289	Average Time Taken for Financial Reconciliation	Ensures timely financial adjustments.	• Total Time for Reconciliation • Number of Transactions	Total Time for Reconciliation / Number of Transactions	Number	Advanced	-

290	Percentage of Miscellaneous Income at Risk	Identifies potential revenue risks.	• Disputed or Unconfirmed Revenue • Total Miscellaneous Income	(Disputed or Unconfirmed Revenue / Total Miscellaneous Income) × 100	%	Advanced	-
291	Number of Unresolved Revenue Disputes	Measures financial risks in collections.	-	Count of Open Cases	Number	Core	-

- Annex A - Data Models for Solid Waste Management

Entity	Attributes	Description
Smart Bin	bin_id, location, fill_level, waste_type, last_collected, status	Tracks waste bins' real-time data.
Collection Truck	truck_id, route_id, capacity, current_load, fuel_usage, status	Tracks garbage trucks & efficiency.
Collection Route	route_id, truck_id, scheduled_time, completed_time, efficiency_score	Optimizes waste collection routes.
Waste Processing Center	center_id, location, processing_capacity, waste_received, recycling_rate	Tracks how waste is processed.

- Annex B: Sample Use Cases (Parameters and Specifications)

a) Budget Allocation Data Model

Purpose: Tracks government/private investment in road infrastructure.

Field	Type	Description
budget_id	String	Unique identifier for the budget entry.
year	Integer	Fiscal year of budget allocation.
total_budget	Float	Total allocated budget (in USD or local currency).
allocated_for_maintenance	Float	Budget assigned for road repairs & maintenance.
allocated_for_new_projects	Float	Budget assigned for new road construction.
source_of_funding	String	Source (Government, Private, PPP).
status	String	Budget status (Approved, Pending, Spent).

b) Road Maintenance Cost Data Model

Purpose: Tracks expenditure on road repairs and maintenance.

Field	Type	Description
maintenance_id	String	Unique identifier for the maintenance record.
road_id	String	Associated road ID.
maintenance_type	String	Type of maintenance (Resurfacing, Pothole Repair, Bridge Repair).
cost	Float	Expenditure on maintenance (in USD).
contractor	String	Name of the contractor/agency.
start_date	Date	Start date of maintenance.

completion_date	Date	Estimated completion date.
status	String	Work status (In Progress, Completed, Delayed).

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