

**Report of the Comptroller and Auditor General
of India
on
Implementation of Smart City Mission**

Government of Karnataka

Report No. 11 of 2025

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Preface

This Report of the Comptroller and Auditor General of India has been prepared for submission to the Governor of Karnataka under Article 151 (2) of the Constitution to be tabled in the State Legislature.

The Report covering the period 2015-16 to June 2024 contains the results of Performance Audit of 'Implementation of Smart City Mission'.

Audit has been conducted in conformity with the Auditing Standards issued by the Comptroller and Auditor General of India.

Executive Summary

Executive Summary

Smart Cities Mission was launched by Government of India on 25 June 2015 in order to meet the changing needs of the cities and achieve comprehensive development of physical, institutional, social and economic infrastructure of the cities. As per Census 2011, cities house 63 *per cent* of the population. The mission was to cover 100 cities and its duration was five years (2015- 16 to 2019- 20) which has been extended up to March 2025.

The Mission has two components, viz., Area Based Development (ABD) and Pan City development. Seven cities in Karnataka have been selected, viz., Belagavi, Bengaluru, Davanagere, Hubballi-Dharwad, Mangaluru, Shivamogga and Tumakuru under the Mission.

The Performance Audit on the ‘Implementation of Smart Cities Mission’ was undertaken to assess whether, the implementation of the scheme was in convergence with other related Government schemes, funds released by State Government to Cities/ Special Purpose Vehicle (SPV) and mobilization of funds by Cities/SPVs was efficient and in consideration with objectives of the scheme, the projects were implemented in accordance with Smart City proposals and SCM guidelines; there exists mechanism for monitoring the implementation of the Smart Cities Mission and whether there exists adequate representation of Urban Local Bodies (ULBs) in SPVs.

The Performance Audit was conducted (May 2022 to December 2022, July 2023 to September 2023 and May 2024 to July 2024) to review the implementation of the Mission during the period 2015-16 to June 2024.

Major Audit Observations

Planning

Selection of cities through smart city challenge process and preparation of Smart City Proposals by the selected cities were the introductory milestones in the implementation of the Mission. As against 135 goals specified in the SCP of smart cities aligned to nine strategic pillars, the achievement was 68 only and other projects are in progress. Smart cities dropped 160 out of 544 (30 *per cent*) projects originally planned, which was against MoHUA instructions. The State Government stated that interventions from multiple departments were required in implementation of the scheme and it will be impractical to expect achievement of all these long-term goals under a single mission.

As against ₹817.42 crore allocation under Pan City, projects were taken up for ₹1,462.67 crore. The Tender SURE guidelines aimed at solving issues of non-usability of road network due to frequent civil works undertaken by multiple utility agencies to provide underground utilities viz., water supply, telecom lines, power lines, sewage *etc.*, which were haphazardly laid. Non-provision of utility ducts in SPVs other than BenSCL necessitated frequent digging up of the carriageway of the road for laying of utility lines.

Fund Management

The SPVs could mobilise very few financial resources from sources other than Government grants defeating the objective of their formation. The State Level Nodal Agency (SLNA) conducted credit rating and financial improvement studies of the cities through consultants to tap resources by innovative financial mechanisms prescribed in the guidelines such as municipal bonds, pooled finance mechanisms, tax increment financing, value capture financing *etc.* However, the financial improvement plans submitted by the consultants could not be implemented as the State Government was yet (June 2024) to take decision on its suitability for universal adoption in all ULBs after effecting legislative amendments to the existing Acts/Rules. There is no progress in this regard.

State Level Nodal Agency (SLNA) has spent an amount of ₹0.75 crore towards activities which does not pertain to the Smart City project/cell. Inadequate verification in respect of payments made to the PMC resulted in excess payment of ₹2.56 crore.

Though the service provider for Master System Integrator for the Integrated Command and Control Centre (ICCC) failed to complete the work as scheduled, SLNA did not enforce the contractual obligation of levying and collecting penalty for delayed execution of works. Levy of nominal penalty of ₹2,000 per day lacked justification though specific rate of penalties were prescribed in the contract.

Implementation and monitoring

Four of the sampled SPVs had not maintained the minimum requirement of ₹200 crore, against which the actual paid-up capital of each Smart City stood only at ₹10 lakh, in the absence of which, compliance to the provisions of the Companies Act could not be ensured. Failure to provide full time CEOs for the SPVs impacted their functioning. Lack of operational independence resulted in dependence of SPVs on Government for technical approvals and variations which delayed the projects, wherein, only 45 out of 645 projects were awarded within stipulated time.

Master System Integrator's appointment to establish centralised Data Centre at Karnataka Municipal Data Society (KMDS) could not be completed even after five years of awarding contract and financial progress achieved was ₹19.08 crore only against ₹60.22 crore. The implementation of Centralised Command and Control Centre could not be carried out in the absence of completion of data centre at KMDS. Tweaking of tender condition resulted in selection of ineligible Local System Integrator for implementation of Integrated Command and Control Centre (ICCC) project in Shivamogga, which vitiated the tender process.

Functioning of ICCC was sub-optimal as the integration of line departments with ICCC is pending either due to non-readiness of local system at department level or due to security reasons, indicating poor inter-departmental coordination. The integration of City Surveillance System

implemented by the Police and Traffic Department was yet to be carried out despite several correspondences made with the police department. Similarly, City Surveillance System and Intelligent Transport Management System implemented by the Hubballi-Dharwad Bus Rapid Transport System (HDBRTS) could not be integrated with ICCC due to non-provision of information such as location of CCTV cameras, data related to bus routes and stations by HDBRTS. Integration of Centralised Control and Monitoring System for LED streetlights also was not carried out as the project for installation of LED light on PPP basis did not materialise. Integration of disaster management systems, environmental sensors, energy meters, digital display boards and smart health kiosk were yet to be accomplished.

Utility ducts provided for water supply, gas pipelines, electricity lines *etc.*, could not be utilised due to non-feasibility by respective utility departments. The pipeline laid by Belagavi Smart City Limited for a length of 5.72 km for waterline in utility ducts could not be utilised as the pressure rating of pipes laid did not match with that of the pipes laid under the Karnataka Urban Water Supply Modernisation Project. The gas pipeline laid for 5.751 km did not have provision for stop off valves, squeezer *etc.*, and hence could not be utilised for gas supply. Tumakuru Smart City Limited (TSCL), Shivamogga Smart City Limited (SSCL) and Hubballi-Dharwad Smart City Limited (HDSCL) laid Double Wall corrugated pipes for carrying electricity cables in underground ducts without considering the inputs from user departments and without conducting adequate technical investigations. The infrastructure created by HDSCL at a cost of ₹62.60 crore such as upgradation of Chittaguppi hospital, development of fish market, renovation of core markets and construction of 1BHK units under Vani Vilas Development Initiative remained idle for more than two years. Entrustment of works without possession of requisite land and statutory clearances led to shortfall in achieving the intended benefits in respect of river front works (Netravathi River bank of Thota and Jappinamogaru village, Mangaluru).

Monitoring lapses included inadequate representation of Urban Local Bodies in the Director Board of Smart Cities, shortfall and improper conduct of impact assessment studies and non-appointment of quality supervision consultants.

Recommendations

- 1 The Smart cities need to tap resources other than Government grants like municipal bonds, pooled finance mechanism *etc.*, for long-term sustainability of the projects taken up.
2. The Government should direct the SLNA to adhere to guidelines issued in implementation of the scheme and remit the interest dues to GoK/GoI accounts concerned. Further, the SPVs should invoke contractual obligations on the agencies for deviations/delays in implementation of the scheme.

3. Government should ensure availability of full time CEOs for better implementation of the scheme and effective coordination with multiple stakeholders.

Government should exercise due diligence in fixing authorised share capital and paid-up capital of the SPVs commensurate with the commercial financial models.

Government should ensure timely completion of tender awarding process and issue of Letter of Acceptance (LoA) as mandated in e-procurement.

4. The SPVs should ensure that the software applications installed are used effectively, should be timely and should not reach end of life/support during the contract period.

5. The State Government should ensure operationalization of Centralised Command and Control Centre with integration of all data centres of seven cities to achieve the intended objectives.

6. The State Government should ensure that roads/pavements laid adhere to IRC standards and recommendations of technical committee.

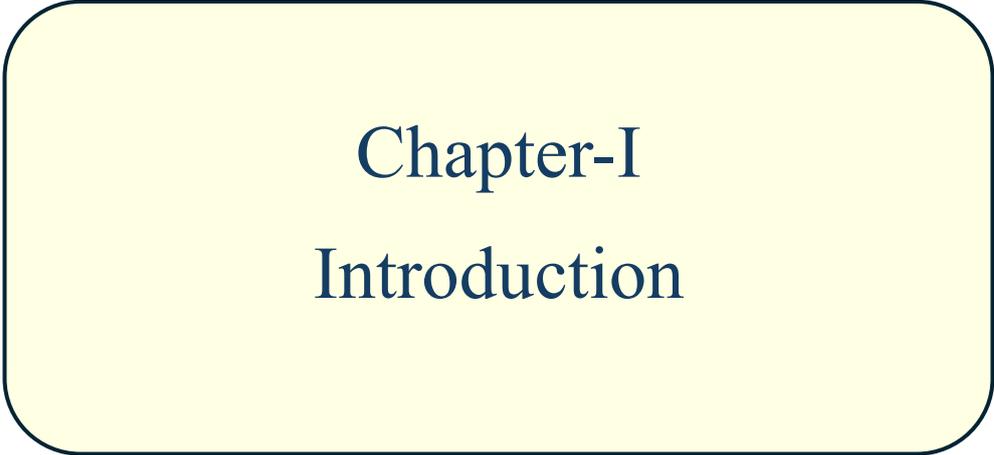
7. The State Government should establish adequate co-ordination mechanism with the end user departments to ensure that the technologies adopted conformed to their specification and that the assets created were utilised and maintained.

8. The SPVs should ensure that the works taken up under the Mission conformed to the relevant standards and that the recommendations of the technical experts are duly considered during their implementation.

9. The State Government should ensure adequate representation of ULBs in SPVs to meet the city specific needs.

The State Government should ensure that SPVs appoint Quality Supervision Consultant to ensure quality of works executed meet the prescribed standards.

10. Good initiatives/practices which resulted in effective implementation of SCM may be disseminated and replicated with modifications, if any, with reference to local conditions.



Chapter-I
Introduction

Chapter I



INTRODUCTION

1.1 About the Scheme

Smart Cities Mission (SCM) was launched by Government of India on 25 June 2015 in order to meet the changing needs of the cities and achieve comprehensive development of physical, institutional, social and economic infrastructure of the cities. As per Census 2011, cities house 63 *per cent* of the population. The mission was to cover 100 cities and its duration was five years (2015-16 to 2019- 20) which has been extended up to March 2025.

1.1.1 Objectives of SCM

The main objective of the Mission was to promote cities that provide core infrastructure, clean and sustainable environment and give a decent quality of life to their citizens through the application of ‘smart solutions’. Core infrastructure elements in a Smart City would include adequate water supply, assured electricity supply, sanitation including solid waste management, efficient urban mobility and public transport, affordable housing especially for the poor, robust IT connectivity and digitalization, good governance, especially e-Governance and citizen participation, sustainable environment, health, education, safety and security of citizens particularly women, children and the elderly.

The mission aimed to achieve its objectives by focusing on compact areas and creating a replicable model which will act like a lighthouse to other aspiring cities. Strategic components of the mission included components of Area-Based Development (ABD) plus a Pan-city initiative involving application of Smart Solutions covering larger parts of the city. The models of ABD and Pan-city are detailed below:

- (i) **Retrofitting:** This included introduction of planning in an existing built-up area of more than 500 acres to achieve Smart City objectives, along with other objectives, to make the existing area more efficient and liveable. In retrofitting, area would be identified by the city in consultation with citizens.
- (ii) **Redevelopment:** This included replacement of the existing built-up environment and co-creation of a new layout with enhanced infrastructure using mixed land use and increased density. Redevelopment envisaged an area of more than 50 acres, identified by Urban Local Bodies (ULBs) in consultation with citizens.
- (iii) **Greenfield:** This included introduction of most of the Smart Solutions in a previously vacant area (more than 250 acres) using innovative planning,

plan financing and plan implementation tools (e.g. land pooling/land reconstitution) with provision for affordable housing, especially for the poor. By this, the mission aimed to meet the needs of the expanding population development.

(iv) Pan-city Development: This included application of selected Smart Solutions to the existing city-wide infrastructure which would involve the use of technology, information and data to make infrastructure and services better.

The Smart City proposal of each shortlisted city was expected to encapsulate either a retrofitting or redevelopment or greenfield development model, or a mix thereof and a Pan-city feature with Smart Solution(s).

1.1.2 Selection process

The mission covered 100 cities on the basis of an equitable criteria¹, with each State having at least one smart city. A Smart City Proposal (SCP) containing the vision, plan for mobilization of resources and intended outcomes in terms of infrastructure up-gradation and smart applications should be prepared by States/ULBs with technical assistance support either by hiring consulting firms² or by engaging with handholding agencies³. Further, during preparation of SCPs, the States/ULBs were expected to incorporate convergence of many of the sectoral schemes⁴ of the Central/State Government with the SCM so that comprehensive development could be achieved.

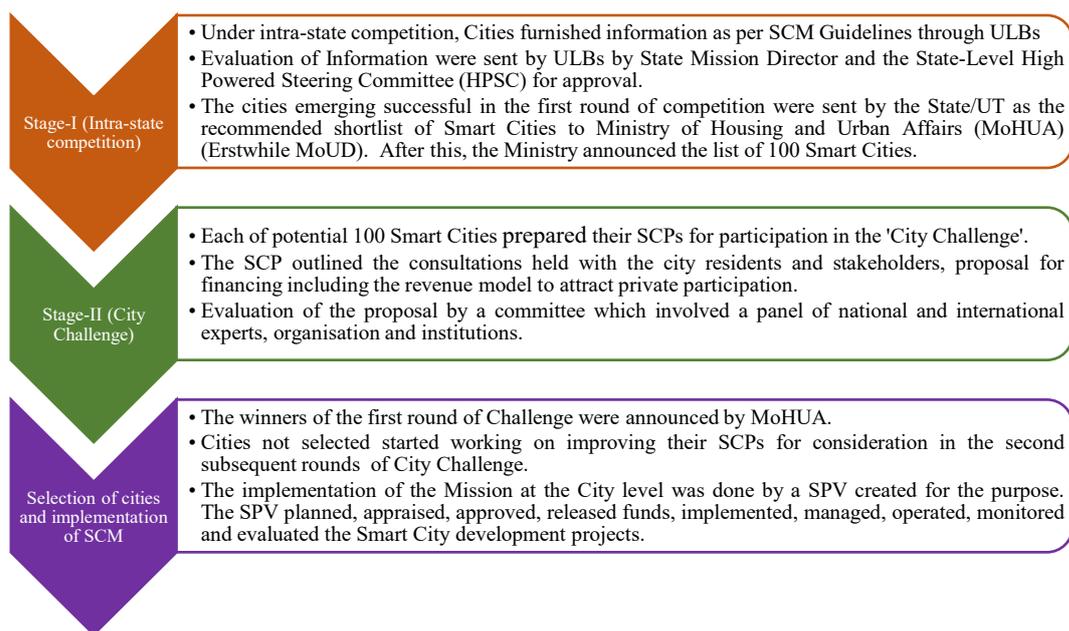
The Mission involved a two-stage selection process, Stage-1: Intra-state and Stage-2: City Challenge, based on the idea of competitive and cooperative federalism. Clause 9 of SCM Guidelines details the process of selection of Smart Cities and the same is detailed **Exhibit 1.1**.

¹ A formula was used which gave equal weightage (50:50) to urban population of the State/Union Territory and the number of statutory towns in the State/UT.

² The Ministry of Housing and Urban Affairs (Erstwhile MoUD) technically qualified a panel of consulting firms and the States/UTs were at liberty to draw upon this panel. The States had the option of appointing a consulting firm outside the panel by following transparent and fair procedures as per State financial rules.

³ Number of foreign Governments had offered to provide Technical Assistance support, including bilateral and multilateral institutions, viz., World Bank, Asian Development Bank, Japan International Cooperation Agency, United States Trade and Development Agency, French Development Agency *etc.*

⁴ Atal Mission for Rejuvenation and Urban Transformation (AMRUT), Swachh Bharat Mission (SBM), National Heritage City Development and Augmentation Yojana (HRIDAY), Digital India, Skill development, Housing for All, *etc.*

Exhibit 1.1: Selection Process

In Karnataka, seven⁵ cities were selected for implementation of ABD and Pan City projects. The details of projects undertaken as of June 2024 are given in the **Table 1.1**.

Table 1.1: Statement showing details of Projects implemented under the Mission

Smart City	ABD Projects		Pan City Projects	
	Number	Implementation Cost (₹ in crore)	Number	Implementation Cost (₹ in crore)
Belagavi (BSCL)	48	490.81	59	367.30
Bengaluru (BenSCL)	29	662.30	17	262.02
Davanagere (DSCL)	65	362.86	43	425.28
Hubballi-Dharwad (HDSCL)	49	698.12	13	390.16
Mangaluru (MSCL)	40	573.49	19	348.47
Shivamogga (SSCL)	61	841.29	14	89.06
Tumakuru (TSCL)	115	787.00	73	210.00
Total	407	4,415.87	238	2,092.29

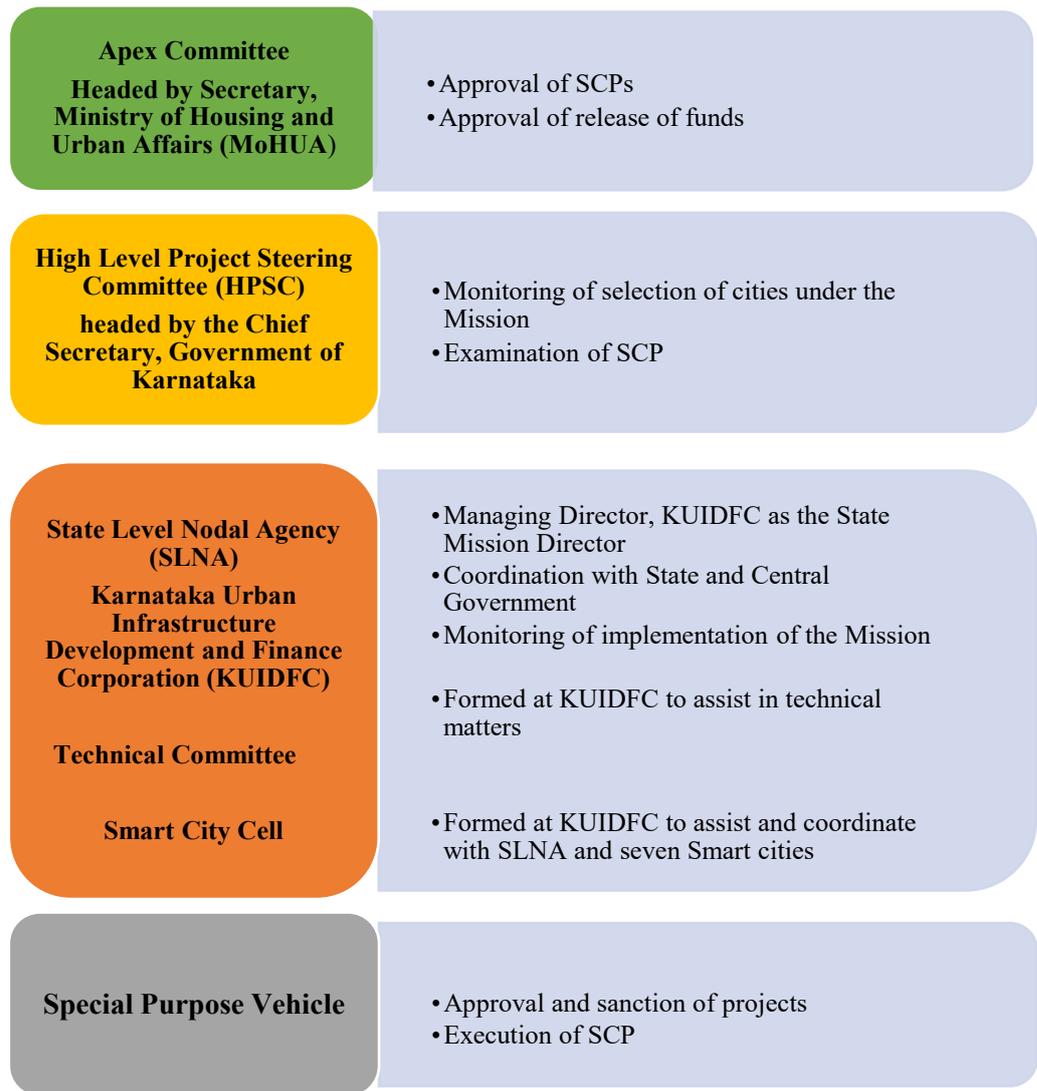
Source: Information furnished by KUIDFC/Smart Cities

1.2 Organisation structure and their roles

The organisational structure and respective roles in implementation of the Mission is provided in **Chart 1.1**.

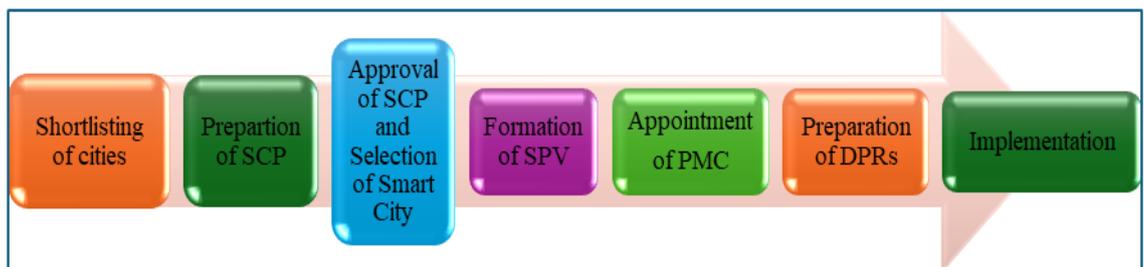
⁵ Belagavi, Bengaluru, Davanagere, Hubballi-Dharwad, Mangaluru, Shivamogga and Tumakuru.

Chart 1.1: Framework for implementation



The various steps in implementation of Smart City Mission are depicted in **Chart 1.2:**

Chart 1.2: Steps in implementation of Mission



1.3 Audit Objectives

The objectives of the Performance Audit were to assess:

- Whether planning for the implementation of the scheme was in convergence with other related Government schemes,
- Whether funds released by State Government to Cities/SPVs and mobilization of funds by Cities/SPVs was efficient and in consideration with objectives of the scheme,
- Whether projects were implemented in accordance with Smart City Proposals (SCP) and SCM guidelines,
- Whether there exists mechanism for monitoring the implementation of Smart Cities Mission and whether there exists adequate representation of ULBs in SPVs.

1.4 Audit Criteria

The following criteria were used for evaluation of the audit objectives:

- Smart City Mission Guidelines
- Advisories issued by the Ministry of Housing and Urban Affairs
- Approved Smart City Proposal of the cities
- General Financial Rules (GFR) 2005 and 2017
- Government order/ OM regarding release of funds and monitoring utilization of fund
- Karnataka Transparency in Public Procurement (KTPP) Act, Rules and Orders/Circulars issued thereunder by State Governments
- Karnataka Public Works Departmental (KPWD) Code
- Indian Road Congress (IRC) guidelines
- Central Public Health and Environmental Engineering Organisation (CPHEEO) guidelines
- Model Concessionaire Agreement and Request for Proposals (RFP)

1.5 Audit Scope and Methodology

The Performance Audit was conducted (May 2022 to December 2022, July 2023 to September 2023 and May 2024 to July 2024) to review the implementation of the Mission since inception. It involved examination of records in Secretariat, Urban Development Department (UDD), KUIDFC and all the seven smart cities. Audit reviewed implementation of 187 out of 645 projects across seven smart cities through stratified random sampling⁶ (**Appendix-1.1(a) and (b)**). The scope of the PA did not include projects taken up under convergence funding.

⁶ Selection was done such that 25 *per cent* of completed projects and 10 *per cent* of ongoing projects with at least one project in each smart feature was available in the sample.

An Entry Conference was held on 13 May 2022 with Additional Chief Secretary, UDD, in which audit methodology, scope, objectives, and criteria were explained. The audit methodology included examination of records, response to audit queries and joint physical verification (JPV) of infrastructure created. The results of the PA were discussed with the Additional Chief Secretary, UDD, Government of Karnataka in Exit conference held on 21 April 2025. Replies received from the Government of Karnataka are suitably incorporated in the Report.

1.6 Acknowledgement

We acknowledge the co-operation and assistance extended by Urban Development Department (UDD), KUIDFC and seven smart cities for conducting Performance Audit.

1.7 Structure of the Report

The Performance Audit is structured into four chapters as given in **Table 1.2**.

Table 1.2: Structure of the Report

Chapter Number	Chapter Name
I	Introduction
II	Planning
III	Financial Management
IV	Implementation and monitoring

Chapter-II

Planning

Chapter II



PLANNING

Selection of cities through smart city challenge process and preparation of Smart City Proposals by the selected cities were the introductory milestones in the implementation of the Mission. As against 135 goals specified in the SCP of smart cities aligned to nine strategic pillars, the achievement was 68 only and other projects are in progress. Smart cities dropped 161 out of 544 (30 *per cent*) projects originally planned, which was against MoHUA instructions.

As against ₹817.42 crore allocation under Pan City, projects were taken up to the tune of ₹1,462.67 crore indicating diversion of funds from ABD to Pan City interventions. Addition of non-ICT projects under Pan City was in contravention of the guidelines.

Non-provision of utility ducts in SPVs other than BenSCL necessitated frequent digging up of the carriageway of the road for laying of utility lines. The intended knowledge sharing and support under sister city concept could not be achieved between Davanagere and Bareilly as only one video conference was held and no city visits took place during the MoU's one-year validity.

2.1 Selection of Smart Cities

As per the Mission Guidelines, the selection of smart cities was carried out in two stages. In the first stage cities in a State compete on conditions prescribed and the scoring criteria laid out in the guidelines. The highest scoring cities were to be shortlisted and recommended to participate in the second stage of the national competition. MoHUA evaluated the smart city proposals of the shortlisted cities and announced the final list of selected 100 smart cities.

HPSC allowed (June 2015) 11⁷ City Corporations to participate in the first stage against the allocated six smart cities⁸ for Karnataka. These Corporations submitted their self-assessed score card to the SLNA. SLNA after evaluation of the score cards recommended the top six scoring cities, *viz.*, Belagavi,

⁷ Bengaluru, Hubballi-Dharwad, Mysuru, Mangaluru, Davanagere, Belagavi, Ballari, Vijayapura, Kalaburagi, Shivamogga and Tumakuru.

⁸ In addition, Bengaluru was selected (June 2017) as the seventh smart city based on the request of the State Government.

Davanagere, Hubballi-Dharwad, Mangaluru, Shivamogga and Tumakuru to the HPSC for approval. The HPSC recommended (July 2015) the above cities to participate in the second stage at the national level.

2.2 Preparation of Smart City Proposal

Each city was to formulate its own concept, vision, mission, and plan (proposal) for a Smart City appropriate to its local context, resources, and levels of ambition. Accordingly, cities formulated their SCP containing the vision, plan for mobilisation of resources and intended outcomes in terms of infrastructure up-gradation and smart applications. The SCP of each smart city outlined the vision and goal of respective cities in line with National Mission Goals after carrying out SWOT⁹ analysis. Achievement of the Mission Goal was dependent on fulfilment of city-level goals individually and collectively. The activities envisioned in the SCPs of the smart cities based on 24 smart features¹⁰ was categorised into nine strategic pillars¹¹ as described in **Table 2.1**.

Table 2.1: SCP activities categorised into strategic pillars

Strategic Pillars	Number of projects taken up						
	Belagavi	Bengaluru	Davanagere	Hubballi-Dharwad	Mangaluru	Shivamogga	Tumakuru
Affordable Housing	1	0	0	2	0	0	2
Basic Amenities	3	0	30	21	6	2	28
Environment and Ecology	4	0	0	0	0	1	2
Economy and Employment	3	22	5	7	1	5	6
Health and Education	0	0	21	5	8	11	37
ICT enabled Smart Solutions	8	4	7	0	8	16	17
Park and Public Spaces	31	0	15	13	18	19	50
Transport, Mobility and Accessibility	43	18	35	6	13	26	27
Energy	12	1	0	0	3	0	10

Source: Information derived from the data furnished by smart cities

There were 135 goals specified in the SCP of smart cities aligned to the above nine strategic pillars. The achievement against the prescribed goals as of June 2024 was as detailed in **Table 2.2**.

⁹ Strengths, Weaknesses, Opportunities, Threats.

¹⁰ Citizen participation, Identity and culture, Economy and employment, Health, Education, Mixed land use, Compactness, Open Spaces, Housing and inclusiveness, Transport and mobility, walkability, IT connectivity, Intelligent Government Services, Energy Supply, Energy source, Water supply, Wastewater management, Water quality, Air quality, Energy efficiency, Underground electric wiring, Sanitation, Waste management and Safety.

¹¹ Audit grouped 24 smart city features into nine strategic pillars for better presentation.

Table 2.2: Achievement of goals prescribed in the SCPs

Total number of goals in SCP	Number of goals		
	Achieved	Partially Achieved	Not Achieved
135	68	43	24

Source: Information derived from the data furnished by smart cities

City wise details of goals are indicated in **Appendix 2.1**. As observed above, the smart cities could not achieve the planned goals even after nine years of implementing the Mission.

The State Government stated that interventions from multiple departments were required in implementation of the scheme and it will be impractical to expect achievement of all these long-term goals under a single mission.

The deficiencies observed in the planning process of the Mission are detailed in subsequent paragraphs:

2.2.1 Modification of Smart City Proposal

Though the Mission guidelines did not have any provision for modification of SCP, the MoHUA allowed (September 2018) a one-time change in SCP to provide some flexibility in implementing the Mission. To ensure that the change in SCP would not lead to vitiation of the challenge process and its spirit, MoHUA issued (January 2019) advisory elaborating the guidelines for change in SCP. Accordingly, the cities revised their list of projects with the approval of HPSC. However, MoHUA was yet (June 2024) to approve these changes formally. Audit observed that the modification of SCP had an adverse impact on the implementation of the Mission as detailed below:

2.2.1.1 Dropping of projects from the approved SCP

As per the advisory, dropping of projects from SCP, was permissible only in exigent circumstances and the cities were to give clear reasoning for not undertaking the work. On scrutiny of records, Audit observed that SPVs dropped seven to 48 *per cent* of the projects outlined in the SCP. The deletion/dropping of projects from SCP had also been done multiple times in violation of the advisory. Details of dropped projects are indicated in **Table 2.3**.

Table 2.3: Details of dropped projects

Smart City	Projects as per SCP				Deleted projects		Percentage	
	As per SCP	Added subsequently	Total	Outlay (₹ in crore)	Number	Outlay (₹ in crore)	Number	Outlay (₹ in crore)
Belagavi	68	39	107	4,097.37	41	1,335.21	38	32.59
Bengaluru	18	19	37	2,665.01	04	169.92	11	6.38
Davanagere	19	40	59	1,775.09	04	838.82	7	47.26
Hubballi-Dharwad	25	76	101	3,031.76	33	1,464.00	33	48.29
Mangaluru	66	10	76	2,129.76	24	675.02	32	31.69
Shivamogga	55	25	80	1,637.03	36	474.42	45	28.98
Tumakuru	43	41	84	2,725.28	18	798.90	21	29.31
Total	294	250	544	18,061.30	160	5,756.29	30	32

Source: Information furnished by KUIDFC/ smart cities

Dropping of 160 out of 544 (30 *per cent*) projects originally planned was against MoHUA instructions which permitted such deletions only during exigent circumstances. Audit analysis of dropped projects revealed that projects such as Bus terminal with multi-utility facility, construction of flyover, extension of smart class project for Pre-University college, bus shelter, construction of under pass and water supply *etc.*, which derives public utility were dropped based on the reasons *viz.*, high costs, non-availability of space *etc.* Further out of 160 dropped projects, 25 projects faced fund constraints, 21 projects were unfeasible and 16 projects were already executed by other agencies. Other major reasons for dropping of projects were non-availability of land, irresponsible tenders, legal issues *etc.*

The State Government replied (April 2025) that necessary approval of HPSC were obtained. The fact remains that the SPVs could not implement the schemes as proposed in the SCPs.

2.2.1.2 Addition of new projects

As per the MoHUA advisory, adding of new projects in SCP was permissible, provided they adhered to the Mission guidelines which required citizen consultation before selecting projects. Further, adding projects outside ABD areas and including non-ICT projects as Pan City initiatives was not permissible.

On scrutiny of records, Audit observed that 230 projects costing ₹3,406.21 crore¹² were added to the SCP in lieu of dropped projects. Out of 230 projects, 40 projects worth ₹186.79 crore (**Appendix-2.2**) were added to the SCP at the request of line departments/ people's representatives. These projects related to regular civil works such as construction of roads, schools, hospitals *etc.*, which were not aligned with the vision and challenge process of smart cities. The selection of these projects was also not based on citizen consultation as per the Mission guidelines.

Also, the Mission guidelines stipulated that Government contribution for smart cities was to be used only to create infrastructure that had public benefit outcomes. In respect of three¹³ out of the above 40 projects, the infrastructure created had no public benefit outcome as they were beneficial only to a particular section of society.

Thus, adding of projects to SCP that were not aligned with the city's vision and goals resulted in shifting goal posts and vitiation of the challenge process for selecting smart cities.

The State Government accepted the observation and stated that it will be considered in future project implementation.

¹² The added projects need not match with deleted projects in physical and financial terms.

¹³ Redevelopment of Tennis Court, Interior work for Department of Women and Child and New building for Department of Women and Child.

2.3 Inclusion of projects outside Area Based Development areas:

As per the MoHUA advisory, adding projects outside the ABD area was not permissible, unless the purpose of the work was for first-mile/last-mile connectivity. *viz.*, stormwater drainage, water supply, electricity, *etc.* However, the connectivity portion of such projects cannot be a significant part of the project cost. The Smart City Mission is a Centrally Sponsored Scheme where the Central Government provides ₹100 crore per city annually for five years, with an equal matching contribution from the State/ULB. This results in a total funding of ₹1000 crore per city.

Audit observed that in five smart cities (out of seven) as against ₹4,048.33 crore allocated for ABD projects, the actual cost of ABD projects implemented was only ₹3,262.76 crore. However, in these cities, as against ₹817.42 crore allocation under Pan City, projects were taken up for ₹1,462.67 crore indicating diversion from ABD to Pan City interventions. City-wise details as of June 2024 are given in **Table 2.4**.

Table 2.4: Details of ABD/Pan City wise projectivisation

(₹ in crore)

Sl. No	Name of the city	Mission Funds allocated in SCP for		Cost of projects implemented	
		ABD projects	PAN City projects	ABD	PAN City
1	Davanagere	670.34	301.16	362.86	425.28
2	Hubballi-Dharwad	919.00	81.00	698.12	390.16
3	Mangaluru	787.38	184.17	573.49	348.27
4	Shivamogga	882.61	39.09	841.29	89.06
5	Tumakuru	789.00	212.00	787.00	210.00
Total		4,048.33	817.42	3,262.76	1,462.77

Source: Information furnished by KUIDFC/smart cities

The diversion of funds allocated for ABD projects to Pan City projects, resulted in the non-implementation of projects in ABD areas *viz.*, retrofitting, re-development and greenfield development undermining the objective of sustainable and inclusive development of compact areas.

The State Government replied (April 2025) that the rationale for including Pan City projects was to ensure that the benefits of the Mission reached all citizens and not just to those residing in the ABD areas. Further it stated that as on January 2025 ABD projects worth of ₹3,854.97 crore and Pan city projects worth of ₹1,742.31 crore have been executed.

The reply confirms the fact of diversion of funds from ABD to Pan city interventions defeating the objective of creation of replicable model through development of compact areas.

2.4 Transport and Mobility

Under transport and mobility, the selected cities were aimed to improve the overall mobility, addend walkability in the area through carriageway improvement, utility infrastructure, central and city bus terminal improvement, flyover, underpass, road junction improvement, smart parking, cycle tracks and

pedestrian walkways. The status of progress of projects under the above intervention as of June 2024 is given in **Table 2.5**.

Table 2.5: Physical and financial progress under Transport and Mobility as of June 2024

Sl.No	Smart City	No of Projects			Financial progress (₹ in crore)	
		Total	Completed	Ongoing	Project Cost	Expenditure
1	Belagavi	44	40	4	578.50	549.26
2	Bengaluru	15	15	0	516.59	501.86
3	Davanagere	32	31	1	475.49	369.48
4	Hubballi-Dharwad	7	7	0	224.40	215.08
5	Mangaluru	19	8	11	419.21	295.65
6	Shivamogga	22	20	2	554.42	507.46
7	Tumakuru	29	25	4	450.13	402.05
Grand Total		168	146	22	3,218.74	2,840.84

Source: Information furnished by Smart Cities

Test check of 40 out of 168 (24 *per cent*) projects under the above intervention revealed the following:

2.4.1 Provision of utility network in roads

Improving urban road network was the first logical step towards improving urban mobility. The SCP of the smart cities aimed to develop smart road (*i.e.*, a road designed to include smooth vehicular flow, prioritise pedestrian movement, integrated essential utilities) project as per the Tender SURE¹⁴ guidelines. The Tender SURE Guidelines aimed at solving issues of non-usability of road network due to frequent civil works undertaken by multiple utility agencies to provide underground utilities *viz.*, water supply, telecom lines, power lines, sewage *etc.*, which were haphazardly laid.

Audit examined the DPRs of seven smart cities and it was seen that except Bengaluru Smart City (BenSCL), the utility ducts provided by other SPVs in their smart road projects did not make provision for certain utility ducts *viz.*, water supply, sewerage network, storm water drainage, HT and LT lines, OFC and gas pipeline. This necessitated frequent digging up of the carriageway of the road for laying the above utility lines. During JPV (BBMP and SSCL in September-2022)¹⁵. Audit observed that digging up of smart roads for laying/maintenance of utility lines by SSCL and construction of foot bridge by BBMP without informing BenSCL, violated SCM/Tender SURE guidelines (**Exhibit 2.1 and 2.2**).

¹⁴ Tender SURE (Specifications for Urban Roads Execution) street design guidelines were prescribed to fix urban roads in terms of underground utilities and grade mobility for all forms of transport.

¹⁵ Old JPV picture retained to show the step taken by SSCL for maintenance of utility line. Currently, the hole has been filled and is no longer visible.

 <p>Latitude: 12.983971 Longitude: 77.587146 Elevation: 934.49±0.48 m Accuracy: 14.65 m Time: 28-09-2022 13:37:03 Note: Race Course Road</p>	 <p>Latitude: 13.936213 Longitude: 75.56678 Elevation: 599.34±1 m Accuracy: 8.1 m Time: 26-10-2022 12:57 Note: Package 1.86 Powered by NoteCam</p>
<p>Exhibit 2.1: Smart Road in Racecourse dug up by BBMP</p>	<p>Exhibit 2.2: Smart Road in Shivamogga dug up by KUWSDB for 24×7 water supply project</p>

The State Government replied (April 2025) that due to high cost and economic infeasibility, site challenges, inter departmental issues, technical limitations and public impact, utility departments resorted to open trench utility laying method (March 2025).

The reply is not acceptable as the smart road works were to be developed as per the Tender SURE Guidelines, which aimed at reducing inconvenience to the public and hence the objective of providing hassle free movement could not be achieved due to frequent digging of roads for laying and maintenance of utilities.

2.4.2 Non-inclusion of accessible infrastructure for specially abled persons on the roads/footpath projects

Paragraphs 2.3 and 2.6 of Mission Guidelines stipulated that the city's development under the Mission should be inclusive. Further, paragraph 31 of city level model template issued by Government of India (GoI) for preparation of SCP also stipulated inclusion of accessible infrastructure for specially-abled persons under the mission.

In the context of the above, development of roads/footpath packages was to include the provision of tactile tiles for the visually impaired on footpaths. However, the above provision was not made in footpaths constructed in 21 smart road projects undertaken by seven smart cities.

The State Government replied (April 2025) that footpath works taken up in smart cities were mostly retrofitting in nature. The roads where footpath development was contemplated already had developed footpaths and did not have uniform carriage width which was not conducive for construction of continuous and consistent footpaths. Further, it stated that steel handrails were provided in the smart roads to improve access to specially abled persons

The reply was not acceptable as the primary purpose of the handrails was to prevent pedestrians from crossing indiscriminately and slipping onto the carriageway, as outlined in the IRC:103-2012.

2.5 Implementation of Sister Cities Concept

The Ministry of Housing and Urban Affairs paired Davanagere (top 20 cities) with Bareilly (bottom 20 cities) under the Sister Cities initiative to improve performance through collaboration. As per the MoU signed on (February 2020), the cities were to conduct monthly video conferences and visit each other's cities at least once in 100 days. However, only one video conference was held, and no city visits took place during the MoU's one-year validity. The MoU was not extended, and the intended knowledge sharing and support for Bareilly's improvement were not achieved. DSCL's claim that a WhatsApp group was used for communication was deemed unacceptable as it did not adhere to the SCM guidelines. Despite this, Bareilly's ranking improved from 86 to 68 in the Geo-spatial Management Information System (GMIS) 100 city ranking as on June 2024.

Chapter-III
Financial Management

Chapter III



FINANCIAL MANAGEMENT

The SPVs could mobilise very few financial resources from sources other than Government grants defeating the objective of their formation.

Financial improvement plans submitted by the consultants could not be implemented as the State Government was yet (June 2024) to take decision on its suitability for universal adoption in all Urban Local Bodies (ULBs).

SLNA incurred an expenditure of ₹0.75 crore towards activities which does not pertain to the Smart City project/cell. Inadequate verification in respect of payments made to the PMC resulted in excess payment of ₹2.56 crore.

Though the service provider for Master System Integrator for the Integrated Command and Control Centre (ICCC) failed to complete the work as scheduled, SLNA failed to enforce contractual obligation of levying and collecting penalty for delayed execution of works. Levy of nominal penalty of ₹2,000 per day lacked justification though specific rate of penalties were prescribed in the contract.

3.1 Financial Management of SPVs

Prudent financial management of a scheme ensures that the intended benefits of the schemes reach beneficiaries in time as envisaged in the scheme. The Smart City Mission was a centrally sponsored scheme and GoI gave financial support to the Mission on an average ₹100 crore per city per year. An equal amount was contributed on a matching basis, by the State Government. The release and expenditure of funds to the smart cities in Karnataka as of June 2024 is detailed in **Table 3.1**.

Table 3.1: Release and expenditure of Mission funds to SPVs

(₹ in crore)

Sl. No	Name of the Smart City	Funds Received			Expenditure
		GoI	GoK	Total	
1	Belagavi	490.00	500.00	990.00	859.14
2	Bengaluru	488.00	500.00	988.00	812.06
3	Davanagere	490.00	500.00	990.00	830.82
4	Hubballi-Dharwad	490.00	500.00	990.00	791.22
5	Mangaluru	416.50	426.50	843.00	735.57
6	Shivamogga	490.00	500.00	990.00	904.20
7	Tumakuru	490.00	500.00	990.00	855.15
Total		3,354.50	3,426.50	6,781.00	5,788.16

Source: Information furnished by Smart Cities

3.2 Non-mobilisation of financial resources for Mission funding

As per the clause 11.3 of Mission guidelines, the cities were expected to plan with as much larger outlay as possible in addition to the funds being made available by State and Central Governments. The cities had multiple financing options such as convergence of schemes and initiatives of Central and State Governments, generating own resources, proposing Public Private Partnership (PPP) projects, market borrowings, loans and even by inviting equity partners for the projects.

The funding mechanism other than Mission grants envisaged in the SCPs of seven smart cities is provided in **Table 3.2**.

Table 3.2: Funding mechanism projected in the SCPs

(₹ in crore)

Smart city	Revenue ¹⁶ Generating Projects	14 th FC	Convergence ¹⁷ with Central and State Schemes	Leverage borrowings from financial institutions	PPP	Total
Belagavi	1,498.92	3.70	1,851.00	NIL	1,006.10	2,860.80
Bengaluru	371.87	Nil	985.00	Nil	234.28	1,219.28
Davanagere	4,325.04	Nil	168.00	Nil	168.00	335.56
Hubballi-Dharwad	479.00	Nil	485.00	114 (World Bank)	170.00	769.00
Mangaluru	473.59	Nil	509.00	Nil	517.00	1,025.95
Shivamogga	260.70	Nil	127.00	Nil	468.00	595.60
Tumakuru	Not Specified	Nil	883.00	Nil	344.00	1,227.00
Total	7,409.12	3.70	5,008.00	114.00	2,907.38	8,033.19

Source: Information furnished by KUIDFC/SPVs

¹⁶ Generating funds through lease of market/shops, vehicle parking, street vendors and digital advertising boards *etc.*

¹⁷ Convergence of Sewage treatment plan under Amrut scheme, construction of toilets under SBM, construction of affordable houses under Prime Minister Awas Yojana and upgradation of District hospital under National Health Mission *etc.*

Audit observed that the SPVs failed to mobilise resources from sources other than Mission grants as detailed below:

- The SLNA conducted credit rating and financial improvement studies of the cities through consultants to tap resources by innovative financial mechanisms prescribed in the guidelines such as municipal bonds, pooled finance mechanisms, tax increment financing, value capture financing *etc.* However, the financial improvement plans submitted by the consultants could not be implemented as the State Government was yet (June 2024) to take decision on its suitability for universal adoption in all ULBs after effecting legislative amendments to the existing Acts/Rules. Further there is no progress in this regard.

The State Government replied (April 2025) that UDD is currently deliberating on the recommendations made by the credit rating agency for its suitability of universal adoption by all ULBs in the State, after effecting legislative amendments to the existing Rules/ Acts or introduce new clauses for the applicable Rules/Acts as required.

- SPVs did not take any action to mobilise additional resources through National Investment and Infrastructure Fund (NIIF) and Leverage borrowings from financial institutions.

The State Government accepted that Smart Cities have not proposed mobilisation of funds under NIIF and it will be implemented in future projects.

- In respect of PPP models of seven SCPs an outlay of ₹2,907.38 crore could not be implemented fully as envisaged. 31 PPP projects were dropped as they were financially not viable. Further out of 26 projects (**Appendix-3.1**) implemented under PPP model, only 13 were completed.

The State Government replied (April 2025) that smart cities are implementing 26 PPP projects worth ₹1,091.05 crore, out of which, 13 projects of ₹329.68 crore were completed and 13 projects worth ₹761.37 crore are in progress.

- The SCPs projected an amount of ₹7,409.12 crore to be generated over a period of five to 30 years from revenue-generating projects¹⁸. The revenue so generated was to take care of the operation and maintenance expenditure of the SPVs. However, SPVs took up only 53 out of 645 smart city projects (eight *per cent*) under revenue generation model. Even in respect of these 53 projects, proceeds of revenue would flow to the respective Corporation or Trusts created for the operation and maintenance of the assets.

The State Government replied (April 2025) that as on date seven cities have taken up 130 projects under revenue generation category. Further, the core infrastructure of the city is being developed *viz.*, roads, UGDs, foot paths, parks, water supply, SWM, Government schools and hospitals *etc.*, which are essential urban infrastructure in nature and building a

¹⁸ In the form of development charges, entry fees, lease rentals, sanitation charges, smart metering charges *etc.*

revenue model for this basic infrastructure is always not practical. However, conscious efforts are made to encourage self-sustainability of projects through revenue generation in projects like subscription model for libraries, Public Bicycle Sharing (PBS), entry fee for parks, monetising advertisement tax through digital display boards, parking fees, Multi Utility Facility Centres (MUFCs)/markets, OFC ducts etc.

The reply confirms the fact that the above projects in the SCPs could not be successfully converted into revenue generating models.

- The SCPs had made provision for ₹5,008 crore to be pooled out of convergence with various central and state schemes. However, there was no financial convergence (inflow/outflow of funds) in respect of 226 out of 237 projects taken up under the convergence mode. The SPVs did not have any role in implementation or monitoring of these projects and the records related to implementing these projects were not available with them. This was in contravention of the approved SCP and Mission guidelines which outlined the convergence agenda with other missions/schemes as one of the key functions and responsibilities of the SPVs.

The State Government replied (April 2025) that seven cities put together had taken up 251 works of ₹6,814.10 crore, under convergence out of which 232 works of ₹3,822.49 crore are completed and 19 works of ₹2,991.61 crore are in progress.

Recommendation 1: The Smart cities need to tap resources other than Government grants like municipal bonds, pooled finance mechanism etc., for long-term sustainability of the projects taken up.

3.3 Non-remittance of interest of ₹2.69 crore earned on Centrally Sponsored Scheme (CSS) grant

KUIDFC (SLNA) operated an account exclusively for 'Smart City Mission' for transactions relating to funds released by the GoI and GoK. Further, the funds to SPVs and implementing agencies were released from this account.

Rule 230 (8) of GFR-2017 stipulates that all interests or other earnings against Grants in aid or advances (other than reimbursement) released to any Grantee institution should be mandatorily remitted to the Consolidated Fund of India immediately after finalisation of the accounts. As per OM dated 30 June 2021 issued by the Ministry of Finance (Department of Expenditure), GoI, State Nodal Agency/Single Nodal Agency (SNA) of each CSS in the State shall compute the total interest earned out of the funds received in its account (both from the Central Government and the State Government) in the preceding financial year in the first week of April each year. The interest earned will be apportioned by the SNA between the Central and the State Government as per the approved funding pattern of the CSS and shall be deposited in the respective Consolidated Funds.

Review of records showed that funds received from GoI and GoK were kept in flexi deposits for time to time during 2015-16 to June 2024, which earned an interest of ₹2.69 crore but was not remitted to respective Consolidated funds.

The purpose of release of funds to SLNA is meant for onward transmission to SPVs towards implementation of scheme rather than earning interest.

The State Government replied (April 2025) the interest earned will be remitted to concerned accounts on pro-rata basis.

3.4 Inappropriate use of SCM Funds beyond intended objective

Review of records relating to expenditure incurred by KUIDFC (from April 2023 to June 2024) towards following items amounting to ₹0.75 crore revealed that the Administrative & Office Expenses (A&OE), does not pertain to the Smart City project/cell as detailed below:

1. An amount of ₹0.25 crore was paid (November 2023) to the City Managers Associations, Karnataka for participation in *Municipalika* though the demand was raised by UDD. Usage of SCM funds towards the event was not covered under guidelines.
2. An expenditure of ₹0.48 crore (₹0.27 crore for office maintenance and ₹0.21 crore for security charge) has been booked under SCM funds. This expenditure, which pertains to the maintenance and security of the entire KUIDFC office, was paid from SCM funds without adequate justification.
3. The Institute of Directors (IOD) requested ₹0.02 crore for an international conference on environmental management and climate change. This amount was paid by KUIDFC from SCM funds on 14 June 2024.

The State Government replied (April 2025) that the funds were utilised for capacity building activities and to bring better technologies to smart cities. However, expenditure incurred towards above items which were not forming part of SCM purview was inadmissible.

3.5 Other deficiencies in Financial Management

3.5.1 Excess payment to Project Management Consultant

MSCL appointed (April 2017) M/s Wadia Techno-Engineering Services Ltd in consortium with M/s Louis Berger Consulting Pvt Ltd and C-DAC as PMC to implement the Mission. As the PMC failed to perform its contract obligations, MSCL issued (November 2020) notice to terminate the contract. PMC in its reply (December 2020) offered to handover projects handled by them to the agencies nominated by MSCL. For settlement of outstanding dues, PMC submitted a claim of ₹7.19 crore out of which MSCL had already paid ₹3.95 crore. The MSCL paid the balance amount of ₹3.44 crore (January 2022) after due verification of the claims by a Chartered Accountant (CA).

On scrutiny of Chartered Accountant's report and payments made to PMC, Audit observed the following:

- Excess payment of ₹1.13 crore was made for two projects¹⁹ that had only completed the design stage. As per the CA report, the projects were treated as completed and full payments were made irregularly.
- Similarly excess payment of ₹0.71 crore was made in respect of two projects²⁰, the design phase of which were incomplete.
- MSCL appointed two new PMCs to implement waterfront development and Smart Road projects and paid an amount of ₹0.72 crore for the design phase of these works. This amounted to duplication as the erstwhile PMC had already been paid for the design phase of these works.

Thus, inadequate verification in respect of payments made to the PMC resulted in excess payment of ₹2.56 crore.

The State Government replied (April 2025) that the total payment to PMC is based on manpower deployed for the period of actual deployment and the total value of work executed during the deployment and was not dependent on the presence of PMC during actual implementation or submission of design phase reports. The reply is not acceptable as payment to PMC was to be regulated based on the achievement of milestones prescribed in the contract agreement.

3.5.2 Irregular transfer of funds directly to departments

MoHUA instructed (January 2019) that in projects where the respective departments / government agencies possessed strong technical expertise and execution capabilities, they could be leveraged in executing those projects faster. However, MoHUA had specified that there should not be any transfer of funds directly from SPV to government department/agency. The payments should be disbursed by the SPV to the contractor on completion of each milestone as per the terms of the tender. The government department/ agency was to check and verify the contractor's bills for correctness and submit them to SPV for payment. A tripartite agreement was to be entered between SPV, the government department/agency and the prospective bidder before the execution of such projects.

Audit noticed that an amount of ₹153.38 crore was transferred to the departments/agencies in contravention of MoHUA instructions as detailed in **Table 3.3**.

¹⁹ Development of MLCP with retail space near Hampanakatta junction, and Conversion of all streetlights into solar LED.

²⁰ Redevelopment of Central market and retrofit of fish market and Waterfront area development.

Table 3.3: Amount released by SPVs directly to Government Departments/ Agencies as of June 2024

Sl. No	Smart City	Amount transferred (₹ in crore)	Government Department/ Agency	Purpose	Date of transfer	Present Status
1	Tumakuru	20.71	Health and Family welfare	Construction of Trauma Care Centre at district hospital	16.08.2019	The funds were utilised (December 2021) after a gap of two years
2		14.46	KUWSDB	Intervention and additional improvement of water supply package I and II	31.07.2019	The work was completed on 10 July 2020
3	Mangaluru	114	KUIDFC	24×7 water supply project to Mangaluru city under KIUWMIP ²¹	28.05.2020 to 09.02.2023	An amount of ₹114 crore has been utilised till April 2023.
4		2.20	MCC	Construction of service bus stand near State Bank	01.07.2022 to 20.10.2022	Completed
5	Davanagere	0.87	KUIDFC	Construction of toilets for Government educational institutions under KIUWMIP	05.05.2022	The funds were released as the share of Davanagere City Corporation under KIUWMP though not part of SCP
6		1.14	KUIDFC	Extension of raw water transmission line from Kundwada WTP under Jalasiri Scheme	25.06.2021	The funds were released from savings amount of dropped projects

Source: Information furnished by Smart Cities

Audit also noticed that Mangaluru and Davanagere smart cities did not enter into tripartite agreements with the government agencies and bidders as stipulated in the Mission guidelines.

The State Government replied (April 2025) that the works were taken up by KUIDFC and other agencies and the funds were contributed from SPVs which were approved by the Board.

The reply was not acceptable as the advisory issued was in extension of Mission guidelines which prescribed that Mission funds should not be diverted from the SPVs. Further, the funds deposited were utilised only after one to two years from the date of release indicating that there was no immediate requirement.

²¹ Karnataka Integrated Urban Water Management Investment Programme.

3.5.3 Levy and collection of penalty

The service provider for Master System Integrator for the Integrated Command and Control Centre (ICCC) facility was approved for an estimated cost of ₹101.30 crore. The work was awarded (March 2021) to M/s Fluentgrid Limited for ₹95.99 crore, with a stipulation to complete the work in eight months *i.e.*, November 2021. However, audit observed that due to various factors including delays in finalizing the ICCC location, upgradation of works in eight zonal centres of BBMP and delay in finalization of DPR, extension of time (EoT) was granted four times from November 2021 to December 2023.

Despite these extensions, the agency failed to complete the project on time. Based on the report of PMC (iDeCK), the Managing Director, Bengaluru Smart City Limited communicated (January 2023) to the agency regarding levy of penalty of ₹2.92 crore for the above delay in completion of works as per the provisions outlined in the Contract Agreement Clause 51.2 of RFP Volume 3. This clause specifies that a penalty of one *per cent* should be imposed for a delay of one week and 1.5 *per cent* for delays exceeding one week, subject to a maximum of seven *per cent* of the value of balance work. Further, the agency submitted request to waive off the penalty and same was rejected by the Board of Directors (29th Board meeting) of Bengaluru Smart City Limited (November 2023) and Managing Director, BenSCL was authorised to take necessary action in this regard.

Additionally, the agency requested a further extension of time from 01 February 2023 to 31 March 2024. The Technical Committee recommended for levy of nominal penalty of ₹2,000 per day and same was approved by the Board (March 2024) in its 30th Board meeting. However, the tender conditions clearly outlined the rate of penalties for project delays, and there was no justification for levying penalty at the rate of ₹2,000 per day without any price escalation, which led to non-invoking of tender conditions.

Government in its reply stated that the penalty works out to ₹7.83 lakh. However, the PMC considering delays in implementing the project had recommended for levy of penalty of ₹2.92 crore. The reply is not acceptable as, the Board though rejected the proposal of waiver of penalty, no action was taken to collect the same. The details of total amount of penalty levied and collected was not communicated to audit.

Recommendation 2: The Government should direct the SLNA to adhere to guidelines issued in implementation of the scheme and remit the interest dues to GoK/GoI accounts concerned. Further, the SPVs should invoke contractual obligations on the agencies for deviations/delays in implementation of the scheme.

Chapter-IV

Implementation of Projects and Monitoring



IMPLEMENTATION OF PROJECTS AND MONITORING

Four of the sampled SPVs had not maintained the minimum requirement of ₹200 crore, against which the actual paid-up capital of each Smart City stood only at ₹10 lakh, in the absence of which, compliance to the provisions of the Companies Act could not be ensured.

Failure to provide full time CEOs for the SPVs impacted their functioning. Lack of operational independence resulted in dependence of SPVs on Government for technical approvals and variations which delayed the projects, wherein, only 45 out of 645 projects were awarded within stipulated time.

MSI's appointment to establish centralised Data Centre at KMDS could not be completed even after five years of awarding contract and financial progress achieved was ₹19.08 crore only against ₹60.22 crore. The implementation of CCCC could not be carried out in the absence of completion of data centre at KMDS. Tweaking of tender condition resulted in selection of ineligible LSI for implementation of ICCC project in Shivamogga, which vitiated the tender evaluation process.

Functioning of ICCC was sub-optimal as the integration of line departments with ICCC is pending either due to non-readiness of local system at department level or due to security reasons, indicating poor inter-departmental coordination.

Utility ducts provided for water supply, gas pipelines, electricity lines *etc.*, could not be utilised due to their non-feasibility for the respective utility departments.

Non-utilisation of infrastructure created *viz.*, Hospital, Market and 1BHK units for urban poor as the same were kept idle for more than two years. Entrustment of works without possession of requisite land and statutory clearances led to shortfall in achieving the intended benefits in respect of river front works.

Introduction

The structure and function of the SPVs as provided in the Mission guidelines included the power to approve and sanction projects including their technical appraisal so that SCPs could be executed with complete operational freedom. The Articles of Association (AoA) and Memorandum of Association (MoA) of the SPVs needed to incorporate the above provisions. MoHUA also issued (January 2016) model AoA and MoA for the SPVs.

Further, the Mission Guidelines encouraged the State Government and the ULB to adopt the following best practices to create empowered SPVs to the extent and as provided under the Municipal Act.

- Delegating the rights and obligations of the Municipal Council with respect to the Smart City project to the SPV.
- Delegating the decision-making powers available to the ULB under the Municipal Act/Government Rules to the CEO of the SPV.
- Delegating the approval or decision-making powers available to the Urban Development Department / Municipal Administration Department to the Board of Directors of the SPV in which the State and ULB are represented.

Audit findings

4.1 Non-contribution of minimum Paid-up Capital

As per Clause 10.4 of SCM guidelines, the paid-up capital of the SPV should be ₹200 crore (₹100 crore of GoI contribution and ₹100 crore of State share).

The details of the authorized and paid-up share capital for the seven smart cities are shown in **Table 4.1**.

Table 4.1: Details of authorised and paid-up share capital of the smart cities

Name of the City	Round of selection	Date of incorporation	Size of the project as per SCP (₹ in crore)	Authorised share capital (₹ in crore)	Paid up capital (₹ in crore)
Belagavi	Round 1	11/05/2016	3,866.00	500	200
Davanagere	Round 1	19/05/2016	1,307.18	500	200
Hubballi-Dharwad	Round 2	10/03/2017	1,662.00	200	0.10
Shivamogga	Round 2	07/02/2017	1,517.38	200	0.10
Mangaluru	Round 2	06/04/2017	2,000.72	200	0.10
Tumakuru	Round 2	06/02/2017	2,227.00	200	0.10
Bengaluru	Round 3	03/01/2018	2,219.32	200	200

Source: Information furnished by Smart Cities

Review of incorporation of seven smart cities showed that two cities (*i.e.* Belagavi and Davanagere) selected during Round-1 had an authorized capital of ₹500 crore each. Another four cities (*i.e.* Hubballi-Dharwad, Shivamogga, Mangaluru and Tumakuru) selected during Round-2 and Bengaluru selected in Round-3 had authorized capital of ₹200 crore each.

Audit observed that four of the sampled SPVs had not maintained the minimum requirement as per SCM guidelines and the actual paid-up capital of each Smart City stood only at ₹10 lakh. Due to non-contribution, Audit could not ensure compliance to the provisions of the Companies Act 2013, applicable for Corporate Governance viz., (i) non-creation of key managerial posts; (ii) Audit Committee not formed; (iii) Infrastructure created not shown in the books of accounts.

4.2 Non-appointment of Chief Executive Officer

As per Clause 10.1 of SCM Guidelines, every Smart City should have a SPV and the SPV should have a full time Chief Executive Officer (CEO). Paragraph 3 to Annexure 5 of the SCM guidelines provides that the CEO shall be a member of the Board of the SPV who is appointed with the approval of the MoHUA for a fixed term of three years and can be removed only with their prior approval. The appointment of CEO was emphasized in the Advisory Number 14 dated 03 October 2018 of MoHUA as it was observed that across organisations, having a full time CEO facilitates quick decision making and better results in terms of frequent board meetings and faster rate of project implementation in general.

Audit observed that the said guidelines has not been followed in respect of appointment of CEOs and SPVs were not headed by full time CEOs as detailed in **Table 4.2**.

Table 4.2: Non availability of CEO

Smart City	Date of Incorporation	Period of non-availability of CEO		
		From	To	Duration
BSCL	11-05-2016	11/05/2016	27/10/2016	5 months
		20/04/2017	28/01/2019	1 year 9 months
BenSCL	03-01-2018	03/01/2018	21/08/2019	1 year 7 months
DSCL	19-05-2016	19/05/2016	01/03/2018	1 year 10 months
HDSCL	10-03-2017	10/03/2017	19/11/2018	1 year 8 months
MSCL	06-04-2017	06/04/2017	19/11/2018	1 year 7 months
		20/10/2020	Till December - 2022	2 years 2 months
SSCL	07-02-2017	07.02.2017	03.03.2022	5 years
TSCL	06-02-2017	27.12.2017	04.12.2018	11 months
		26.07.2019	30.06.2020	10 months

Source: Information furnished by Smart Cities

Due to absence of full time CEO, project implementation under SCM was unable to gather momentum and the effort shifts from that of a Mission mode to one of business as usual. Thus, that it would be difficult for one person to discharge the duties of two posts viz., Commissioner of the ULB and Managing Director/CEO of the SPV particularly when there is a conflict of interest in discharging his duties between the SPV and the ULB.

The State Government replied (April 2025) that efforts were made to ensure continuity of services of CEOs for implementing the projects and issues like practical difficulties and administrative issues for the gaps. The fact remains

that the CEOs were not available for most of the initial phases of implementation of scheme ranging from 26 months to five years which was in violation of the SCM guidelines and delayed the completion of projects.

4.3 Lack of Operational Independence

Paragraph 4 of Annexure 5 of SCM guidelines specifies that the primary reason for creation of an SPV for SCM was to ensure operational independence and autonomy in decision making and mission implementation. To enable the same, SCM guidelines encourages the State Government and the ULBs to delegate:

(i) Rights and obligations of the municipal council with respect to the Smart City project to the SPV, (ii) the decision-making powers available to the ULB to the Chief Executive Officer of the SPV, (iii) the approval or decision making powers available to the Municipal Administration department to the Board of Directors of the SPV and (iv) the matters that require the approval of the State Government to the State Level High Powered Steering Committee (HPSC) for Smart Cities.

Audit scrutiny of the Memorandum of Association (MoA) and Articles of Association (AoA) of the seven SPVs, revealed that except for Bengaluru, no SPV was empowered to approve and sanction projects including technical appraisal as prescribed in the Mission guidelines. Except for Bengaluru, the MoA and AoA of other smart cities contained the clause 'To get approval and sanction of projects' instead of 'Approve and sanction projects' as provided in the model documents. Consequently, the full powers in respect of approval of tender/ variations and extension of time for projects were vested with HPSC. Further, the prior approval of Technical Committee (TC), KUIDFC was to be obtained for approval of variations. State Government granted SPVs full powers in respect of extension of time and approval of variations only during December 2022, which was withdrawn during July 2023 indicating retaining of powers by the State Government instead of SPVs.

The State Government replied (April 2025) that the State Technical Committee constituted at KUIDFC was scrutinising the DPRs and according approvals. The reply is not acceptable for the reason that the delegation of powers to technical committee was in contravention of the SCM guidelines.

4.4 Delay in awarding of projects

As per the project implementation timeline provided in the MoHUA Annual Report, the award of works should be completed within 12 to 18 months of incorporation of the SPVs. However, Audit observed that SPVs could award only 45 out of 645 (seven *per cent*) projects within the stipulated timeline as detailed in **Table 4.3**.

Table 4.3: Delay in awarding the projects

Smart City	Date of Incorporation	Projects to be launched by	Total projects taken as of June 2024		Projects awarded within stipulated timeline	
			No. of projects	Work Order Cost (₹ in crore)	No. of projects	Work Order Cost (₹ in crore)
BSCL	11-05-2016	11-11-2017	107	858.11	3	26.57
DSCL	19-05-2016	19-11-2017	108	918.88	1	0.45
BenSCL	03-01-2018	03-07-2019	46	850.26	10	343.77
HDSCCL	10-03-2017	10-09-2018	62	930.00	6	16.45
SSCL	07-02-2017	07-08-2018	75	881.00	4	13.95
MSCL	06-04-2017	06-10-2018	59	907.19	5	11.72
TSCL	06-02-2017	06-08-2018	188	926.38	16	7.37
Total			645	6,271.82	45	420.28

Source: Information derived from the data furnished by Smart Cities

The State Government in its reply (April 2025) attributed the delays to the Project Management Consultant (PMC) and stated that the Special Purpose Vehicle (SPV) was slow in preparing the Detailed Project Reports (DPRs). This cautious approach was taken to avoid potential cost overruns due to faulty designs and drawings. However, as evidenced by the data presented in the table, only 45 out of the 645 projects were awarded within the stipulated time frame. This indicates significant delays in the launch of the projects, which resulted in denial of timely benefits to the citizens who were meant to benefit from these initiatives. Such delays not only disrupt project timelines but also hinder the intended positive impact on the community, underscoring the need for improved efficiency and coordination in project execution.

4.5 Delay in tender evaluation process

The KTPP Act prescribed that the tender evaluation process (from opening a technical bid to issuing a work order) should be completed within 90 days. Further, the maximum time gap prescribed between the opening of financial and technical bids was 60 days. Audit observed delay in completing the tender evaluation process as detailed below:

- The prescribed timeline for completing the tender evaluation process was exceeded by seven to 390 days in respect of 19 out of 187 (10 per cent) test checked works in seven smart cities.
- In respect of six projects in Davanagere, Hubballi-Dharwad and Mangaluru, the time gap between opening of technical and financial bids exceeded the stipulated limit of 60 days by three to 54 days.
- Five²² out of seven SPVs issued letter of intent/acceptance (LoA) manually, though e-procurement portal has relevant provision which was mandated (August 2018) by Government of Karnataka (GoK).

The State Government attributed the delay towards obtaining the confirmation of work done by the bidders and appeals of non-responsive bidders. It further

²² BSCL, BenSCL, DSCL, MSCL and HDCL.

stated that due to rush of work and with a good intention to fast-track award of works, LoA was issued through a letter instead of e-procurement portal.

The reply of the Government is not acceptable for the reason that the time allowed for completing the bidding process was inclusive of above processes. The issue of manual LoA was in contravention of e-procurement mandate.

Recommendation 3: Government should ensure availability of full time CEOs for better implementation of the scheme and effective coordination with multiple stake holders.

Government should exercise due diligence in fixing authorised share capital and paid-up capital of the SPVs commensurate with the commercial financial models.

Government should ensure timely completion of tender awarding process and issue of LoAs as mandated in e-procurement.

A PAN CITY PROJECTS

4.6 Pan City Development

Pan City Development envisaged application of selected smart solutions to the existing city-wide infrastructure through use of technology, information and data to provide better infrastructure and services viz., smart solutions in transport sector to reduce average commute time, water recycling and smart metering for better water management. The progress of ICT enabled smart governance projects as of June 2024 in respect of six cities excluding HDSCL²³ are indicated in **Table 4.4**.

Table 4.4: Physical and financial progress of ICT enabled smart governance projects as of June 2024

Sl. No	Smart City	Physical (in numbers)			Financial (₹ in crore)	
		Total	Completed	Ongoing	Project Cost	Expenditure
1	Belagavi	8	8	0	64.30	67.16
2	Bengaluru	4	4	0	147.89	77.51
3	Davanagere	7	6	1	134.62	63.56
4	Mangaluru	8	7	1	85.80	61.39
5	Shivamogga	6	6	0	57.20	58.71
6	Tumakuru	17	16	1	100.88	65.11
Grand Total		50	47	3	590.69	393.44

Source: Information furnished by KUIDFC

Audit test checked 12 out of 50²⁴ (24 per cent) Pan City projects implemented in seven cities. The audit observations are as follows:

²³ There were no ICT enabled projects.

²⁴ Out of 238 projects taken up under Pan City, only 50 were ICT enabled projects and remaining were non-ICT projects viz., water recycling, smart meters, battery operated rikshaws, smart school, bus shelter etc.

4.6.1 Establishment of Centralized Command and Control Centre

MoHUA advised (June 2016) that all the smart cities to establish a Centralized Command and Control Centre (CCCC), which was one of the main mandates under SCM for centralized monitoring and decision making for city administration. Accordingly, all the smart cities included establishing an Integrated Command and Control Centre (ICCC) project in their SCP. ICCC is a centre from where the smart cities would conduct centralized operations and surveillance on civil issues of entire city.

The contract for establishment of ICCC centre was divided into two parts i.e., implementation phase and operation and maintenance phase. In all of the seven cities implementation phase of ICCC project was completed. Audit observed a delay ranging from one to three years beyond the stipulated date of completion of the implementation phase. The status of ICCC project (June 2024) in respect of the smart cities is indicated in **Table 4.5**.

Table 4.5: Status of ICCC project as of 30 June 2024

City	Date of award of Work	Scheduled date of “Go-Live”	Actual date of “Go-Live”	Delay
Belagavi	14.02.2018	26.02.2019	17.10.2020	1 year 7 months
Bengaluru ²⁵	24.03.2021	23.11. 2021	06.10.2023	1 year 11 months
Davanagere	10.10.2018	10.10.2019	27.02.2023	3 years 4 months
Hubballi-Dharwad	19.11.2018	18.11.2019	22.02.2022	2 years 3 months
Mangaluru	17.12.2018	16.06. 2019	01.04.2022	2 years 9 months
Shivamogga	03.08.2020	02.05. 2021	15.03.2023	1 year 10 months
Tumakuru	23.11.2018	23.11.2019	20.10.2020	10 months

Source: Information furnished by Smart Cities

Audit findings relating to functioning of ICCC are brought out in the succeeding paragraphs:

4.6.1.1 Extra expenditure due to non-adoption of cloud-based data centre at KMDS - ₹17.43 crore

GoK issued (October 2017) guidelines for establishment of ICCC under the Mission which consisted of establishment of CCC at city level managed by Local System Integrator (LSI) and a centralised data centre for five cities²⁶ at Karnataka Municipal Data Society (KMDS) managed by Master System Integrator (MSI). The BenSCL data centre and the CCCC would be located at a separate location through appointment of MSI at city level.

Guidelines issued by the Ministry of Electronics and Information Technology, GoI recommended to setup “cloud environment” over “on-premises infrastructure” while planning setup of new IT infrastructure, which has the advantage of reduced infrastructure costs by eliminating the need to procure expensive equipment, maintenance and energy consumption costs.

²⁵ Technical Committee has approved the ‘Go-Live’ of ICCC on 6 October 2023. BenSCL is in the process of issuing ‘Go-Live’ Certificate of ICCC.

²⁶ Davanagere, Hubballi Dharwad, Mangaluru, Shivamogga and Tumakuru.

While BenSCL adopted cloud environment based (IaaS²⁷ Model) data centre for its ICCC project, the other five smart cities established data centres ‘on premises’ (at KMDS) and disaster recovery on cloud. The total cost incurred for establishing data centre at KMDS for five cities was ₹37.90 crore. Adopting cost-benefit analysis, the cloud-based data centre in IaaS model would have costed ₹20.46²⁸ crore, thereby effecting a saving of ₹17.43 crore.

The State Government replied (April 2025) that decision to adopt cloud hosting was to be taken considering the ‘Total Cost of Ownership’ and not only the one-time cloud hosting cost. The reply contradicts the fact that by establishing ‘cloud based’ data centre economy was achieved in BenSCL. Further, the cost benefit claimed in terms of adopting ‘on premises’ data centre was not forthcoming.

4.6.1.2 Non-completion of data centre at KMDS

The contract for MSI’s appointment to establish centralised Data Centre at KMDS was awarded (March 2019) at a contract price of ₹60.22 crore. As per the Master Service Agreement, the MSI was required to complete establishment of Data Centre (DC), Disaster Recovery (DR), and Integrated City Operation Platform (ICOP) within nine months from the date of issue of work order and thereafter operation and maintenance for five years.

Audit observed that even after repeated reminders/notices issued by KMDS, MSI (Agency) has not completed the project even after expiry of five years and two months. The said work is under progress (May 2024) and financial progress achieved to the extent of ₹19.08 crore only. The implementation of CCCC could not be carried out in the absence of completion of data centre at KMDS.

Major factors attributable for delay in completion were non-availability of key resources on the site as per RFP, IT devices installed reaching their end of life and support and failure to complete installation and commissioning of devices as described below:

- ***Non-implementation of enterprises Geographic Information System platform***

One of the goals of the smart city initiative was to create a single citizen interface where all data and applications are available on a Geographic Information System (GIS) platform.

As per paragraph 1.2.2.4 of the RFP Vol-2, the scope of MSI included procurement, installation and commissioning of enterprise GIS platform and application development. As per the RFP, the broad scope of the MSI included the following:

- Development of state-wide GIS platform for all the five cities
- Development of city-specific GIS application
- Integration of developed GIS with city-wide application
- Development of GIS-based citizen application
- Integration with state-wide e-governance application

²⁷ Infrastructure as a Service.

²⁸ 54 per cent of the CAPEX of ₹37.90 crore for establishing Data Centre at KMDS.

Audit observed that the GIS platform with advance analytics (Arc GIS version 10.8.1) worth ₹3.93 crore was installed in March 2021. However, third-party verification of supply and installation of GIS software was completed (June 2022) by the Karnataka State Remote Sensing Application Centre (KSRSAC) with a delay of 15 months after installation. The reason for the delay was non-availability of technical expertise with the PMC appointed for this project.

Failure on the part of the MSI to provide a common GIS platform for all the smart cities resulted in SPVs either using free version of GIS or Google earth platform for implementation of various ICT-enabled services undermining the security of the ICT infrastructure.

Further, the end of support for Arc GIS version 10.8.1 was mentioned as February 2026. As the data centre was yet to be made 'Go-live', end of support by the Original Equipment Manufacturer (OEM) before five years of 'Go-live' contravened the RFP requirements *i.e.*, to create a single citizen interface where all data and applications are available on a GIS platform.

- ***Usage of software product nearing end of life and support***

The ICOP platform provided by the MSI was a combination of CISCO Kinetic for Cities (CKC) and Quantela in contravention of the conditions of the RFP which stated that the ICOP platform should either be from a single OEM or should be pre-integrated and had been operational for more than a year in any city globally.

CISCO had announced the end of life and sale for CKC platform with effect from December 2024. This also contravened the provision of the RFP which stated that the OEM for all active components should give a declaration that products or technology proposed should not reach end of sale/life for a minimum of five years from the date of bidding and end of support for minimum of five years from the date of 'Go-Live'.

Further, during the Smart City review meeting held on 13 July 2023, the agency proposed a change request for the CKC ICOP platform due to declaration of End of Life (EoL) & End of Support (EoS) by OEM. KMDS informed (September 2023) to MSI to submit formal proposal for initiating change request for the ICOP solution by adhering to nine points which were included with Preliminary Qualification (PQ), Technical Qualification (TQ), RFP technical and functional compliance. In turn KMDS received a proposal letter from the MSI and same proposal was rejected (April 2024) due to non-matching of proposed ICOP solutions with PQ/TQ and tender norms.

Audit also observed that MSI handed over the virtual machines to LSI of five smart cities pending submission of approach and methodology of ICOP, demonstration of compliance to the technical specifications in RFP and functional requirement and conducting of security audit of the ICOP.

The State Government replied (April 2025) that considering the end of life of product, MSI submitted fresh change request proposal for the ICOP by replacing CISCO product with AVEVA platform by Schneider Electric, which was approved by Change Control Note (CCN) Committee (December 2024). MSI informed the committee that the extension of OEM support is confirmed till December 2026, and discussions are in progress with the OEM to extend the

support beyond December 2026, in case of non-availability of support from the OEM, MSI agreed to submit a declaration that the product will be replaced at “no cost” to the Authority.

KMDS further notified that the MSI will replace such products and recover the cost of such replacements from the payments to be made to the MSI and /or from the performance Bank guarantee provided by the MSI for the project. KMDS is expected to complete the project by March 2025. KMDS levied a liquidated damages of ₹2.18 crore on MSI against the total payment of ₹17.08 crore.

The levy of liquidated damages confirms the fact that the performance of MSI was not as per the contractual obligations, wherein, the ‘Go-Live’ was scheduled for March 2025, which was far beyond the target date of September 2019. Despite incurring an expenditure of ₹19.08 crore, the platform remains uninstalled, and the intended benefits have not been realized. Furthermore, the absence of platform support for five years post 'Go-Live' poses significant risks on the viability and security of the Smart City projects.

- ***Wasteful expenditure on procurement of GIS software***

The scope of the ICCC included various smart solutions viz., Intelligent Traffic Management System (ITMS), Intelligent Transport System (ITS), Solid waste Management (SWM) system, smart water etc., which required real time location-based GIS services. KUIDFC procured (March 2017) GIS license at a cost of ₹3.99 crore for six smart cities²⁹ to provide a common GIS-based city operation platform in the ICCC.

Audit observed that the warranty of the procured license expired in March 2018 and the proposal to renew the same was deferred as ICCC projects were still at tendering stage. The proposal for renewal of the expired license and software development for existing GIS applications at a cost of ₹2.00 crore from the original supplier was approved by the HPSC subsequently in September 2020. Thus, the GIS license procured during March 2017 could not be utilized by the smart cities rendering the expenditure of ₹3.99 crore wasteful.

The State Government replied (April 2025) that nodal agency had ensured economy through early procurement of GIS licenses at DGS & D rate and their renewal at competitive rates by directly negotiating with OEM. The reply was not acceptable as the procurement of GIS licences (March 2017) before completion of tendering and appointment of system integrators was unwarranted, which resulted in wasteful expenditure of ₹3.99 crore.

4.6.1.3 Duplication of security infrastructure

As per the GoK guidelines for establishing Command-and-Control Centre, smart cities should use security infrastructure such as firewall, intrusion prevention system, antivirus, web application firewall, distributed denial of services, security information and event management system and enterprise management system provided at centralised data centre at KMDS. As per the guidelines, the security infrastructure had been provisioned in the RFP of MSI for establishment of Centralised Data Centre at KMDS.

²⁹ Belagavi, Davanagere, Hubballi-Dharwad, Mangaluru, Shivamogga and Tumakuru.

However, on scrutiny of RFPs of the ICCC Phase-I and Phase-II in MSCL, Audit observed that security infrastructure provisioned in the RFP of MSI was duplicated in the contract agreement of LSI for establishment of ICCC in Mangaluru city. The total cost of provisions made for security infrastructure as per the approved Bill of Quantity (BoQ) worked out to ₹3.02 crore.

As provision of security infrastructure comes under the scope of MSI, provisioning of these infrastructure in the scope of LSI resulted in duplication of item of work worth ₹3.02 crore which was avoidable.

The State Government replied (April 2025) that installing minimum security features to protect the application and field-level devices installed at the city level was essential. The reply was not acceptable as no other smart city in the state had installed the above security features in their city-level data centre. Further, the reply was in contravention to the guidelines issued by State Government for establishment of ICCC.

4.6.1.4 Appointment of ineligible LSI in Shivamogga Smart City

The tender for appointment of LSI for implementation of ICCC project in SSCL was awarded (August 2020) to a consortium at the tendered price of ₹41.84 crore. Audit scrutiny of the tender files revealed the following:

- **OEM Experience Violation:** The selected LSI claimed the work experience of OEM *viz.*, M/s Synergy Telematics Private Limited (OEM) for implementing smart Solid Waste Management (SWM), even though the LSI did not possess the work experience. This violated the MoHUA-prescribed model RFP, which did not allow the use of OEM experience.
- **Change of OEM:** According to the model RFP guidelines, changing the OEM was allowed only in exceptional cases, such as the closure of the company. However, the LSI executed the SWM component through a different OEM, M/s Ajeevi Technologies Private Limited, after the tender was awarded, which was not justified.
- **Eligibility of the Lead Bidder:** The original tender conditions required the lead bidder to have a minimum of 50 *per cent* of the overall turnover (₹100 crore). However, this condition was amended in February 2020, allowing the lead bidder to qualify by demonstrating experience in similar ICT projects worth ₹50 crore in the past five years. This change contradicted the MoHUA model RFP. Audit further observed that the lead bidder's turnover over the past five years was only ₹34.83 crore, which would have made them ineligible without the amendment.

Thus, the dilution of the standard tender condition resulted in selection of ineligible LSI for implementation of ICCC project in Shivamogga. Further, acceptance of change in OEM after the award of tender vitiated the sanctity of tender evaluation.

The State Government replied (April 2025) that the turnover clause was in line with KTPP Rules and not with model document of MoHUA. The common practice in procurement under KTPP norms is to seek annual turnover as two times the amount put to tender. It was also stated that modification of OEM post award of work was permissible as per model RFP of MoHUA.

The reply was not acceptable as in absence of specific guidelines for qualifying the lead bidder in KTPP rules, the model RFP document provided by MoHUA was to be considered. Regarding modification of OEM post award of work, it was applicable only in exigency of the closure of the company as per the Model RFP.

Recommendation 4: *The SPVs should ensure that the software applications installed are used effectively, should be timely and should not reach end of life/support during the contract period.*

4.7 Implementation of smart solutions by SPVs

As per the para no 2.5 of Mission guidelines, smart solutions adopted in the Pan City projects were to be adaptive or based on best practices that worked in another city. The various smart solutions proposed by the Smart Cities are detailed in the **Table 4.6**.

Table 4.6: Details of smart solutions proposed in the SCPs

S.L No	Smart Solutions	BSCL	BenSCL	DSCL	HDSCL	MSCL	SSCL	TSCl
1	Intelligent Transport System	✓	✓	✓	✗	✓	✓	✓
2	Intelligent Traffic Management System	✓	✓	✓	✗	✓	✓	✓
3	Intelligent Solid Waste Management	✓	✓	✓	✓	✓	✓	✗
4	Smart Classroom	✓	✓	✓	✓	✓	✓	✓
5	One City One Portal	✓	✓	✓	✓	✓	✗	✓
6	Smart Water	✓	✗	✗	✗	✗	✓	✗
7	Smart Health	✗	✗	✗	✓	✗	✗	✗
8	Smart Parking	✓	✗	✗	✓	✓	✓	✓

Source: Information furnished by Smart Cities

On evaluation of ICT enabled smart solutions implemented by the Smart Cities, Audit observed that utility of these technological interventions was negligible due to incomplete assessment of requirements, lack of coordination with other agencies and selection of technology without considering the requirement of end-users. Detailed observations are brought out in the succeeding paragraphs:

4.7.1 Intelligent Transport System

The ICCC project included Intelligent Transport System (ITS) with the following objectives:

- Installation of GPS based Automated Vehicle Locator System (AVLS) connected with City Operation Centre.
- Installation of variable message sign at the selected bus shelters
- Integration of the AVLS on GIS maps

- Providing a Mobile/Web site-based information to passengers about the real time location of buses.

Audit observed the following deficiencies in implementation of Intelligent Transport Management system (ITMS) in three³⁰ out of four cities which had reached “Go-Live” stage:

4.7.1.1 Belagavi Smart City Limited

Out of 271 GPS procured under the Mission, 35 devices (out of 56 devices allotted) were installed in Ambulances, 138 GPS installed in SWM vehicles of Belagavi City Corporation (BCC), 67 installed in Government buses and 10 were installed in Fire engines. On scrutiny of MIS report, Audit observed (July 2024) that GPS devices were live only in 21 out of 35 Ambulances. In other vehicles GPS was either inactive or scrapped.

The State Government confirmed (April 2025) the fact of non-utilization of above GPS devices.

4.7.1.2 Mangaluru Smart City

- Out of 200 GPS devices procured under the Mission, 35 devices were installed in KSRTC buses, 118 installed in Mangaluru City Corporation (MCC) SWM vehicles, 10 in ambulances and eight devices were installed in fire engines. On scrutiny of MIS report, Audit observed (May-2024) that GPS devices were live in only 08 out of 35 KSRTC buses and 114 out of 118 SWM vehicles. However, all GPS devices installed in ambulances and fire engines were live and being tracked.
- The passenger information system was installed in 20 smart bus shelters under the Mission. JPV of five³¹ test checked smart shelters revealed that they were non-functional. The contract for the smart bus shelter project had expired and the MCC, which was handed over (September 2020) with the shelters had not taken action to renew the contract and make the system operational.
- ITMS includes the online information provider app. However, only 1000 plus people have downloaded (May 2024) “One Touch Mangaluru App” which was another mode of conveying the information to public.

While accepting the observations, State Government replied (April 2025) that the integration of above applications is in progress and number of downloads will increase exponentially. The reply confirms the fact of non-reachability of the application due to poor integration.

4.7.2 Intelligent Traffic Management System

The Intelligent Traffic Management System (ITMS) intended to automate the process of traffic management by optimally configuring the traffic junction lights on real-time basis, minimise the traffic congestion and waiting time and centrally control the traffic management system to ensure smooth movement of

³⁰ BSCL, HDSCL and MSCL.

³¹ Circuit House Kadri Hills, Kanadka Shakthinagara,, KIOCL, Near St.Agnes College Bendoor, and Padav Junction.

emergency services, increase traffic signal efficiency, improved journey time reliability *etc.* The deficiencies in implementation of the system are brought out in succeeding paragraphs:

4.7.2.1 Usage of outdated technology cameras

The scope of ICCC Phase-II project in MSCL included supply, installation, and commissioning of Automatic Number Plate Recognition (ANPR) system covering ANPR cameras, evidence cameras, speed sensors *etc.*, along with applications/solutions including operation and maintenance for five years. In (March 2021), the Police Commissioner, Mangaluru noted that the CCTV cameras installed under ICCC Phase I were of outdated technology, typically used in homes and commercial establishments. The Global shutter Speed LPC camera was a better option than the ANPR bullet camera and proposed their usage under the Mission. However, on scrutiny of RFP of ICCC Phase-II, Audit observed that the specifications suggested by the Police Commissioner, Mangaluru were not incorporated in the RFP as on date (June-2024).

The State Government replied (April 2025) that the ANPR cameras were purchased and installed. The system has been fully verified by the Police department and post provisioning of online payment the system will be made live.

The reply is not acceptable as it fails to incorporate the specification recommended by the Police Commissioner, specifically the global shutter speed for the LPC camera. This oversight further confirms that the ANPR cameras, despite installation, has not been utilized, thereby undermining the intended purpose of the project.

4.7.2.2 Procurement of RADAR based ATCS solution in violation of Technical Committee recommendations

The contract with MSI for ICCC project in SSCL included implementing Adaptive Traffic Control System (ATCS)³² as part of its Intelligent Traffic Management Solution. In this regard, the following audit observations were made:

- The Technical Committee, KUIDFC directed (December 2019) that thermal camera-based vehicle detector be used for ATCS. SSCL agreed (December 2019) to adopt thermal camera-based solution for ATCS and RADAR based solution for the Speed Violation Detection System. However, in the final RFP choice was given either for RADAR based or thermal based system in contravention to the direction of the Technical Committee.
- Based on the RFP, the MSI of the ICCC project proposed a RADAR based solution for ATCS.
- Camera based sensors were economical in comparison to RADAR based sensors. Audit compared the cost of camera based ATCS solution

³² ATCS is a traffic management strategy in which traffic signal timing changes based on the actual traffic demand.

implemented by the TSCL and calculated the extra financial implication of ₹2.75 crore due to implementation of RADAR based ATCS solutions.

The State Government replied (April 2025) that while floating RFP, SSCL had ensured that the type of vehicle detector being sought was technology agnostic and the bidder was free to propose an appropriate technology that can be either Radar or Camera. The above reply was not acceptable as the technical specifications of the RFP should have been prepared in accordance with the directions of the Technical Committee considering the huge cost of radar-based sensors.

4.7.2.3 Incomplete assessment of the requirement in RFP

Audit observed the following deficiencies in the RFP of BSCL with respect to ITMS:

- i) *Vehicle breakdown detection system*: The RFPs did not cover the above analytics which was effective in avoiding traffic congestion and accidents.
- ii) *Revenue generation*: The RFP did not provide for automated traffic challan generation. As traffic violating vehicle numbers would be detected by ANPR analytics, automatic generation of traffic violation challans would ensure increased compliance with the traffic rules.

The State Government replied (April 2025) that due to budget constraints the vehicle breakdown detection system and challan generation system was not considered, and the project is still in execution phase. The reply is not tenable as the RFP did not include the above components for holistic implementation of ITMS and revenue generation could not be achieved.

4.7.3 Information Communication Technology enabled Solid Waste Management System

Information Communication Technology (ICT) enabled SWM was one of the smart features implemented by the Smart Cities under ICCC Project. The scope of the ICT enabled SWM included the following:

- Design, development, supply, deployment and installation of web-based application software integrated with GPS and RFID devices.
- Supply and installation of hardware, software and network devices required in the data centre for using the integrated SWM.
- Supply and installation of RFID tags and readers, providing of automatic vehicle locator solution at primary and secondary collection points.
- Supply and installation of surveillance cameras at bulk waste generation points and provide GPS based attendance system for the staff.
- Providing an MIS System capable of recording the details of daily waste receipt, waste processed, and waste disposed in terms of tonnage.
- Integration of SWM with City Operation Centre.

Out of seven smart cities in Karnataka, four cities viz., Belagavi, Hubballi-Dharwad, Mangaluru and Shivamogga implemented ICT enabled SWM components under ICCC. ICCC project in Shivamogga city was yet to be made

“go live” while in case of Bengaluru city, though the ICCC project initially had SWM component, later it was descope.

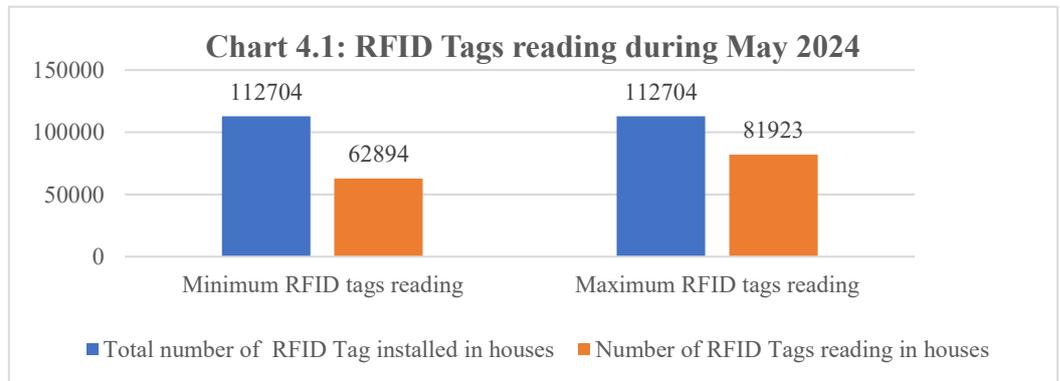
On scrutiny of records, Audit observed that in none of the four cities, the infrastructure created under this component was put to use by the end user department thereby rendering the expenditure of ₹15.43 crore incurred on this component infructuous. City wise observation on implementation of ICT enabled SWM components are brought out in the succeeding paragraphs:

4.7.3.1 Belagavi Smart City

BSCL implemented the ICT enabled SWM system under ICCC project incurring an expenditure of ₹3.66 crore. The objective of the above system included:

- Real time management of missed garbage collection points.
- Reduction of human intervention in monitoring process.
- Ensure complete door-to-door coverage and community collections.

On review of records, Audit observed that the system made “Go-live” on 17 October 2020. The project was handed over to the Belagavi City Corporation (BCC) and is being utilised. Even though the training for usage of RFID tag was provided to all *pourakarmikas* by the MSI, the utilisation of RFID machines ranged between 55 per cent to 72 per cent (May 2024) only as shown in **Chart 4.1**.



The State Government replied (April 2025) that Belagavi CC has invited new sanitation tender and work orders will be issued shortly and efforts will be made to utilise manpower available to make ICT enabled SWM System more effective. The reply confirms the fact that the infrastructure acquired is not put to use till date and real time management of missed garbage collection could not be achieved.

4.7.3.2 Extra expenditure due to incorrect assessment of requirement RFID tags for SWM activities – ₹55.91 lakh – Hubli-Dharwad Smart City

Review of purchases of RFID tags revealed that out of 3,00,000 RFID tags procured (June 2020), only 2,12,134 tags were installed at the property premises and the remaining 87,866 RFID tags were lying in stock/not put to use. Thus,

procurement of excess RFID tags more than the requirement resulted in avoidable expenditure of ₹55.91 lakh.

Further, State Government replied (April 2025) that the Hubballi-Dharwad Municipal Corporation (HDMC) will utilize the RFID tags as and when necessary. This reply confirms that the additional 87,866 RFID tags were not immediately required, leading to wasteful expenditure due to the purchase of more than requirement.

4.7.3.3 Bengaluru Smart City

BenSCL appointed (March 2021) MSI for implementation of ICCC project under which ICT based SWM was one of the major components. However, BenSCL decided (April 2022) to descope the ICT based SWM components from the ICCC project as the State Government formed (May 2021) Bengaluru Solid Waste Management Limited (BSWML) to execute SWM projects. Till the decision of descopeing SWM component was taken, the MSI had already completed preparation of project inception report and submitted functional and software requirement specifications as stipulated in the Service Level Agreement. The MSI was paid (January 2022) an amount of ₹1.85 crore for the work carried out in relation to SWM component in the ICCC project. The entrustment of SWM component to the MSI and payment of ₹1.85 crore could have been avoided as the decision to establish the Company was taken by BBMP in January 2021 and Government order for formation of BSWML was issued (5 March 2021) before the issue of work order of ICCC.

The State Government replied (April 2025) that the project has now been completed, and the final Bill of Quantities (BoQ) has amounted to ₹79.75 crore, after excluding the Solid Waste Management (SWM) and other ICCC components worth ₹25.01 crore.

However, the reply indicates that the proper due diligence was not exercised in assigning the SWM activities to BSWML. Moreover, the reply does not clarify whether the excess payment made has been recovered or adjusted from the agency.

4.7.4 Sub-optimal functioning of ICCC due to absence of interdepartmental coordination

One of the key objectives of ICCC project in HDSCL was to establish a collaborative framework where inputs from HDMC and different functional departments such as transport, water, fire, police, e-governance *etc.*, can be assimilated and analysed on a single platform to generate aggregated city level information. Audit observed that the above objectives were not achieved due to lack of inter-departmental coordination as explained below:

- Integration of City Surveillance System implemented by the Police and Traffic department was yet to be carried out despite several correspondences made with the police department.
- Similarly, City Surveillance System and Intelligent Transport Management System implemented by the Hubballi-Dharwad Bus Rapid Transport System (HDBRTS) could not be integrated with ICCC due to

non-provision of information such as location of CCTV cameras, data related to bus routes and stations by HDBRTS.

- Integration of Centralised Control and Monitoring System (CCMS) for LED streetlights also was not carried out as the project for installation of LED light on PPP basis did not materialise.
- Integration of disaster management systems, environmental sensors, energy meters, digital display boards and smart health kiosk were yet to be accomplished.

The State Government stated that the integration of line departments with ICCC is pending due to, either non- readiness of local system at department level or due to security reason, line departments are not willing to provide API/information for further integration with ICCC.

The reply confirms the fact that there is lack of inter-departmental coordination indicating sub-optimal functioning of ICCC.

Recommendation 5: The State Government should ensure operationalization of Centralised Command and Control Centre with integration of all data centres of seven cities to achieve the intended objectives.

4.7.5 Other Smart Solutions

4.7.5.1 Smart Water supply

The Smart Water component implemented by BSCL aimed to establish an Information Management System (IMS) for water consumption tracking, integrating data from bulk flow meters, pressure sensors, and water quality monitoring tools (PH, turbidity, chlorine sensors). MSI would make provision for future integration of Water SCADA³³ and smart domestic meters in the Smart Water Management System. MSI installed 28 bulk flow meters, sensors, and provided 20 Android devices for meter reading and cloud-based database management for 1,00,000 users. The total expenditure on this was ₹0.63 crore.

Audit observed the following:

- **Duplication of work:** The scope of the 24×7 water supply scheme implemented by KUIDFC under progress also included installation of flow meters, PH, turbidity and chlorine content sensors. This resulted in duplication of work.
- **Unutilized assets:** Despite the BSCL's request (February 2022) for the Belagavi City Corporation to take over the Android devices and cloud-based DBMS, these assets remained unused, making ₹0.36 crore expenditure unfruitful.
- **SCADA integration:** While the Smart Water initiative included future SCADA integration with the ICCC, the 24×7 water supply project by

³³ Supervisory Control and Data Acquisition System.

KUIDFC did not include SCADA for water distribution, rendering the expenditure for SCADA integration unproductive.

The State Government replied (April 2025) that the sensors and meters installed under the Smart Water component would be used in the KUIDFC project, and SCADA would be integrated once the 24×7 water supply project is complete. The meter reading devices and DBMS would be used for the entire city as the 24×7 project reaches completion.

The reply confirms the fact that the assets created under the project have not yet been put to use, awaiting the completion of the new project. This indicates a lack of synchronization between the involved agencies.

4.7.5.2 Sub-optimal utilisation of Smart Health Care System

HDSCL undertook the project to upgrade the Government Chitaguppi Hospital as a Smart Hospital with technological, equipment and software solutions providing digital technology based integrated healthcare facilities to improve the quality of citizen's healthcare services and efficient healthcare management. The work which was awarded (March 2019) to a vendor at the contract price of ₹3.05 crore was completed on 30 October 2019. The scope of the proposed Smart Healthcare Project included the following modules as detailed in **Table 4.7**.

Table 4.7: Status of implementation of modules

Module	Details	Implementation status
Aadhaar-based Electronic Health Records	for patient identification, storing and accessing medical history	Aadhaar-based Electronic Health Record was not implemented. HDSCL stated that due to data privacy and confidentiality it was suggested not to make Aadhar as mandatory for EMR generation.
Virtual/Remote Health care	for remote interaction with doctors	The number of patients registered through the Smart Healthcare System was significantly lower compared to the number of monthly visits.
Smart Diagnostics	for early detecting, predicting, preventing, and diagnosing chronic and critical illness in patients using various latest techniques like analytics, artificial intelligence, and machine learning algorithms-based tools.	There was a low frequency of consultants carried out by registered patients with doctors through the system
Smart Hospital Management System	for end-to-end management of workflow-based hospital activities for efficient management of patients visiting the hospital	Additionally, the Medicine Vending Machine was not fulfilling its purpose as it was used very infrequently by registered patients for dispensing medication. Tele-consultation Module was not utilised.

Source: Information furnished by Smart Cities

The State Government replied (April 2025) that Electronic Health Record Module was implemented in which all the data related to patients was captured. In respect of all other modules, HDSCL had facilitated, trained and catered to

the needs of the hospital in compliance with the project scope. However, the utilisation of the system did not come under its purview.

The reply was not acceptable as the supporting documents related to the implementation of the electronic health records module were not provided. Additionally, the response highlighted a lack of coordinated efforts with the line department, which has hindered the effective utilization of the installed smart system.

B AREA BASED DEVELOPMENT PROJECTS

4.8 Design of footpaths

The Indian Road Congress (IRC) 103 (Guidelines for Pedestrian facilities) prescribed the following:

- Footpath should be designed in a connected and continuous way like roadways and railways. It should not be sporadically placed wherever convenient but should be provided consistently.
- No utility ducts, utility poles, electric/water/telecommunication boxes, trees, signage, or any obstruction should be placed within the walking zone.

On scrutiny of records and Joint inspection (May 2024) of smart roads constructed by DSCL, Audit observed that footpaths constructed under the mission were not continuous, not of minimum width, obstructed by utilities and found encroached. (Exhibit 4.1).

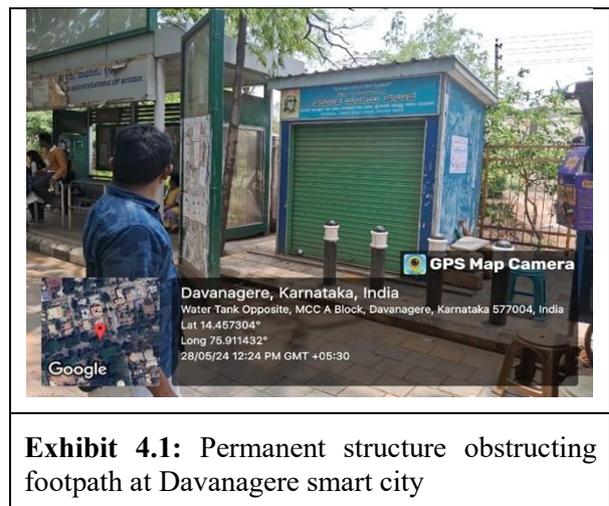


Exhibit 4.1: Permanent structure obstructing footpath at Davanagere smart city

The State Government replied (April 2025) that footpaths were constructed with a minimum width of 1.2 meters, except at locations with ongoing litigation, unclear Right of Way, or near crossroads/approaches. It also stated that obstructions and encroachments were created after the footpaths were built by DSCL. However, the fact remains that these obstructions and encroachments were not cleared, obstructing the smooth passage of pedestrians.

4.9 Impact assessment of Smart City Projects

The scope of the duties of the PMC included preparation and submission of project completion reports along with project impact assessment studies listing out all project beneficiaries. Audit observed that only in respect of 356 out of

562 completed projects (63 per cent), project impact assessment had been completed as detailed in the **Table 4.8**.

Table 4.8: Details of Project Impact Assessment Reports

Smart City	Projects completed	Projects for which Impact analysis completed
Belagavi	97	80
Bengaluru	32	19
Davanagere	85	30
Hubballi-Dharwad	55	14
Mangaluru	39	18
Shivamogga	75	49
Tumakuru	179	146
Total	562	356

Source: Information furnished by UDD

SCP of each city contained the baseline survey and intended output and outcomes after implementation of the Mission. The impact analysis carried out by PMCs should specify whether the outcome/output was as per goals and vision of Smart Cities. However, none of the project impact analysis reports submitted by PMCs benchmarked the outcomes/impact of the project against the goal metrics substantiated with requisite data/information, thus defeating the purpose of impact analysis.

Recommendation 6: The State Government should ensure that roads/pavements laid adhere to IRC standards and recommendations of technical committee.

4.10 Absence of coordination between SPVs and user Department

Audit observed that infrastructure under the Smart Road projects remained unutilised due to provision of infrastructure without taking into consideration the requirement of end user department as detailed below:

4.10.1 Non-utilisation of water pipelines laid in Smart Road projects

The BSCL laid 315mm MDPE³⁴ pipes for a length of 5.72 km for waterline in utility ducts in three smart road packages in Belagavi city based on the final DPR (February 2018) for road development projects.

The proposal of up-scaling 24×7 water supply to three cities³⁵ at an estimated cost of ₹1,809.00 crore had been approved (November 2013) under Karnataka Urban Water Supply Modernisation Project (KUWSMP) by KUIDFC. The SCP for BSCL (approved by 2nd HPSC on 11 December 2015) also included 24×7 water supply project under convergence duly considering the scheme already implemented by KUIDFC. However, BSCL failed to coordinate with the implementing agency and ascertain the end user's requirements as Superintending Engineer (SE), KUWSMP intimated (November 2022) that the

³⁴ Medium Density Polyethylene.

³⁵ Belagavi, Kalaburagi, and Hubballi-Dharwad cities.

pressure rating of pipes laid under the Mission was not matching with that of the pipes laid under KUWSMP. As a result, the pipeline laid by BSCL could not be utilised under 24x7 water supply system taken up under KUWSMP. The SE, KUWSMP also clarified (November 2022) that the estimates/design of the pipelines laid under smart road projects were not vetted by them.

The State Government replied (April 2025) that at present, BSCL has handed over all the assets created to various line departments. Laying of underground water pipe lines by Agency is under progress and will be completed within three years. Water pipelines laid by BSCL will be utilised for the water supply project. The reply confirms that the assets created by BSCL were not put to use till date.

4.10.2 Damages caused to Infrastructure created under smart road projects due to laying of 24X7 water pipeline

The work order for 24x7 water supply was issued to M/s Larsen & Toubro (L&T) Ltd., for the laying of water pipeline across Belagavi City. The approval for laying the pipeline was accorded by BSCL and same is being carried out along with the existing smart roads. Consequently, the following road/ footpath/ extended carriage way/ Paver Block have been damaged due to laying the pipeline works.

- (i) Paver block roads- (works executed under Package-15, 16, 17 and 22)
- (ii) Smart roads- (works executed under Package-1, 2, 4 and 5)
- (iii) White topping roads- (work executed under package- 1, 2, 3, 10 and 12)
- (iv) Non-Motorised Vehicles (NMV) Roads- (works executed under packages- 1 and 2)

The restoration works for the above roads were supposed to be carried out by the KUIDFC/KUWSMP³⁶ as per the specification of BSCL. However, Audit observed that bituminous is used in place of RCC road and pavement and the restoration works has not been carried out as per the specification of BSCL (Exhibit 4.2 and 4.3).

<p>Exhibit 4.2: Smart Road excavated</p>	<p>Exhibit 4.3: Restoration work done by KUIDFC</p>

³⁶ Karnataka Urban water Supply Modernisation Project taken up by KUIDFC.

Further, even after repeated request/notices issued by BSCL to KUWSMP & KUIDFC, the restoration works were not carried out as per the specification of BSCL.

The issue of restoration of smart city roads by the 24X7 water supply project was discussed in the meeting held on 31 October 2023. The concerned DBOT (*i.e.*, agency) informed that nine km for Clear Water Transmission Main (CWTM) and 78.46 km (Approx) for distribution network comes in smart city road needs to be restored. After detailed discussion KUIDFC directed the KUWSMP and BSCL to jointly prepare a detailed estimate as per 2018-19 SR considering all the above and put up the subject before Executive Committee for approval. Accordingly, an estimate has been prepared by the concerned department for restoration of smart city roads which works out to ₹18.85 crore, which is to be approved by the competent authority.

Thus, the infrastructure created under smart road projects got damaged due to laying of 24X7 water pipeline which not only led to wastage of public money but also disrupted the efficiency and purpose of the original project.

The State Government accepted the observation and stated that KUIDFC is exploring the option to restore roads to its originality.

4.10.3 Non-utilisation of gas pipes in underground ducts

BSCL laid 250mm MDPE pipes for a length of 5.751 km, costing ₹2.01 crore for gas supply in three Smart Road packages. During planning stage, the contractor executing gas pipeline work in the city on behalf of Gas Authority of India Limited, suggested (September 2017) the following modifications to be made in the estimates:

- Natural gas pipeline must be carried through MDPE pipes as it could not be laid in the duct.
- For every 750-meter interval, provision should be made to install stop off valves. In an emergency, squeezer should be installed to temporarily cut-off supply and change the damaged part.
- For every new branch stop off valves must be installed within 10 metres from the tap off.

However, on scrutiny of records Audit observed that modification suggested by the contractor was not considered while executing the work. The gas pipeline provided by the BSCL did not have provisions for stop off valves, squeezer *etc.* In the absence of requisite security infrastructure, the gas pipeline created by the BSCL could not be utilised for gas supply till date.

The State Government replied (April 2025) that the provisions for stop of valves and squeezers were not provided by BSCL and are to be installed with requisite technical specifications. The fact remains that absence of co-ordination with the stakeholders, the gas pipes laid under the project could not be utilised as on date.

4.10.4 Usage of DWC ducts for laying High/Low tension cables

The scope of Smart Road projects included laying underground electrical ducts for carrying HT/LT electricity cables. TSCL, SSCL and HDSCL utilised

DWC³⁷ pipes for carrying the electricity cables in the underground ducts incurring an expenditure of ₹15.70 crore³⁸. Audit observed that the decision of laying of DWC pipes was taken without analysing its technical feasibility as detailed below:

- Mangalore Electricity Supply Company (MESCOM) had suggested (January 2020) not to lay HT/LT cables through DWC pipes due to demerits such as poor heat dissipation, insufficient mechanical strength, chances of water accumulation in HT/LT chambers *etc.*
- DSCL utilised single wall HDPE³⁹ pipes as conduit material with benefits such as durability, easy handling and workability, high tensile strength *etc.*, and thus offered enhanced protection to the electricity cables and was handy for carrying out repair works.
- Even the Technical Committee, KUIDFC had recommended (May 2020) laying HDPE pipes in place of DWC pipes while approving variations for Smart Road packages.

Thus, laying DWC pipes by TSCL, SSCL and HSCL without considering the inputs from the user departments and without conducting adequate technical investigations resulted in inadequate quality control for the expenditure incurred. The technical Committee, KUIDFC also failed to adopt a uniform and feasible stand while deciding the conduit material for electricity duct during the DPR approval stage as HDPE pipes were used in other Smart Cities.

The reply furnished by the Government is silent on the above audit observation.

4.10.5 Non-utilisation of road constructed under the Mission

MSCL undertook (March 2021) the construction of the connecting road from NH-66 near Jeppu to Morgan's gate including construction of Road Under Bridge (RUB) to reduce the traffic congestion at Pump well circle which was the entry point to Mangaluru city from NH 66. The work included three parts as detailed below.

- Four lanes 18 metre wide connecting road of length 485 metre from NH 66 to proposed RUB.
- Four lanes RUB to Mangaluru junction and Central Railway Station⁴⁰.
- Four Lanes 18-metre-wide connecting road of length 650 metre from proposed RUB to Emphasis junction.

The total project cost of the work was ₹ 49.95 crore including construction of Railway Under Bridge (RUB). Out of total project cost of ₹ 49.95 crore, an amount of ₹30.07 crore was transferred (August 2019 to March 2021) to Indian Railways for construction of RUB. The construction of the connecting roads at the cost of ₹17.06 crore, commenced during March 2021 and was originally scheduled for completion by March 2022. As of May 2024, the project is still

³⁷ Double wall Corrugated.

³⁸ HDSCL ₹8.81 crore, TSCL ₹3.27 crore and SSCL ₹3.62 crore.

³⁹ High density Polyethylene.

⁴⁰ The work was initially taken up by MCC and an amount of ₹13.99 lakh was deposited (June 2014) with Indian Railways.

ongoing. The agency has achieved a total financial progress of ₹13.82 crore (17th and Part bill dated 16.02.2024)

JPV (May-2024) revealed that RUB works taken up by Railway is under progress. However, the road work from RUB to emphasis junction is hindered due to non-clearance of site (*i.e.*, one building coming in one of carriage way) (**Exhibit 4.4 and 4.5**).

	
<p>Exhibit 4.4: Non-clearance of Site</p>	<p>Exhibit 4.5: Work yet to be started for RUB</p>

As per paragraph 135 of KPWD code, all works should be commenced only after issue of work orders by the competent authority and signing of agreement and handing over the site free of encumbrances after following the prescribed procedures. However, in the instant case, the requisite land for completion of the project was taken into possession by MCC, after 20 months of awarding the works.

The State Government replied (April 2025) that all land acquisition issues have been resolved in entire stretch and attained a physical progress of 85 *per cent*. The reply confirms the fact that the work is still incomplete and the objective of constructing the RUB to reduce the traffic congestion could not be achieved timely.

4.10.6 Idling of Infrastructure created under the SCM

Objective of Smart City Mission is to promote cities that provide core infrastructure and give a decent quality of life to its citizens, a clean and sustainable environment and application of ‘Smart’ Solutions as provided in Clause 2.3 of the Guidelines. As per Clause 10.1 of the guidelines, Government contribution for Smart City is used only to create infrastructure that has public benefit outcomes. Accordingly, the SCP incorporated projects relating to the core infrastructure specified in the guidelines vide Clause 2.4. The infrastructure created by HDSCL amounting to ₹62.60 crore is unutilised as on date (June 2024) as detailed below **Table 4.9**.

Table 4.9: Details of unutilised infrastructure

				(₹ in crore)
Sl. No	Name of project	Execution Cost	Date of completion of project	Remarks
1.	Chittaguppi Hospital Upgradation	22.75	May-2021	Not utilised since completion
2.	Development of Fish Market	5.64	April-2022	
3.	Renovation of Core Markets-Janta Bazaar	20.00	October-2022	
4.	Vani Vilas Development (BSUP)-1BHK-80 Units	14.21	September-2022	
Total		62.60		

Source: Information furnished by HDSCL

Audit observed the following:

- **Idle Infrastructure Post-Completion:** Assets created/completed between April 2022 and March 2023 remain unused as of June 2024, leading to idle periods of 15 to 26 months.
- **Chittaguppi Hospital Upgradation:** The upgradation project at Chittaguppi Hospital involved constructing a new block and additional infrastructure through the demolition of an existing building. The newly created facilities, including those on the first floor, were intended to replace services previously housed in the demolished structure. The project entailed extensive civil works and the procurement of medical equipment, incurring significant expenses due to the high costs associated with medical technology and infrastructure development. Despite the project being completed, these new facilities have remained unused for over a year. The continued idleness of the building and infrastructure not only impacts the project's financial viability but also raises concerns about the initial planning and execution of the upgradation initiative (**Exhibit 4.6 and 4.7**).

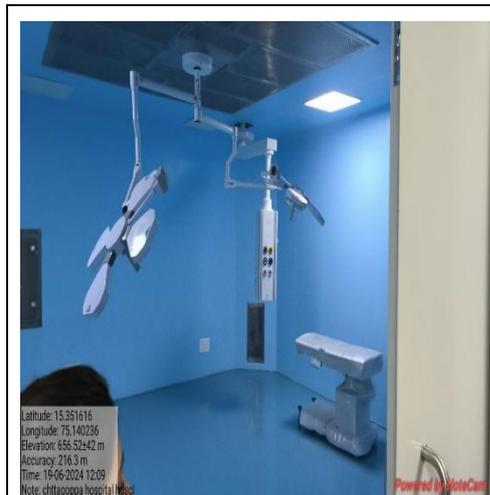
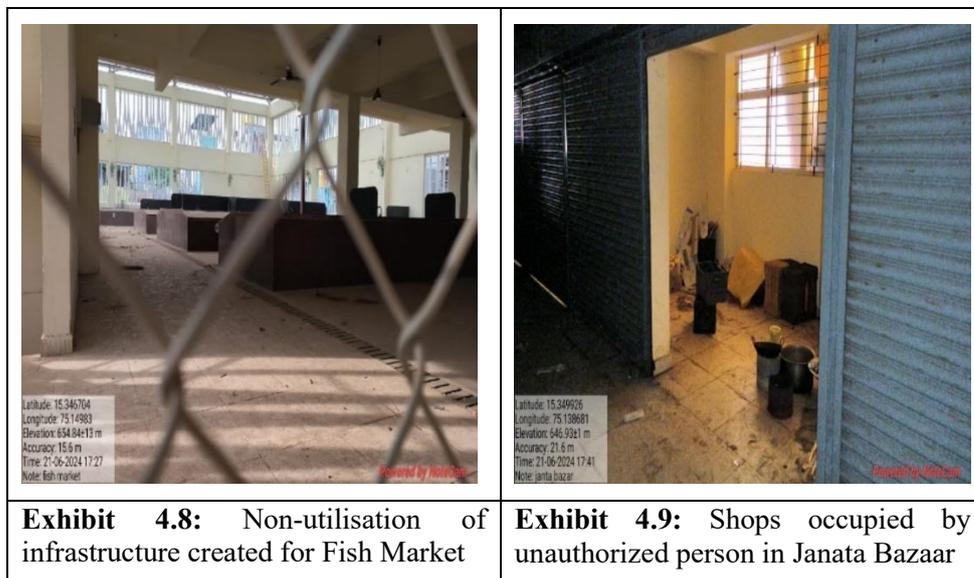


Exhibit 4.6: Medical Equipment still idle



Exhibit 4.7: Hospital Building not utilised

- **Market Infrastructure Utilization:** The infrastructure created for Markets (Fish and Janata Bazaar) has remained unused for over a year. Furthermore, due to delays in allotment, unauthorized persons have occupied shops in the Janata Bazaar (**Exhibit 4.8 and 4.9**).



- **Vacant 1BHK Units constructed for Urban Poor:** The infrastructure created to provide 1BHK units (80 units in total) for poor urban people under the Vani Vilas Development initiative has faced challenges in occupancy due to non-allotment by the concerned authority. Despite being ready for occupation, these housing units remain unoccupied, raising concerns about asset preservation and utilization. The prolonged vacancy poses risks of damage and depreciation, potentially compromising the intended benefits of the initiative aimed at providing housing for vulnerable urban populations (**Exhibit 4.10**).



The State Government replied (April 2025) that the upgraded hospital block has been handed over to the Hubballi-Dharwad Municipal Corporation and is operating at full capacity. The reply is not acceptable because the upgrade involved enhancing the existing block and constructing a new one. However, the provided pictures in reply pertains to the upgraded existing block, not the

new building, which is not yet operational. Regarding other observations, it was mentioned that the process of beneficiary identification is ongoing and will be completed in due course. Nevertheless, the facts remain that the assets created have not been utilized to date (21 June 2024).

4.10.7 Entrustment of works without possession of requisite land and statutory clearances

Mangaluru Smart City Limited (MSCL) proposed (March-2020) to undertake the Mangaluru Waterfronts development project worth of ₹185.48 crore along the river Nethravathi and Gurupoor. The said project was divided into six sub projects listed below **Table 4.10**.

Table 4.10: Details of waterfronts development projects

Sl. No.	Sub Project description	Remarks
1.	Waterfront area development sub project- Promenade development in 5 phases	Approved at State CRZ committee meeting held on 2 July 2022
2.	Area development at Tannirbhavi	Convergence project with Blue Flag Beach Department CRZ approval from Central Govt accorded.
3.	Area development at Sulthan Bathery	Recommended by District Coastal Zone Management Committee on 17 August 2022 and approved by KSCAZMA on 13.12.2022.
4.	Upgradation existing water jetty	Office of the regional director environment Dakshina Kannada requested for submission of EIA. As a precursor to proposal submission EIA is mandatory. At present EIA is under way and final report was expected by end of the August 2022. However, the same has not be placed before district coastal zone management committee as on date.
5.	Open air theatre and water sports park at Nayakudru	
6.	Pedestrian sea river link bridge at Sulthan Bathery	

Source: Information furnished by Smart Cities

After tender evaluation and approval by the competent authority the said works were awarded to the following agency for execution as detailed below **Table 4.11**.

Table 4.11: Details of work awarded of waterfronts development projects

Sl. No.	Sub Project description	Amount in crore (excluding GST)	Date of Award	Name of the Agency
1.	Waterfront area development sub project- Promenade development phase			
	Phase-1A	19.39	05.05.2022	SKS Karkala Infra Projects Pvt Ltd., Udupi, Karnataka
	Phase-1B (Land scaping and MEP)	11.32	05.05.2022	Udra Construction Pvt ltd., Sambalpur, Odisha
	Phase – 1 C (Electrical works)	5.22	05.05.2022	M/s OKAS Electricals, Bengaluru
	Phase-2A (Civil, Landscaping , Irrigation and plumbing)	12.91	05.05.2022	Mr. Tumkur Lakshman Rajendran, Tumakuru
	Phase-2 B (Electrical works)	1.33	05.05.2022	M/s Sunlight Luminaries, Mangaluru

Sl. No.	Sub Project description	Amount in crore (excluding GST)	Date of Award	Name of the Agency
2.	Area development at Tannirbhavi	7.79	05.05.2022	M/s S4 Engineering and Construction
3	Area development at Sultan battery	12.90	05.05.2022	Mr. Suresh Shetty
4.	Pedestrian sea river link bridge at Sultan battery	34.16	05.05.2022	M/s Mugrody Construction
5.	Upgradation existing water jetty	9.92	05.05.2022	M/s Govardhan and Company, Dakshina Kannada.
6.	Open air theatre and water sports park at Nayakudru	41.93	29.04.2022	M/s RK Infra India Pvt Ltd
Total		156.87		

Source: Information furnished by Smart Cities

Audit observed the following:

The said works were awarded without having the possession of land / obtaining statutory clearance from Port Authority / Karnataka State Coastal Zone Management Authority.

- The work of waterfront area development taken up in five phases is yet to be completed even after lapse of two years because the length of 2.1 km from Nethravathi bridge to Bolar Sea phase has not been made available by the port authority.
- The work of the Tannirbhavi area development under convergence project with Blue Flag Beach department is yet to be completed. Further, there is no written agreement between MSCL and Blue Flag Beach department/ Tourism department regarding sharing of revenue generated through the commercial activities to be carried out on completion of the project.
- The work of area development of Sulthan Bathery was approved by State Coastal Regulation Zone Committee in December-2022. However, even after lapse of more than one and half years there is no physical progress due to resistance from the local people in execution of the development works.
- Works of Upgradation of existing water jetty has been dropped. The construction of Pedestrian Sea River link bridge at Sulthan Bathery is yet to be taken up by contractor due to non-receipt of statutory clearance/approval from the District Coastal Regulation Zone Authority.
- The execution of the work of open-air theatre and water Sports Park at Nayar Kudru has been dropped as MSCL was not able to obtain statutory clearance from Karnataka State Coastal Zone Management Authority/District Coastal Regulation zone. The proposal for dropping

the above project was submitted and approved in 32nd board meeting (February 2024).

Thus, even after incurring an amount of ₹6.52 crore, the water/river front development projects envisaged (under Sl. No.1) were not completed. Further, due to dropping of works and non-identification of corresponding alternative works MSCL will not be able to utilise an amount of ₹51.85⁴¹ crore allocated funds leading to its lapsing.

The State Government replied (April 2025) that several projects were dropped in the Board of Directors meeting held on 29.02.2024, including the Area Development of Sulthan Bathery, the Upgradation of the existing water jetty, and the Open-Air Theatre and Water Sports Park at Nayar Kudru. The Pedestrian Sea River Link Bridge at Sulthan Bathery, originally budgeted at ₹35 crore, was revised into a ₹65 crore Road Bridge project with MSCL Board and HPSC approval, ₹30 crore from the dropped projects has been reallocated to the Road Bridge project. The remaining funds have been directed to the 'Development of DC Office' project.

The reply confirms that most projects were awarded without obtaining the necessary statutory clearances, leading to a shortfall in the intended benefits and the failure to fulfil their original purpose.

Recommendation 7: The State Government should establish adequate co-ordination mechanism with the end user departments to ensure that the technologies adopted conformed to their specification and that the assets created were utilised and maintained.

4.11 Provision of Basic Amenities

The projects taken up under "provision of basic amenities" included works related to 24 × 7 water supply, complete Underground Drainage (UGD) network with sewage treatment plant, construction of drains *etc.* The physical and financial progress of the projects undertaken in six cities, excluding Bangalore⁴², under the "Provision of Basic Amenities" as of June 2024 is outlined in **Table 4.12**.

⁴¹ Upgradation existing water jetty at ₹9.92 crore and Open air theatre and water sports park at Nayar Kudru at ₹41.93 crore.

⁴² Bengaluru has not undertaken any projects under the 'Provision of Basic Amenities'.

Table 4.12: Physical and financial progress under provision of basic amenities

Sl. No	Smart City	Physical (in numbers)			Financial progress (₹ in crore)	
		Total	Completed	Ongoing	Project Cost	Expenditure
1	Belagavi	3	3	0	1.85	1.85
2	Davanagere	64	61	3	712.79	508.83
3	Hubballi-Dharwad	14	11	3	434.92	254.84
4	Mangaluru	35	19	16	685.86	511.56
5	Shivamogga	8	8	0	48.50	46.50
6	Tumakuru	23	23	0	82.87	73.76
Grand Total		147	125	22	1,966.79	1,397.34

Source: Information furnished by Smart Cities

Audit test checked 23 out of 147 projects taken up under “Provision of basic amenities”. The observations are as detailed below:

4.11.1 Non-linking of sewerage infrastructure created under the Mission with Central and State projects

Providing underground drainage network was one of the projects outlined in the approved SCP of Mangaluru City. Since the Asian Development Bank and AMRUT schemes were under various stages of implementation in the city, the scope of the project taken up under the Mission was restricted to providing and laying of laterals and house service connections falling within the ABD areas. The total expenditure incurred on UGD package projects was ₹9.44 crore.

On scrutiny of records, Audit observed that the completion and commissioning of UGD package was hampered due to non-execution of manholes in works taken up under AMRUT scheme by the KUIDFC. Consequently, MSCL diverted the sewage lines to other manholes which were already choked, and network was in danger of complete collapse. The entire sewerage network laid in UGD package under the smart city mission was to be connected to the trunk sewers laid under the AMRUT scheme to make the UGD networks functional. Thus, non-execution of manholes under AMRUT scheme resulted in the entire sewerage network laid under UGD packages of the Mission dysfunctional rendering the expenditure of ₹9.44 crore incurred on the projects unfruitful.

The State Government replied (April 2025) that due to certain issues the Contractor appointed by KUIDFC did not perform and had to be terminated by KUIDFC, hence the 27 manholes which are critical for Mangaluru Smart City Limited network were not completed. The fact remains that the manholes were not constructed till date.

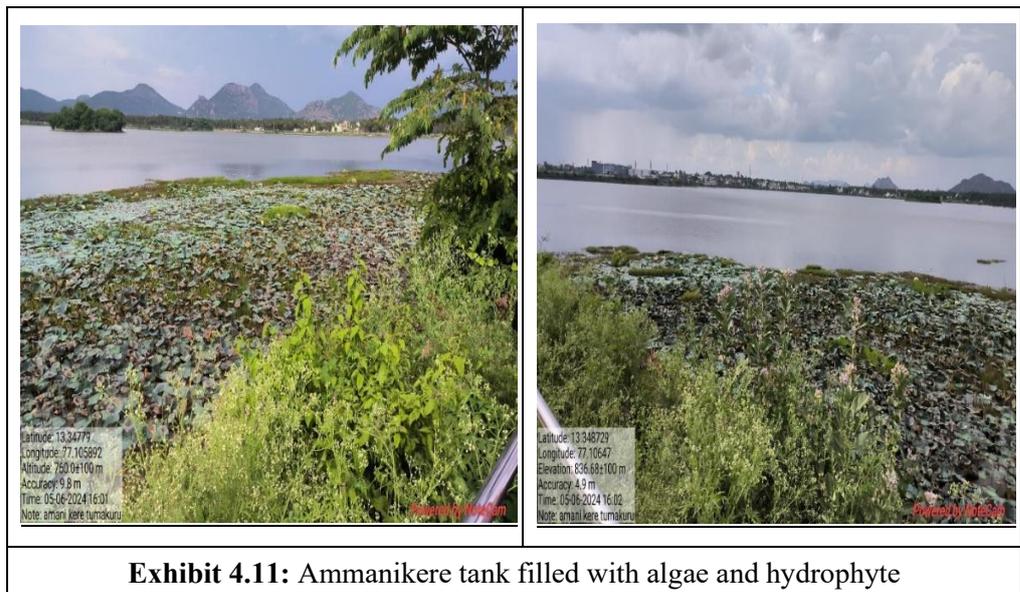
4.11.2 Non-diversion of sewage led to wastage of drinking water

Amanikere lake was mainly fed by storm/rainwater from natural watersheds to its north and east. The municipal stormwater carried significant pollutants due to mixing up of sewage and sullage. The DPR for STP at Amanikere lake

prepared during September 2017 observed that the lake was deteriorating due to urbanization and human interventions and major damage was caused due to silt accumulation and destruction of catchment area. The concept note (July 2017) for STP at Amanikere lake also opined that the project of pumping drinking water from Bugudunahalli Tank to Amanikere Tank was not feasible.

Technical Sanction to the project was accorded with the condition to test the suitability of water at Amanikere for drinking purposes, removal of existing weeds, trash, and sewage sludge *etc.*, deposited in lake, testing for poisonous heavy metals / minerals *etc.*, and to divert sewage away from it. The work of diversion of sewage awarded (June 2021) by TSCL was completed (February 2023).

The Executive Engineer, KUWSDB requested (22 June 2020) TSCL to take up the work of clearance of existing weed, trash, sewage sludge deposited in the tank before 30 June 2020 so that pumping of drinking water to Amanikere Tank could be started from 3 July 2020 as per the direction of the Deputy Commissioner, Tumakuru. However, before cleaning the tank, 5,967 ML of drinking water was pumped from Bugudunahalli Tank to Amanikere Tank from August 2020 to January 2021. During JPV (June 2024), Audit observed that sewage/sullage entered the lake from northern and southern sides and was full of algae and hydrophytes (**Exhibit 4.11**).



Source: Photos were taken during physical verification.

Thus, action of the TSCL in going ahead with works related to filling up of Amanikere Tank without completing the work of clearance of existing weed, trash, sewage sludge and diversion of sewage as suggested in the technical sanction resulted in wastage of 5,967 ML of drinking water which could have catered to the needs of the city for more than five months⁴³ considering the present quantum of water supplied.

⁴³ Considering monthly water demand for Tumakuru city as 37 MLD.

The State Government replied (April 2025) that the diversion works could not be completed due to paucity of funds. However, the reply was silent regarding the audit observation on wastage of drinking water and non-feasibility of pumping drinking water from Bugudunahalli Tank to Amanikere Tank.

4.12 Parks and Public Spaces

The projects under “Parks and Public Spaces” included developing green areas and parks, transforming open spaces with recreational avenues, waterfront development *etc.* The physical and financial progress of the projects taken up under ‘parks and public spaces’ as of June 2024 is given in **Table 4.13**.

Table 4.13: Physical and financial progress under Parks and Public Spaces

Sl. No	Smart City	Physical progress (in numbers)			Financial progress (₹ in crore)	
		Total	Completed	Ongoing	Project Cost	Expenditure
1	Belagavi	22	18	4	85.58	51.94
2	Bengaluru	2	2	0	43.07	43.07
3	Davanagere	4	4	0	13.35	13.35
4	Hubballi-Dharwad	13	12	1	266.13	198.66
5	Mangaluru	13	6	7	91.56	42.41
6	Shivamogga	14	13	1	154.86	152.27
7	Tumakuru	41	40	1	97.79	92.17
Grand Total		109	95	14	752.34	593.87

Source: Information furnished by Smart Cities

Audit test checked 40 out of 109 projects taken up under “Parks and Public Spaces”. Major observations are detailed below:

4.12.1 Non-achievement of rejuvenation of Unkal lake

HDSCL took up the project ‘Upgradation of Unkal lake including operation and maintenance’ in two phases to rejuvenate the deteriorated lake which had been a primary drinking water source for Hubballi city. The scope of Phase-I works included removing Water Hyacinth, installing aerators, trash barriers, bio frames, ecological floating beds, ecological bridge filter at the inlet of the lake and bioremediation. The scope of Phase-II included fencing of the lake, development of pathway/causeway along the edge of the lake, construction of gabion wall, development of existing bund, refurbishment of structures *etc.*

Audit observed that the contractor stopped Phase I work in 2021 after achieving financial progress of ₹3.67 crore, while there was no physical progress in respect of Phase II work. Only an amount of ₹1.63 crore was paid (July 2021) to the contractor towards mobilisation advance under Phase II.

HDSCL issued (February 2022) termination notice to the contractor implementing Phase I of the project. The PMC in its report (June 2022) also recommended foreclosure of the contract as the contractor had not completed the work as per the milestone design.

Further, HDSCL stated (December 2023) that the Phase -I work was completed in February 2023 and is under O&M period. In respect of Phase II, the work order was awarded (June 2020) for ₹36.59 crore. Phase II physically 96 per cent completed and total amount of ₹32.08 crore was paid to the contractor.

On review of the records, Audit made the following observations:

- As per the DPR and feasibility study reports, the main cause of pollution of the lake was ingress of untreated sewage. As such, the success of the lake’s rejuvenation depended upon arresting the sewage ingress into the lake. The PMC, in its feasibility report, suggested diversion of sewage or construction of STP to treat the sewage before letting it into the lake. However, the project was conceptualised and executed without provision for sewage diversion or construction of STP. Instead, DPR proposed in-situ lake water treatment by providing aerators, rafters and bioremediation⁴⁴ of the lake water.

Out of four inlets to the lake, three inlets carried sewage into the lake. During JPV (June 2024), Audit observed that ingress of sewage to the lake from two inlets, viz., Amargol and Gamanagatti drains was continuing resulting in foul smell and growth of Water Hyacinth (**Exhibit 4.12 and 4.13**).



Exhibit 4.12.: Ingress of sewage into Unkal lake



Exhibit 4.13: Ingress of sewage into Unkal Lake

- Enzyme usage at the sewage inlet of the lake had limited impact and could not serve as an alternative to STPs. This was evident from the fact that even after usage of bio enzyme the quality of the lake water (green colour due to growth of phytoplankton) remained unchanged.

Thus, acceptance of faulty design that focused on in situ water quality management through installation of rafters, trash barriers, bioremediation and

⁴⁴ Detoxifying contaminants present in wastewater by biological means.

usage of enzymes for rejuvenation of lake, led to non-achievement of the desired objective of the project even after spending ₹3.45 crore.

The State Government replied (April 2025) that adequate measures had been taken to prevent sewage water from entering the lake. Additionally, it was stated that other remedial actions, such as aeration and the use of enzymes to control hyacinth growth, had been implemented to improve water quality. However, the response could not be verified due to the absence of supporting documents.

4.12.2 Rejuvenation of Kavour lake for rainwater harvesting and recreation

The rejuvenation of Kavour Lake project was taken up by MSCL with the following objectives:

- Improvement and upgradation of lake as a part of rainwater harvesting and increase catchment.
- Development of recreational facilities around the lake to increase the social interaction among the communities.
- Rejuvenating the lake to improve the socio-cultural value of surrounding areas and redevelop it as a recreational area.
- Encouraging and creating awareness in society about water conservation and lake rejuvenation.

The above project was awarded (March 2020) to a contractor after due tender process for a contract price of ₹6.94 crore. The scheduled completion date was 17 March 2021, and the work has been completed physically, but the final bill is pending. The total expenditure incurred on the project (November 2023) was ₹8.22 crore.

At the instruction of the TC, KUIDFC, the MSCL engaged Department of Civil Engineering, Bengaluru University to study and submit a report on the Kavour Lake. The Department of Civil Engineering in its report (April 2021) recommended the following:

- The temporary channel/bund built inside the lake should be removed;
- Wet well should be built to tap the inflow from three out of six watersheds;
- The geometry, bed slope and alignment should be worked out as per the ground conditions to fulfil the safe passage of flood discharge;
- The outlet of the lake should be redesigned for safe discharge of floods.

However, no action had been taken by the MSCL to address the recommendations suggested in the Bengaluru University report.

The State Government replied (April 2025) that due to space, time and fund constraints, works suggested by Bengaluru University could not be taken up. However, the project was completed attaining its objectives. The reply cannot be accepted as the corrective measures suggested by Bengaluru University were

not carried out which rendered the project ineffective and unsafe during flooding.

Recommendation 8: The SPVs should ensure that the works taken up under the Mission conformed to the relevant standards and that the recommendations of the technical experts are duly considered during their implementation.

C MONITORING

4.13 In-adequate representation of Urban Local Bodies in the Board of Directors of SPVs

Paragraph 14.1 of Article of Association (AoA) of SPVs of Smart City stipulated that the Board of Directors would comprise minimum seven and maximum 15 Directors. As per the AoA, out of 15 members, one Director was to be nominated by MoHUA, eight Directors by GoK and six Directors by ULB including Commissioner of the ULB.

Audit observed that there is inadequate representation of ULB members (less than six) in the Board of Directors of SPVs of Smart Cities. The inadequate representation of ULBs in the Board of Directors carried the risk of insufficient articulation of the city specific needs and aspirations in smart city planning apart from inadequate support and oversight in their implementation and continued maintenance of the infrastructure created.

The State Government accepted (April 2025) the audit comment and replied that the reason for lack of representation was due to non-receipt of nominations from the ULBs.

4.14 Non-appointment of Quality Supervision Consultant

Mission Guidelines prescribed that SPV should monitor and review quality control matters and acted upon issues arising thereon. GoK also issued (February 2005) instructions that third party inspection should be mandatory in respect of all works contracts of estimated value more than ₹2.00 crore and all goods and equipment contracts of estimated value of ₹25.00 lakh.

Audit observed that none of the SPVs had appointed Third Party Quality Supervision Consultant as per the instructions/guidelines. SPVs were completely dependent on the quality test reports submitted by the contractors and there was no independent evaluation of the quality of the works executed under the Mission.

The State Government replied (April 2025) that since PMCs were assigned with the responsibility of third-party inspections, there was no necessity to appoint separate third-party Quality Supervision Consultant. Reply cannot be accepted as the scope of the PMC did not include periodic inspection of all the works,

conducting quality tests and submitting reports on the quality of the works executed under the Mission.

Recommendation 9: The State Government should ensure adequate representation of ULBs in SPVs to meet the city specific needs.

The State Government should ensure that SPVs appoint Quality Supervision Consultant to ensure quality of works executed meet the prescribed standards.

Recommendation 10: Good initiatives/practices which resulted in effective implementation of SCM may be disseminated and replicated with modifications, if any, with reference to local conditions.

Bengaluru
The 11 DEC 2025


(Jahangir Inamdar)
Accountant General (Audit I)
Karnataka

Countersigned

New Delhi
The 18 DEC 2025


(K. Sanjay Murthy)
Comptroller and Auditor General of India

Appendices

Appendix 1.1(a)
List of ongoing projects selected for test check
(Reference: Paragraph 1.5, Page 05)

Sl No	Smart city	Name of the project	Smart Feature
1	Bengaluru	Redevelopment of historic economic Centres - Meat Market, Adjacent to KR Market	Economy and Employment
2	Bengaluru	Digital Classrooms for BBMP Schools and Colleges	Education
3	Bengaluru	Provision of Medical Equipment to Kidwai Memorial Institute of Oncology	Health
4	Bengaluru	ICCC - (Integrated Command and Control Centre)	Intelligent Govt Service
5	Bengaluru	Protection and Redevelopment of a Botanically Varied Parkland - Cubbon Park	Open Spaces
6	Bengaluru	Construction of Day Care Centre (Creche) at MS Building	Safety
7	Bengaluru	Proposal for operation of electric buses feeder service to Namma Metro by BMTC – Fleet Procurement	Transportation and Mobility
8	Bengaluru	Revitalization of historic heart of the city - Smart Tender SURE Roads Phase A Package 4	Transportation and Mobility
9	Bengaluru	Revitalization of historic heart of the city - Smart Tender SURE Roads Phase A Package 1	Transportation and Mobility
10	Bengaluru	Revitalization of historic heart of the city - Smart Tender SURE Roads Phase A Package 2	Transportation and Mobility
11	Bengaluru	Revitalization of historic heart of the city - Smart Tender SURE Roads Phase B Package 6	Transportation and Mobility
12	Belagavi	Development of Modern Market at Tilakwadi (Kalamandir)	Economy and Employment
13	Belagavi	Development of Anganwadi at Belagavi Part-A	Education
14	Belagavi	UG - LT Cabling Package I (Srinagar Nagar)	Energy Supply
15	Belagavi	UG - LT Cabling with Decorative Poles (PAN) Package 10: Bank of India to Basveshwar Circle (Khasbag)	Energy Supply
16	Belagavi	UG LT [Package-6] Maratha Colony and Nanawadi	Energy Supply
17	Belagavi	Procurement of mechanical sweeper machine	Health
18	Belagavi	Slum Development at Rukmini Nagar	Housing and inclusiveness
19	Belagavi	Development of Aviation gallery	Identity and Culture
20	Belagavi	CCTV based City Surveillance, Traffic Violation Monitoring and Parking Enforcement in Udyambag, Tilakwadi and Shahapur Police station limits	IT Connectivity
21	Belagavi	Development of Mahatma Phule Garden, Tilakawadi.	Open Spaces

Sl No	Smart city	Name of the project	Smart Feature
22	Belagavi	Smart Roads at Dharmanath Area (Package I) (a)A Type (with Ducting):2.475 Km	Transportation and Mobility
23	Belagavi	Smart Roads at Tilakwadi Area (Package V)	Transportation and Mobility
24	Belagavi	Smart Road with White Topping at Hotel Miland to Gandhi Statue Harsha Showroom (Package 10): 1.73 km	Transportation and Mobility
25	Belagavi	White Topping of Roads Package-5 [Road from APMC-Junction to Kangrali KH]	Transportation and Mobility
26	Belagavi	Smart Road with White Topping at Vadgaon Road to Mahaveer Bhawan (Package 11)	Transportation and Mobility
27	Belagavi	Construction of Roads with Paver Blocks at Shastri Nagar-Balance Road (Behind Nartaki Theatre and Godse colony area) in Belagavi City Package-19	Transportation and Mobility
28	Belagavi	Energy Efficiency-LED Street Lighting	Energy Efficiency
29	Davanagere	Improvements of Government high school building in Davanagere City	Education
30	Davanagere	Providing additional infrastructure to Existing Government Schools of Davanagere North Assembly Constituency	Education
31	Davanagere	Trauma centre and other development works in Chigateri General Hospital (Govt. District Hospital).	Health
32	Davanagere	MSI (Centralised Data Center at KMDS)	IT Connectivity
33	Davanagere	Kundwada lake development with bund improvement	Open Spaces
34	Davanagere	Construction of Indoor Kabbaddi Court at District Stadium	Other
35	Davanagere	Illumination to Kalyani and Clock Tower	Other
36	Davanagere	Operation and Maintenance of 18 Nos. E-Toilets constructed under Phase-1 at 9 Locations	Sanitation
37	Davanagere	Redevelopment of Old City Bus Stand	Transportation and Mobility
38	Davanagere	Improvement of pedestrian footpath Phase II	Transportation and Mobility
39	Davanagere	Improvement of Chamarajpet Road in Davanagere City	Transportation and Mobility
40	Davanagere	Redevelopment of Jagalur Bus stand	Transportation and Mobility
41	Davanagere	Major Storm Water Drains in ABD area Koracharatti to Bethur.	Waste Water Management
42	Davanagere	Construction of Barrage across Tungabhadra River near Rajanahalli village	Water Supply
43	Davanagere	LED street lights	Energy Efficiency
44	Hubballi-Dharwad	Development of Fish Market	Economy and Employment
45	Hubballi-Dharwad	Design, Supply and Procurement of Mobile Library Van	Education
46	Hubballi-Dharwad	Procurement of Solar Butterfly grid	Energy Efficiency
47	Hubballi-Dharwad	Medar Oni Public Health Centre	Health

SI No	Smart city	Name of the project	Smart Feature
48	Hubballi-Dharwad	Digital Display Board	IT Connectivity
49	Hubballi-Dharwad	Tolankere Lake Development Phase-02	Open Spaces
50	Hubballi-Dharwad	Swimming Pool Development Phase-02	Other
51	Hubballi-Dharwad	Smart Road Package-03 Road length: 5.069 Kms	Transportation and Mobility
52	Hubballi-Dharwad	Green mobility corridor (SCM Funded with AFD Grant)	Transportation and Mobility
53	Hubballi-Dharwad	Nala Renovation	Waste Water Management
54	Hubballi-Dharwad	LED Street Lighting	Energy Efficiency
55	Mangaluru	Upgradation of Existing Water Jetty	Economy and employment
56	Mangaluru	Skill Development and Safety Training Centre – OPEX	Education
57	Mangaluru	Conversion of Existing 11 KV HT/LT overhead lines of 11 KV Bolara and Mangaladevi feeders	Energy Supply
58	Mangaluru	Upgradation of Wenlock Hospital - Infra works	Health
59	Mangaluru	Selection of System Integrator for Implementation of Command and Control Center Components in Mangaluru City	IT Connectivity
60	Mangaluru	Rejuvenation of Kavoor Lake for Rainwater harvesting and recreation	Open Spaces
61	Mangaluru	Waterfront Area Development Sub Project - Promenade Development Phase 2B	Open Spaces
62	Mangaluru	Area Development at Sulthan Bathery	Open Spaces
63	Mangaluru	Construction of Indoor Stadium for Kabaddi and Shuttle Badminton near Urva Market	Other
64	Mangaluru	Connector Road from NH66 near Jeppu to Morgans gate including construction of RUB	Transportation and mobility
65	Mangaluru	Smart Road – Package 2 (Loop Road)	Transportation and mobility
66	Mangaluru	Pedestrian Sea-River Link Bridge at Sulthan Bathery	Transportation and mobility
67	Mangaluru	Construction of Under Ground Drainage in Zone IV part 2 and Zone III part 1 in ABD Area (UGD - 2)	Waste Water Management
68	Mangaluru	Restoration Scheme for the collapsed portion of the existing stone revetment of Nethravathi riverbank and SSM jack well No.2	Water Supply
69	Mangaluru	Redevelopment of Central Market along with Fish Market	Economy and Employment
70	Shivamogga	Construction of MLCP with commercial complex	Economy and Employment
71	Shivamogga	Construction of Govt College and Govt PU Girls College, BH Road Shivamogga (Under Advisory-15)	Education
72	Shivamogga	Conversion of Existing Over Head 11 KV/LT lines into Partial UG cable for Facilitating Railway Flyover from Usha nursing home Circle to LBS Nagara Chowdamma Temple	Energy Supply

SI No	Smart city	Name of the project	Smart Feature
73	Shivamogga	Conservation of Heritage Building - Govt School adjacent to Karnataka Sanga and other buildings (Turnkey)	Identity and Culture
74	Shivamogga	Appointment of System Integrator for Implementation of ICCC and other ICT interventions for Shivamogga Smart City	IT Connectivity
75	Shivamogga	Wildlife interpretation centre with science park (Turnkey)	Open Spaces
76	Shivamogga	Nehru Stadium Existing Sports facility upgradation	Other
77	Shivamogga	Area between Jail Road - Kuvempu Road – Sagara Road - Canal Front Road- Package 2b	Transportation and mobility
78	Shivamogga	Development of Smart road in package 1, Area between BH road Savalanga Road, Kuvempu road, in Shivamogga City.	Transportation and mobility
79	Shivamogga	Providing and laying MS/HDPE rising/ Distribution pipe, UGD works and construction of drain at LC 49 and LC 52 in Shivamogga city	Waste Water Management
80	Shivamogga	Solar on Canal top (Tunga high level canal)	Energy Efficiency
81	Tumakuru	Construction of Vending Zones at Jaya Nagar Bus stop, Shettihalli, Tumakuru	Economy and Employment
82	Tumakuru	Development of Model Anganwadi Centres at Dibbur and Other locations in Tumakuru - Phase 2	Education
83	Tumakuru	Infrastructure correction in the existing lighting system in Tumakuru	Energy efficiency
84	Tumakuru	Trauma Centre (Development and Improvement of Medical Facilities in city merged with Trauma Centre)	Health
85	Tumakuru	Apportionment towards GIS Software with KUIDFC	IT Connectivity
86	Tumakuru	Development of Nursery for afforestation and green buffer zones at Amanikere	Open Spaces
87	Tumakuru	Development of Sports Arena at PU College	Other
88	Tumakuru	Smart Road Package-3C (BH Road)	Transportation and mobility
89	Tumakuru	Storm Water Drains - Construction of Diversion Drain for Sewage/Sullage water entering at northern Side of Amanikere.	Wastewater Management
90	Tumakuru	Filling of Hemavathi water from Gangasandra tank to Maralur tank	Water Supply
91	Tumakuru	Multi utility Mall with Multi level car parking	Economy and Employment

Source: Information furnished by Smart Cities

Appendix 1.1(b)
List of completed projects selected for test check
(Reference: Paragraph 1.5, Page 05)

Sl. No	Smart City	Name of the project	Smart Feature
1	Bengaluru	LED Lighting for Vidhana Soudha, Vikas Soudha, MS Building and VV Towers	Energy Efficiency
2	Bengaluru	Provision of Medical Equipment to Institute of Gastroenterology Sciences and Organ Transplant	Health
3	Bengaluru	Providing Smart Traffic Solution to Bangalore Traffic Police at ABD area	Intelligent Govt Service
4	Belagavi	NMT Zone and Hawkers zone-Mahila Market	Economy and Employment
5	Belagavi	Procurement of 3D Printing for Metal and Plastic DIY 3D Printer and handheld 3d Laser scanner for Skill Development Centre	Education
6	Belagavi	Procurement of CNC Milling and CNC Turning Machine for Skill Development Centre	Education
7	Belagavi	Energy Auditing of Street Lights under Smart City Energy efficiency program.	Energy Supply
8	Belagavi	Trauma Centre Part A and B	Health
9	Belagavi	Heritage Park – Phase I Water Body and Check Dam	Identity and Culture
10	Belagavi	Appointment of System Integrator for establishment of Common Command and Control Centre	IT Connectivity
11	Belagavi	Kanbargi lake rejuvenation and recreational spaces	Open Spaces
12	Belagavi	Theme Based Park – NathPai Garden	Open Spaces
13	Belagavi	Rehabilitation of Stray Cattle	Safety
14	Belagavi	Smart Roads at Ramteerth Nagar Area (Package III)	Transportation and Mobility
15	Belagavi	Construction of Roads with Paver Blocks at Rani Channamma Nagar 2nd Stage part -I in Belagavi City Package- 26	Transportation and Mobility
16	Belagavi	Parking for Private buses	Transportation and Mobility
17	Belagavi	Battery Operated Auto Rikshaws	Transportation and Mobility
18	Belagavi	Rain water harvesting and Composting Facility in Parks	Waste Water Management
19	Belagavi	Roadside Drinking Water Kiosk Phase II	Water Supply
20	Davanagere	Construction of Puffed Rice Manufacturing Unit (Working shed) at Mandakki Bhatti	Economy and Employment
21	Davanagere	Establishment of Smart Schools in Davanagere city Phase-III	Education
22	Davanagere	Smart school project (Phase-2)	Education
23	Davanagere	Providing and Installation of Gasifier, Machinery and Equipment in newly constructed Working Sheds	Energy Source
24	Davanagere	Improvements to Maternity Hospital in Bashanagar in ABD Area	Health
25	Davanagere	Laser show at Kundawada Lake and Musical Fountain, Installation of lights and improvements in Glass house	Identity and Culture
26	Davanagere	Command and Control Centre (Construction of Building)	IT Connectivity
27	Davanagere	Installation of Gym and Play equipment in parks - phase II	Open Spaces
28	Davanagere	Redevelopment of Kalyani at Hondada Circle and Clock Tower in ABD Area.	Other

Sl. No	Smart City	Name of the project	Smart Feature
29	Davanagere	Mist Technology Vehicle and other necessary equipment for Fire and Emergency Services Department.	Safety
30	Davanagere	Construction of Public E-toilets in Parks at 9 Locations in Davanagere.	Sanitation
31	Davanagere	Improvement of Mandipet Road in Davanagere City	Transportation and Mobility
32	Davanagere	Construction of Skew bridge across outer ring road and other culverts across storm water drain	Transportation and Mobility
33	Davanagere	Afforestation along Roads Phase –II	Transportation and Mobility
34	Davanagere	Relocation of Old Bus stand	Transportation and Mobility
35	Davanagere	Remodelling of storm water drains in ABD area - Kondajji Road Drain	Waste Water Management
36	Davanagere	Remodelling of storm water drains in ABD area – SPS Nagar drain	Waste Water Management
37	Davanagere	Providing Raw water Transmission Bypass line by tapping the existing pipeline nearby Kundawada lake directly to Kundawada WTP.	Water Supply
38	Davanagere	Development, operating and maintenance of Smart Bus Q Shelters at 52 locations in Davanagere city on PPP mode at Davanagere phase 1	Transportation and Mobility
39	Hubballi-Dharwad	Renovation of Core Markets - Janata Bazaar Package (A) Rehabilitation of 200 Kattas	Economy and Employment
40	Hubballi-Dharwad	Smart School	Education
41	Hubballi-Dharwad	Smart Healthcare	Health
42	Hubballi-Dharwad	Procurement and Installation of Boom Barriers	IT Connectivity
43	Hubballi-Dharwad	ICCC– Services	IT Connectivity
44	Hubballi-Dharwad	ICCC- Room Interior	IT Connectivity
45	Hubballi-Dharwad	M G Park Phase- I (musical fountain)	Open Spaces
46	Hubballi-Dharwad	Redevelopment of Swimming Pool at Hubballi	Other
47	Hubballi-Dharwad	Sanitary Napkin Vending Machine	Sanitation
48	Hubballi-Dharwad	Basic Services to Urban Poor (BSUP) Package-03 (35 Roads) Road Length-5.911Km	Transportation and Mobility
49	Hubballi-Dharwad	Smart Roads Package-04 New Roads (Total road length - 2.07 Km,)	Transportation and Mobility
50	Hubballi-Dharwad	Desilting of Rajnalla (South)	Waste Water Management
51	Mangaluru	Skill Development and Safety Training Centre - CAPEX	Education
52	Mangaluru	Conversion of Conventional lights into LED Lights in Government Buildings	Energy Efficiency
53	Mangaluru	Construction of additional floor at existing building of Lady Goschen hospital	Health
54	Mangaluru	Establishing Karnataka Urban Observatory and Centre of Excellence at Bengaluru	IT Connectivity
55	Mangaluru	Rejuvenation of Gujjarakere Lake for Rainwater harvesting and recreation	Open Spaces
56	Mangaluru	Construction of Clock Tower at Clock Tower Junction	Transportation and mobility

Sl. No	Smart City	Name of the project	Smart Feature
57	Mangaluru	Underground Drainage network in ABD Area - Package 3B	Waste Water Management
58	Shivamogga	Smart Education in Govt Schools - Pan City (35 school)	Education
59	Shivamogga	Balance work in the First floor of Super specialty hospital of SIMS”	Health
60	Shivamogga	Street Art in the selected locations across the city	Identity and Culture
61	Shivamogga	Modern Police information/ Tourism kiosk	intelligent Govt Service
62	Shivamogga	Development of Freedom Multi Utility Space and its Partial Implementation	Mixed Use
63	Shivamogga	Development of Masthambika temple park (Park 03) in Shivamogga City	Open Spaces
64	Shivamogga	Nehru Stadium Beautification	Other
65	Shivamogga	Smart Road from Ashoka Circle to Alkola Circle	Transportation and mobility
66	Tumakuru	Amanikere Urban Hath	Economy and Employment
67	Tumakuru	Construction of Multi-Dimensional Auditorium with Library and Classrooms at Empress Govt. High School/PU College	Education
68	Tumakuru	Selection of Agency for establishment of digital classrooms, ICT lab and language labs at Govt. College and schools	Education
69	Tumakuru	Digital Library Solution	Education
70	Tumakuru	Procurement and Installation of Furniture for PU College Including Additional Classrooms	Education
71	Tumakuru	Installation of Sanitary Napkin Dispenser and Incinerator (at Empress High school/ PU college)	Education
72	Tumakuru	Energy Efficient Lighting (LED lighting for New extensions)	Energy efficiency
73	Tumakuru	Solar Panelling of Glass House	Energy Efficiency
74	Tumakuru	Procurement of Medical and other equipment's for RT-PCR Lab at District Hospital for COVID 19 Testing.	Health
75	Tumakuru	Affordable Housing at Mariamma Nagar	Housing and inclusiveness
76	Tumakuru	Smart Parking at M.G Road Conservancies - Civil Part	Intelligent Govt Services
77	Tumakuru	Smart Parking at M.G Road Conservancies - IT Part	Intelligent Govt Services
78	Tumakuru	Smart Lounges - Furniture part	Intelligent Govt Services
79	Tumakuru	Construction of Boundary Wall and chain link Fencing with MS gate and provision for cameras and Lighting around Amanikere Lake.	Open Spaces
80	Tumakuru	Selection of System Integrator for Installation, commissioning and operation of Smart Infrastructure at selected parks in Tumakuru - IT components	Open Spaces
81	Tumakuru	Development of park near Panchamukhi Extension Antharasanahalli bypass and Development of Azad Nagar Park in Ashoka Nagar	Open Spaces

Sl. No	Smart City	Name of the project	Smart Feature
82	Tumakuru	Development of parks at Batavadi Pragathi Badavane and Yadava nagar	Open Spaces
83	Tumakuru	Supply, Installation and Erection of 65 mtr High Mast Flag Pole at Amanikere	Open Spaces
84	Tumakuru	Development of Parks - Adarsh Nagar - Ward No:20	Open Spaces
85	Tumakuru	Development of Parks - Mahalakshmi Layout	Open Spaces
86	Tumakuru	Development of Parks- IB PWD park	Open Spaces
87	Tumakuru	Gym equipment procurement for SFC ate Govt PU	Other
88	Tumakuru	Construction of Conventional Public Toilet blocks - (4 Locations)	Sanitation
89	Tumakuru	Rejuvenation and Up gradation of Ring Road	Transportation and mobility
90	Tumakuru	Smart Road Package-1 (4 Roads - MG, JC, Horpet and Vivekananda roads.	Transportation and mobility
91	Tumakuru	Development of Field Marshal Cariappa road as Smart road	Transportation and mobility
92	Tumakuru	Construction of 107 PIS boards at bus stands in Tumakuru	Transportation and mobility
93	Tumakuru	Supply, installation of Litter bins, roller containers and sign board	Waste Management
94	Tumakuru	Installation of CCTV in Solid Waste Management unit at Ajjondanahalli, Tumakuru.	Waste Management
95	Tumakuru	Intervention and Additional improvement for 24*7 Water Supply (SCADA system (KUWSDB))	Water Supply
96	Tumakuru	Piped Natural Gas Supply	Energy Supply

Source: Information furnished by Smart Cities

Appendix 2.1

Statement showing the attainment of goals by the Smart Cities (Reference: Paragraph 2.2, Page 09)

Sl. No	Smart City	Strategic Pillar	Goal/Aspiration of the City	Achievement	Audit remarks
1	Belagavi	Affordable Housing including Slum Development	Provisioning adequate housing stocks to Economical Weaker sections through integrated vertical development	Unachieved	No projects taken for Housing Stock. Only one project of ₹ 5.32 crore taken for providing basic amenities at Rukamani Nagar Slum by the SPV. Further two housing projects of ₹ 133.49 crore were taken up by BCC. The housing stock created in the city was not adequate considering the demand assessed by PMAY.
2	Belagavi	Economy and Employment	New 18 KM commercial corridor and construction of Multi Utility Facility Centres (MUFC) to augment decentralised growth, revenue recovery and promoting mixed land use at five locations	Partly Achieved	Kalamandir MUFC was constructed and nearing completion. No project was taken for the proposed 18 KM commercial corridor.
3	Belagavi	Economy and Employment	Ensuring Imparting desired skill sets to potential human resources viz., professionals, organized, an unorganized sector through various skill development centres proposed at five MUFCs thereby ensuring employment and sectoral growth.	Partly Achieved	The proposal of MUFCs was under progress. However, the SPV has provided tools and machineries worth ₹ 7.82 crore to the Govt. Skill Development Centre, Belagavi. Two Projects of ₹ 9.32 crore were taken up for Hawker Zone. Six convergence projects of ₹ 27.95 crore were taken for Mother Teresa Memorial, KMF, Fuel Boiler etc.
4	Belagavi	Basic Amenities	24x7 Potable water for all assuring quality, quantity and service by 2019 with smart metering and e-billing.	Unachieved	Smart Water Metering Project was dropped in 13 th Board Meeting (BM) due to want of funds for and 24 × 7 water supply was under implementation. Hence the goal remained unachieved. Nine water projects for ₹ 630.17 crore were taken up by KUWSDB for 24×7 water supply.
5	Belagavi	Basic Amenities	Full coverage of UGD network with sewage treatment plant, recycling and reuse of treated water by 2019 also ensuring 100 % coverage of individual and 150 public toilets.	Not Known	Solid waste management including RDF plant was dropped in 13 th BM. Integrated SWM was dropped in 08 th BM. In absence of adequate data, Audit could not assess the achievement of this goal. Two projects worth ₹ 1.8 crore were taken up for procurement of mechanical sweeper machine and sanitary vending machine and incinerator. One project of RWH for ₹ 0.04 crore was taken up. Seven convergence projects were taken by other implementing agencies for ₹. 218.85 crore. One project of Public Urinals and Toilets is taken by BCC under SFC grants for ₹ 1.8 crore. Due to inadequate information in respect of coverage of UGD and public toilet built, the achievement could not be assessed.
6	Belagavi	Energy	Assured continuous electricity supply by augmenting 12% through renewable energy	Unachieved	Smart Electrical Metering- Project Dropped in 13 th BM due to want of funds. Wind Power Generation ₹ 186 crore was dropped in 08 th BM. No projects were taken up in this regard.

7	Belagavi	Energy	Aiming at reduction of T&D losses by underground HT & LT lines by 2019	Not Known	UGLT - funding reduced from ₹ 168 crore to ₹ 104 crore - 11 UGLT projects implemented for ₹ 94.15 crore. One project of Energy Audit for ₹ 0.24 crore was taken up and completed. UGLT Package 12 - dropped in 16 th BM due to lack of funds. UG-HT was already implemented by HESCOM for ₹ 316.27 crore. Five convergence projects regarding electrical poles, ULLT and streetlights were taken up by various implementing agencies for ₹ 32.96 crore. However, due to inadequate information in respect of T&D losses, the achievement could not be assessed.
8	Belagavi	Energy	retrofitting of existing streetlights with LED to minimize energy consumption by 2017	Unachieved	Energy Efficient Lighting Project taken under PPP - ₹ 69.91 crore was under Implementation
9	Belagavi	Energy	Achieve 100 per cent door to door collection, segregation, scientific treatment and disposal ensuring waste to energy by 2017.	Partly Achieved	As ICT enabled SWM projects taken under ICCCC is put to use and door to door collection is being going on. However, segregation, scientific treatment and disposal ensuring waste to energy not known.
10	Belagavi	Transport Mobility and Accessibility	Ensuring Intelligent Transport System assured last mile connectivity. Also ensuring of a city and 8 satellite bus terminals by 2019.	Unachieved	Central Bus Station project was under Implementation. Proposed PPP funding of ₹ 50 crore was removed in 08 th BM. Convergence funding not mobilized. No satellite bus station was taken for development. ICT enabled project ITS taken under ICCCC was not put to use as commented in the audit report.
11	Belagavi	Transport Mobility and Accessibility	Assured hassle free urban mobility, by completing 4 ROB, 3 flyovers, under passes, junction improvement, pathway improvement, multi-level parking, dedicated parking zones and also ensuring safety and security through E-surveillance and police by 2018.	Partly Achieved	Funding for flyover changed to SCM and reduced to ₹ 100 Crore in 08 th BM, which was later deleted in 16 th BM due to high cost and request of MLA. The work of underpass was - deleted in 08 th BM. However, RoB at Old Gogte Road and 03rd Gate, and Over Bridge at Kapileshwar Road and Old PB Road were executed by PWD and Railway Department for ₹ 86.7 crore.
12	Belagavi	Transport Mobility and Accessibility	Development of cycle tracks, improvement of footpath for walkability by completing 407 and 702 km by 2017 respectively	Partly Achieved	40 projects worth ₹ 535.78 crore were taken up for Smart Roads, Paver Block Roads, NMV Packages, Bus Shelters, White Topping Packages. Four projects of ₹ 52.7 crore for Bus Shelter, NWKSRRC, were dropped in 08 th BM. Two Projects of ₹ 0.90 crore were taken for road side water kiosks. 18 Convergence projects for Roads, CBT NMT were taken by various implementing agency for ₹ 262.33 crore. One project of Public Bike Sharing has been taken up on PPP mode for ₹ 3.71 crore.
13	Belagavi	Transport Mobility and Accessibility	Making available non-motorized streets, walkability, network connectivity and paratransit transport by year 2017.	Partly Achieved	In the absence of adequate information, Audit could not assess the achievement against the Goal.
14	Belagavi	Energy	Ensuring the CDP of 2014 implemented with issue of building permissions mandating solar rooftop panels aiming towards provisioning for green building by 2018 along with already mandated rain water harvesting and solar water heater	Not Known	
15	Belagavi	Energy	Achieve 80% coverage of flat roofed government buildings with Solar PV Panels by 2018.	Unachieved	The project was dropped in 08 th BM. A project of Solar panel SRTPV system under IPDS project for ₹ 1.5 crore was taken up by other implementing agency.

16	Belagavi	Environment and Ecology	Ensuring air quality, maintaining desired green cover, developing parks and open spaces, water bodies by 2018	Partly achieved	Development works of Kotekere and Kanbargi Lakes have been taken up for ₹ 12.36 crore. Air quality, water quality recharge of water bodies Project was dropped in 13 th BM. Forest department undertook one project of urban afforestation for ₹ 1 Cr.
17	Belagavi	Energy	CNG and PNG Gas access to domestic, commercial and industrial use of the city by year 2018.	Unachieved	The Project was dropped in 08 th BM. However, PNGRB has taken city gas distribution projects for ₹ 346 crore, which is ongoing.
18	Belagavi	ICT enabled Smart Governance	ICT enablement by creating centralized command centre and E-Governance to be fully accomplished through "Belagavi One Centre" across the city. Providing 28 services of the ULB by 2017 and 72 services, including processing, to be online by 2018, with all 144 services by 2020.	Partly achieved	IT Connectivity project for ₹ 35 crore was dropped in 08 th BM. Eight projects of ₹ 64.30 crore were taken up for ICC, Digital Bill Board, Karnataka Urban Observatory and Centre of Excellence, Upgradation of GIS Software License and Upgradation of Govt city Library into Hi-tech of Digital Library.
19	Belagavi	Park and Public Space	Preserving rich heritage Fort structure, developing heritage park with available 160 acres there by promoting cultural history to enable value based growth by 2018.	Unachieved	Fort and Moat Precincts projects, ₹ 25 crore was dropped in 18 th BM. For development of Heritage Park, six projects has been taken up for ₹ 54.77 crore which includes aviation gallery, art gallery, cultural village etc. However minimal progress has been made under the said works.
20	Belagavi	Park and Public Space	Attaining desired infrastructure levels in recreational and sports activities by constructing Art Gallery, Museum, Exhibition centre, Yoga and meditation centre	Partly achieved	Nine projects for theme/parks and two projects for rehabilitation of cattle pigs, were taken up for ₹ 14.57 crore. Art gallery cum exhibition centre and children science park worth ₹ 14 crore was dropped in 16 th BM. Development of Modern Market at Kalamandir was taken for ₹ 53.89 crore Five Health projects of ₹ 8.08 crore were taken up which were not aligned to the Goal. Eight Projects of ₹ 18.92 crore were taken up for education, which were not aligned to the Goal. 14 convergence projects in respect of health and education were taken up by various implementing agencies for ₹ 245.79 crore which were not aligned to the Goal. 36 convergence projects for ₹ 54.72 crore were taken by various implementing agencies in respect of park and open spaces. One project of ₹ 35.14 crore was taken by Police Housing Corporation.
21	Bengaluru	Affordable Housing including Slum Development	To create 50,000 new housing stock	Unachieved	No projects taken for housing stock. Moreover, the allocation was grossly inadequate to achieve the Goal of 50,000 houses, considering the estimated cost of each house as ₹ 5 Lakh under HFA.
22	Bengaluru	Transport Mobility and Accessibility	Encourage major roads redone as per Tender S.U.R.E standards	Achieved	12 road projects of ₹ 454.99 crore have been taken up by the SPV. One project of BMTC (Electric Bus) was taken up for ₹ 50 Crore. Two projects of ₹ 10.92 Crore was taken up for Digital Class Rooms for BBMP Schools and Colleges, which was not aligned to the Goal.
23	Bengaluru	Transport Mobility and Accessibility	Promote contiguous walkability along roads with safe crossings, including for the differently abled	Achieved	Two projects of ₹ 5.56 Cr were taken up for Improvement in Schools. Four Road works of ₹ 91.83 Cr were taken by BBMP. In respect of Disabled friendly roads, the non-achievement was commented in the audit report. A project of MLCP at Gandhi Bazar has been taken up for ₹ 18.76 crore.
24	Bengaluru	Transport Mobility and Accessibility	Provide sustainable mobility choice through electric transport and improve last mile connectivity	Achieved	

25	Bengaluru	Transport Mobility and Accessibility	Connect such landmarks by non-motorized transportation network towards a vibrant urban precinct	Achieved	IN 12 Road projects, 2 Km of cycle track network has been developed by the SPV to promote the non-motorised transport system
26	Bengaluru	Basic Amenities	Assured supply of 135 LPCD water through public delivery channels	Unachieved	There was no allocation made in the SCP. SPV has not taken any project in this regard and due to inadequate information in this regard, Audit could not assess the achievement against this Goal.
27	Bengaluru	Basic Amenities	Flow of untreated sewerage into storm water drains and lakes cut by 70% in the ABD	Unachieved	None of the project has been taken by the SPV
28	Bengaluru	Basic Amenities	All public places in the ABD has access to public toilets thereby reducing open defecation and urination by 70%	Partly Achieved	BBMP is assigned with installation and maintenance of toilets throughout Bengaluru including ABD area of BenSCL. However, toilets have been provided as part of integrated mobility hub and junction improvement at K.R Market Project.
29	Bengaluru	Basic Amenities	Reduction in open garbage dumps on roads and in market centres	Partly Achieved	Dustbin/ garbage bins has been provided in all 32 roads of 12 Road projects by the SPV for the collection of Dry and Wet waste.
30	Bengaluru	ICT enabled Smart Governance	100% of garbage related grievance resolved within 12 hours	Partly achieved	ICCC has been taken up for an amount of ₹ 118.87 crore in two phases. However, the project has been in operational. Grievance Management has been included as IGMRS in ICCCC project. The SWM and its component had been descope in ICCCC project due to formation of Bengaluru Solid waste Management Limited. Same was approved in 22 nd Board meeting the call centre manage all grievances related to BBMP including SWM.
31	Bengaluru	Basic Amenities	Garbage sent to landfills from bulk producers reduced by 40%	Unachieved.	There was no allocation made in SCP. SCP has not taken any project in this regard.
32	Bengaluru	ICT enabled Smart Governance	Reduction in crimes including crimes against women and children	Not Known	Due to inadequate information, Audit could not assess the achievement against this Goal. A project of ₹ 8.73 crore has been taken by SPV for Providing Smart Traffic Solution to Bangalore Traffic Police in the ABD area. Phase 2 has been taken up for ₹ 1.94 crore.
33	Bengaluru	ICT enabled Smart Governance	Enhance neighbourhood safety and security	Unachieved	Project dropped in 07 th BM by SPV.
34	Bengaluru	Energy	Uninterrupted and reliable power supply for all citizens in Bengaluru	Unachieved	Due to inadequate information, Audit could not assess the achievement against this Goal.
35	Bengaluru	Energy	10% of aggregate power demand met through renewable energy source	Unachieved	No project taken up by the SPV. Due to inadequate information, Audit could not assess the achievement against this Goal. A project of ₹ 1.9 crore was taken for LED lighting for Vidhana Soudha which was not aligned to the Goal.
36	Bengaluru	ICT enabled Smart Governance	30% of city budgets utilized through participatory budgeting processes	Unachieved	Project has not been taken up by the SPV
37	Bengaluru	ICT enabled Smart Governance	Maximize reach and range of service in the existing platform of e-governance	Achieved	ICCC One City One Number, One City One Portal and One City One App is implemented to facilitated citizens to register grievance across multiple line department which handle civic services also information dissemination of public project status through web portal to ensure

38	Bengaluru	ICT enabled Smart Governance	Own revenue increase by 40% p.a; cost escalation in establishment costs at <= 10% p.a.	Unachieved	informed citizenry. Open data portal of Bengaluru is implemented - information access of various data of line department.
39	Bengaluru	ICT enabled Smart Governance	Monetization of land and properties (FAR, market linked lease rentals, PPPs)	Unachieved	ICCC is an integrated platform where the integration of 14 line department is in progress. The property tax software for BBMP developed by NIC is integrated with ICCC for improve the efficiency of tax collection.
40	Bengaluru	ICT enabled Smart Governance	Enhance municipal credit rating	Unachieved	Data not provided.
41	Bengaluru	Economy and Employment	Create a replicable model of a revitalized economic centre	Unachieved	Implemented by BBMP
42	Bengaluru	Economy and Employment	Through cutting-edge urban design interventions, rejuvenate 5 historic landmarks in the city that are associated with its identity towards vibrant destinations	Partly Achieved	2 Projects of ₹ 57.72 were taken up in KR Market. No project was taken for Malleswaram Market. One project of ₹ 34.65 crore was taken for JN Planetarium. Four projects of ₹ 11 crore were taken based on other Department's requests which were not aligned to the Goal. Further retrofitting of KC General Hospital was deleted in 07 th BM. and 11 Health projects of ₹ 92.79 crore were taken up which were not aligned to the Goal. Two Projects of ₹43.61 crore were taken up for Botanically Varied Parkland - Cubbon Park. Two Projects regarding Integrated mobility towards creating vibrant destination of ₹ 25.12 crore were taken at Shivajinagar and KR Market.
43	Davanagere	Affordable Housing including Slum Development	Affordable Housing for all with proportionate infrastructure	Unachieved	There was no separate allocation for this sector in the SCP, however there was a sub-component in Mandakki Bhatti development. The Project was deleted and no other projects taken up for Housing Stock by the SPV.
44	Davanagere	Affordable Housing including Slum Development	Move towards a slum free city	Unachieved	There was no separate allocation for this sector in the SCP, however there was a sub-component in Mandakki Bhatti development. The Project was deleted and no other projects taken for Housing Stock by the SPV.
45	Davanagere	Basic Amenities	24 x 7 uninterrupted supply of all basic services	Partly Achieved	15 Projects of ₹ 138.17 crore are taken for Storm Water Drains in the city, which are in various stage of progress. Construction of Barrage across Tungabhadra River near Rajanahalli village for ₹ 83.73 crore. A project of Raw water Transmission Bypass line by tapping the existing pipeline nearby Kundawada lake directly to Kundawada WTP for ₹ 1.42 Crore. 24x7 water supply scheme was taken up by KUIDFC for ₹ 662.08 Cr. Sewerage and Storm water Works were taken up by KUIDFC and DCC for ₹ 234.26 crore.
46	Davanagere	Transport Mobility and Accessibility	Easy affordable and clean public transport supported by Intelligent Traffic Management System	Partly achieved	Underground Utility Corridor - allocation reduced from ₹ 50.96 crore to ₹ 28.82 crore in 07 th BM. Intelligent Urban Mobility System and Secured Environment, project worth ₹459.35 crore was dropped in 07 th BM. Allocations were merged and 27 Road and basic infrastructure

47	Davanagere	Transport Mobility and Accessibility	Enhanced facilities for pedestrians, cyclist and other non-motorized traffic	Partly achieved	Projects of ₹ 288.48 crore have been taken up and in various stage of progress. Seven Projects of ₹ 188 Cr regarding development of various bus stands have been taken up and in various progress. Two Road projects were taken by DUDA and DCC for ₹ 39.32 crore and two Projects of UGLT for ₹ 30.56 crore were taken up by BESCOM. Smart parking is under implementation under ICT project.
48	Davanagere	Transport Mobility and Accessibility	Organized parking spaces	Unachieved	ICT infrastructure components has gone live on 01.12.2022. Street light project under PPP model has been completed.
49	Davanagere	ICT enabled Smart Governance	Surveillance and dynamic street lighting for safety.	Partly achieved	
50	Davanagere	Economy and Employment	Plan for equitable growth in terms of economic prosperity, employment generation.	Not Known	Allocation was reduced from ₹ 102.91 crore to ₹ 7.79 crore in 07th BM. The substitute projects taken were not oriented towards the Goals. A project of ₹ 24.49 crore was taken up by APMC. However, due to inadequate information in respect of employment generation, the achievement of the goal could not be assessed.
51	Davanagere	Economy and Employment	Promote more skill development so that a sizeable workforce can be developed across diversified sectors to take up challenges and opportunities.	Unachieved	Neither the SCP proposed any activity in this regard, nor the SPV has taken up any project.
52	Davanagere	Economy and Employment	Minimize disparity in development between any areas within the city	Not Known	There was no allocation in the SCP. In absence of adequate information, the assessment of the goal could not be done.
53	Davanagere	Economy and Employment	Equal opportunities and benefits of development	Not Known	There was no allocation in the SCP. In absence of adequate information, the assessment of the goal could not be done.
54	Davanagere	Economy and Employment	Adaptive to new emerging technologies.	Achieved	Projects such as geo fencing based SWM, ATCS, One City One Portal, e-learning centres, smart schools and colleges provided.
55	Davanagere	Economy and Employment	Build upon the major economic engines of trade, food processing units, growth of medium, small and micro enterprises and nurture entrepreneurship	Partly Achieved	All shops provided in KSRTC bus stand in Davanagere and Bethur road, Jagalur bus stand old city bus stand nurture entrepreneurship and able to provide self-employment to 100+ people. DSCL projects such as 6 Smart roads ATCS, smart parking have been able to decongest the city and given major boost to city transportation which helped the areas to become the engines of growth in the city.
56	Davanagere	Economy and Employment	Clean and green city through use of sustainable technologies.	Partly Achieved	Projects such as solar rooftops, solid waste management, afforestation, LED street light, Geo fencing waste SWM are implemented to promote clean and green city.
57	Davanagere	Economy and Employment	Reduced air pollution through use of advanced heating technology.	Achieved	Construction of electric crematorium helped to avoid the air pollution.
58	Davanagere	Education and Health	Developed to its full potential and attract more students.	Partly Achieved	There was no separate allocation for education and health in the SCP. However, there was a sub-allocation of this sector in Mandakki Bhatti Development. Since the project was deleted, the SPV implemented 18 Projects of ₹ 44.89 crore related to education and three Projects of ₹ 17.67 crore related to Health. Data regarding 100 per cent literacy rate is not available, hence the achievement of the goal could not be assessed.
59	Davanagere	Education and Health	Build and improve upon the primary, secondary, pre -university and professional courses.	Partly Achieved	

60	Davanagere	Education and Health	Access education across all levels to achieve 100% literacy rate.	Partly Achieved	15 Projects of ₹ 67.11 crore are taken up by SPV. It includes parks, Kundawa Lake, Stadiums and other miscellaneous works. Development of park in Shamanur Village was taken up by DCC for ₹ 0.93 crore.
61	Davanagere	Park and Public Space	Entertainment of its masses, like amusements parks, botanical gardens, children's museum, regional science city and multiplexes	Partly Achieved	No projects taken up by SPV under the Mission. Two projects have been taken on PPP mode for ₹ 25.85 crore for LED street light and Solar Roof Top. However, progress has not been made under the same.
62	Davanagere	Energy	Usage of efficient low carbon emission renewable energy.	Partly Achieved	GPS and RFID Based Integrated Solid Waste Management System was awarded for ₹ 9.16 crore. However, integration with ICCCC has not been carried out. Six Projects related to e-toilets and sanitary napkins have been taken up for ₹ 7.70 crore. Four projects of Electrical crematorium and afforestation have been taken up for ₹ 10.7 crore. Two projects of Spraying machines and Mist Technology Vehicle were taken up for ₹ 1.25 crore.
63	Davanagere	Basic Amenities	Improved health and sanitation conditions.	Partly Achieved	Vani Vilas Development Project was taken up for ₹ 13.43 crore. Another Project of Medar Oni PHC improvement was taken up for ₹ 4.73 crore. Apart from this this HDSCCL has implemented 3 packages under basic services to urban poor in slum area such as Ramalingeshwara nagar, Kulkarni Hakkal, Torvi galli, where development of roads footpath stream water drainages provided street light redevelopment of primary health centre and school. It has help to makes slums free.
64	Huballi-Dharwad	Affordable Housing including Slum Development	Improve the standard of schools and hospitals in the slums of the city through innovative PPP	Achieved	Railway Station Redevelopment was dropped in 07th Market. Though the SPV has taken up seven development works in four city markets and one QC laboratory for ₹36.16 crore, however in absence of adequate data, we could not assess the actual achievement of this goal. The redevelopment of fish market, Janata Bazar, Bengari Market and Unkal Market was taken up and completed. However, the same has not been allotted to eligible vendors. Thus, due to non-allotment of these market the objective of scheme has not been achieved till date.
65	Huballi-Dharwad	Economy and Employment	To become the gateway of trade, commerce and business in the region, clocking a GDP growth of 7% every year from 2018-2028	Unachieved	Though the SPV has taken up development works in four city markets, The redevelopment of fish market, Janata Bazar, Bengari Market and Unkal Market was taken up and completed. However, the same has not been allotted to eligible vendors. Thus, due to non-allotment of these market the objective of scheme has not been achieved till date.
66	Huballi-Dharwad	Economy and Employment	To increase the export by 15 per cent every year during 2018-2028	Unachieved	Both the projects were dropped in 07th BM. No project towards the goal was taken during implementation also by the SPV.
67	Huballi-Dharwad	Economy and Employment	To have skilled manpower pool double in next five years	Unachieved	Water supply system 24*7 with smart metering for ₹ 24.5 crore was dropped in 07 th BM. Two Projects of ₹ 44.30 crore regarding Underground drainage were dropped in 07 th and 11 th BM. People Empowerment Platform for ₹ 84 crore was dropped in 07 th BM. Two projects of Solar Roof Top were dropped in 07 th BM and 32 nd HPSC. 02 projects regarding SWM of ₹2.7 crore were dropped in 07 th BM. Six Projects regarding desilting of Nalas, and Green Corridor, e-toilets, sanitary vending napkin have been taken for ₹ 132.8 crore, two Projects of RWH and Litter Free Zone SWM have been taken up for ₹ 3.39 crore. One project for HDSCCL website for ₹ 10 thousand has been taken. 10 Projects regarding ICCCC were taken for ₹ 73.26 Cr, which were not aligned to the Goal. Two Projects of ₹ 2.64 Cr were taken towards Electrical crematorium, and solar grid not aligned to the Goal. 24*7 Water Supply project has been taken
68	Huballi-Dharwad	Basic Amenities	To improve the infrastructure to provide 24x7 water supply, 24x7 electricity to the CBD, and tender SURE roads for the CBD	Partly Achieved	

					for ₹ 683 Crore by KUWSDB. Storm Water Drains work are taken by HDMC for ₹ 14.13 crore. Three Projects for UGD works were taken for ₹ 381 crore in AMRUT scheme, integrated SWM is taken up by HDMC for ₹ 60.4 crore.
	Transport Mobility and Accessibility				Transport Terminal Hub with Wi-fi- enabled services, ₹ 316.4 crore dropped in 03rd BM. MLCP worth ₹ 59.5 crore was dropped in 07th BM. Allocations of Footpath Improvement, IPT Connectivity, Junction Improvement, Storm Water Drains, NMT Zones and Underground Ducting of Electricity were merged and Smart Road Packages were taken by the SPV. 15 Projects regarding Smart Road, BUSP, Old City Bus Stand and Smart Parking have been taken up for ₹ 408.64 Cr. One project of Boom Barrier for ₹ 3.88 crore have been taken up. Smart Parking Tower is taken on PPP mode for ₹ 50 Crore. 04 Road projects of ₹ 116.98 crore were taken up by NHAI
69	Transport Mobility and Accessibility	To reduce the transit time, increase the average speed to 45km/hr	Partially achieved		Though the SPV has taken projects for road improvements and junction improvement, which are benchmarked against another goal of the city. However, in respect of this specific goal, due to insufficient data, audit could not assess the achievement. Old city bus stand has been taken under SCM and same is yet to be completed.
70	Education and Health	To increase the quality of schools and colleges and ensure BVB university and SDM institutions, ranks within first 20 educational institutions by 2020	Not Known		Though there was no specific allocation in the SCP for Health and Education, however project in this sector have been taken up by SPV. Two Projects of ₹ 1.42 crore for Smart Classes and three Projects of ₹ 26.93 crore for KIMS, Chittagupti hospital and Smart Health have been taken up which were not aligned to the Goal. No projects were taken for BVB university and SDM institutions and ranking of the institutions is not known. Repair of Lamington School was taken up by HDMC for ₹ 3 crore.
71	Park and Public Space	Develop the public spaces thru citizen participation	Partly achieved		Six Projects of Park Redevelopment for ₹ 28.08 crore were taken up. Three projects of Lake Development in Unkal Lake and Tolankere Lake for ₹ 74.41 Cr have been taken up. This includes MG Park, Tolankere Lake, and Nehru Stadium. seven works were completed. Four works regarding Swimming Pool, Nehru Stadium and Integrated Sports Complex have been taken up for ₹ 192.15 crore. Integrated Sport Complex has been just awarded and no progress has been made. Convergence Project of Khelo India has been taken for ₹ 6.97 crore.
72	Park and Public Space	Development of cultural zones in the city, thus enhancing the quality of life.	Partly Achieved		No such projects were taken up by the SPV.
73	Environment and Ecology	Novel method of greening the city using the Eco-battalion of the Territorial army.	Unachieved		
74	Transport Mobility and Accessibility	Improve accessibility, connectivity and efficiency within public transportation and NMT	Partly Achieved		The SPV has taken up 13 projects for development of smart roads, construction of Bus terminal, bus shelters, bridges at a cost of ₹358.42 crore from SCM funding. Multi Car Level Parking is taken on PPP mode for ₹ 94 crore. Integrated Transport Hub (Integrated Bus Terminal with Retail mall and Recreational Center) is taken on PPP mode for ₹ 200 Crore, however no bidders have participated in 03 call so far. 22 Road and circle works are taken by MCC for ₹ 79 Cr. Issues regarding non-achievement of Cycle Track, connector road, are commented in the audit report.
75	Energy	Upgrade Civic Infrastructure to be sustainable and efficient	Partly Achieved		IPDC Proposals of ₹34.3 Cr were dropped in 12th BM, Roof Top Solar- Two Projects of ₹ 20 crore dropped in 12th BM., Smart Energy Meter for LT - ₹37.5 Crore was dropped in 07th BM. Conversion of all lights into Solar LED of ₹ 21.79 crore was dropped in 07th BM. Solar and recreational island of ₹ 86.74 crore was dropped in 12th BM. Installation of Rooftop Solar on Government Buildings in ABD area -Phase 1 ₹ 7.08 Cr and Conversion of Street Lights to LED- ₹ 69.35 Cr are tendered on PPP mode, implementation yet to be done.

						Conversion of Conventional lights into LED Lights in Government Buildings - 2.23 Cr - Ongoing, Retrofit Car Street and areas of Sri Venkatramana Temple- ₹ 4.95 Cr - Ongoing Conversion of Existing 11 KV HT/LT overhead lines at Mangaladevi Temple road and New Monkey Stand road - ₹ 3.78 Cr - Ongoing. Execution of model sub division works in Attavara taken by MESCOM for ₹ 141.54 Cr.
76	Mangaluru	Education and Health	Build on high standards of Cleanliness, Public Health and Safety	Partly Achieved	Four works of ₹ 52.34 crore at Lady Goshen Hospital and Wenlock Hospital were taken up and all are completed as of June 2024. A project of ₹ 4.75 crore was taken up for Skill Development Centre. Civil Work is completed. Training to commence shortly.	
77	Mangaluru	Park and Public Space	Make use of underutilized rivers, beaches, forests and hills for a) Public Place Making, b) Water and Energy Resource, c) Transport Recreation and Tourism, d) Education and Ecological Protection	Unachieved	Community Level Facilities along with international swimming pool – Completed work - ₹ 22.53 Cr. Construction of B.R.Ambedkar Bhavan is taken up by KHB for Rs 10.46 Cr.	
78	Mangaluru	Basic Amenities	Move towards zero-waste economy	Unachieved	100 per cent water supply coverage along with residential meter; water quality monitoring and SCADA Project of ₹ 10 Crore was deleted in 13th BM . Further, ₹ 114 Crore was transferred to KUIDFC to implement 24*7 water scheme which was under implementation. A Work of 24*7 water supply is taken by MCC for ₹ 35 Cr.	
79	Mangaluru	Affordable Housing including Slum Development	Focus Community and Place-making on making quality affordable housing and nodal civic space	Partly Achieved	A Project of EWS housing is taken by MCC for ₹ 6.24 Cr.	
80	Mangaluru	Basic Amenities	100% compliance of SWM Rules 2000	Unachieved	Projects were deleted in 07th BM, since MCC outsourced SWM. 2 Projects of UGD, ₹ 95.01 crore were deleted in 19th HPSC to divert the fund. 04 UGD Projects of ₹ 40.12 Crore were taken up and ongoing, ineffectiveness of the same is commented in the audit report. Restoration of the collapsed portion of the existing stone revetment of Nethravathi river bank and SSM jack well No.2 on the upstream side of Thumbbe vented dam, Mangaluru is taken for ₹ 10.50 crore, which was not aligned to the Goal. Six Works regarding UGD and sewerage system are taken by KUIDFC and MCC for ₹ 336.42 cr. Non-linking of STP and sewerage system is commented in the audit report.	
81	Mangaluru	ICT enabled Smart Governance	Establish digital and physical networks in polycentric approach to Governance, IT, Place-making, Healthcare, Transportation and Integrated Energy Model	Unachieved	ICCC Phase-3 worth ₹ 23.69 crore was deleted in 12th BM. Patrolling vehicle project, ₹ 36 lakh was dropped in 07th BM. ₹ 12.2 crore was incurred towards KMDS Data Centre, ₹ 01 crore was incurred towards Establishing Karnataka Urban Observatory and Centre of excellence at Bengaluru. ₹ 72.60 Crore is incurred towards establishments of ICCC in six works. None of the work reached go live till date.	
82	Mangaluru	Economy and Employment	Strengthen connection with Lakshadweep Islands both for trade and tourism	Unachieved	No projects were taken by SPV to promote connection with Lakshadweep	
83	Mangaluru	Economy and Employment	Make Mangaluru a hub for gastronomy and fresh produce(coffee, fish, cashew nuts, fruits, vegetables)	Unachieved	No projects taken by SPV in this regard. Redevelopment of vacant premises of Old DC office into hotel, retail shops and speciality restaurant-worth ₹ 10 crore - dropped in 15th BM. Retrofitting of tile factories into hotel- ₹ 67.24 Cr - dropped in 12th BM, Redevelopment of Brick Factory into commercial Space - Dropped in 19th HPSC	

84	Mangaluru	Economy and Employment	Revive link with port-trading history and fisheries	Unachieved	Redevelopment of Fisheries Harbour along with Fish Market and ancillary facilities - ₹ 88.46 Crore and Retrofit of Old Port - ₹ 88.45 Crore - dropped in 07th BM, Development of Central Market is taken on PPP mode for ₹ 114.03 Crore and for SCM funding Rs 5.06 Crore, However, minimal progress is made.
85	Mangaluru	Economy and Employment	Strengthen role as Regional Entrepreneurial Hub, creating employment and entrepreneurial opportunities	Unachieved	Construction of DC office complex was taken by KHB for ₹ 38.84 Crore which was not aligned to the Goal.
86	Mangaluru	Park and Public Space	Increase role as node for tourism, recreation, culture	Partly Achieved	Sri Venkatrama Temple Project Dropped in 07th BM., 10 Projects of ₹76.22 crore regarding Kadri Park, Mangala Stadium, Indoor Stadium near Urva Market, Guzzar Kerre, Kavoor Lake, Clock Tower, Area Development at Tannir Bhavi and Sultan Bathery ongoing.
87	Mangaluru	Park and Public Space	Re-activate riverfront for commercial and civic exchange	Unachieved	Five works regarding Waterfront Development - ₹ 59.41 crore are awarded, however no physical progress is made. Upgrading of water Jetty - ₹ 11.71 crore - Work taken Up. Open Air Theatre and Water Sports Park at Nayar Kudru- ₹ 49.65 crore was awarded. However no physical progress is made.
88	Shivamogga	Affordable Housing including Slum Development	Create Affordable Housing for EWS/LIG Sections	Unachieved	No projects taken for Housing Stock.
89	Shivamogga	Affordable Housing including Slum Development	Provision of better living standards for slum dwellers through resettlement or redevelopment of the slum pockets	Unachieved	No projects taken for Housing Stock.
90	Shivamogga	Basic Amenities	Optimize the water usage through smart metering	Unachieved	Canal Redevelopment Work has been taken up for ₹ 10.59 crore. Water Supply work of six crore has been taken by KUWSDB.
91	Shivamogga	Basic Amenities	Ensure 100% segregation and recycling of solid waste in sustainable manner.	Not Known	One project of UGD improvement is taken by SPV for ₹ 3.57 crore. SWD and UGP projects of ₹ 74.53 crore were taken up by SCC and KUWSDB. However, in absence of adequate information in respect of segregation of solid waste, the assessment of the Goal achievement could not be made.
92	Shivamogga	Basic Amenities	Propose new E-toilets at transport nodes and public areas	Partly Achieved	Public Toilet project of ₹ 1.6 crore was taken up by SCC.
93	Shivamogga	Transport Mobility and Accessibility	Promote Eco-mobility with well-designed road sections which will facilitate uninterrupted pedestrian flow, dedicated bicycle tracks, efficient PT facilities	Partly Achieved	Smart Bus Shelter, and PBS for ₹ 1.28 crore were dropped in 07th HPSC. Seven Road Projects of ₹ 480.46 crore were taken up by the SPV. One project of MLCP of ₹ 22.03 crore, has been taken. Five projects are taken for conservancies for parking for ₹20.71 crore. 09 Projects regarding UGLT for ₹ 40.68 crore and one project of ₹ 30 Lakh- patrolling bikes for Police were taken which were not aligned to the goal. One Project of PBS has been taken on PPP mode for ₹ 4.33 crore. 07 Projects regarding Road, Junction, and Circle Improvement for ₹ 79.9 Crore have been taken by SCC and NHAI. UG Cabling project have been taken by MESCOM for ₹ 71.2 Crore. Conservancies project was taken by SCC for ₹ 2 Crore.

94	Shivamogga	Transport Mobility and Accessibility	Create integrated public bus transport system with improved frequency, facilities, technology and reliable information and monitoring system through ICT interventions	Partly Achieved	Electrical Rickshaw, ₹ 1.9 crore was dropped in 22 nd HPSC. Integrated Bus Terminal ₹ 2.50 crore was dropped in 21 st BM. Railway Station Development was dropped in 07 th BM. 03 Projects of ₹ 17.06 crore for Bus Shelter, and improvement of Private Bus Terminal and Hole Bus Stop are undertaken by the SPV.
95	Shivamogga	Park and Public Space	Compact and dense mixed land use development along the strategic zonal nodes, creating public spaces, water plazas, information hubs and art installations thus creating unique urban landscape.	Partly Achieved	MLCP for Vinayaka Theatre, ₹ 10 crore was dropped. 11 Projects regarding development of Parks and Nehru Stadium are taken by the SPV for ₹ 55.88 Crore. Project of Shivappa Nayak Palace was taken for ₹ 11.68 crore. And 05 projects were taken for Freedom Park redevelopment and Heritage Park and street art for ₹ 23.37 crore. two projects regarding partition work in Netaji Subhash Complex and Hawkers Zone are taken up by the SPV for ₹12.73 crore. Development works of 11 parks for ₹ 4.46 crore have been taken by SCC.
96	Shivamogga	Ecology and Environment	Creating and also upgrading ample green and blue spaces at potential locations to enhance aesthetics and harbouring bio-diversity	Unachieved	Green House with Butter fly parks, ₹ 30.49 crore. Zen Garden and Rock Garden, Musical Fountain with Amphitheatre, Water Theme Park, City Aquarium, were dropped in 07 th HPSC.
97	Shivamogga	ICT enabled Smart Governance	Interactive information kiosks, public sanitation, communication platforms (visual hoardings) integrated into planning.	Partly Achieved	One project (modern police information/ tourism kiosks) was taken for the amount of ₹1.16 crore and it was completed
98	Shivamogga	ICT enabled Smart Governance	Integrate ICT solutions for better O&M of basic services. Smart water meters, pipe leakage sensors/ alert system for UGD network, efficient, centralized management and monitoring of SWM staff and activities, smart parking, LED street lighting, Integrated Traffic Management with surveillance system etc.	Partly Achieved	Conversion of normal streetlight to LED street light system awarded under PPP at cost ₹44.42 crore.
99	Shivamogga	ICT enabled Smart Governance	Create a unified platform for knowledge sharing facility across all the government departments in the city and organize various training and capacity building sessions at every 3 months interval. Performance based monitoring system of employees	Unachieved	No project was taken up by SPV
100	Shivamogga	ICT enabled Smart Governance	Monitoring the threats caused to the green, blue and brown resources through GIS mapping and real time monitoring	Unachieved	
101	Shivamogga	ICT enabled Smart Governance	Promote interconnectedness of physical infrastructures through ICT interventions for optimal utilization of resources and increased accountability	Unachieved	
102	Shivamogga	ICT enabled Smart Governance	Enhancement of SCMC taxes - property tax enhancement, commercial property development, user charges and betterment charges	Not Known	In the absence of adequate information in this regard, the achievement of the Goal could not be assessed.

103	Shivamogga	ICT enabled Smart Governance	Other sources - Advertisement revenues, parking fees, market facilities and savings through ICT based OandM of basic services	Not Known	In the absence of adequate information in this regard, the achievement of the Goal could not be assessed
104	Shivamogga	ICT enabled Smart Governance	Innovative fund Pooling - Shared selling, Rezoning and Land based sources	Not Known	In the absence of adequate information in this regard, the achievement of the Goal could not be assessed
105	Shivamogga	ICT enabled Smart Governance	ICT based system monitoring the mosquito menace in the city	Unachieved	No projects were taken up in this regard.
106	Shivamogga	Economy and Employment	Capitalizing on tourism, human resources, educational and training institution to create new businesses through PPP framework.	Unachieved	No projects were taken up in this regard.
107	Shivamogga	Economy and Employment	Riverfront Development with integration of various eco-tourism zones - heritage and cultural zone, recreational zone, city public open space, revival of underutilized public land for cultural revival activities, research incubation centres, naturopathy centres etc.	Unachieved	Audio Guide for proposed Heritage Walk amounting ₹ 1.32 crore was dropped in 19th HPSC. Development of Canal Side Public Recreational Area, ₹ 61 crore and South Bank of Tunga River improvement costing ₹ 110 crore were dropped in 7 th HPSC. Five Projects regarding Riverfront for ₹ 132.08 crore for northern bank Tungabhadra River have been taken up by SPV.
108	Shivamogga	Economy and Employment	Create partnerships between government, industry and universities to align skill availability with upcoming employment opportunities.	Unachieved	
109	Shivamogga	Economy and Employment	Research and Knowledge sharing platform for the existing indigenous economies viz., agro-forestry, organic farming, horticulture, floriculture and MSE'S for smart productivity	Unachieved	Development of International Diversity Research Campus, and Promoting Floriculture, Organic Farming and related activities for ₹ 20.42 crore were dropped in 10 th HPSC. The same was taken by Horticulture department.
110	Shivamogga	Economy and Employment	Creating spaces for cultural connectivity, skill development and knowledge sharing.	Unachieved	No projects taken up by the SPV in this regard.
111	Shivamogga	Economy and Employment	Creating a unified platform for artisans to showcase the artifacts and also training centres for knowledge transfer.	Unachieved	No project taken up by the SPV in this regard.
112	Shivamogga	Energy	Gradual shift to renewable energy solutions - Solar power, waste to energy etc.	Unachieved	Roof Top Solar ₹ 1.87 crore dropped in 31 st HPSC. No projects in this regard, has been taken by SPV.
113	Shivamogga	Energy	100% coverage of smart energy meters in the properties.	Unachieved	Neither the SCP provided any allocation for the goal nor, any projects in this regard, has been taken by SPV.
114	Shivamogga	Energy	Encourage and promote green building technologies	Unachieved	Neither the SCP provided any allocation for the goal nor, any projects in this regard, has been taken by SPV.

115	Shivamogga	Energy	Ensure 24x7 green electricity through deficit coverage 20% by solar power generation	Unachieved	A project of Solar on Canal Top Tunga high level Canal has been taken on PPP mode, however no bidders have participated after multiple calls. A project of LED Street Lighting has been taken on PPP mode for ₹ 44.42 crore.
116	Shivamogga	Education and Health	Access to better affordable health facilities and efficient safety and security systems.	Partly Achieved	There was no specific allocation regarding the sector, in the SCP, However SPV have taken six Education projects of ₹ 13.36 crore and five Health projects of ₹ 10.17 crore. One project of ₹ 0.5 crore was taken by SCC for Gopishetty Koppa and Sharaathi nagar Cemetery, which were not aligned to the Goal.
117	Tumakuru	Affordable Housing including Slum Development	Urban regeneration through the redevelopment of inclusive affordable housing	Partly Achieved	Two projects are taken for ₹ 15.71 crore, i.e Housing with basic services in Maryamma Nagar, and Infrastructure correction. Two Projects of 1556 DUs and 1200 DUs are taken by KSDB for ₹ 138.55 crore under RAY scheme.
118	Tumakuru	Basic Amenities	Improve infrastructure and delivery of Public Utilities like water supply, sewerage and storm water drains	Partly achieved	15 projects, Storm Water Drains, Toilets, Rainwater Harvesting for ₹ 37.43 crore are taken by the SPV. ₹ 18 crore were transferred to KUSWDB for 24*7 water supply scheme. ₹ 14 Crore were transferred to KUSWDB for AMRUT scheme. A project of Piped Natural Gas supply has been taken on PPP mode for ₹ 116 crore by SPV. Water Supply 24*7 scheme (₹ 358.33 Cr) and 03 projects regarding UGD for ₹ 254.94 crore have been taken by KUWSDB. One project of ₹ 2.5 crore for UGD has been taken by TCC.
119	Tumakuru	Park and Public Space	Inclusive transformation and beatification of Public Spaces	Achieved	Construction of musical fountain interface with multimedia laser and video projection on aqua screen at Amanikere Lake at, ₹ 4.3 crore was dropped in 22 nd HPSC. 12 projects regarding development works in Lakefront Amanikere Lake have been taken up by the SPV.
120	Tumakuru	Park and Public Space	Support community wellbeing through enhanced opportunities for active living and community engagement	Partly achieved	37 Projects regarding development of parks, sports grounds, wall painting, were taken by the SPV for ₹ 126.84 crore. Glass House, Sports Complex, Samudaya Bhavan, and Parks for ₹ 16.55 crore were taken up by TUDA and TCC.
121	Tumakuru	Park and Public Space	Enhance the inclusiveness of the community for all ages and backgrounds by Promoting recreation and culture opportunities	Partly achieved	
122	Tumakuru	Park and Public Space	Foster a strong sense of place and identity through the development of the city centre as a high quality, compact built form with vibrant culture sector, and the conservation of resources	Unachieved	Three projects regarding City Library, including digital solutions have been taken up by the SPV for ₹ 31.88 crore which is ongoing.
123	Tumakuru	Transport Mobility and Accessibility	Maintain and improve existing transportation infrastructure	Unachieved	The construction of Integrated bus terminal is ongoing under SCM funds.
124	Tumakuru	Transport Mobility and Accessibility	Improve access to public transit routes through a robust series of linked multi-modal transportation networks	Partly achieved	Allocation for Junction Improvement (₹ 24 Crore), Footpath and Walkway (₹ 81 Crore), Bicycle Lanes (₹ 08 Crores) and Underground Electricity (₹ 196 Crore) was merged and reallocated to Development of Smart Roads and Ring Road. E-Rickshaw was dropped in Dec 2019 due to poor quality. Development of Bus Shelter, ₹ 3.7 crore was dropped in 22 nd HPSC.
125	Tumakuru	Transport Mobility and Accessibility	Enable a futuristic transportation system through the creation of complete streets - roads that are designed to safely accommodate cars, wheelchairs and transit users	Partly achieved	Development of Ring Road has been taken up for ₹ 11.46 crore, 22 Projects regarding Smart Road, Bus Shelter, Junction Improvements, Para Transit Hub, are taken by the SPV for ₹ 263.8 crore. 03 Projects are taken on PPP mode for ₹ 69.33 crore, i.e PBS (₹ 4.33 crore). MLCP (₹

							60 crore) and Bus Shelter (₹ 5 crore). For Improvement of Footpath, Road and Junction, 13 projects are taken by TCC, NHAI and PWD for ₹ 31.97 crore.
126	Tumakuru	Environment and Ecology	Ensuring the reduction of Pollution and Carbon Footprint	Not Known	In the absence of adequate information Audit could not assess the achievement against the Goal.		
127	Tumakuru	Transport Mobility and Accessibility	Making the city easily Navigable and Legible by all groups of people	Partly achieved	No specific allocation in the SCP, however SPV has taken two projects in this regard for ₹ 1.57 crore.		
128	Tumakuru	Environment and Ecology	Improving the microclimate of the city	achieved	Total no. of 27 projects		
129	Tumakuru	Environment and Ecology	Ensure new development, redevelopment and intensification preserve; and contribute to quality green space	Partly achieved	One work for plantation, ₹ 0.85 crore was taken up by the SPV.		
130	Tumakuru	Energy	Encourage increased investment in green infrastructure, including increased energy conservation investment for City facilities	Partly Achieved	Three Projects related to Solar Energy in Govt. PU College, street light and Amanikere tank were taken up by the SPV for ₹ 3.98 crore. Seven Projects regarding lighting infrastructure in dark spots and shifting of BESCOM lines, replacement of street lights were taken up by the SPV for ₹ 18.75 Crore. Three projects were taken on PPP mode for ₹ 180.98 crore. i.e Street Light LED (₹ 74.75 Crore), Roof Top Solar (₹8.23 Crore) and Floating Solar Plant at Bugudanhalli (₹ 98 Crore.) BESCOM undertook three Projects related to Energy, LTUG and Integrated Power Development for ₹ 153.8 crore.		
131	Tumakuru	Environment and Ecology	Successful Management of Lakes through an Integrated Approach to Lake Basin Management that fully links land use, water use factors	Unachieved	Five MLD STP near Amanikere, ₹ 14.5 Crore was dropped in 08th BM due to local agitation. A project of Lake Bank Conservation erosion protection was taken for ₹ 25.37 crore by SPV in Amanikere Lake. However, the ineffectiveness is commented in the audit report, as the sewage is entering into the lake.		
132	Tumakuru	Economy and Employment	Become the location of choice for a young, educated labour force	Unachieved	Six Projects related to vending zones and skill development centres were taken up by the SPV. However, the centre is not functional.		
133	Tumakuru	Education and Health	Partner to develop strategic economic opportunities and research and development with the education sector including universities	Partly achieved	Multi-Speciality Hospital of ₹ 300 crore was dropped in 07 th HPSC. 10 Projects related to Health for ₹ 57.27 crore and 28 Projects related to Education for ₹ 38.79 crore were taken up by the SPV.		
134	Tumakuru	ICT enabled Smart Governance	Ensure open, accountable and responsible governance	Partly achieved	Smart Energy Meter, ₹ 17 crore was dropped in the 19 th BM for want of funds. Smart Water Management for ₹ 35 crore was dropped due to lack of funds. For Street Light Controlling System of ₹ 151 Crore. SCM funding was dropped in 2 nd BM with a direction to execute them under PPP. Nine Projects taken up for Integrated Command and Control Centre, for ₹ 93.74 crore. and projects related to Drone Survey, IT hardware to TCC and PIS boards were taken up by the SPV.		
135	Tumakuru	ICT enabled Smart Governance	Create innovative and supportive organisational practices	Partly Achieved	Smart Lounge Project was dropped in 22 nd HPSC with a direction to take up the same under PPP model. Only at one location at Amanikere Lake project was taken for ₹ 1.32 crore.		

Source: Information furnished by Smart Cities

Appendix-2.2
List of projects not aligned with goals specified in SCPs
(Reference: Paragraph 2.2.1.2, Page 10)

Sl. No.	Project ID	City	Project	Awarded Cost (₹ in crore)
1	KAR-BEN-067	Bengaluru	LED Lighting for Vidhana Soudha, Vikas Soudha, MS Building and VV Towers	1.9
2	KAR-BEN-069	Bengaluru	Project Rashmi -Women's Space at Workplace	2
3	KAR-BEN-080	Bengaluru	Completion of Mini Auditorium, Additional work and Interior work for Department of Women and Child Welfare	4.98
4	KAR-BEN-081	Bengaluru	New Works for the Institutes of the Department of Women and Child Welfare	3.28
5	KAR-BEN-083	Bengaluru	Construction of Day Care Centre Creche at MS Building	0.53
6	KAR-BEN-088	Bengaluru	Implementation of Digital Classrooms and Computer Labs in BBMP Schools and PU Colleges	6.46
7	KAR-BEN-092	Bengaluru	Improvements and upgradation of Padarayanapura school in Chamarajpete	1.98
8	KAR-BEN-093	Bengaluru	Improvement and upgradation of Cleave Land school in Pulakeshinagara	3.58
9	KAR-BEN-096	Bengaluru	Implementation of smart digital classroom at BBMP Anganawadi Kendras	4.46
10	KAR-BEN-097	Bengaluru	Setting up Genomic lab at Kidwai campus	13
11	KAR-BEN-088	Bengaluru	Implementation of Digital classrooms and computer labs in BBMP schools and PU colleges	6.46
12	KAR-MAN-173	Mangaluru	Construction of RCC Retaining Wall and Jackwell at headworks near Thumbbe Vented Dam for Mangaluru City Water Supply	10.5
13	KAR-HUB-034	Hubballi-Dharwad	ICT Package-1 Integrated Command Control Centre and Smart Solid Waste Management	43.93
14	KAR-HUB-036	Hubballi-Dharwad	Electric Crematorium	2.59
15	KAR-HUB-049	Hubballi-Dharwad	Design, develop and support an augmented reality-based application to arrest Billboard revenue loss in HDMC	0.73
16	KAR-HUB-051	Hubballi-Dharwad	ICCC Building- Civil Interior	4.71
17	KAR-HUB-053	Hubballi-Dharwad	Smart Healthcare	3.05
18	KAR-HUB-058	Hubballi-Dharwad	ICCC Building - Services	3.19
19	KAR-HUB-067	Hubballi-Dharwad	Chittaguppi Hospital Upgradation	23.57
20	KAR-HUB-076	Hubballi-Dharwad	MSI - Centralized Data Centre at KMDS	12.2

Sl. No.	Project ID	City	Project	Awarded Cost (₹ in crore)
21	KAR-HUB-087	Hubballi-Dharwad	Design, Supply, installation, erection, testing and commissioning of digital display board including operation and maintenance for 5 years for Hubballi-Dharwad smart city	4.6
22	KAR-HUB-105	Hubballi-Dharwad	Supply and Installation of CCTV poles	0.41
23	KAR-HUB-113	Hubballi-Dharwad	Supply and Installation of RFID readers	0.98
24	KAR-HUB-114	Hubballi-Dharwad	Supply and installation of GPS trackers	0.04
25	KAR-HUB-116	Hubballi-Dharwad	Design and Construction of entrance gate at KIMS	0.31
26	KAR-HUB-117	Hubballi-Dharwad	Procurement of Solar Butterfly grid	0.05
27	KAR-BEL-026	Belagavi	Construction of 30 bed Maternity Hospital at Vantamuri, Up-gradation of Primary Health Centres	2.39
28	KAR-BEL-075	Belagavi	Trauma Centre at Dharamnath Circle	1.38
29	KAR-BEL-085	Belagavi	Mohalla Clinics	1.84
30	KAR-BEL-086	Belagavi	Smart Classroom	3.32
31	KAR-BEL-123	Belagavi	Smart Classroom Phase II	1.35
32	KAR-BEL-201	Belagavi	Trauma Centre Part -B	1.15
33	KAR-BEL-230	Belagavi	Development of Anganawadi at Belagavi.Part-A	2.25
34	KAR-BEL-236	Belagavi	Providing basic facility and upgrading infrastructure to the newly developed Smart Schools in Belagavi City.	3.83
35	KAR-BEL-237	Belagavi	Up-gradation of Govt Library into Hi-tech Digital Library Phase-I	1.22
36	KAR-BEL-258	Belagavi	Smart Classroom Phase-IV	4.01
37	KAR-BEL-265	Belagavi	Improvement of BIMS hospital	1.32
38	KAR-BEL-271	Belagavi	Development of Anganwadi Part B	0.74
39	KAR-BEL-272	Belagavi	Kids zone at Ravindra Koushik e- library in Belagavi City	2.2
40	KAR-SHI-155	Shivamogga	Procurement of Patrolling Bikes to Police for emergency Response in Shivamogga	0.3
Total				186.79

Source: Information furnished by Smart Cities

Appendix-3.1
Statement showing details of implementation of 26 PPP projects
(Reference: Paragraph 3.2, Page 17)

(₹ in crore)

BSCL		
1	Public Bicycle Sharing Services	4.90
2	Energy Efficiency-LED Street Lighting	63.91
3	Multi-Level Car Parking at First Rly gate opposite Kalamandir	8.00
4	Multi Utility Facility Centres at Mahantesh Nagar	29.00
5	Multi-Level Car Parking at Bapat Galli	7.00
6	Multi Utility Facility Centres at Dharmanath Circle	98.25
Total (A)		211.06
BenSCL		
NIL		
DSCL		
7	Development, operating and maintenance of Smart Bus Q Shelters at 52 locations in Davanagere city on PPP mode at Davanagere phase 1	3.53
8	Selection of Developer to Design, Finance, Manufacture, Supply, Install, Test, Commission, Operate and Maintain for Roof top Solar PV systems for 25 years on Tarriff basis on selected Eight Government Buildings.	2.21
9	Public Bicycle Sharing System	9.99
10	LED street lights	23.64
11	Development, operating and maintenance of Smart Bus Q Shelters at 52 locations in Davanagere city on PPP mode at Davanagere phase 2	4.50
Total (B)		43.87
HDSCL		
12	Smart Parking Tower (Multi Level Car Parking) SCM Funded Rs 10Cr	50
Total (c)		50
MSCL		
13	Installation of Rooftop Solar on Government Buildings in ABD area - Phase 1	7.08
14	Development of MLCP with retail space near Hampanakatta Junction	79.05
15	Conversion of Street Lights to LED	62.63
16	Redevelopment of Central Market along with Fish Market	114.03
Total (D)		262.79
SSCL		
17	Conversion of normal street light to LED street light system	31.69
18	Public Bike Sharing(3.19 crore SCM+1.24 crore PPP)	1.24
19	Solar on Canal top (Tunga high level canal)	140.1
Total (E)		173.03

TSCCL		
20	Piped Natural Gas Supply	100.00
21	Street-lighting control system	74.75
22	Public Bicycle Sharing	4.32
23	Development of Smart Bus Shelter (Bus Q Shelter)	5.00
24	Roof Top Solar Panels - Govt. Buildings and Industries	8.23
25	Multi utility Mall with Multi level car parking	60.00
26	Implementation and Maintenance of Floating Solar plant at Bugudanhalli water tank/reservoir in Tumakuru	98.00
Total (F)		350.30
Grand Total (A+B+C+D+E+F)		1,091.05

Source: Information furnished by Smart Cities

GLOSSARY OF ABBREVIATIONS			
ABD	Area Based Development	KMDS	Karnataka Municipal Data Society
AMRUT	Atal Mission for Rejuvenation and Urban Transformation	KPWD	Karnataka Public Works Department
ANPR	Automatic Number Plate Recognition	KTPP	Karnataka Transparency in Public Procurement
AoA	Articles of Association	KUIDFC	Karnataka Urban Infrastructure Development and Finance Corporation
AVLS	Automated Vehicle Locator System	KUWSDB	Karnataka Urban Water Supply and Drainage Board
BBMP	Bruhat Bengaluru Mahanagara Palike	KUWSMP	Karnataka Urban Water Supply Modernization Project
BCC	Belagavi City Corporation	LoA	Letter of Intent / Acceptance
BenSCL	Bengaluru Smart City Limited	LPC	License Plate Capture
BOQ	Bill of Quantity	LSI	Local System Integrator
BSCL	Belagavi Smart City Limited	MCC	Mangalore City Corporation
BSWML	Bengaluru Solid Waste Management Limited	MESCOM	Mangalore Electricity Supply Company Ltd
CCCC	Centralized Command and Control Centre	MoA	Memorandum of Association
CEO	Chief Executive Officer	MoHUA	Ministry of Housing and Urban Affairs
CKC	CISCO Kinetic for Cities	MSCL	Mangaluru Smart City Limited
CPHEEO	Central Public Health and Environmental Engineering Organisation	MSI	Master System Integrator
CSS	Centrally Sponsored Scheme / Centrally Sponsored Schemes	MUFC	Multi Utility Facility Centres
CWTM	Clear Water Transmission Main	NIIF	National Investment and Infrastructure Fund
DC DR	Data Centre (DC), Disaster Recovery (DR)	NMV	Non-Motorised Vehicles
DPR	Detailed Project Reports	OEM	Original Equipment Manufacturer
EOL	End of Life	PBS	Public Bicycle Sharing
EOS	End of Support	PMC	Project Management Consultant
GFP	General Financial Rules	PQ/TQ	Preliminary Qualification (PQ), Technical Qualification (TQ)
GIS	Geographic Information System	RUB	Road Under Bridge
GMIS	Geo-spatial Management Information System	SBM	Swachh Bharat Mission
HDBRTS	Hubballi-Dharwad Bus Rapid Transport System	SCM	Smart City Mission

HDMC	Hubballi-Dharwad Municipal Corporation		SCP	Smart City Proposal
HDSCL	Hubballi-Dharwad Smart City Limited		SLNA	State Level Nodal Agency
HPSC	High Powered Steering Committee		SNA	State Nodal Agency / Single Nodal Agency
HRIDAY	National Heritage City Development and Augmentation Yojana		SPV	Special Purpose Vehicle
ICCC	Integrated Command and Control Centre		SSCL	Shivamogga Smart City Limited
ICOP	Integrated City Operation Platform		SWM	Solid Waste Management
ICT	Information Communication Technology		TC	Technical Committee
IOD	The Institute of Directors		TSCL	Tumakuru Smart City Limited
IRC	Indian Road Congress		UDD	Urban Development Department
ITMS	Intelligent Transport Management System		UGD	Underground Drainage
ITS	Intelligent Transport System		ULB	Urban Local Bodies