



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.

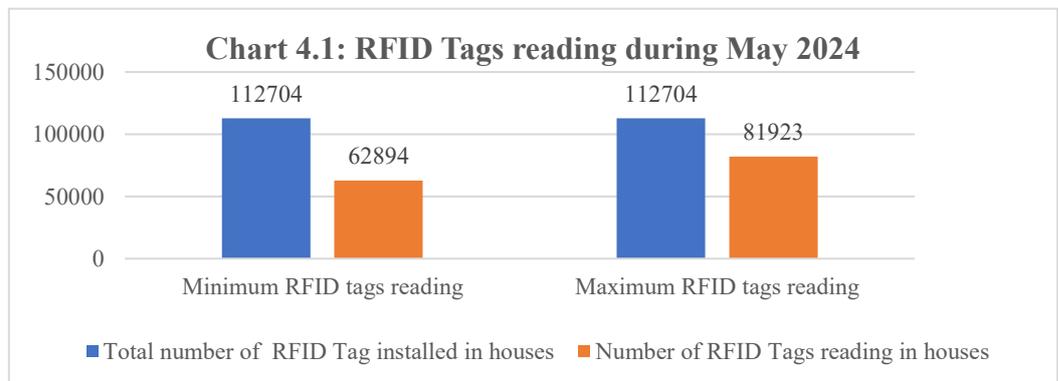
On scrutiny of records, Audit observed that in none of the four cities, the infrastructure created under this component was put to use by the end user department thereby rendering the expenditure of ₹15.43 crore incurred on this component infructuous. City wise observation on implementation of ICT enabled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

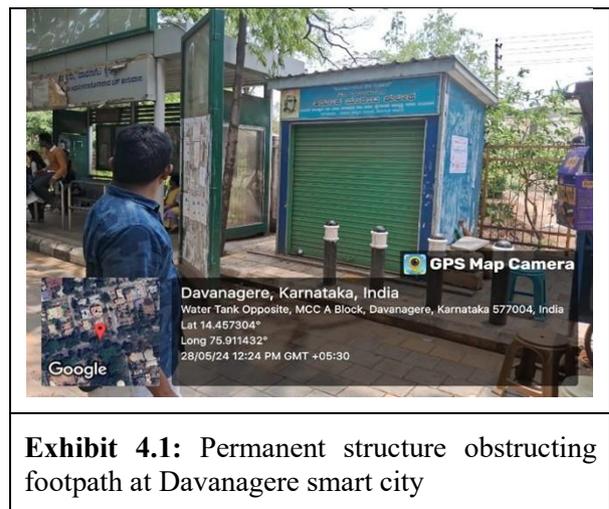


Exhibit 4.1: Permanent structure obstructing footpath at Davanagere smart city

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**).

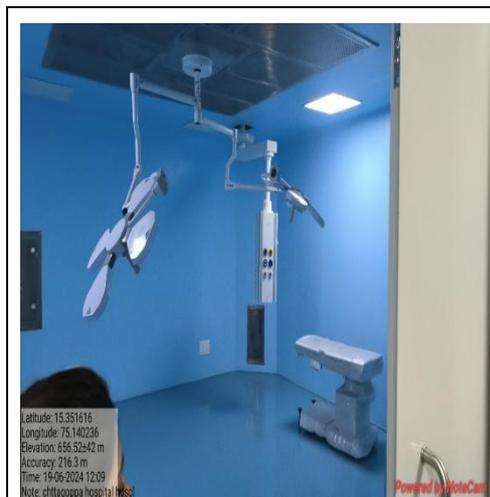


Exhibit 4.6: Medical Equipment still idle



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**).



Exhibit 4.8: Non-utilisation of infrastructure created for Fish Market



Exhibit 4.9: Shops occupied by unauthorized person in Janata Bazaar

- **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**).



Exhibit 4.10: 1BHK units constructed remain unoccupied (21 June 2024).

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 pertain 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**).

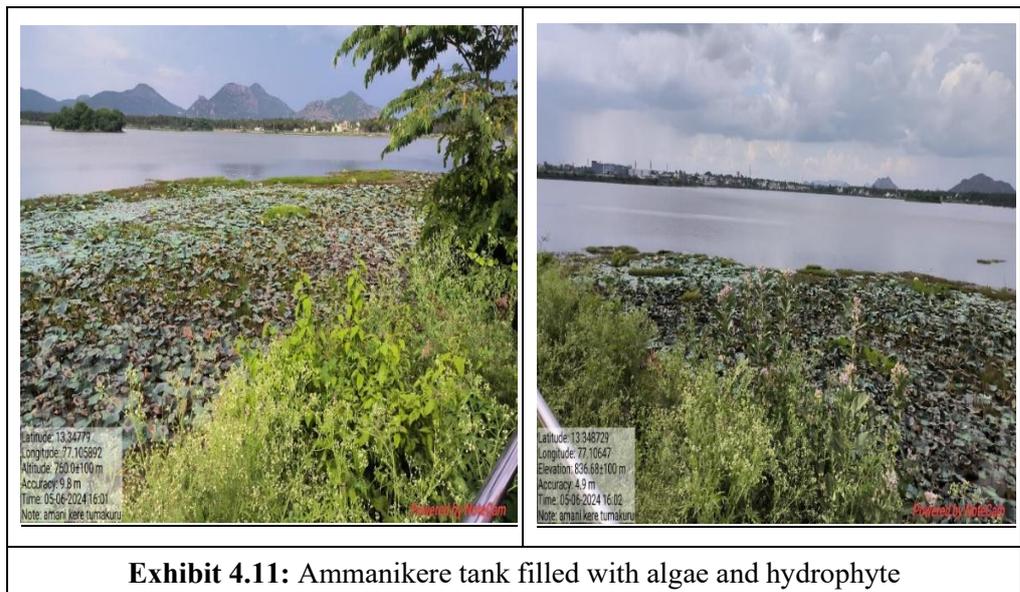


Exhibit 4.11: Ammanikere tank filled with algae and hydrophyte

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