

CHAPTER II

PERFORMANCE AUDIT

URBAN ADMINISTRATION AND DEVELOPMENT DEPARTMENT

2.1 Performance Audit on “Implementation of Atal Mission for Rejuvenation and Urban Transformation (AMRUT)”

Executive Summary

The Performance Audit was conducted to assess whether planning and fund management were based on scheme guidelines; tendering, contract management and execution of work were fair, transparent, and consistent with prevailing sector's best practices; and monitoring and Operation and Maintenance (O&M) were efficient and effective. Performance Audit covered the implementation of AMRUT in the State during 2015-16 to 2021-22 in all Mission cities.

Atal Mission for Rejuvenation and Urban Transformation (AMRUT) was launched in June 2015 by the Ministry of Housing and Urban Affairs, Government of India (GoI) to augment infrastructure in urban areas to improve quality of life, especially for the poor and disadvantaged. The purpose of AMRUT was to ensure that every household has assured supply of water and sewerage connection, develop greenery/well-maintained open spaces and reduce pollution by switching to public transport or constructing facilities for non-motorized transport. In Chhattisgarh, nine out of 14 Municipal Corporations (also known as Mission cities) were chosen for implementation of AMRUT with thrust areas being water supply, sewerage facilities and septage management, and development of green spaces and gardens.

Projects' funding to Mission cities was based on the proposals submitted in State Annual Action Plan (SAAP). Three SAAPs including master SAAP for the entire Mission period (2015-20) with total layout of ₹ 2,235.77 crore were prepared and approved. Out of which, GoI, Government of Chhattisgarh (GoCG) and Mission cities share were ₹ 1,009.74 crore, ₹ 735.62 crore and ₹ 490.41 crore respectively.

The progress report submitted by the State Urban Development Agency to Government of India on achievement of reform milestones for obtaining reform incentives, indicated that 36-37 milestones were achieved by Mission cities, against only 15-16 milestones having been achieved as observed by Audit.

As per Para 13 of AMRUT Guidelines, the States had to take up extensive Capacity Building activities for their ULBs to achieve urban reforms and implement projects in Mission mode. However, the intended objective of empowering municipal functionaries through capacity building could not be fully achieved due to not providing required training to them.

The State Government sanctioned 114 works (for water supply, sewerage, septage, development of green space and parks) costing ₹ 2,323.25 crore during

the Mission period from 2015 to 2020. The execution of the project was very slow and 19 works (17 water supply works, one sewerage and septage and one work of development of green space and parks) costing ₹ 1,712.07 crore were incomplete till March 2023. Out of 95 completed works, 20 works were completed with a delay ranging from three to 33 months.

Due to delay in completion of Water supply scheme projects, the intended objective to provide potable drinking water in eight out of nine Mission cities during the Mission period remained unachieved. Further, due to incomplete work of distribution network, PLC-SCADA and meter installation, achievement of service level benchmark to provide 135 LPCD water to residents of nine Mission cities could not be achieved.

Mission city Rajnandgaon executed the work of laying a pipeline between Mohara Anicut and Kharkhara dam in January 2021 for supply of raw surface water without ensuring commencement of civil works at the dam, whereby pipeline laid remained un-utilised and expenditure of ₹ 62.53 crore was rendered unfruitful. Similarly, Mission city Bilaspur executed the work of laying of 26.50 km pipeline (costing ₹ 84.87 crore) for supply of raw surface water without ensuring completion of the canal linking project, affecting the requirement to meet the demand of water in Bilaspur. Criteria/basis for selection of pipe material was not applied uniformly by SLTC while approving DPR and in seven Mission cities, pipe material for water supply scheme was selected without carrying out detailed economic analysis.

Allowing rates inclusive of excise duty in Bill of Quantity (BOQ) despite excise duty exemption clause in contract resulted in avoidable expenditure of ₹ 9.52 crore under Bhilai water supply scheme. Audit noticed that standard contract conditions as prescribed in Works Department Manual were not included resulting in variation in penalty clause in the same type of contract executed by the Mission cities. Undue favour was extended to the contractor due to non-implementing of the terms and conditions of contract relating to recovery of mobilisation advance, imposition of penalty etc. strictly by the Mission cities. Out of seven projects/works in four Mission cities taken up for establishment of STP to treat waste water, six works were completed, however, none of these Mission cities formulated any policy or action plan to facilitate or sensitise public about use of recycled water. Resultantly, recycled waste water was not used for non-potable purposes and 'was being discharged in local nalla/river.

During 2017-22, the collection percentage of water charges in five Mission cities ranged from 10.50 *per cent* to 80.69 *per cent* which was significantly below the norms of 90 *per cent*, as stipulated in the scheme guidelines. The GIS based master plan of Mission cities had not been prepared even after a delay of five years.

It was further observed that State Level High Powered Steering Committee (SHPSC) meetings were not held between June 2021 and July 2023.

2.1.1 Introduction

The Ministry of Housing and Urban Affairs (MoHUA), Government of India (GoI) launched Atal Mission for Rejuvenation and Urban Transformation (AMRUT) a Centrally Sponsored Scheme in June 2015 to augment infrastructure in urban areas in order to improve the quality of life, especially those of the poor and disadvantaged. The target date (31 March 2020) for completion of all AMRUT projects was extended by MoHUA up to 31 March 2023. The focus of the program has been very clearly enumerated as an inclusive program wherein access to potable drinking water and management of waste water is defined as of principal importance and takes precedence in the implementation strategy. The purpose of AMRUT is to:

- ensure that every household has access to a tap with assured supply of water and a sewerage connection;
- increase the amenity value of cities by developing greenery and well-maintained open spaces (e.g. gardens); and
- reduce pollution by switching to public transport or constructing facilities for non-motorised transport (e.g. walking and cycling).

All these outcomes are valued by citizens, particularly women, and indicators and standards have been prescribed by MoHUA in the form of Service Level Benchmarks (SLBs).

In Chhattisgarh, nine¹ out of 14 Municipal Corporations have been chosen by MoHUA for implementation of AMRUT with the thrust area being water supply, sewerage facilities and septage management, and development of green spaces and gardens. In the State, the works under the Mission are being executed by the concerned Mission cities with the support of Project Development & Management Consultant (PDMC).

2.1.2 Organisational structure

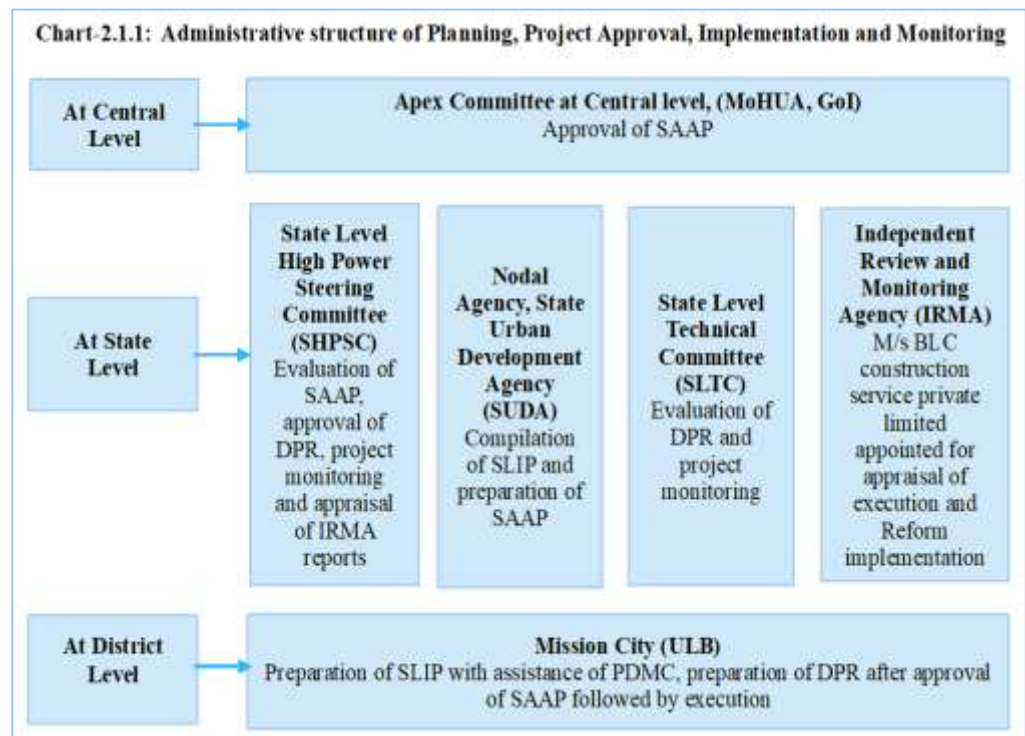
At the State level, Directorate, Urban Administration and Development Department (UADD) is designated for financial and administrative control of Urban Local Bodies (ULBs), under which State Urban Development Agency² (SUDA) is responsible for implementation, funding, execution and monitoring of various centrally sponsored schemes through ULBs. Under the AMRUT Mission guidelines, the State Government constituted State Level High Powered Steering Committee (SHPSC), under the chairmanship of Chief Secretary, Government of Chhattisgarh in August 2015 and State Level Technical Committee (SLTC), under the chairmanship of Principal Secretary, Government of Chhattisgarh, UADD in January 2016.

The administrative structure for planning, preparation of proposals for development of selected Mission cities, their approval and thereafter

¹ Ambikapur, Bhilai, Bilaspur, Durg, Jagdalpur, Korba, Rajnandgaon, Raigarh and Raipur

² The State Urban Development Agency (SUDA) is State level nodal agency of Government of Chhattisgarh (constituted in June 2001) for various Central and State sponsored schemes with mandate of sustainable and planned growth of cities and towns with adequate infrastructure, amenities and services provided to the citizens through the Urban Local Bodies (ULBs).

implementation and monitoring under AMRUT Mission in the State is depicted in **Chart-2.1.1**.



2.1.3 Audit Objectives

The Performance Audit of AMRUT scheme was conducted with the objective to ascertain whether:

- planning and fund management for the scheme was based on laid down guidelines/policy;
- tendering, contract management and execution of work was fair, transparent, and consistent with prevailing sector's best practices; and
- monitoring and O&M were efficient and effective for achieving the outcomes as per Mission objectives.

2.1.4 Sources of Audit Criteria

The criteria for the Performance Audit were derived from the following sources:

- Guidelines of the AMRUT Scheme issued (June 2015) by MoHUA;
- Chhattisgarh Municipal Corporation Act, 1956;
- Central Public Health and Environmental Engineering Organisation (CPHEEO) Manual on Water Supply and Treatment, Operation & Maintenance Manual and National/State water policy;
- Service Level Benchmark (SLB) Handbook issued by MoHUA in 2012;
- Fourteenth Finance Commission's recommendation on service level improvement plans (SLIP) on the lines of AMRUT guidelines for all ULBs of the State with regard to basic services of water, sewerage and sanitation; and

- Orders/notifications/circulars issued by the GoI and State Government from time to time.

2.1.5 Audit Scope and Methodology

Performance Audit covered implementation of AMRUT scheme in the State during the period 2015-16 to 2021-22. An Entry Conference was held (August 2022) with the Secretary, UADD to discuss the audit methodology, scope, objectives and criteria. Draft Performance Audit Report was forwarded to the State Government (11 May 2023) and an Exit conference with the Special Secretary, GoCG, UADD was held on 08 September 2023. The reply of the Department/Government has been suitably incorporated in the Report.

During Performance Audit, records at the offices of Directorate, UADD, State Urban Development Agency (SUDA) and Commissioner, Municipal Corporation of all nine³ (100 *per cent*) Mission cities were examined covering the audit period. Further, joint physical verification of all the water supply schemes⁴, Sewerage Treatment Plants and 18 gardens-two in each Mission city except one water supply scheme executed by Water Resource Department was conducted during audit.

2.1.6 Fund Allocation and Management

The total outlay of AMRUT funds at Central level constituted project cost (80 *per cent*), incentive for reforms (10 *per cent*) and administrative and office expenses (A&OE) (8 *per cent* for State and 2 *per cent* for Ministry). The central assistance for the projects approved under AMRUT Mission was to be released in three instalments of 20:40:40. The fund sharing pattern between the Central Government, State Government and ULBs is detailed in **Table-2.1.1**.

Table-2.1.1: Details of funding pattern under AMRUT

Fund share	Cities with population less than 10 lakh	Cities with population more than 10 lakh
Central Government	50 <i>per cent</i>	33 <i>per cent</i>
State Government	30 <i>per cent</i>	40 <i>per cent</i>
ULBs/Mission cities	20 <i>per cent</i>	27 <i>per cent</i>

(Source: AMRUT guidelines and SAAP)

The details of provision of funds for the scheme made by the Department and funds released and expenditure incurred by the Nodal agency and ULBs during the period from 2015-16 to 2021-22 are given in **Table-2.1.2**.

³ Ambikapur, Bhilai, Bilaspur, Durg, Jagdalpur, Korba, Rajnandgaon, Raigarh and Raipur

⁴ Water supply scheme includes construction of Intake well/sump, Water Treatment Plant, Overhead Tanks, laying of Raw water pipeline, rising main/clear water pipeline and distribution network.

Table-2.1.2: Details of year wise provision of funds made, and funds released for the AMRUT Mission by the State Government

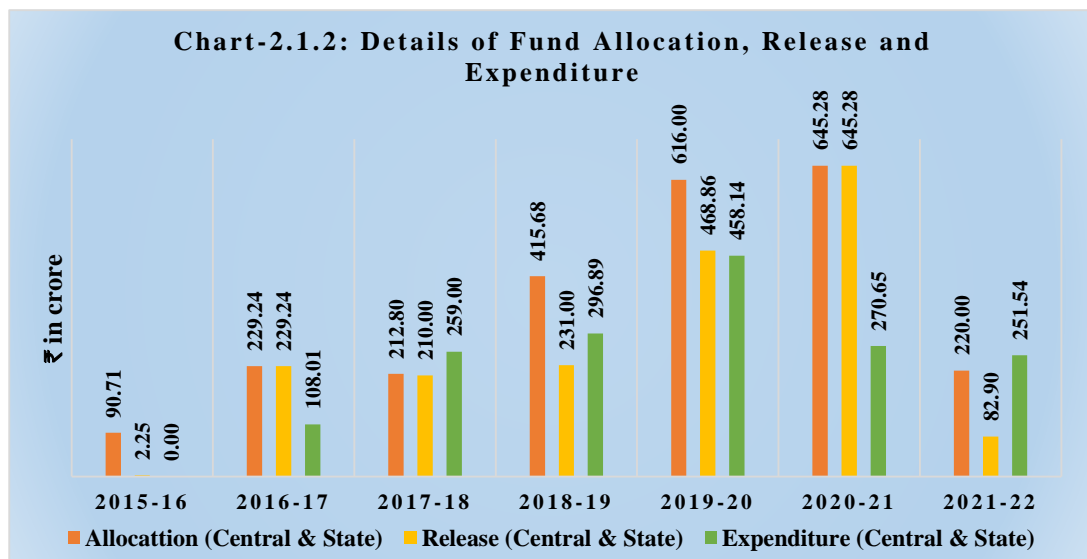
(₹ in crore)

Year	Provision of funds made in the State Budget			Release of fund			Expenditure incurred			
	Central Share	State Share	Total	Central Share	State Share	Total	Central Share	State Share	ULB share	Total
2015-16	57.54	33.17	90.71	2.25	0.00	2.25	0.00	0.00	0.00	0.00
2016-17	124.24	105.00	229.24	141.72	87.52	229.24	74.57	33.45	2.96	110.98
2017-18	148.00	64.80	212.80	145.20	64.80	210.00	172.37	86.63	61.93	320.93
2018-19	270.53	145.15	415.68	159.72	71.28	231.00	184.79	112.10	83.98	380.87
2019-20	387.72	228.28	616.00	260.02	208.84	468.86	268.21	189.93	95.05	553.19
2020-21	366.17	279.11	645.28	366.17	279.11	645.28	163.62	107.03	91.90	362.55
2021-22	132.00	88.00	220.00	70.78	12.12	82.90	159.17	92.37	112.75	364.29
Total	1486.20	943.51	2429.71	1145.86	723.68	1869.53	1022.73	621.51	448.57	2092.81

(Source: information furnished by UADD & SUDA and compiled by Audit)

It is evident from the above table that total provision of funds of ₹ 1,486.20 crore for Central share, ₹ 943.51 crore for State share was made in the State Budget, out of which ₹ 1145.86⁵ crore and ₹ 723.68 crore were released respectively during the period 2015-16 to 2021-22 by the UADD. Against the fund released, an expenditure of ₹ 1022.73⁶ crore (89 per cent) of Central share and ₹ 621.51 crore (86 per cent) of State share was incurred. In addition to it, expenditure of ₹ 448.57 crore was incurred as ULBs share during the period 2015-16 to 2021-22.

The details of fund allocated, released and expenditure incurred under AMRUT excluding ULB's share during the period from 2015-16 to 2021-22 are depicted in **Chart-2.1.2**:



(Source: Information provided by UADD and SUDA)

⁵ Includes project cost ₹ 969.12 crore, ₹ 64.49 crore of A&OE, ₹ 69.77 crore of reform incentive, ₹ 10.42 crore of City Bus, ₹ 30.77 crore JNNURM and ₹ 1.29 crore Orientation development fund (total ₹ 42.48 crore) withdrawn under AMRUT.

⁶ Includes ₹ 45.55 crore of A&OE, ₹ 69.77 crore of reform incentive, ₹ 10.42 crore of City Bus and ₹ 30.77 crore of JNNURM (total ₹ 41.49 crore).

Audit findings

2.1.7 Planning and Fund Management

2.1.7.1 State Annual Action Plan (SAAP)

Ministry of Housing and Urban Affairs (MoHUA) provides Project fund to Mission cities through the State on the basis of proposals submitted in SAAP. The basic building block for the SAAP is the Service Level Improvement Plan (SLIP) prepared by the Mission cities. At State level, the SLIPs of all Mission cities were aggregated into the SAAP. Three SAAPs 2015-16, 2016-17 and 2017-20 were prepared by Government of Chhattisgarh (GoCG) and approved by Apex Committee. The details of project cost approved under SAAP-I, II and III are shown in **Table-2.1.3**.

Table-2.1.3: Details of project cost approved in SAAPs under AMRUT

(₹ in crore)

SAAP	Year	Water Supply	Sewerage/Septage	Green Space	Total Project cost
SAAP-I	2015-16	440.59	122.79	10.02	573.40
SAAP-II	2016-17	400.53	320.65	19.19	740.37
SAAP-III	2017-20	865.80	4.00	9.19	878.99
Total		1706.92	447.44	38.40	2192.76

(Source: SAAP 2015-20)

The MoHUA, GoI amended (August 2016) AMRUT guidelines allowing the State Government to approve the replacement of non-started projects costing up to 10 per cent of each SAAP on their own and for replacement of projects with amount more than 10 per cent with the approval of Apex Committee. Accordingly, a master SAAP (2015-20) was prepared and approved by SHPSC (October 2019, 9th meeting) in accordance with para 8.3 of amended AMRUT guidelines. The details of project funds allocated under AMRUT in the master SAAP are shown in **Table-2.1.4**:

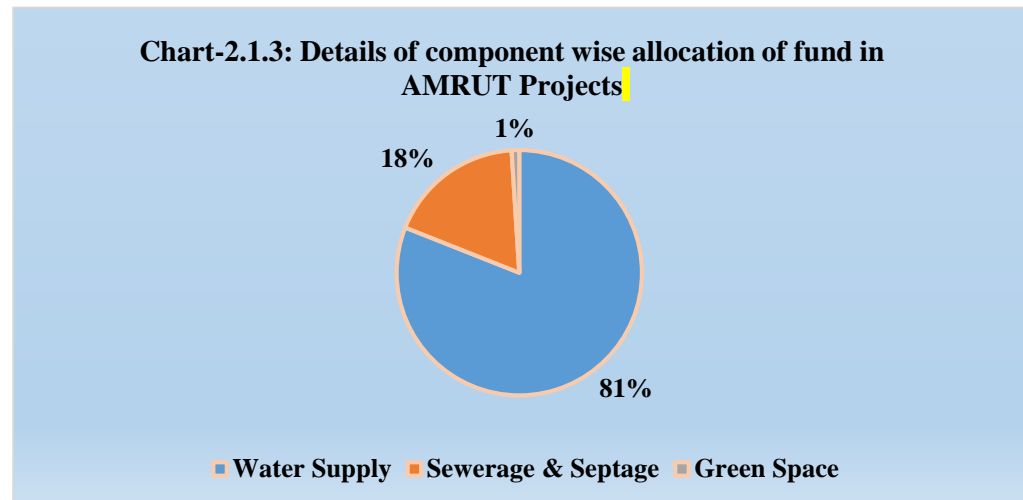
Table-2.1.4: Details of project funds approved in master SAAP under AMRUT

(₹ in crore)

Sl. No.	Mission city	Water Supply	Sewerage and Septage	Garden	Total project cost	Central share	State share	Mission city share
1	Ambikapur	101.67	0.43	3.21	105.31	52.66	31.59	21.06
2	Bhilai	221.61	0.20	3.05	224.86	112.43	67.46	44.97
3	Bilaspur	296.52	1.30	5.60	303.42	151.71	91.03	60.68
4	Durg	154.53	0.21	2.56	157.30	78.65	47.19	31.46
5	Jagdalpur	99.48	55.91	2.75	158.14	79.07	47.44	31.63
6	Korba	211.66	0.90	3.29	215.85	107.92	64.76	43.17
7	Raigarh	131.79	58.64	1.96	192.39	96.20	57.72	38.48
8	Raipur	378.74	268.58	5.68	653.00	218.35	260.78	173.86
9	Rajnandgaon	208.40	12.46	4.65	225.50	112.75	67.65	45.10
	Total	1804.40	398.62	32.75	2235.77	1009.74	735.62	490.41

(Source: SAAP 2015-20)

It can be seen from the table above that water supply was the major component of AMRUT and contributed 81 *per cent* of total project cost. The component-wise allocation of fund during the period 2015-20 is depicted in **Chart-2.1.3**.



2.1.7.2 Release of fund against projects approved

The details of fund released against the approved SAAPs, and expenditure incurred under AMRUT during the period from 2015-16 to 2021-22 are given in **Table-2.1.5**.

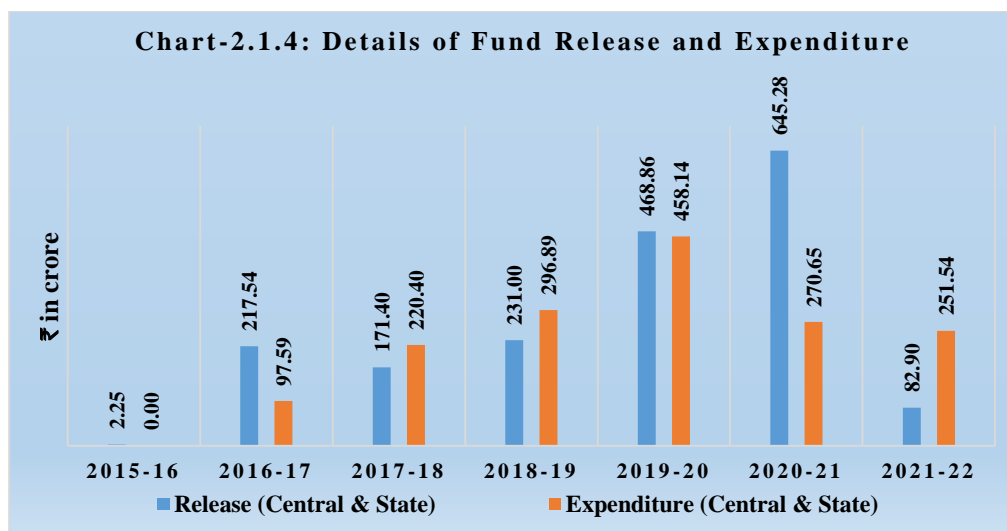
Table-2.1.5: Details of year wise funds received, and expenditure incurred for projects under AMRUT Mission

(₹ in crore)

Year	Approved project cost as per SAAP			Release of fund		Expenditure incurred		
	Central Share	State Share	ULB share	Central Share	State Share	Central Share	State Share	ULB share
2015-16	1009.74	735.62	490.41	0.00	0.00	0.00	0.00	0.00
2016-17				117.01	87.53	55.75	33.45	2.96
2017-18				84.94	56.97	125.42	78.80	61.93
2018-19				131.96	71.28	171.47	112.10	83.98
2019-20				219.66	208.84	257.06	189.93	95.05
2020-21				350.20	279.11	151.72	107.03	91.90
2021-22				65.35	12.12	104.80	92.37	112.75
Total	1009.74	735.62	490.41	969.12	715.85	866.22	613.68	448.57

(Source: information furnished by UADD and SUDA)

The total Central and State share release under the project and expenditure incurred against thereof has been depicted in **Chart-2.1.4**.



(Source: information furnished by UADD and SUDA)

It is evident from the above table and Chart that against the approved cost of ₹ 1,009.74 crore for Central share and ₹ 735.62 crore for State share, ₹ 969.12 crore and ₹ 715.85 crore were released respectively. Further, against the released fund, expenditure of ₹ 866.22 crore (89 *per cent*) of Central share and ₹ 613.68 crore (86 *per cent*) of State share was incurred. In addition to it, an expenditure of ₹ 448.57 crore was incurred as Mission city share during the period 2015-16 to 2021-22 against the approved cost of ₹ 490.41 crore. Additionally, total fund of ₹ 69.77⁷ crore was received on account of incentive for 11 Reforms⁸ and ₹ 64.49 crore was received for Administrative and office expenses (A&OE) during the period 2015-16 to 2021-22.

2.1.7.3 Capacity building and reforms

As per AMRUT guidelines, a sound institutional structure is the foundation to make Missions successful. Therefore, capacity building and a set of reforms have been included in the Mission. Reforms would lead to improvement in service delivery, mobilisation of resources and making Municipal functioning more transparent and functionaries more accountable, while Capacity Building will empower Municipal functionaries and lead to timely completion of works.

(i) Urban Reforms: Milestone partially achieved

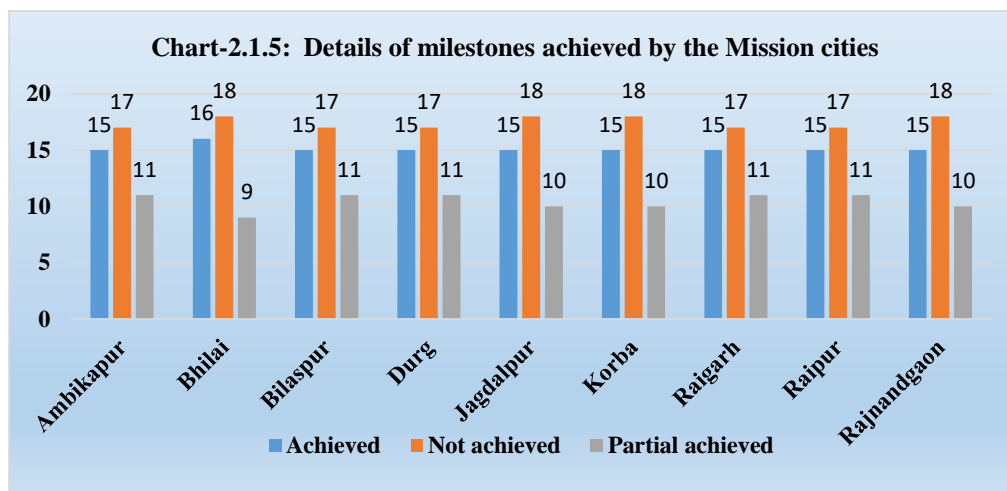
One of the objective of the AMRUT Mission was to improve governance through a set of reforms. The Mission mandated a set of 11 reforms consisting of 48 milestones to be implemented by the State and Mission cities within a period of four years.

The State Government had received ₹ 69.77 crore as an incentive for achievement of reforms milestones during the years 2016-17 to 2019-20.

⁷ In 2016-17 - ₹ 13 crore, 2017-18 - ₹ 25.01 crore, 2018-19 - ₹ 14.01 crore and in 2019-20 - ₹ 17.75 crore

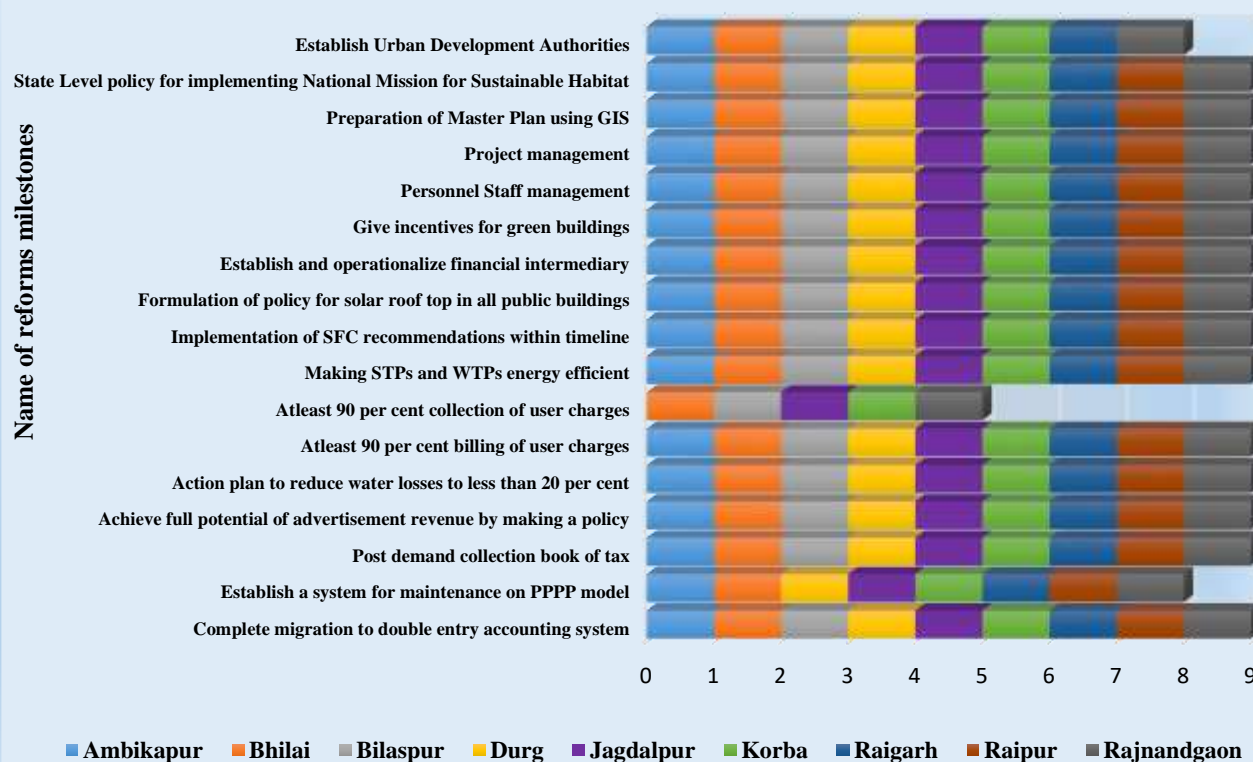
⁸ E-Governance, Constitution and professionalisation of municipal cadre, Augmenting Double Entry accounting, Urban Planning and City Development Plans, Devolution of funds and functions, Review of Building by-laws, Municipal tax and fees improvement, Improvement in levy and collection of user charges, Energy and Water audit, Set-up financial intermediary at State level, Credit Rating and Swachh Bharat Mission.

As per progress report submitted by SUDA to GoI on achievement of reforms milestones for obtaining reform incentives, 36-37 milestones were reported as achieved by the Mission cities. However, Audit found that only 15-16 milestones have been achieved, nine to 11 were partially achieved and remaining 17-18 milestones were not achieved because either milestones were not actually achieved or continuity was not found after their achievement (*Appendix-2.1.1*) till Mission Period, as detailed in *Chart-2.1.5*.



The status of non-achieved reforms is shown in *Chart-2.1.6*.

Chart-2.1.6: Details of reforms milestones not achieved by Mission cities as on March 2023

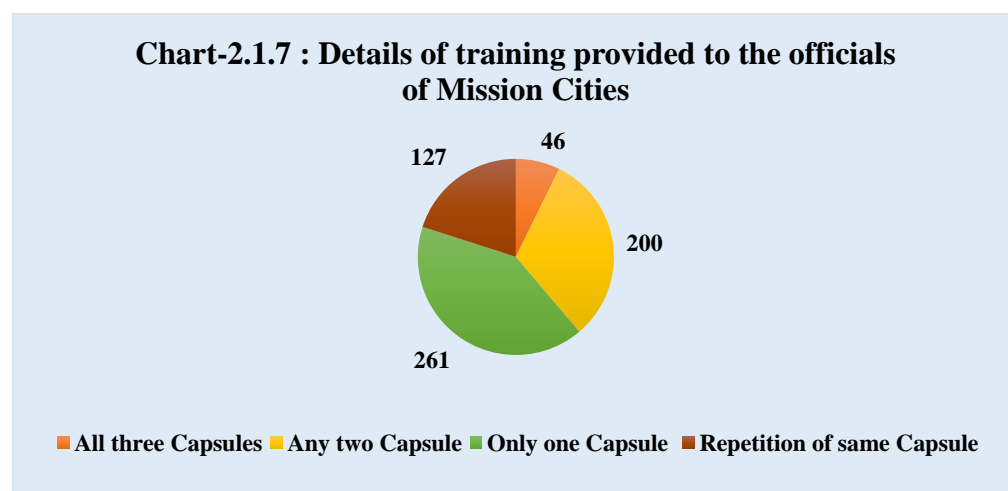


The State Government stated (September 2023) that reform implementation is a continuous process, hence, instructions for continuity of reforms mandated under Mission have been issued to all Mission cities.

(ii) Capacity Building

As per para 13 of AMRUT guidelines, States had to take up extensive Capacity Building activities for their ULBs to achieve urban reforms and implement projects in Mission mode. The capacity building plan has two components: individual and institutional capacity building. As per Annexure-7 of AMRUT guidelines, capacity building was not limited to the Mission cities but was to be extended to other ULBs as well. Further, the training consisted of three capsules spread over a year. Each capsule consisted of three days training in the training institute followed by four months during which the training would be utilised by municipal functionaries in their work.

As per SAAP 2016-17, total 1157 functionaries (632 officials and 525 elected representatives) were identified in Mission cities for imparting training during the Mission period. Functionaries from Mission cities as well as other Municipal Corporations were provided training by Engineering Staff College of India (ESCI), Hyderabad and All India Institute of Local Self Government (AIILSG), New Delhi during the period 2016-20, as detailed in **Appendix-2.1.2**. The details of training provided to the officials of Mission cities are depicted in **Chart-2.1.7**:



It was observed that:

- 507 officials out of total 632 officials were provided capacity building training, of which only 46 were provided the training of all three capsules whereas, 200 officials were provided the training of only two capsules and 261 were provided the training of only one capsule.
- 127 officials out of 507 were provided the training of same capsule on multiple occasions whereas, no official from Mission city Jagdalpur and Korba was provided the training of all three capsules.
- Out of 525 representatives identified for imparting training, 336 elected representatives were provided training under capacity building, whereas no elected representatives from Mission city Raigarh were provided any training.

Thus, the intended objective of empowering municipal functionaries through capacity building could not be fully achieved due to not providing required training to them.

The State Government stated (September 2023) that initially selection of candidates for capacity building program was done as per AMRUT mission guidelines, later the candidates were selected for training as per integrated capacity building program launched by GoI. Further, all trainings under capacity building program were organised before December 2019 and due to Covid-19 pandemic training could not be conducted after that. After covid restrictions got over, trainings were not conducted because most of the projects were on advanced stages of completion and imparting training at that point of time would not have been feasible. Hence, training of all three modules could not be conducted mainly due to Covid-19.

The reply is not acceptable as the details of training imparted to the officials before Covid-19 under integrated capacity building program were not provided to Audit. As a result, the number of officials who were trained in addition to capacity building program conducted under AMRUT could not be verified. Further, capacity building was not limited to Mission cities and extended to all ULBs as per the scheme guidelines.

2.1.8 Planning and execution of Projects

During the Mission period, the State Government approved nine water supply projects, four Sewerage and Septage projects and 76 projects for development of green space and parks costing ₹ 1,804.40 crore, ₹ 395.59 crore and ₹ 32.75 crore respectively under the AMRUT. To execute these projects, 114 works were sanctioned to contractors.

2.1.8.1 Status of progress of works sanctioned under AMRUT

The physical and financial progress of works approved under three components (Water supply, Sewerage and Green space) of AMRUT in Chhattisgarh State is given in **Table-2.1.6**:

Table-2.1.6: Details of status of work sanctioned under AMRUT

(₹ in crore)

Sl. No.	Name of Mission city	Project Name	No. of works	Sanctioned cost as per final SAAP	Agreement cost	Expenditure (as on 03/2023)	Status of work	Scheduled date of completion
1	Ambikapur	Water Supply Scheme	1	101.67	97.24	95.84	Ongoing	14/12/2019
		Green space	8	3.21	3.20	3.27	Completed	
2	Bilaspur	Water Supply Scheme	2	296.52	292.45	261.38	Ongoing	30/04/2020, 04/04/2020
		Green space	8	5.60	5.60	5.18	Completed	
3	Bhilai	Water Supply Scheme	8	221.61	220.52	209.83	2 Ongoing 6 Completed	28/11/2018, 03/07/2020
		Green space	11	3.05	3.07	2.96	Completed	
4	Durg	Water Supply Scheme	4	154.53	161.66	136.58	Ongoing	30/07/2020, 07/10/2021, 21/10/2021, 21/01/2022
		Green space	7	2.56	2.58	2.39	Completed	
5	Jagdalpur	Water Supply Scheme	1	99.48	96.40	34.56	Terminated	
		Water Supply Scheme			96.00	47.23	Ongoing	01/04/2023
		Sewerage and Septage	1	55.91	54.00	54.00	Completed	
		Green space	10	2.75	2.69	1.87	1 Ongoing	25/04/2018
6	Korba	Water Supply Scheme	8	211.66	210.84	200.63	1 Ongoing 7 Completed	19/ 09/2020
		Green space	8	3.29	3.30	2.78	Completed	
7	Raigarh	Water Supply Scheme	1	131.79	131.00	131.00	Completed	
		Sewerage and Septage	1	58.64	57.53	57.53	Completed	
		Green space	6	1.96	1.92	1.76	Completed	
8	Raipur	Water Supply Scheme	8	378.74	426.11	371.10	5 Ongoing 3 Completed	14/02/2020, 08/08/2020, 08/08/2020, 03/02/2021, 28/02/2022
		Sewerage and Septage	1	268.58	235.00	215.86	Ongoing	16/01/2021
		Green space	9	5.68	5.68	5.38	Completed	
9	Rajnandgaon	Water Supply Scheme	1	208.40	199.23	182.25	Ongoing	31/12/2019
		Sewerage and Septage	1	12.46	12.50	12.47	Completed	
		Green space	9	4.65	4.73	4.15	Completed	
	Total		114	2232.74	2323.25	2040.00	19 Ongoing 95 Completed	

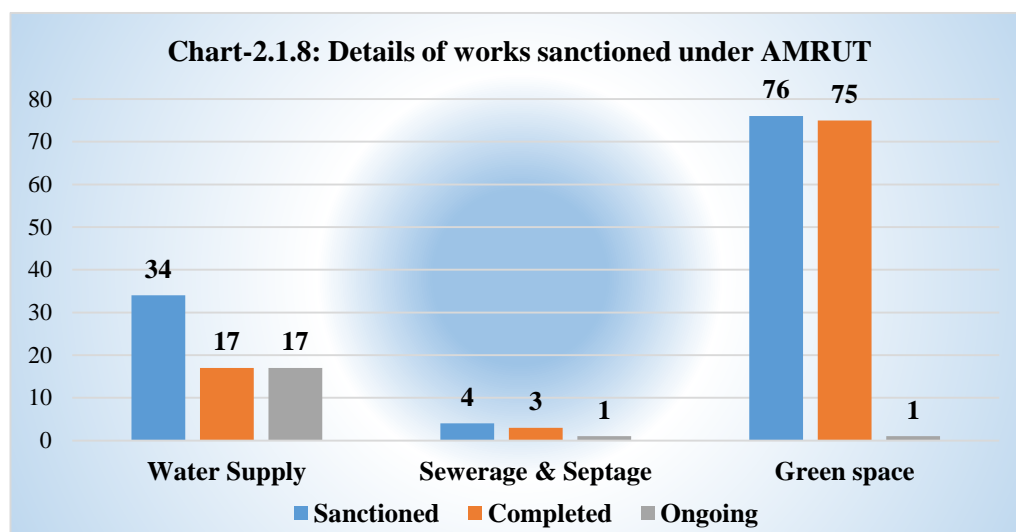
(Source: Information furnished by SUDA and compiled by Audit)

It can be seen from the above table that total 114 works costing ₹ 2323.25 crore under the three components (Water supply-34, Sewerage and septage-4 and Development of green space and parks-76) were sanctioned by State Government under AMRUT. Out of total sanctioned works, 95 works⁹ costing ₹ 611.18 crore were completed as of March 2023. Out of the 19 incomplete works, 17 water supply works, one sewerage and septage work and one work of

⁹ Development of green space and park: 75 works- ₹ 32.21crore, Sewerage and septage: three works- ₹ 124.03 crore and Water supply scheme: 17 works- ₹ 454.94 crore.

development of green space and parks could not be completed, as of March 2023.

The physical progress of works approved under AMRUT in Chhattisgarh State is depicted in **Chart-2.1.8**:



(Source: Information furnished by SUDA and compiled by Audit)

The State Government stated (September 2023) that the major delay in implementation of the projects is due to Covid-19 pandemic and non-performance of few contractors. It was further added that although the projects could not be completed entirely, the physical progress of most of the projects was between 93 to 99 *per cent*, which is mainly because of the scope of house service connection. Moreover, supply of treated water from WTP was commissioned in seven ULBs except Jagdalpur and Bilaspur.

2.1.8.2 Delay in execution of works

As per general conditions of agreement (Form-A, Percentage rate tender) the work shall throughout the stipulated period be proceeded with all due diligence keeping in view that time is the essence of the contract. The works sanctioned were required to be completed in every respect within 18 to 30 months from the date of issue of the work order.

Audit scrutiny revealed that out of the 114 works¹⁰ sanctioned, 75 works of development of green space and park were completed within scheduled time and 20 works (17 water supply works and three Sewerage and septage works) were completed with a delay ranging from three to 33 Months. Out of these 20 works, completion certificates of 14 works (11 water supply works¹¹ and three STPs¹²) have been issued and for remaining six works completion certificate is yet to be issued. The remaining 19 works (17 water supply works, one sewerage work and one development of garden) remained incomplete even after a delay ranging from 13 to 60 months from stipulated time, as detailed in

¹⁰ Water supply scheme-34, Sewerage and Septage-four and Development of garden-76

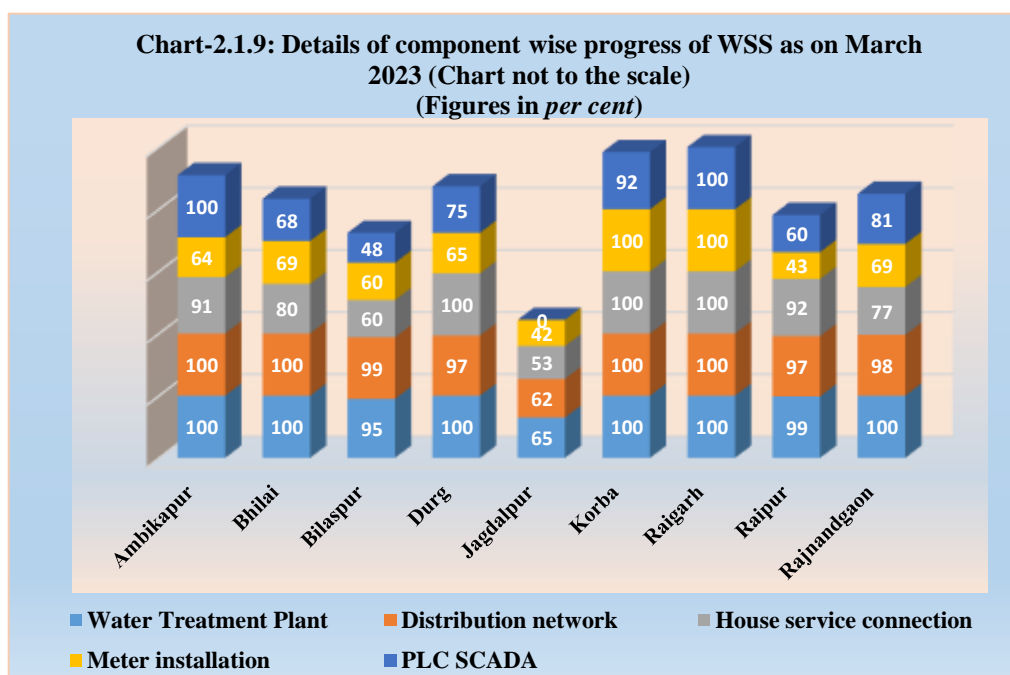
¹¹ Bhilai-10 OHSRs, WTP, Distribution network, Allied civil works and Clear water Raising Main, Korba-Master Balancing Reservoirs and 13 Elevated Surface Reservoirs sumps, Allied works, WTP, Raigarh-Water supply scheme, Raipur-Two OHSRs and Shyam nagar OHSRs.

¹² Jagdalpur-25 March 2022, Raigarh-30 July 2022 and Rajnandgaon-31 July 2021

Appendix-2.1.3. Out of 114 works, 56 works (34 works of Water supply scheme, four works of Sewerage and septage and 18 works of development of garden) have been test checked in audit, which revealed the following:

(i) Water supply projects:

In nine Mission cities, out of 34 water supply schemes, 17 water supply scheme works costing ₹ 1187.04 crore remained incomplete, as of March 2023. The physical progress of major components of Water Supply Scheme (WSS) in all nine Mission cities is depicted in **Chart-2.1.9**.



(Source: Information furnished by SUDA)

It is evident from the above chart that progress of water supply scheme was slowest in Jagdalpur. Further, the various components of WSS projects viz. work of PLC¹³-SCADA¹⁴ (automation of logic controls of water supply and data acquisition) water connection, distribution network/laying of pipeline and water meter installation were not completed in most of the Mission cities. The works of water treatment plant were not completed in Bilaspur, Jagdalpur and Raipur.

The photographs of a few incomplete works are shown below: -

¹³ Programmable Logic Controller is an industrial computer control system that continuously monitors the state of input devices and makes decisions based upon a custom program to control the state of output devices.

¹⁴ Supervisory Control and Data Acquisition is a computer aided system which collects, stores and analyses the data on all aspects of O&M.

	
<p>Water Treatment Plant, Bilaspur (20-09-2022) Scheduled date of completion (04-04-2020)</p>	<p>Master Balancing Reservoir Bilaspur (20-09-2022) Scheduled date of completion (04-04-2020)</p>
	
<p>Water Treatment Plant, Jagdalpur (07-10-2022) Scheduled date of completion (01-04-2023)</p>	<p>Over Head Service Reservoir, Raipur (02-09-2022) Scheduled date of completion (03-02-2021)</p>
	
<p>Water Treatment Plant, Raipur (02-09-2022) Scheduled date of completion (14-02-2020)</p>	<p>Water Treatment Plant, Raipur (02-09-2022) Scheduled date of completion (14-02-2020)</p>

Delay in execution of project in Jagdalpur

The work of Augmentation of Water supply scheme in Mission city Jagdalpur was awarded (June 2017) to contractor for contract amount of ₹ 103.90 crore with a stipulated time period of 30 months for completion but contractor had left the work after completing only 33 *per cent* work (₹ 34.57 crore). The Commissioner terminated (July 2020) the contract and balance work (₹ 69.33 crore) was awarded (October 2021) to another contractor with the contract amount of ₹ 101.00 crore. The balance work was to be completed within 18 months but only 53 *per cent* work could be completed upto March 2023. Thus, there was delay of more than three years in completion of Water supply scheme in Mission city Jagdalpur along with the cost overrun of ₹ 31.67 crore in the project.

The State Government in its reply stated (September 2023) that the project was delayed due to the non-performance of the contractor and several notices were issued to the contractor as per the provisions of the contract to speed up the progress. However, the contractor could not perform as per the contractual obligations and the contract was terminated and this additional amount will be recovered from the defaulting contractor.

Audit observed that delay in above projects was due to delay in approval of drawing-design, land allotment, clearance of hindrance and permission for working /approvals from other departments, slow work by the contractors and non-availability of various equipment and shortage of skilled/unskilled manpower during Covid-19.

The State Government stated (September 2023) that delay in 33 water supply projects was caused majorly due to COVID pandemic and delay in issuance of the permissions or approvals from the other concerned departments.

Reply is not acceptable as the initial period of AMRUT Mission was for five years up to 2020 i.e. before the covid period. After that, the Mission period was extended up to March 2023 for completion of ongoing projects. However, the Projects could not be completed in extended period.

Thus, due to delay in completion of Water supply scheme projects, the intended objective to provide potable drinking water in eight out of nine Mission cities during Mission period remained unachieved. Further due to incomplete work of distribution network, PLC-SCADA and meter installation, achievement of service level benchmark to provide 135 LPCD water to residents of nine Mission cities could not be achieved.

2.1.8.3 *Execution of water supply projects without ensuring the availability of required surface water to meet the present demand*

In order to achieve the service level benchmarks issued by the MoUHA, GoI to supply standard water requirement i.e., 135 litres per capita per day (LPCD) water and augment the existing water supply scheme, water supply projects were undertaken under AMRUT Mission in the selected nine Mission cities.

Mission City, Rajnandgaon: To fill the gap of 18 LPCD water, as identified in the SLIP prepared for Mission city Rajnandgaon, a water supply project with estimated cost of ₹ 223.68 crore was sanctioned under AMRUT. As per the DPR of Water supply scheme/project, Rajnandgaon, the existing (in 2020), intermediate (by 2035) and ultimate (by 2050) demand of water was assessed as 42 million litre per day (MLD), 53 MLD and 66 MLD respectively.

The existing supply of water in the Mission city was dependent on *Mohara* anicut (at Shivnath river) and bore wells. However, the capacity of *Mohara* anicut was not sufficient to cater to the existing demand of the city. Hence, it was planned to obtain surface water from *Kharkhara* dam and bring it to *Mohara* by gravity under the project.

In the 3rd meeting of SHPSC (February 2017) while according in-principle approval to supply water for the above project, WRD stated that the storage capacity of *Kharkhara* dam needs to be augmented to meet the additional demand of surface water of Mission city. WRD agreed to provide the water with the condition that the cost of ancillary civil works (raising the height of waste weir of Dam by 0.60 m, installation of cross regulator and head regulator in the canal) will be borne by the Mission city. For this purpose, a provision of ₹ 5.60 crore for deposit work to be carried out by WRD was made in the DPR.

Audit noticed that the ancillary civil works at *Kharkhara* dam were not initiated till February 2023. WRD demanded funds of ₹ one crore from the ULB for conducting survey. The ULB did not provide the fund to WRD as the same could not be provided from AMRUT. This indicates that the requirement of survey was not assessed while preparing DPR and survey component was not included in the scope of deposit work. As per the information provided by the WRD (February 2023), a provision of ₹ 52 crore was made in the Budget of 2021-22 to increase the capacity of *Kharkhara* dam and the work of stage-I survey for preparation of estimates was in process. Thus, the ancillary civil works at *Kharkhara* dam were yet to be started.

However, Mission city, Rajnandgaon executed the work of laying of 23.50 Km pipeline (costing ₹ 62.53 crore) between *Mohara* Anicut to *Kharkhara* dam in January 2021 for supply of raw surface water without ensuring the status of civil works at *Kharkhara* dam. Since supply of raw water would be made after completion of civil works at *Kharkhara* dam, the pipeline laid could not be utilised and the expenditure of ₹ 62.53 crore remained unfruitful.

The State Government stated (September 2023) that works pertaining to laying of raw water gravity main were taken up as per the approval of SLTC and SHPSC. Necessary arrangements to provide water from Dam was in scope of WRD, which could not be completed on time. Hence, declaring Rajnandgaon Municipal Corporation responsible for the delay is not justified. All efforts are being put in to make water available from the dam without raising the height and any further delay.

Reply is not acceptable as pipeline was laid by Municipal Corporation, Rajnandgaon without ensuring progress of ancillary civil work by WRD resulting in unfruitful expenditure on pipe line which remained unutilised due to non-supply of water from *Kharkhara* dam.

Mission city Bilaspur: The Mission city Bilaspur was totally dependent on ground water for its present water demand of 61 MLD. The present demand was met through pumping water from 806 borewells. To augment the existing supply of water, a water supply scheme project to cater to the ultimate demand of 72 MLD of Bilaspur was proposed under the AMRUT Mission. The source of raw water identified for the above water supply scheme was Right Bank Canal from *Kharang Tank (Khuntaghat Dam)* at 1800 meter distance from outlet gate of the dam on the left Bank of Canal which was changed to right bank of Canal. However, against the ultimate demand of 72 MLD, the WRD agreed in-principle to provide the required water in three to four years only after the construction of *Ahiran-Kharang* link canal project. At present WRD agreed to provide only 6.82 million cubic meters (6820 Million litre) surface water from *Kharang Tank (Khuntaghat Dam)*. The SHPSC, however, approved (February and April 2017) the water supply scheme project costing ₹ 310.77 crore (Phase-I ₹ 212.62 crore and Phase-II ₹ 98.15 crore) for Mission city Bilaspur. The work of both Phases was awarded to a contractor at tendered cost of ₹ 292.45 crore in October 2017 for completion in 30 months up to April 2020. The work was still incomplete after incurring an expenditure of ₹ 261.38 crore with 90 *per cent* physical progress achieved, as of March 2023.

Audit noticed that the work related to construction of *Ahiran-Kharang* Link Canal project was not yet started by the WRD. The canal project was in initial stage as the provision of ₹ 714.69 crore was approved in the Budget of 2023-24 of WRD.

However, Mission city Bilaspur executed the work of laying of 26.50 km pipeline (costing ₹ 84.87 crore) from *Kharang* tank to Water Treatment Plant at *Birkoni* for supply of raw surface water without ensuring completion of canal linking project. In absence of canal linking project, only 6.82 million cubic meter (MCM) raw surface water from *Kharang* tank could be provided to Mission city, Bilaspur, which was adequate to cater to the present demand for three to four months¹⁵ only in a year and for rest of the period water supply of Mission city, Bilaspur will remain dependent on ground water through borewells/pumps. Thus, even after the completion of water supply project, the present demand of water in Bilaspur could not be met till completion of canal project.

The State Government stated (September 2023) that laying of raw water gravity main till WTP was completed and trial run and testing of pipeline was conducted in April 2023. The pipeline is charged successfully, and requisite amount of water is being drawn from the proposed source. Once the scheme will be fully commissioned then the required raw water will be taken from the proposed source only. Further, Department was making all the efforts to get the required amount of water from the proposed source only. In context to this, the matter was brought to the notice of SHPSC (August 2023) wherein the SHPSC has instructed the Water Resource Department to allocate the requisite amount of water from the proposed sources.

However, source of raw water was not adequate to meet the present demand as well as intermediate and ultimate demand till completion of canal linking project.

¹⁵ 6820 ML/ 61.06 MLD = 111.69 days

Thus, the target of supply of 135 LPCD water in Bilaspur and Rajnandgaon remained unachieved due to delay in undertaking linked canal projects in WRD for supply of required raw water and consequent delay in completion of water supply project.

2.1.8.4 *Selection of pipe material for Water supply scheme*

According to Para 6.3 of Manual on Water Supply and Treatment–1999 issued by CPHEEO, ‘Pipelines are major investments in water supply projects and constitute a major part of the assets of water authorities. Pipes represent a large proportion of the capital investment in Water supply schemes. Therefore, pipe materials should be selected judiciously from the point of view of durability, life and overall cost which includes, besides the pipe cost, the installation and maintenance costs necessary to ensure the required function and performance of the pipeline throughout the designed life period’.

Further, para 6.3.1 provides that the cost of the pipe material and its durability or design life are two major governing factors in the selection of pipe material. The pipeline may have very long life, but it may be relatively expensive also in terms of capital and recurring costs and therefore, it is very necessary to carry out a detailed economic analysis before selecting a pipe material. The same fact has also been reiterated under Para 1.3 and 1.3.1 of the Advisory on pipe materials for transmission of water issued by CPHEEO.

Audit noticed that Mission city, Korba carried out an analysis of various available pipe materials and proposed to use combination of PSCP (Pre-stressed Cylindrical Concrete Pipe) for larger diameters i.e., above 500 mm and DI (Ductile Iron) K-9 and K-7 pipes for smaller diameter (below 500 mm) in the DPR of water supply scheme. The combination of PSCP and DI pipes chosen for the project yielded a saving of ₹ 11.67 crore when compared with complete DI pipe network as claimed by Mission city, Korba in its DPR. The DPR of Mission city, Korba was approved by SLTC (19 May 2016) and SHPSC (27 May 2016).

Audit noticed that in seven other Mission cities only DI (K-7 and K-9) pipes were used in the works (***Appendix-2.1.4***). However, the DPRs were also approved by the SLTC and SHPSC without any question on the selection of pipe material. A comparison of cost of various pipe material used in the work by the eight Mission cities is shown in ***Table-2.1.7***:

Table-2.1.7: Details of PSCP and DI pipe used in the work by Mission city Korba*(₹ in lakh)*

Sl. No.	Name of Mission city	Item	Dia of pipe in mm	Type of pipe	length of pipe (in meter)	Cost ¹⁶ of pipe as per PHED SOR
1	Korba	Raw water Pumping main and clear water Pumping & Gravity main	600-800	PSCP	27644	1879.68
2	Ambikapur	Raw water Pumping main, clear water Pumping main and Gravity feeder	600	DI	12920	1216.36
3	Bhilai	Clear water Raising main	600-800	DI	15366	1597.25
4	Bilaspur	Raw water Pumping main and clear water Pumping & Gravity main	600-1100	DI	18402	2294.37
5	Jagdalpur	Raw water and clear water Rising main	600	DI	2238	215.25
6	Raigarh	Raw water Pumping main and clear water Pumping	600-750	DI	1634	178.39
7	Raipur	Clear water Raising main	700-900	DI	194	29.06
8	Rajnandgaon	Raw water Pumping main and clear water Pumping	600	DI	6628	629.98

(Source: Information compiled from BOQ, NIT and RA bills)

Thus, it is clear from above that the pipe material for water supply scheme in different Mission cities was selected without carrying out detailed economic analysis as provided in the CPHEEO manual on Water Supply and treatment and there was lack of uniformity in selection of pipe material.

In reply CEO, SUDA stated (November 2022) that DI pipe has a competitive edge and is a better selection, and there are no such guidelines to not include PSCP over DI pipes. Korba and Bhilai were early movers in Mission implementation and their DPRs were prepared in advance. It was further stated that DPR of Bhilai did not include the Raw Water Rising Main component but the DPR of Korba included Raw Water Rising Main as PSCP and hence approval was accorded by SLTC.

The State Government stated (September 2023) that since Korba was the early mover in mission implementation, the DPR was prepared in advance by the respective ULB and hence was considered for approval by SLTC at first bench. Further it is not correct to say that SLTC did not raise question on selection of pipe material because this exercise was carried out for selection of pipe material during 4th SLTC meeting (September 2016) wherein the design criteria for preparation of DPRs of Water Supply Scheme were approved by SLTC. Hence DI (K7 and K9) pipe were proposed by all seven mission cities as per the approved design criteria by SLTC.

Reply is not acceptable as the basis/criteria of selection of pipe material in water Supply Schemes was not applied uniformly by SLTC constituted for evaluation

¹⁶ PSCP pipes of K7 (dia 600-1100 meter)- ₹ 5361 to ₹ 15760 per meter and K9 (dia 600-900 meter)- ₹ 5361 to ₹ 9733 per meter; DI pipes of K7 (dia 600-1100 meter)- ₹ 7427 to ₹ 22344 per meter and K9 (dia 600-900 meter)- ₹ 9618 to ₹ 18700 per meter.

of DPR. Due to lack of uniformity, either better quality of pipe material was not used in case of Korba or economy was not ensured due to selection of costlier pipe in other Mission cities.

2.1.8.5 *Execution of garden work without obtaining financial approval from competent authority*

As per orders issued (December 2016) by Urban Administration and Development Department (UADD), Chhattisgarh, administrative approval and financial sanction for works valuing up to ₹ 25 lakh in Mission cities having population less than three lakh would be accorded by the Commissioner of those cities while, for works valuing more than ₹ 25 lakh, the same would be given by the Mission Director, SUDA.

Audit observed that Mission city Durg published Notice Inviting Tender (NIT) (October 2019) for setting up of Jawahar Garden, supply of material, solar equipment and Operation and Maintenance (O&M) for five years. Approval of lowest tender rate of ₹ 35.51 lakh for Schedule of rates (SOR) items (6.11 *per cent* below SOR), ₹ 19.57 lakh for non-SOR items and ₹ 19.30 lakh for O&M (total 74.38 lakh) was accorded in the meeting of Mayor-in-Council (MIC) conducted on 15 November 2019 and subsequently, work order was issued to contractor i.e. (02 January 2020) for completion of work within 12 months but the required financial sanction from the competent authority i.e. Mission Director was not obtained. The contractor executed the work and final payment of ₹ 51.39 lakh was made (as of March 2022) to him without obtaining the required financial sanction.

The State Government stated (September 2023) that the financial sanction of Mission Director was not obtained by Durg Municipal Corporation, but the financial sanction was obtained as per the business conduct rules of the department.

The reply is not acceptable as financial sanction for normal works was to be obtained as per business conduct rules of the department while financial sanction of works under AMRUT valuing more than ₹ 25 lakh required approval from the Mission Director, SUDA.

2.1.9 Tendering and contract management

The tendering process and management of contracts by nine selected Mission cities were scrutinised during Performance Audit and audit findings related to tendering and contract management are discussed below:

2.1.9.1 *Incorrect preparation of BOQ with items of higher SOR rate resulted in avoidable expenditure*

Under the special conditions of NIT published for execution of water supply project (Raw and clear water pumping main and distribution network) in Mission city, Bhilai the bidder was to quote its rate duly considering the excise duty exemption certificate. As per the tender conditions, exemption certificate to the contractor on their request will be issued for pipes & fittings applicable vide excise notification dated March 2012. However, as per the notification the exemption would be available subject to condition of issuance of excise exemption certificate by the Collector.

The work of Clear Water Rising Main¹⁷ and Distribution Network¹⁸ in Mission city, Bhilai were awarded (November 2016) to contractor on percentage rate tender basis with contract value of ₹ 37.68 crore and ₹ 103.95 crore respectively. The stipulated period for completion of the works was 18 months and 24 months respectively (including rainy seasons).

Further, in respect of percentage rate tenders, rates specified in the 'Unified schedule of rates (Part-I) for water supply, sewerage works issued (January 2016) by Engineer-in-Chief, Public Health Engineering Department (PHED), Raipur, Chhattisgarh included rate of pipes under two distinct entries i.e. rates of DI K-7 and DI K-9 pipes (i) excluding excise duty ranging from ₹ 720 per meter to ₹ 25,389 per meter under item no. 6.50 and ₹ 915 to ₹ 31,414 under item no. 6.51 respectively and (ii) inclusive of excise duty ranging between ₹ 1017 per meter to ₹ 37,551 per meter under item no. 6.1 and ₹ 1,040 per meter to ₹ 40,419 for item number 6.3 of SOR respectively.

Scrutiny of the records revealed that tendered cost based on PAC of the above works was finalised with rates exclusive of excise duty for item no. 6.50 and 6.51 of the PHE SOR by the Executive Engineer but in BOQ published with NIT (September 2016) the item no. 6.1 and 6.3 inclusive of excise duty were mentioned. During the execution of work, payment to the contractor was made at the reduced rates of DI pipes on the basis of rates exclusive of excise duty mentioned in item no. 6.50 and 6.51. However, contractor filed an appeal (July 2020) to the Commissioner, Mission city, Bhilai against the reduced rate of payment for DI pipes used in both works and demanded payment according to BOQ item as per the agreement. Contractor's appeal was rejected by the Commissioner on the ground that excise exemption certificate has been provided as per the contract conditions, hence payment as per rate exclusive of excise duty mentioned under the item no. 6.50 and 6.51 was justified.

However, on further appeal at the Directorate level by the contractor, the decision of the Commissioner was turned down by the then Chief Engineer, UADD, and it was decided that payment to contractor shall be made as per the SOR rates mentioned in the agreement. Accordingly, payment for the item no. 6.1 and 6.3 as mentioned in agreement was made to the contractor in succeeding RA bills.

Thus, due to preparation of BOQ in deviation from the items mentioned in the PAC, the Department had to bear extra cost of ₹ 9.52 crore¹⁹ on account of excise duty. Had the BOQ/ agreement been prepared correctly and carefully in accordance with the PAC, payment of ₹ 9.52 crore to contractor would have been avoided. However, no action was taken to fix any responsibility on PDMC and Executive Engineer for incorrect preparation of BOQ.

The State Government stated (September 2023) that a committee has been constituted (September 2023) to reassess the matter in consonance with the question raised by Audit.

¹⁷ Administrative Approval and Technical Sanction- ₹ 44.30 crore (May 2016)

¹⁸ Administrative Approval and Technical Sanction- ₹ 113.00 crore (May 2016)

¹⁹ Distribution work - ₹ 6.37 crore (January 2023, up to 18th RA and Final Bill); and CWRM work - ₹3.15 crore (January 2022 – up to 14th RA and Final Bill)

2.1.9.2 Lack of uniformity in penalty clause in the same type of contract resulting in undue favour to the contractors

As per para 11.2 of AMRUT guidelines, SLTC had to approve the bid documents/evaluation criteria etc. Further the scope of work of PDMC comprises components namely Design, supervision and Project management and the role of PDMC includes preparation of bid document to include letter of invitation, conditions of contract, specification, BOQ etc.

NIT for the works of WSS and sewerage management under AMRUT were floated on percentage rate tender (Form-A) and Lump-sum tender (Form-F) basis, as detailed in **Appendix-2.1.5**.

Scrutiny of contract document of various Water supply scheme works carried out under AMRUT in test checked Mission cities revealed that there were variations in the penalty clause under the contract conditions for delay in execution, when compared with lump-sum rate tender, as detailed in **Table-2.1.8**.

Table-2.1.8: Details of maximum penalty imposable under penalty clause in lump-sum contracts

(₹ in crore)

Sl. No.	Name of Mission city	Project Name and Package	Tender number/ date	PAC	Penalty per day (in ₹)	Maximum imposable Penalty at the rate of 10 per cent of PAC	Time (in days) in which maximum penalty to be recovered
1	Ambikapur	WSS	16377 16-03-2017	90.83	80000	9.08	1134
2	Bilaspur	WTP, RWGM, CWGM, PLC SCADA etc.	16301 14-03-2017	181.97	30000	18.20	6069
3	Durg	CWPM, distribution, PLC SCADA	23015 27-10-2017	129.70	90000	12.97	1442
4	Jagdalpur	WSS	16313 15-03-2017	107.54	96100	10.75	1120
5	Raigarh	WSS	23003 27-10-2017	124.61	111300	12.46	1120
6	Raipur	WTP, CWPM, distribution network and PLC-SCADA	17894 04-05-2017	162.21	125000	16.22	1295
7	Rajnandgaon	WSS	16215 14-03-2017	198.98	180000	19.90	1106

(Source: Information compiled by Audit)

- It is evident from the above table that in seven cases of lump-sum contracts having 30 months of the stipulated time for completion in each, the duration in which maximum penalty would be imposed ranging from 1106 to 6069 days i.e., in Rajnandgaon maximum penalty for delay will be recovered in 1106 days (36 months and 24 days) whereas in Bilaspur it will be recovered in 6069 days (202 months and 9 days) despite PAC (₹ 181.97 crore) of work in Bilaspur being less than the PAC (₹ 198.98 crore) of work in Rajnandgaon.

- In tender no. 43312 and 50307 (Lump-sum tender, pertaining to Mission city, Korba) maximum penalty at the rate of six *per cent* of contract sum at the rate of 0.5 *per cent* per week of delay, whereas in tender no. 47520 and 46620 (Lump-sum tender of Mission city Jagdalpur and Raigarh) maximum penalty at the rate of six *per cent* of contract sum at the rate of 0.5 *per cent* per month was provisioned under the penalty clause, instead of penalty at the rate of 10 *per cent* of PAC in other lump-sum contracts, as detailed in **Table 2.1.8**. This implies that penalty provision of percentage rate contract was adopted in Lump-sum contract extending undue favour to contractor in case of levy of penalty.

The State Government stated (September 2023) that in case of percentage rate tenders (Form-A) penalty up to maximum 6 *per cent* of PAC may be imposed at the rate of 0.5 *per cent* of PAC per week whereas in case of lump-sum tender (Form-F) penalty up to maximum 10 *per cent* of PAC may be imposed at the rate of a fixed amount per day (To be fixed by ULB as per the cost of the project). Since, there were no clear guidelines on how to decide the amount of per day penalty, the ULBs have decided it on their own as per the project cost and duration. Now, the clear guidelines have been issued in the Manual of Works Department in Form-F for the deduction of penalty at the rate of 0.5 *per cent* per week maximum up to six *per cent*. The same is being followed and implemented in all the tenders under AMRUT 2.0.

Reply of the Government is not acceptable as guidelines in the Manual of Works Department for levy of penalty were available however, the same were not followed by the ULBs uniformly in all cases.

2.1.9.3 *Less imposition of penalty for delay in execution of works*

As per general condition of contract (Form-A, Percentage rate tender), the work shall throughout the stipulated period, be proceeded with all due diligence keeping in view that time is the essence of the contract. In the event of the contractor failing to comply with the conditions, the EE shall levy on the contractor, as compensation, an amount equal to 0.5 *per cent* of the contract sum for each week of delay, limited to six *per cent* of contract sum.

Further, as per contract condition (Form-F, Lump-sum Contract), the work is to be commenced immediately upon receipt of the order. The whole work including all such additions and variations shall be completed in every respect within 18 to 30 months from the date of work order, and if work shall not be finished to the satisfaction of the Commissioner within the said period, the contractor(s) shall be liable for liquated damages to be imposed by way of penalty ranging from ₹ 30,000 to ₹ 1.25 lakh per day for every completed day of such default, and shall not exceed 10 *per cent* on the estimated value of the whole work.

Scrutiny of the records of works executed under AMRUT revealed that in six cases, contractors were provided 12 to 30 months of time for completion of works, but they could not complete the work within stipulated time due to slow progress of work, delay in supply of plant & machinery, lack of interest by contractor etc., and all above works were still incomplete (June 2023). Commissioners of Mission cities have issued notices to the contractors for delay in execution of work and time extension was granted under penal clause

however penalty was not imposed as per the contract conditions. This resulted in loss to public exchequer worth ₹ 22.50 crore as detailed in **Table-2.1.9**:

Table-2.1.9: Details of less imposition of penalty for delay in execution of works under AMRUT

(₹ in lakh)

Sl. No.	Mission city	Project Name	Contract Sum/ PAC (Date of work order)	Scheduled date of Completion	Time Extension granted with Penalty (From-To)	Days for calculation of penalty (amount of penalty per day (in ₹)/ Rate of penalty in per cent)	Imposable Penalty ^{#20} (in lakh ₹) restricted to maximum amount	Penalty imposed	Short imposition of Penalty
1.	Bhilai (Lumpsum)	WSS Phase II- GIS, SCADA	1111.19 (04/10/2019)	3/7/2020	15/06/22-31/03/23	289 (55000)	111.00	4.83	106.17
2.	Bilaspur (Lumpsum)	WSS Part-I	18196.81 (04/10/2017)	3/4/2020	01/07/22-31/03/23	273 (30000)	81.90	59.70	22.20
3.	Korba (Lumpsum)	Package IV - PLC-SCADA	717.64 (20/09/2019)	19/09/2020	01/03/21-30/09/21	578 (0.5 per cent per week)	47.82	2.50	45.32
4.	Raipur (Lumpsum)	WSS-I	16220.52 (14/08/2017)	13/02/2020	01/04/21-31/07/23	851 (125000)	1063.75	467.08	596.67
5.	Raipur (Percentage)	WSS- II Package-4 "Distribution Network"	12078.68 (08/03/2019)	8/8/2020	24/07/21-23/03/22	242 (0.5 per cent per week)	724.74	25.00	699.74
6.	Raipur (Percentage)	WSS- II Package-5 "Distribution Network "	13419.25 (08/03/2019)	8/8/2020	24/07/21-23/03/22	242 (0.5 per cent per week)	805.14	25.00	780.14
		Total					2834.35	584.11	2250.24

(Source: Information compiled from the records of Mission cities)

While accepting the audit observation the State Government stated (September 2023) that letter has been issued to all Mission cities to re-assess the imposition of penalty on the contractors as per the provisions of the contract.

2.1.9.4 Irregularities in payment and recovery of mobilisation advance to contractors

As per general conditions of contract, mobilisation advance up to five *per cent* of the contract value is admissible if requested by the contractor within one month of the date of order of commencement of the work.

The mobilisation advance is required to be recovered in equal monthly instalments on pro-rata basis (after 15 *per cent* of contract work is executed) from each of further running bills. However, all the advances shall be fully recovered when 80 *per cent* contract sum is completed or when 75 *per cent* of stipulated validity period is over, whichever event is earlier. Audit found following irregularities in payment and recovery of mobilisation advances to the contractors:

²⁰ Maximum imposable penalty is 10 *per cent* of probable amount of contract in lump-sum contracts and six *per cent* of contract sum in percentage rate tenders.

(i) ***Granting stage two mobilisation advance before commencement of work***

As per clause 11 (A) (i) of agreement, Stage two mobilisation of three *per cent* of the contract value was to be provided to the contractor on receipt of the certificate from the contractor that he has established complete central and field-testing laboratories and has engaged, the workers/technicians and has brought requisite plants and machineries at work site and also the work is physically started.

It was observed in Mission city, Raipur that in two agreements of work of augmentation of water supply scheme Phase-II, Package IV and Package V, stage two mobilisation advance of ₹ 3.62 crore and ₹ 4.03 crore respectively (three *per cent* of contract values) was provided (August 2019) to the contractors. However, it was noticed that these works were physically started in November 2019 i.e., three months after payment of stage two mobilisation advance. Thus, mobilisation advance was sanctioned to the contractor before the commencement of work by the contractors. Therefore, undue financial benefit was given to the contractors in violation of conditions of agreement.

While accepting the audit observation the State Government stated (September 2023) that letter has been issued to the ULB to re-assess the matter as per the provisions of the contract and recover the interest on the mobilization advance from the contractor, if required.

The reply confirms the fact that undue benefit was provided to the contractor by sanctioning stage two mobilisation advance even before obtaining necessary clearances from different departments for commencement of works. However, no action was taken against the Executive Engineer for proposing grant of mobilisation advance without ensuring the commencement of work.

(ii) ***Delayed recovery of mobilisation advance***

Audit observed that in three²¹ Mission cities, total mobilisation advance (stage 1 and 2) of ₹ 18.72 crore was provided to the contractors in three works according to the conditions of agreement. As stipulated period of completion of above works was 30 months, hence the recovery of entire mobilisation advance should have been made when work of 80 *per cent* contract value is completed or on completion of 75 *per cent* of stipulated period (i.e. as per condition of the agreement), however, mobilisation advance of only ₹ 9.93 crore could be recovered from the contractors within stipulated period and remaining advance of ₹ 8.79 crore was gradually recovered from the contractor's bill with delay of two to nine months, as detailed in **Table-2.1.10**.

²¹ Ambikapur, Durg and Raigarh

Table-2.1.10: Details of delayed recovery of mobilisation advance

(₹ in crore)

Sl. No.	Mission city	Name of project and date of award of work	Mobilisation advance provided	Period up to which advance to be recovered fully	Advance recovered within stipulated period	Outstanding amount after stipulated period	Date of final recovery of outstanding amount (delay in month)
1	Ambikapur	WSS, (14-06-17)	4.86	30/04/2019	1.46	3.40	31-01-2020 (9 months)
2	Durg	CWPM, distribution, PLC SCADA (31-01-18)	7.31	15/12/2019	3.92	3.39	03-11-2020 (10 months)
3	Raigarh	WSS (05-02-18)	6.55	20/12/2019	4.55	2.00	12-02-2020 (2 months)
	Total		18.72		9.93	8.79	

(Source: Information compiled from records of Mission cities)

It is evident from the above table that undue benefits were provided to the contractors by delaying recovery of mobilisation advance of ₹8.79 crore by two to 10 months. Delayed recovery of mobilisation advances also resulted in loss of interest to the exchequer.

The State Government stated (September 2023) that the time period for execution was extended by the ULBs and the mobilisation advance was recovered within the extended time period.

Reply is not acceptable as the entire mobilisation advance was not recovered on completion of 75 per cent of stipulated period and the contractors had applied for time extension only after the scheduled completion period.

2.1.9.5 Implementation of policy for reuse of recycled water

As per para 6.8 of the AMRUT guidelines and para 7.1 (Chapter 7) of “Manual on Sewerage and Sewage Treatment Systems, 2013” issued by CPHEEO, at least 20 per cent of waste water is to be recycled and used for non-potable uses. The State Government, after the recommendation of SHPSC, approved the “Water Recycle and Reuse Policy” for the State in March 2017. Though SHPSC in its meeting while recommending the water policy proposed to include the provision for compulsory use of recycled water in construction works, however, the same provision was not included in the approved policy.

Audit noticed that under AMRUT Mission, seven works/projects in four Mission cities were taken up for establishment of STP to treat waste water. Out of seven projects/works, six STP works were completed in four Mission cities. However, none of the above Mission cities formulated any policy or action plan to facilitate or sensitise the public about use of recycled water and the entire recycled waste water was discharged in the local *nalla* or river.

Thus, due to lack of initiatives for implementation of the water recycle and reuse policy, recycled waste water was not used for non-potable purposes in the Mission cities.

The State Government stated (September 2023) that all the sewerage treatment plants were constructed as per approved action plan wherein it was proposed to discharge the treated water into the river stream. Efforts are being made in all

mission cities to sell the treated waste water to nearby industries and thermal power plants.

Reply has to be seen in light of the fact that the State Government did not ensure maximum use of recycled water as prescribed in the policy and discharged recycled water in river stream. Further, no such initiatives were taken by the selected Mission cities during the entire Mission period.

2.1.10 Monitoring and Operation & Maintenance

As per para 14.1 of AMRUT guidelines, the Mission had to be monitored at the State and Mission city level. Moreover, information and data were to be shared with citizens in the public domain. A strong component of public disclosure through websites was also to be developed.

Further, as per Chapter-I of Manual on Operation and Maintenance of water supply systems (O&M Manual) issued by CPHEEO, the responsibility of operation, maintenance and revenue collection is generally vested with the elected ULBs. However, deficiencies noticed in these areas during Audit have been discussed in succeeding paragraphs:

2.1.10.1 Formation of State level Committee and meetings

- (i) **State Level High Power Steering Committee:** As per para 10.2 of AMRUT guidelines, the SHPSC has been entrusted with the responsibility of monitoring the progress of implementation of the Mission as well as the project implementation in ULBs, outcome and O&M arrangements of projects sanctioned and completed under the Mission and periodically reviewing the progress of capacity building and training activities.

Audit noticed that only 10 meetings of SHPSC were held during the period August 2015 to June 2021, since its constitution (August 2015) and no meeting was held after June 2021. However, reasons for non-holding of meetings after June 2021 were not found on record.

The State Government stated (September 2023) that SHPSC meeting was conducted on 10/08/2023 wherein progress review of ongoing projects and interdepartmental issues were discussed, and necessary instructions were received.

Reply is not acceptable as, despite the SHPSC meetings, there was lack of co-ordination among various departments leading to delay in obtaining clearances/NOC, and lack of synchronisation among the implementing Departments in interlinked projects as discussed in **paragraph 2.1.8.2 and 2.1.8.3.**

2.1.10.2 Levy of water charges on flat rate

As per Chapter-I of O&M Manual of CPHEEO, metering of water supply is desirable to minimise wastage and to maintain economic pricing of water. In the absence of working/functional meters, billing for water consumed is often estimated, either on average basis or on flat rate as the case may be. Universal metering is also a Mission component under Water supply scheme.

Further, reforms 8(b) of AMRUT guidelines provide for adoption of a policy

‘on user charges for individual and institutional assessments in which a differential rate is charged for water use and adequate safeguards were to be included to take care of the interests of the vulnerable’ under reforms of the Mission.

Audit noticed that meter-based billing policy was to be adopted in all the ULBs of State as per notification²² issued (3rd February 2010) by UADD, GoCG. Further, UADD vide Gazette notification²³ (12 January 2011) introduced system of billing at fixed flat rate per month for levy of user charges which was adopted by most of the Mission cities. Since then the minimum flat rates of water charges fixed in January 2011 were neither revised by the Department nor metering policy for charging differential rates based on consumption was enforced. The details of rates of water charges are given in **Table-2.1.11**.

Table-2.1.11: Details of rates of water charges fixed by UADD

Sl. No.	Consumer Type	Rates per Kilo-litre (KL) (in ₹) fixed by notification dated 03.02.2010					Rates per month fixed by gazette notification dated 12.01.2011
		0-11	11-15	15-25	25-50	> 50	
1	Domestic	5	6	7	8	9	200 (tax payers)
							60 (non-tax payers)
2	Residential-cum-commercial	6	8	10	12	14	350
3	Commercial	9	11	14	18	22	800
4	Industrial & Institutional						1000
A	Governmental	8	10	12	14	16	800
B	Non-Governmental	10	12	14	16	18	800

(Source: Notifications issued by UADD)

At present billing for water consumed was done on flat rate of ₹ 200 per month without assessing/evaluating the quantity of water supplied/utilised, except in Korba, where meter-based billing had been done since February 2021. This is contrary to the provisions of reform mentioned in AMRUT guidelines which provides for periodic revision of various charges (water, user, property tax etc.) levied.

The State Government stated (September 2023) that letter has been issued to all Mission cities to formulate policy to recover user charges and to update the demand and to increase the collection efficiency.

However, neither was meter-based billing policy implemented in Mission cities nor was periodic revision of water charges undertaken by UADD, as envisaged in AMRUT guidelines. Further, due to levy of water charges on flat rate the charges based on actual consumption of water could not be recovered from the consumers.

²² No. F 5-190/18/2005

²³ No. F 5-4/18/2011

2.1.10.3 Less collection of water charges against the demand

AMRUT guidelines in para 7.3 clearly provided for the provision of O&M, at least for five years, based on levy of user charges which was to be funded through appropriate cost recovery mechanism in order to make it self-reliant and cost-effective. Further, reforms 8 (a) and (b) of AMRUT guidelines provides for levy and collection of at least 90 *per cent* of Municipal taxes and improvement in levy and collection of user charges.

Audit noticed that 56 *per cent* Mission cities could not collect the water charges up to 90 *per cent* against the demand during the period 2017-18 to 2021-22. The details of demand and collection of water charges in the Mission cities are provided in **Table-2.1.12**.

Table-2.1.12: Details of demand and collection of water charges during 2017-18 to 2021-22

(Amount in lakh ₹)

Sl. No.	Mission city	2017-18		2018-19		2019-20		2020-21		2021-22	
		Demand	Collection (per cent)	Demand	Collection (per cent)	Demand	Collection (per cent)	Demand	Collection (per cent)	Demand	Collection (per cent)
1	Ambikapur	231.05	209.40 (90.63)	191.25	166.48 (87.05)	188.99	175.40 (92.81)	228.84	138.67 (60.60)	321.73	170.77 (53.08)
2	Bhilai	400.00	289.46 (72.33)	327.60	264.33 (80.69)	650.00	427.88 (65.83)	500.00	227.15 (45.43)	500.00	232.60 (46.52)
3	Bilaspur	850.00	363.66 (42.78)	1637.00	346.31 (21.16)	880.00	437.33 (49.70)	1400.00	438.56 (31.33)	1121.77	473.25 (42.19)
4	Durg	653.16	543.41 (83.20)	940.43	506.46 (53.85)	601.70	488.99 (81.27)	524.80	501.59 (95.58)	486.36	480.54 (98.80)
5	Jagdalpur	439.80	303.01 (68.90)	450.00	310.22 (68.94)	470.37	355.53 (75.59)	528.08	272.81 (51.66)	607.74	279.04 (45.91)
6	Korba	848.01	135.17 (15.94)	970.50	111.59 (11.50)	1073.72	121.13 (11.28)	1229.84	132.22 (10.75)	1363.98	143.21 (10.50)
7	Raigarh	388.13	281.56 (72.54)	356.57	240.61 (67.48)	378.46	395.43 (104.48)	384.52	262.97 (68.39)	410.30	244.26 (59.53)
8	Raipur	2879.17	2283.95 (79.33)	3098.36	2452.72 (79.16)	2840.58	2311.57 (81.38)	3102.81	2916.60 (94.00)	3410.78	2834.18 (83.09)
9	Rajnandgaon	694.00	296.09 (42.66)	716.83	300.11 (41.87)	742.01	264.69 (35.67)	875.01	327.67 (37.45)	768.91	328.75 (42.76)

(Source: Information provided by Mission cities and compiled by Audit)

It is evident from the above table that during 2017-2022 the collection percentage of water charges in five Mission cities ranged from 10.50 *per cent* to 80.69 *per cent* which was significantly below the norms of 90 *per cent*, as stipulated in the AMRUT guidelines. An instance of dues amounting to ₹ 32.98 crore towards electricity bill for water supply was seen pending with Mission city Bilaspur since 2018.

The State Government stated (September 2023) that letter has been issued to all Mission cities to formulate policy to recover user charges and to update the demand and to increase the collection efficiency.

The fact remains that due to less/non-collection of user as well as water charges, O&M cost of the WSS and sewerage management system could not be met from the user charges, and the system could not be made self-reliant.

2.1.10.4 Non-preparation of GIS based Master Plan for Mission cities

Para 8.4.2.3 of O&M Manual issued by CPHEEO provides that Geographic Information System (GIS) is a computer program that combines mapping with detailed information on physical structures with geographic areas. The GIS creates a database within a mapped area which can be used to inform the maintenance crew to locate the place of work.

Further, as per Mission guidelines State has to prepare a Master Plan using GIS within 48 months to develop multi-layer GIS maps connected to data in order to enable ULBs to use GIS for decision-making. Accordingly, in SAAP 2017-20, State has proposed to prepare a Master Plan in all Mission cities under GIS based PTIS (Property Tax Information System) and BPMS (Building Permission Management System) project for GIS mapping of all the assets, which will help in reducing non-revenue water and improve record keeping for O&M and future planning.

Audit observed that GoCG submitted (November 2017) State Action Plan (SAP) to GoI for release of fund amounting to ₹ 7.21 crore²⁴ (formulation of GIS based master plan-under AMRUT sub-scheme). Consequently MoHUA, GoI released 1st instalment of ₹ 1.44 crore²⁵ (February 2018) and 2nd instalment of ₹ 1.54 crore²⁶ (November 2020) for formulation of GIS based master plan. Out of the released amount of ₹ 2.98 crore, an expenditure of ₹ 2.64 crore was incurred till November 2022 and Utilisation Certificate for the same was submitted to MoHUA.

Further scrutiny revealed that work of formulation of GIS master plan is still under progress as of September 2023 and it could not be completed due to delayed receipt of Geospatial Database from National Remote Sensing Centre (NRSC) Hyderabad, delay in verification of database due to COVID-19 pandemic, and delayed receipt of final base map by NRSC after verification.

The State Government stated (September 2023) that for preparation of GIS based Master Plan for Mission cities, Town and Country Planning department is the assigned Nodal Agency, however Geospatial Database for phase II of scheme “Spatial Attribute collection and vetting of base maps” was to be provided by NRSC, Hyderabad but the same had been received with delay. Moreover, due to Covid-19 epidemic there was delay in verification work of Geospatial Database received from NRSC, Hyderabad. Thus, due to delay in receipt of Final Base Map from NRSC Hyderabad, the preparation of other phases of Master Plan got delayed. At present the Draft Master Plan is in the last stage i.e. stage-VI. Also, the Master Plan for Durg, Bhilai and Bilaspur has been approved by the respected divisional nodal officers and Draft Master Plan for Korba, Jagdalpur, Ambikapur and Rajnandgaon is under screening and finalisation.

From the reply, it is evident that GIS based master plan of Mission cities has not been prepared even after a delay of five years. As a result, the objective to reduce non-revenue water and improve record keeping for O&M and future

²⁴ Formulation of GIS based master plan- ₹ 7.00 crore and Capacity Building- ₹ 21.00 lakh.

²⁵ Formulation of GIS based master plan- ₹ 1.40 crore and Capacity Building- ₹ 4.20 lakh.

²⁶ Formulation of GIS based master plan- ₹ 1.46 crore and Capacity Building- ₹ 8.40 lakh.

planning through GIS mapping of all assets could not be achieved.

2.1.10.5 Non-maintenance of green space and gardens

Development of green space and gardens with special provision for child-friendly components was one of the important components of AMRUT. Total 76 gardens were chosen for development under AMRUT in nine Mission cities. Joint physical verification of 18 gardens²⁷ (two in each Mission city) was conducted during audit.

During physical verification it was observed that 14 gardens²⁸ were not being maintained properly i.e. lights were found non-functional, unwanted grass and growth of weeds were noticed on the pathway, some of the playing equipment and toilet door were found broken, as shown in the photographs.



²⁷ Ambikapur-Atal Awas, Alambag, Bhilai-Tata line, Bapunagar, Bilaspur-Mahamaya Vihar, Chingrajpara, Durg-Padmanabhpur, Katul Board, Jagdalpur-Lalbagh, Saheed Park, Korba-Sharda Vihar, TP Nagar, Raigarh-Babadham, Budhimai, Raipur- Indravati, Kabir nagar, Rajnandgaon-Anand Vatika, R.K. Nagar

²⁸ Except Sahid Park (Jagadapur), TP Nagar (Korba), Kabir Nagar (Raipur) and Anand Vatika (Rajnandgaon)



Further, as per annexure-1 of Mission guidelines, a system for maintaining of parks, playgrounds and recreational areas, relying on People Public Private Partnership (PPPP) model was to be developed within 12 months. However, it was noticed that none of the test checked 18 gardens/parks taken under AMRUT were being maintained in PPPP mode except one, 'Bandhwapara Garden' under jurisdiction of Mission city Bilaspur. Rest of the gardens were maintained by concerned Municipal Corporation from the funds available with them.

Improper maintenance of gardens in the Mission cities was also pointed out in periodic inspection reports of Independent Review and Monitoring Agency (IRMA).

The State Government stated (September 2023) that letter has been issued to the ULB to regularly monitor the maintenance of the parks and green spaces/gardens developed under the mission and to submit an action taken report as per the observation of audit team.

2.1.11 Conclusion

Reform milestones prescribed under the AMRUT guidelines were partially achieved and only 15-16 milestones out of 43 were achieved by the Mission cities in Chhattisgarh. Only 46 officials out of 507 were provided complete training of all three capsules, while 127 officials were provided training of same capsule on multiple occasions and no official from Mission cities Jagdalpur and Korba was provided training of all three capsules.

Under AMRUT Mission, project execution by ULBs was quite slow as out of 114 works (water supply-34, sewage and septage-4 and garden/green space-76), 20 works were completed with a delay ranging from three to 33 months from scheduled date of completion and 19 works costing ₹ 1712.07 remained incomplete during the Mission period. Under water supply scheme, 50 per cent (17 out of 34 water supply scheme) works costing ₹ 1,187.04 crore were incomplete till March 2023. Due to above, one of the objective of AMRUT Mission to provide access to potable drinking water to every household could not be achieved till the extended Mission timeline.

Mission city Rajnandgaon and Bilaspur, executed the water supply scheme project without ensuring the availability of required surface water to meet the present demand. In seven Mission cities, pipe material for water supply scheme

was selected without carrying out detailed economic analysis and criteria/basis of selection of pipe material was not applied uniformly by SLTC while approving DPR.

Allowing rates inclusive of excise duty in BOQ despite excise exemption clause in contract resulted in avoidable expenditure of ₹ 9.52 crore under Bhilai Water supply scheme. Audit noticed that standard contract conditions as prescribed in works department manual were not included in the works contracts resulting in variation in penalty clause between the same type of contracts executed by the Mission cities. Undue favour was extended to the contractor due to non-implementation of the terms and conditions of contract, such as levy of penalty for delay in execution of projects; recovery of mobilisation advances to the contractors etc., strictly by the Mission cities.

State Level High Powered Steering Committee (SHPSC) meetings were not held between June 2021 and July 2023.

Water charges were being levied at flat rate instead of meter-based billing and water charges being collected were less than the demand raised. GIS based master plan for Mission cities were not prepared and green spaces and gardens were not being well maintained.

2.1.12 Recommendations

1. *Efforts should be made to achieve all Service Level Benchmarks and trainings should be provided in a time bound manner to the staff/officials of ULBs for capacity building.*
2. *Incomplete/ongoing works should be completed on priority and alternate source of surface water may be explored to meet the present demand of Mission city Bilaspur and Rajnandgaon.*
3. *Standard contract documents as prescribed in works department manual should be adopted by all the ULBs to ensure uniformity in general and standard conditions of contract.*
4. *The terms and conditions prescribed in the contract should be implemented strictly and undue favour to contractor by relaxing the contract conditions should be avoided.*
5. *The policy of reuse of recycled waste water should be properly implemented in all Mission cities.*
6. *Periodic revision of water/user charges may be effected and efforts for 100 per cent collection of water/user charges may be made for making the WSS and Sewerage Management system self-reliant.*