

CHAPTER-IV

SCHEME IMPLEMENTATION

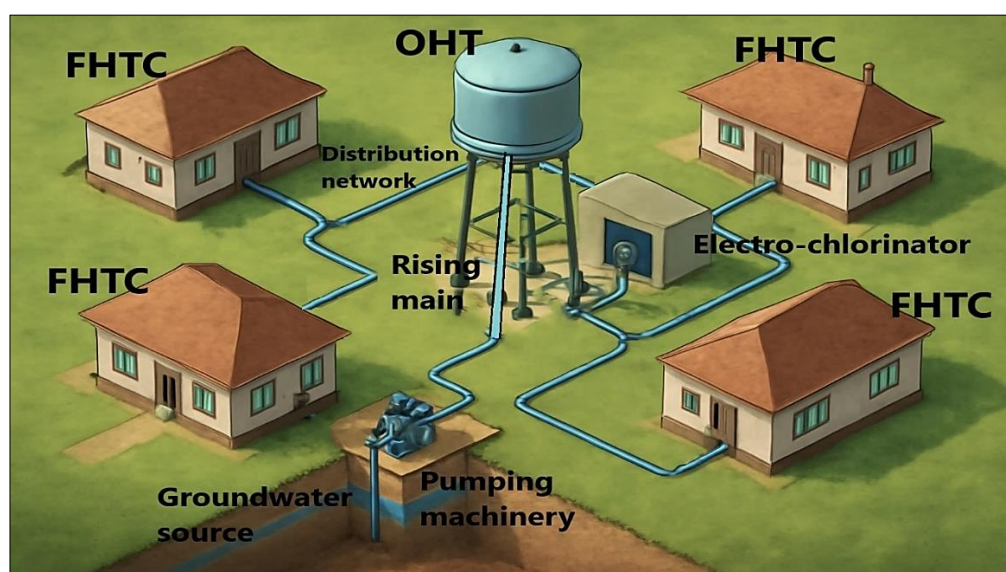
4.1 Status of schemes planned and executed

Effective implementation of the programme revolves around key strategies such as identifying reliable water sources, building infrastructure for FHTC and ensuring sustainability through capacity building. The PHED executed the projects in two parts, i.e. Multi-Village Schemes (MVS) and Single Village Schemes (SVS). Solar power-operated systems of SVS were handed over to the Chhattisgarh Renewable Energy Development Agency (CREDA) for execution, while PHED was doing the pipelines and FHTC part of that system.

- The SVS is a groundwater, springs, or surface water scheme consisting of development/augmentation of drinking water source, a water treatment plant, pumping arrangement, OHT and distribution network leading to FHTC, planned and managed by GPs.

An illustrative picture of a SVS along with its components is shown in *Chart 4.1*.

Chart: 4.1: Components of SVS



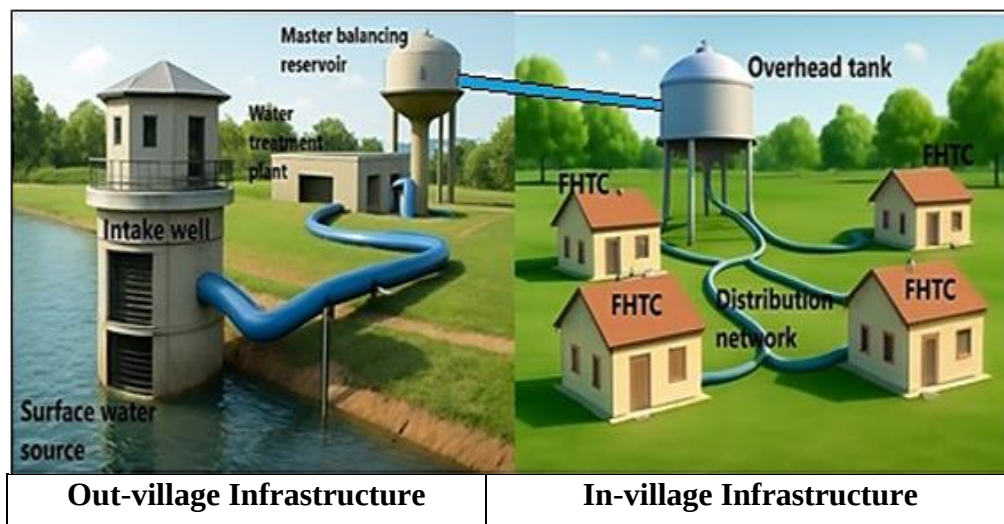
- The MVS is a ground or surface water-based scheme that caters to multiple villages. It consists of two parts, i.e. in-village infrastructure¹ and out-village infrastructure². In-village infrastructure consists of pumping arrangement, OHT and distribution network leading to FHTC similar to SVS and the major components of out-village infrastructure include the source of raw water, raw water storage, transmission system, filtration system, pumping machinery, balancing reservoir and distribution system up to the village boundary.

¹ Distribution of water from OHT to individual FHTC.

² Bulk transfer of water and distribution systems up to the village boundary.

Both, in-village and out-village infrastructures of MVS were technically sanctioned by the PHED. However, the infrastructure and machinery of out-village system of the MVS are managed, operated and maintained by the PHED and that of in-village part of MVS are managed, operated and maintained by the GP. A flow diagram showing the MVS water supply system is shown in **Chart 4.2**.

Chart 4.2: Components of MVS



As per the information provided by the PHED, the status of planned and executed schemes (retrofitting, single village, multi-village, solar) from 2019-20 to 2023-24, is detailed in **Table 4.1**.

Table 4.1: Status of schemes planned and executed

Year	Number of schemes planned					Number of schemes taken up for execution				
	Retro	Solar	SVS	MVS	Total	Retro	Solar	SVS	MVS	Total
1	2	3	4	5	6	7	8	9	10	11
2019-20	0	0	0	0	0	0	0	0	0	0
2020-21	1,212	3,705	301	0	5,218	977	2,903	286	0	4,166
2021-22	3,823	2,082	9,423	46	15,374	3,798	2,025	9,233	39	15,095
2022-23	116	1,701	6,551	31	8,399	115	1,643	6,489	31	8,278
2023-24	2	2	267	0	271	2	1	38	0	41
Total	5,153	7,490	16,542	77	29,262	4,892	6,572	16,046	70	27,580

(Source: Data provided by the Department as of May 2024)

Out of the 29,262 schemes planned, only 27,580 schemes were taken up for execution under JJM, of which 172 schemes had been completed as of March 2024.

Audit observations on the implementation of schemes are discussed in the succeeding paragraphs.

4.2 Execution of Single Village Schemes

4.2.1 Execution of Solar Photovoltaic (SPV) pump-based water supply schemes by CREDA

Paragraph 3.5 of the JJM Operational guidelines suggests exploring the option of solar power-based water supply schemes with low O&M expenditure in tribal/hilly/forest areas in Chhattisgarh. The work of Solar Photovoltaic (SPV) Water Pumping System was executed through CREDA, the nodal agency of the State Government for the development and promotion of non-conventional and renewable sources of energy.

The components of solar power-based pipe water supply were divided into two parts, viz. installation of water tank on steel structure and solar-dual pump system with solar panels. The five-year free O&M of these structures and pumps have been assigned to CREDA. Whereas PHED is responsible for the development of water sources, laying of the distribution network and construction of FHTC.

The test-check of records of the solar power-based water supply system revealed the following observations:

4.2.1.1 Release of advance to CREDA for Execution of work to CREDA without following established procedures and regulations

Para 7.10 of JJM guidelines states that centage charges are not permissible from grant-in-aid provided by the Government of India. The Para further states that if it is necessary to pay, the same will be the responsibility of the State Government i.e. Funds should be arranged separately by the State Government. Further, as per GoI, Ministry of Jal Shakti, Department of Drinking Water and Sanitation vide letter dated June 2020, no advances were to be issued to any authority/offices under Jal Jeevan Mission. Chapter 6 of the JJM Operational Guidelines made it mandatory to engage third party agency for inspection of work before payment to the agency.

Audit noticed that tripartite agreements between DWSM, Gram Panchayat and CREDA were executed for installation of solar pumping system for solar based PWSS according to which advance payment of 90 per cent of the cost was to be released by PHED to the CREDA. As per the agreement, the work will be executed by CREDA under the supervision of EE, PHED. CREDA was to submit completion certificate and utilisation certificate within 15 days of work completion to PHED.

Audit noticed that CREDA was assigned to execute 19,684 SPV pump-based systems and an advance of ₹ 1,816.83 crore was provided to CREDA during 2020 to 2023 (up to June 2023). CREDA could not provide the information for solar pumps installed after June 2023 under JJM to Audit. Against the sanctioned advance, Utilisation Certificate (UC) was submitted for 4,112 schemes for ₹ 557.52 crore. Year-wise details of advances released to CREDA and utilisation of funds are mentioned in **Table 4.2**.

Table 4.2: Details of SPV pump systems sanctioned and fund released to CREDA*(₹ in crore)*

Year	Number of systems sanctioned	Funds released	System installed	Funds utilised	Balance work	Funds for which UC are not submitted as of	Utilisation Certificate	
							Submission Date	Period covered
2020-21	3,288	365.00	2,882	398.33	2,016	155.81	12 th May 2022	2020-22
2021-22	1,610	189.14						
2022-23	12,300	988.38	1230	159.19	13,086	985.00	21 st September 2022	03/2022 to 09/2022
2023-24	2,486	274.31	NA	NA	15,572	1,259.31	Not submitted	--
Total	19,684	1,816.83	4,112	557.52	15,572	1,259.31	--	--

(Source: Information collected from MD, JJM, Chhattisgarh, Raipur up to June 2023)

Audit observed that fund utilisation by CREDA was not monitored by the PHED. CREDA submitted its first UC for 2,882 projects with utilisation of ₹ 398.33 crore funds in May 2022 against the assignment of 4,898 projects of ₹ 554.14 crore allotted during 2020-21 and 2021-22, before completing each project as stipulated in the contract document. It was noticed that subsequent funds were transferred to CREDA without obtaining UCs for the previous funds. CREDA had not submitted UCs after September 2022; even then, ₹ 274.31 crore was released in the year 2023-24. Neither the status of 15,572 incomplete projects nor the UC for ₹ 1,259.31 crore advanced to CREDA was obtained.

During the exit conference (May 2025), the Secretary, PHED stated that CREDA is a state government agency and work was entrusted to them on the basis of agreed terms and conditions. The UCs are being furnished by CREDA at the division offices. However, CREDA has been requested to submit the consolidated UCs to the MD, JJM.

Reply is not acceptable as progress of work and utilisation of funds released to CREDA is not being monitored to ensure timeliness in execution of assigned work. However, no reply has been furnished on release of advance to CREDA, non-compliance with third party inspection on works executed through CREDA.

4.2.1.2 Centage charges to CREDA

Paragraph 7.10 of the JJM guidelines states that payment of centage charges is not permissible from grant-in-aid provided by the GoI. If it is necessary to pay, funds should be arranged separately by the State Government.

During scrutiny of breakup of unit rates claimed by CREDA for the solar structure with solar dual pumps, it was noticed that centage charges (supervision charges) amounting to ₹ 15,000 to ₹ 89,500 per unit were added in the unit cost of solar pumps by the CREDA and an amount ₹ 12.09 crore was paid to CREDA as centage charges for installation of 2,386 SPV dual pump systems in all

six test-checked districts from JJM funds under the 50:50 ratio as detailed in **Table 4.3**.

Table 4.3: Details of centage charges charged by CREDA in test-checked districts

(₹ in lakh)

Sl no.	District	1HP/1200W/9m/10KL tank		1HP/1200W/12m/10KL tank		Total no. of systems	Total amount of centage charge
		No. of system at old rate	Centage charge @ ₹ 15,000	No. of system at new rate	Centage charge @ ₹ 62,500		
1	Dhamtari	11	1.65	16	10.00	255	125.09
2	GPM	4	0.60	98	61.25	180	75.11
3	Kondagaon	17	2.55	260	162.50	454	224.14
4	Korba	115	17.25	260	162.50	734	466.98
5	Mahasamund	0	0.00	15	9.38	43	16.32
6	Surguja	320	48.00	332	207.50	720	301.86
Total		467	70.05	981	613.13	2,386	1,209.50

(Source: Data provided by the Department and compiled by Audit)

The Government stated (May 2025) that information regarding centage charges is being sought from CREDA. During the exit conference (May 2025), the Secretary, PHED stated that the matter would be taken up with CREDA.

4.2.1.3 Execution of Solar Photovoltaic pump water supply systems without considering residual pressure head

Central Public Health and Environmental Engineering Organisation (CPHEEO) Manual (Paragraph 10.3.3 and 10.3.6) stipulates that the elevation of the service reservoir should be such as maintaining the minimum residual pressure of 7 m in the distribution system consistent with its cost effectiveness. The staging of the overhead service reservoirs should be decided based on total frictional losses in the carrying system, plus the residual head required with the effect of Positive/Negative static level difference³. The minimum and maximum residual pressure head in the distribution system needs to be calculated and shown in the form of pressure chart showing residual head at each node in the network to determine economic staging height of elevated service reservoirs.

Audit observed that the SVS with solar system were being executed without the preparation of a pressure-chart to ascertain the staging height of solar pump systems to maintain the required residual head. Only two options provided by the CREDA, i.e. with 9 m staging and 12 m staging out of which one was opted by the PHED without consideration of residual pressure requirements.

Thus, solar based OHT structures were installed without optimisation of the staging height of system based on residual head and water pressure in the distribution system.

On this being pointed out, the MD, JJM stated (May 2024) that the drawing design for the installation of solar dual pump of 9 m staging or 12 m staging

³ Ground level of service reservoir (minus) maximum ground level of distribution mains

was prepared by PHED Division/CREDA. The reply is not acceptable as in none of the test-checked districts, the above technical aspects were taken into consideration in the DPR for determining economical staging for adequate and proper water supply.

The Government stated (May 2025) stated that the report was being collected from the concerned districts.

4.2.1.4 **Households connected with Solar Photovoltaic pump water supply systems not getting prescribed minimum service level of drinking water**

Audit noticed that under SVS scheme, the component of distribution network and installation of FHTC was executed by contractors hired by DWSM while the component of OHT with SPV system was implemented by CREDA.

Water supply schemes under JJM were designed by taking 65.19⁴ LPCD including loss and other components to cater for the minimum prescribed water demand of 55 LPCD with an average of five souls per HH while the Solar system used by the CREDA was of 17,052 litres per day capacity⁵ under outdoor conditions.

As the water pumping capacity of Solar pump system was 17,052 litres per day, it can cater 53 HHs⁶ in a day for supply of prescribed quantity of water, i.e. 55 LPCD. However, audit noticed in the six test-checked districts that 429 Solar pump systems in 310 water supply schemes were connected to more than 53 households. The range of FHTCs connected per SPV system was from 54 to 169 as detailed in **Table 4.4**.

Table 4.4: Details of SPV with excess connections in test-checked districts

District	No of Schemes	Number of SPV with excess connections beyond 53 HH	Range of FHTCs connected per SPV system	No of FHTCs	Population affected
Dhamtari	37	38	54 to 125	2,519	12,595
GPM	78	79	54 to 107	5,694	28,470
Korba	127	214	54 to 169	13,701	68,505
Kondagaon	35	59	56 to 147	4,327	21,635
Mahasamund	10	10	55 to 84	635	3,175
Surguja	23	29	54 to 145	2,108	10,540
Total	310	429		28,984	1,44,920

(Source: Data provided by the Department and compiled by Audit)

Due to overloading of FHTCs beyond the maximum capacity of one Solar system, the prescribed norms of supply of 55 LPCD to each household could not be ensured in 28,984 FHTCs installed in HHs covering 1.44 lakh population.

⁴ As per circular issued by the GoCG January 2020 for providing 55 LPCD, per capita water supply level for designing of the scheme for domestic purpose is adopted as 65.19 LPCD (including fire demand, institutional demand and wastage)

⁵ Test report No. MRTCTP151820221395 dated 13.06.2022

⁶ 17,052 L/65.19 LPCD/5 souls per HH=52.31 ~ 53 HH

The Government stated (May 2025) that report was being collected from the concerned districts.

4.2.1.5 *Non-provision of electro chlorinator in Solar power-based schemes*

Para 6.1 of JJM Guidelines (2019) states that the in-village piped water supply infrastructure will consist of water treatment plants to ensure water quality.

Audit noticed that in all six test-checked districts there was provision of electro-chlorinators in SVS and retrofitting schemes whereas it was not provisioned in case of solar-based schemes thereby depriving the rural population from safe drinking water. It is pertinent to mention that five⁷ out of six test-checked districts in Chhattisgarh are partly affected from either fluoride, iron and/or Nitrate contamination.

4.3 Implementation of Multi Village Schemes (MVS)

4.3.1 *Delayed initiation of MVS and elimination of key components*

Under JJM guidelines (2019), the maximum time allowed for completing MVS was 36 months and contracts should not be awarded after March 2021 which was extended to December 2021 by the GoI. The SWSM planned for 77 MVS and accorded administrative sanction of 70 MVS during 2021-22 to 2022-23. The MVS works were finally awarded during June 2023 to February 2024.

In the meantime, due to revision in USOR (June 2022), the rates of items (such as PVC, DI and HDPE pipes and accessories) were increased by 12 to 62 per cent. Consequently, the cost of projects increased, but instead of obtaining revised administrative approvals, SWSM decided to eliminate key components sanctioned in the administrative approvals of 70 MVS to contain the cost of project within the approved cost. Eliminated components included Programmable Logic Control- Supervisory Control and Data Access (PLC-SCADA) and bulk meters, water regulators etc. In some cases specifications such as length, diameter, material of pipe etc. were also altered.

It was mandatory to adopt SCADA which is important for monitoring of parameters of treatment plants like pressure, water quality, flow rate, etc. under JJM guidelines, since the water is transferred from a long distance at a very high cost, it is essential to monitor the loss of water during transmission.

Thus, elimination of mandatory components compromised the efficiency of monitoring efficiency under MVS.

During the exit conference (May 2025), the Secretary, PHED stated that at present, the mission period is extended up to 2028. The SWSM will complete the MVS as per the new timeline.

4.3.2 *Execution of MVS without ensuring allotment of water in requisite quantity*

Assurance of availability of surface water for the period of the ultimate designed life of an MVS is essential for the sustainability of the Pipe Water Supply

⁷ Dhamtari, Kondagaon, Korba, Mahasamund and Surguja

Schemes. Audit observed significant deficiencies in allotment and availability of water was as discussed below:

- i) **Short allotment of water:** Audit observed shortfall in demand and allocation of water in six MVSs. The allotment of water was less than the requirement of the schemes, directly impacting the availability of potable water in the targeted rural areas. The Water Resource Department was able to provide 9.185 Million Cubic Meters (MCM) of water as against the demand of 16.363 MCM in these schemes as detailed in **Appendix 4.1**. The shortfall in allotment of water in individual MVS ranged from 18 Kilo Litres (KL) per day to 17,537 KL per day.
- ii) **Non-availability of water in the waterbodies:** At the planning stage, assessment of the storage capacity of waterbodies supplying the water to the MVS, was crucial for the sustainable supply of water for the scheme. Audit noticed that the tanks and reservoirs in serving these MVSs lacked the necessary capacity to meet the water needs of all connected villages. In five cases, it was noticed that the tanks and reservoirs did not have the requisite quantity of water to feed the MVS, and the shortfall ranged from 37,000 KL to 39,49,000 KL as detailed in **Appendix 4.2**.

Thus, short allocation of water and non-availability of water in the water bodies may result in non fulfilment of minimum service level benchmark of 55 LPCD of drinking water undermining the MVS's sustainability.

On this being pointed out, the Government intimated (May 2025) that information was being collected from the concerned districts.

4.3.3 Inclusion of unwarranted components for in-village part of MVS

Paragraph 6.1 of the JJM guidelines (2019) details that the in-village piped water supply infrastructure will consist of pumping arrangement, OHT/underground sump, pipeline for water supply, distribution network leading up to FHTC and bulk meter/ sensor-based water meter to measure the water supplied.

Audit scrutiny of records of three⁸ MVS in Dhamtari and Mahasamund districts covering 124 villages revealed that these schemes were designed for gravity-based distribution through surface water. Thus, in-village infrastructure of these MVS did not require tube-wells drilling, submersible pump, rising main, electro-chlorinator and electric connection as components of in-village infrastructure. However, Audit observed that these unwarranted components costing ₹ 13.51 crore were executed as detailed in **Table 4.5**.

⁸ Ghatula and Sankara in Dhamtari and Samoda Achhola in Mahasamund.

Table 4.5: Inclusion of unwarranted components*(₹ in lakh)*

SI. No.	District	Name of MVS	Amount of in-village components						
			Tube well	Submersible pump	Rising main	Electro-Chlorinator	Electro-Chlorinator room	Electric connection	Total
1	Dhamtari	Ghatula MVS	44.00	47.30	245.38	132.30	46.56	47.50	563.04
2		Sankra MVS	46.20	49.50	235.22	132.30	46.56	50.90	560.68
3	Mahasamund	Samoda-Achhola MVS	0.00	0.00	0.00	184.32	42.72	0.00	227.04
Total			90.20	96.80	480.60	448.92	135.84	98.40	1,350.76

(Source: Data provided by the PHED and compiled by audit)

The execution of MVS with these unwarranted items would be rendered defunct after commissioning of MVS.

On this being pointed out EE, PHED, Dhamtari, stated (September 2024) that there was delay in tendering of MVS by SWSM. The out-village infrastructure in MVS delayed for reasons beyond the control of DWSM/Division office. Meanwhile the in-village works of the villages included in the MVSs were completed and there was a demand to supply drinking water under completed in village works. The villagers are getting water through above items of works despite delays in out-village works. EE, PHED Mahasamund (September 2024) stated that in-village infrastructures were sanctioned to make the system operational by 2024.

The reply confirms that additional funds were required for unwarranted components like tube wells, pumps, and electro-chlorinators, to make the in-village infrastructure concerning MVS villages, which will be of no use after the functioning of the MVS.

4.4 Implementation Support Agencies (ISA)

JJM Guidelines emphasised the importance of ISAs to ensure the successful implementation and sustainability of its objectives. The ISAs work closely with communities to strengthen their participation and capacity to manage water resources, supporting GP in creation of VAPs by facilitating baseline surveys, water resource mapping, identifying infrastructure needs, helps GP to pass resolution for taking up JJM in villages and undertake Participatory Rural Appraisal (PRA) activities for determination of community contribution and its deposition in the bank account.

Delayed engagement of ISA: In tests checked districts, it was observed that ISAs were appointed one to two years after (between September 2021 to March 2023) the preparation of VAPs (between October 2020 to December 2020). The delayed appointment of ISAs resulted in non-involvement of ISA in preparation of VAPs and also resulted in non-obtaining consent from villagers on Capex and Opex contribution along with assurance of presence of 80 per cent community at the time of the GP

resolution as requisite under JJM. Consequently, community contribution for Capex could not be collected.

On this being pointed out, the Government replied (May 2025) that information was being collected from the concerned districts.

Shortfall in support activities: JJM also aims to build capacities of different stakeholders especially local communities, responsible for owning, managing, operating and maintaining in-village water supply systems. Therefore, Information Education and Communication (IEC) activities such as Participatory Rural Appraisal (PRA) activities, Inter Personal Communication (IPC), Behavioral Change Communication (BCC) related activities are key to success of JJM.

During test-check of records in selected districts, it was observed that there was significant shortfall in IEC, BCC, IPC activities, skilling activities and capacity building activities as shown in **Table 4.6**.

Table 4.6: Target and achievement of various support activities

Sl. No.	District	IEC/BCC/IPC			Skilling Activity			Capacity Building		
		Target	Achievement	Per cent	Target	Achievement	Per cent	Target	Achievement	Per cent
1	Dhamtari	9,207	3,194	35	1,674	664	40	2,180	1,671	77
2	GPM	8,014	55	0.69	1,257	110	9	1,033	59	6
3	Kondagaon	10,712	4,746	44	1,238	157	13	647	280	43
4	Korba	21,154	6,425	30	1,412	300	21	0	0	0
5	Mahasamund	24,161	0	0	7,946	3,525	44	3,201	236	7
6	Surguja	2,166	1142	53	753	213	28	742	257	35
Total		75,414	15,562	21	14,280	4,969	34	7,803	2,503	32

(Source: Information provided by the respective District PHE divisions and compiled by audit)

- Achievement for IEC/BCC/IPC activities, skilling the local people and capacity building of institutes was only 21 per cent, 34 per cent and 32 per cent respectively against the targets and no IEC activities were undertaken in Mahasamund.
- Mahasamund district was at the top with 44 per cent progress to train the identified people of the community in the field of construction, plumbing, electrical, etc. whereas, in GPM district the progress was only nine per cent.
- Training of the various level officers in Dhamtari district to improve institutional capacity was satisfactory with the achievement of 77 per cent, on the contrary, GPM district was lagging in this activity also and no capacity building activities were conducted in Korba.

On this being pointed out, the Government replied (May 2025) that information was being collected from the concerned districts.

4.5 Third-Party Inspection Agencies

The role of the Third-Party Inspection (TPI) agencies under JJM is crucial for ensuring the quality of work and materials, adherence to specifications and

timelines, and sustainability of infrastructure through independent evaluations. As per the JJM guidelines the duties of the TPIs are to sample check the quality of materials used in the field; to verify the quantity and quality of works executed as per the bill for payment claimed, recommendations on the payment for the work executed, functioning of the in-village infrastructure during trial run, etc.

During the scrutiny of records in the selected districts, it was observed that initially 13 TPI agencies were empaneled by SWSM (November 2021). TPI agencies were also empaneled by DWSMs. Audit noticed that during 2019-21 the JJM works were executed before engagement of TPIs.

As per the work order & Expression of Interest (EoI), TPIs were required to inspect work under rural water supply scheme. The work of TPIs including activities proposed under the agreement and action plan of TPIs were to be monitored by Executive Engineer with guidance from DWSM. In four test-checked districts, audit observed that action plan for allotted village for entire scheme cycle with phase-wise outputs was not prepared by TPI indicating that work of TPIs was not monitored by DWSM. TPIs were submitting test reports only at the time of submission of running bills by the civil contractors, however, records in respect of sample checking of test report of material used for construction, quality control measures adopted for construction and safety measures adopted at the time of construction in field were not provided to Audit by DWSM. Therefore, it could not be ensured that the quality and quantity of materials used for the work were checked or not by the TPIs. Audit noticed that expenditure of ₹ two crore was incurred towards payment to TPIs by the five selected districts.

Thus, the intention behind engagement of TPI for ensuring quality and quantity at different stages was not fulfilled.

On this being pointed out, the Government replied (May 2025) that information was being collected from the concerned districts.

4.6. Monitoring

As per the JJM Operational Guidelines, after making provision of tap connections to all rural HHs in a village, the Department implementing the scheme will get a completion certificate from GP and then mark the village as 'Har Ghar Jal' on JJM-IMIS by March 2024. There were 19,656 villages in Chhattisgarh and all HHs of these villages were to be provided with FHTC under JJM. Against the target of 100 per cent HGJ, the achievement (March 2024) of certified HGJ villages was only 3.64 per cent (716 villages) in the State and it was 4.31 per cent in six selected districts as shown in **Table 4.7**.

Table 4.7: Status of HGJ certified village up to March 2024

Name of district	Total number of villages	No. of villages reported as HGJ by DWSM	No. of villages certified as HGJ by VWSC	Percentage of villages certified against reported	Percentage of villages certified against targeted village
Dhamtari	622	558	91	16	14.63
GPM	222	7	2	29	0.90
Kondagaon	571	44	14	32	2.45
Korba	703	28	11	39	1.56
Mahasamund	1,119	134	39	29	3.49
Surguja	569	10	7	70	1.23
Total	3,806	781	164	21	4.31
Total for State	19,656	2239	716	31.98	3.64

(Source: As per JJM IMIS data as of 01.04.2024)

Thus, less than five per cent of villages were certified as *Har Ghar Jal* as of March 2024 against the target of 100 per cent in the State.

The Government replied (May 2025) that the GoI has extended the target date till 2028 and all targets will be achieved as per the new timelines.

4.6.1 Physical verification of Har Ghar Jal certified villages

To ascertain the functionality of FHTC reported in the IMIS, Joint Physical Inspections (JPI) of 24 selected schemes were conducted by audit. Out of these, two villages, Bhithidih of Mahasamund district and Bhidavar of Dhamtari district were certified as HGJ.

(i) **HGJ certified village-Bhithidih:** As per the DPR, out of 381 HHs, 15 HHs had existing FHTC and the remaining 366 HHs were planned to be provided FHTC under JJM. Audit observed that the village Bhithidih was certified (October 2023) as HGJ after construction of only 214 FHTCs out of the required 366. As per IMIS data there were four habitations with 230 HHs, however, in VAP, FHTC was planned for 249 HHs (334-85) in three habitations. During JPI, it was noticed that 105 HHs of two habitations of the village, i.e. Kamardera and Vidyanagar, were not covered under JJM. The photograph showing habitation of village Bhithidih, without FHTCs and non-connected FHTCs with distributory line of pipeline and declared as “HGJ” is shown below:



Photo 4.1: FHTC constructed, laying of distribution line not done and composite pipe lying open without connection (Kamardera habitation, Village-Bhithidih)

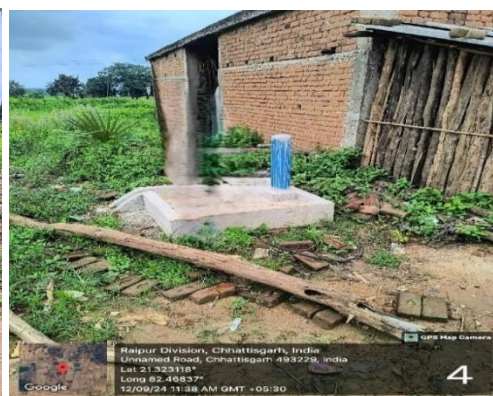


Photo 4.2: FHTC constructed, laying of distribution line not done and composite pipe lying open without connection (Kamardera habitation, Village-Bhithidih)



Photo 4.3: Distribution line did not reach and FHTC not constructed (Vidyanagar habitation, Village-Bhithidih)

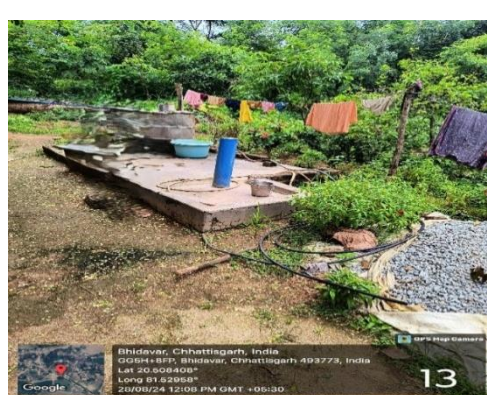


Photo 4.4: Distribution line did not reach and FHTC not constructed (Vidyanagar habitation, Village-Bhithidih)

(ii) **HGJ reported village- Bhidavar:** Similarly, 20 HHs were visited during JPI and it was noticed that village Bhidavar of Dhamtari district was reported as 'Har Ghar Jal' by PHED without connecting the standpost with distribution line of the water supply system as shown in photographs below:



Photo 4.5: Picture showing FHTCs at village Bhidavar with composite pipe not connected with distribution line



Thus, all the habitations and households were not covered under JJM. Further villages covered under the scheme were reported and certified as HGJ without

even completion of work and providing FHTC in every HH of the village, depriving the village population of the mission benefits.

In the exit conference (May 2025), the Secretary, PHED stated that the matter has already been investigated, and action has been taken against the responsible officers.

4.6.2 *Inflated progress by declaration of non-functional tap connections as functional*

The JJM guidelines provides that the National Mission would create an IMIS for capturing financial and physical progress of the Mission and the PHED would be responsible for entry of data in IMIS. The data from States with respect to physical progress of various projects, geo-tagging of assets, expenditure made on the projects, functionality status of projects would be captured on IMIS and will be kept in the public domain through which there is a scope of social audit and overseeing by end-users and various institutional structures.

Functionality of tap connections is defined as a tap connection to a rural HH for providing drinking water in adequate quantity of prescribed quality regularly. DWSM at the district level is responsible for uploading FHTC on IMIS after receipt of commissioning certificate from GP. As per IMIS, total FHTCs provided in rural areas of Chhattisgarh as of March 2024 was 38.97 lakh. The status of functionality of FHTCs is detailed in **Table 4.8**.

Table 4.8: Status of functionality of FHTCs

Status as of January, 2025	Progress of FHTCs as per IMIS	Reason for non-functionality of FHTC					Actually Functional FHTCs
		For want of source/dry source	Incomplete OHTs	For want of electric connection	Solar System not installed	Total	
	40,10,825	7,86,566	2,91,471	1,56,433	96,710	13,31,180	26,79,645

(Source: Information provided by the Department)

From the above table, it can be observed that even though the progress of FHTCs shown in the IMIS was 40.11 lakh (January 2025), the FHTCs were non-functional because of incomplete OHTs, dry source, lack of water source/electric connection, non-installation of solar pump etc. Thus, out of 40.11 lakh FHTCs declared as functional in the IMIS, 26.80 lakh (67 per cent) FHTCs were incorrectly reported as functional.

To ascertain the functionality of FHTCs reported in the IMIS, JPI of 24 selected schemes covering 475 beneficiaries was carried out by Audit along with PHED division staff. The observations noticed during JPI are discussed below:

- Audit observed that out of 475 FHTCs which were shown as functional in the IMIS, 303 FHTCs were found non-functional (64 per cent) due to reasons like dry source, scheme under progress, incomplete OHT, non-availability of electric connection and refusal to take over the scheme by GPs.
- Audit noticed that in 21 SVS/retro schemes out of 35 test-checked schemes, there was provision of construction of new OHT. Out of which in 15 schemes, the OHT was not completed and 1,648 FHTCs associated

with those OHTs were shown as functional in the IMIS (**Appendix 4.3**). Photographs of some under-construction OHTs and the respective non-functional household tap connections are shown below:

Photographs showing overhead tanks under construction stage and non-functional FHTCs



Photo 4.6: Incomplete OHT at village Banjoda, District: Kondagaon



Photo 4.7: Non-functional household tap connection at village Banjoda, District: Kondagaon



Photo 4.8: Incomplete OHT at Pandripani (Pachri), District: Mahasamund



Photo 4.9: Non-functional household tap connection Pandripani (Pachri), District: Mahasamund



Photo 4.10: Incomplete OHT at village Padariya, District: GPM

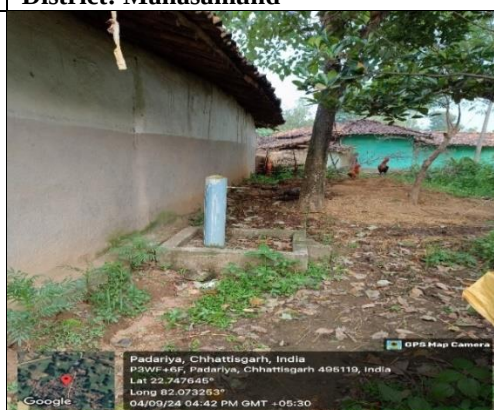


Photo 4.11: Non-functional household tap connection at village Padariya, District: GPM

Thus, the inflated progress of FHTC was reported and civil construction work of FHTC was completed without ascertaining its functionality.

In the exit conference (May 2025), the Secretary, PHED stated that most of the schemes were based on ground water sources. The department is exploring all alternatives to make tap connections functional. The reply furnished by the secretary is in line with the audit observation that the progress of FHTC was declared functional before ascertaining the actual functionality of the FHTC.