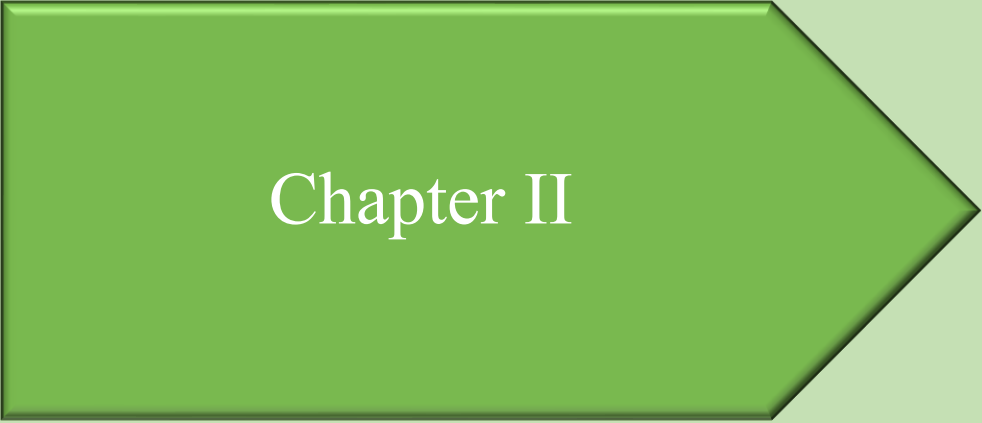


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Chapter II

Chapter II

DRINKING WATER AND SANITATION DEPARTMENT

Performance Audit on Implementation of *Jal Jeevan Mission* in Jharkhand

2.1.1 Introduction

The *Jal Jeevan Mission* (JJM) was launched (August 2019) by the Government of India (GoI) as a flagship scheme with a vision to provide access to drinking water of the prescribed quality and adequate quantity to every rural household. JJM aimed to provide piped water supply to each rural household (HH) through Functional Household Tap Connections (FHTCs) by 2024. A FHTC was to have three definite characteristics (i) provide water in adequate quantity *i.e.*, at least 55 litres per capita per day (lpcd) (ii) provide water of the prescribed quality *i.e.*, BIS: 10500¹ standard and (iii) supply water on a regular basis in the long-term.

Different models² of ground water based Single Village Schemes (SVS) to supply water within a village, and surface water based Multi Village Schemes (MVS) to supply water to more than one village, were taken up under JJM in Jharkhand.

Considering the progress achieved under JJM and ongoing works, the Union Finance Minister announced (in the union budget speech 2025-26) extension of JJM till December 2028. The GoI accordingly informed (June 2025) the States that further Central grants would be released after approval of budget outlay and revised guidelines, and instructed them to continue the work on ongoing schemes from their own resources.

Government of Jharkhand (GoJ) made a budget provision of ₹ 2,503.43 crore (Central share: ₹ 895.99 crore and State share: ₹ 1,607.44 crore) for implementation of JJM in 2025-26. However, during 2025-26, no funds have been released either by GoI or by the State under JJM, as of July 2025.

2.1.2 Organisational setup

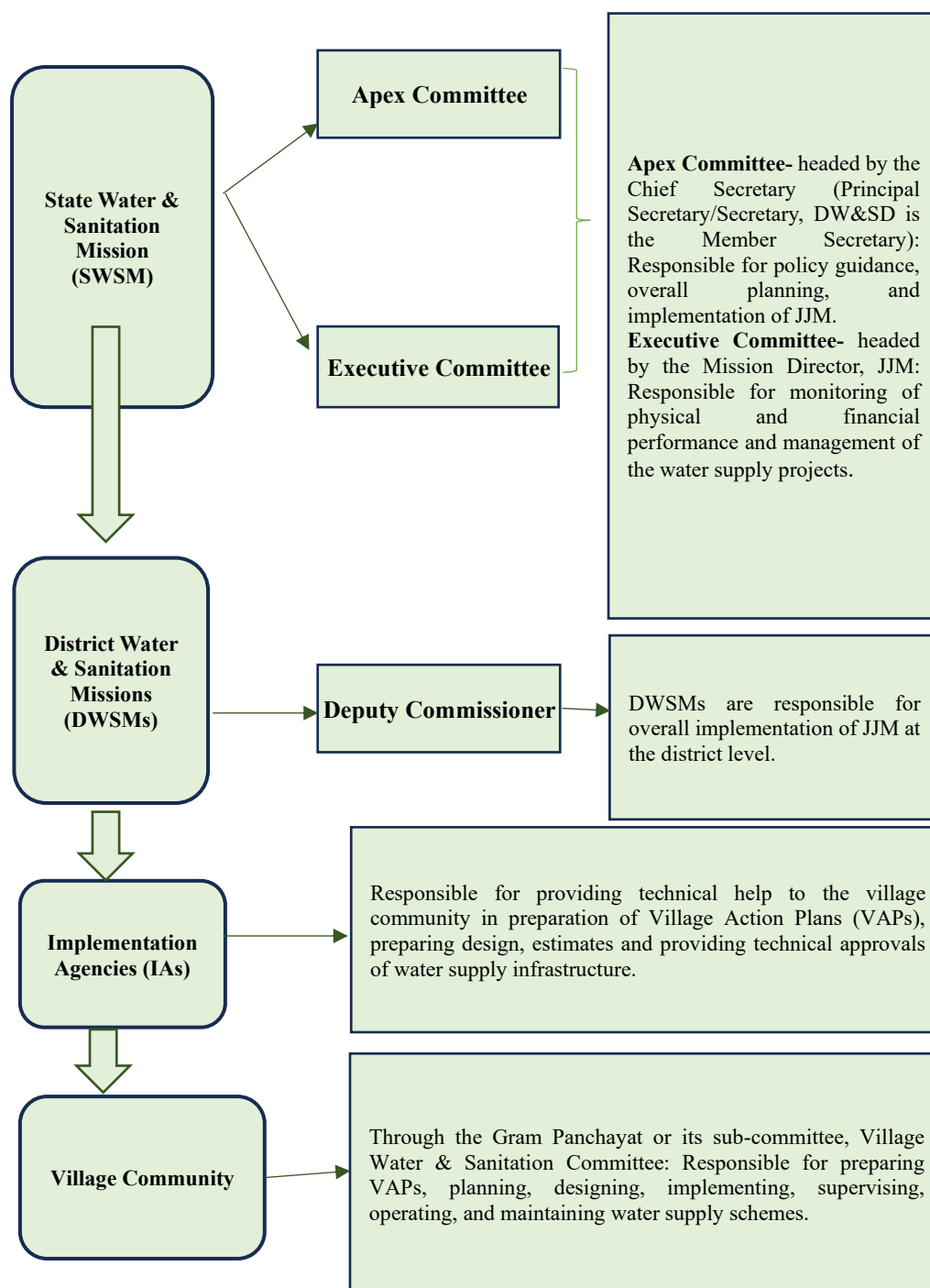
The State Water and Sanitation Mission (SWSM), headed by the Chief Secretary of Jharkhand, was responsible for the overall implementation of JJM in Jharkhand. The nodal department for implementation of JJM in the State was the Drinking Water and Sanitation Department (the Department), headed by the Principal Secretary/Secretary. The State Level Scheme Sanctioning Committee (SLSSC), headed by the Chief Secretary, provided policy guidance for JJM. The

¹ IS 10500:2012 'Indian Standard – Drinking Water Specification' as amended from time to time.

² Solar power based schemes with plastic or concrete overhead water tank having storage capacity of 2,000 litres to 16,000 litres.

District Water and Sanitation Missions (DWSMs), the Village Water and Sanitation Committees (VWSCs), the Programme Management Unit (PMU) and the Drinking Water and Sanitation (DWS) Divisions supported the SWSM in planning, implementation and monitoring of JJM at various levels in the field. The organisational structure and institutional mechanism of JJM is shown in Chart 2.1.1.

Chart 2.1.1: Institutional mechanism of JJM in Jharkhand



2.1.3 Audit objectives

A Performance Audit (PA) on implementation of JJM was conducted to ascertain whether:

- Programme objectives have been achieved successfully
- Efficient institutional framework is in place for planning, implementation, and post operational management of the schemes
- Financial resources have been employed in an economic and efficient manner; and
- Assets created through the programme are sustainable for the next two to three decades and do not compromise water security for future generations.

2.1.4 Audit criteria

The main sources from which the audit criteria were drawn are as follows:

- Operational Guidelines for the implementation of JJM
- Water Quality Monitoring and Surveillance Framework
- Jharkhand Financial Rules, Jharkhand Public Works Account Code, Jharkhand Public Works Department Code and instructions issued thereunder; and
- Orders issued by the GoI/State regarding the implementation of JJM.

2.1.5 Audit scope and methodology

The PA, covering the period from 2019-20 to 2023-24, was conducted between September and November 2024. Records of the Principal Secretary of the Department, the Chief Engineer-cum-Executive Director, PMU (SWSM), and the Executive Engineers of nine³ DWS Divisions of six⁴ out of the 24 districts were examined. Districts were selected through simple random sampling after stratifying them into two⁵ strata based on their achievements in respect of coverage of rural households. Twelve blocks (two from each district) and 26 villages (villages having higher achievements in the selected block) were selected for analysing achievement under JJM. Beneficiary survey of 479 beneficiaries was also conducted by Audit in the selected villages to assess the status of delivery of services and quality of water being supplied to them.

Audit conclusions have been drawn through scrutiny of records, analysis of data, information gathered through questionnaires, response of the departmental functionaries on audit memorandum, beneficiary survey and joint physical verification (JPV). Photographs of assets created under JJM, taken during the

³ DWS Divisions: Adityapur, Chaibasa, Chakradharpur, Dhanbad-I, Dhanbad-II, Hazaribagh, Jamshedpur, Khunti and Jhumritilaiya.

⁴ Dhanbad, East Singhbhum, Hazaribagh, Khunti, Koderma and West Singhbhum.

⁵ Districts having achievements of more than 50 per cent with respect to coverage of rural households with FHTCs in one stratum and districts having achievements up to 50 per cent in the second stratum. Three districts have been selected from each stratum.

JPV and beneficiary survey, have also been included to support the audit findings.

An entry conference (9 September 2024) was held with the Additional Secretary of the Department wherein objectives, scope, criteria and methodology of audit were discussed. An exit conference was also held (24 June 2025) with the Principal Secretary of the Department to discuss the audit findings and recommendations. The replies (March to July 2025) of the Department and views expressed during the exit conference have been suitably incorporated in the report.

Audit findings

2.2 Progress of JJM in Jharkhand

Financial progress

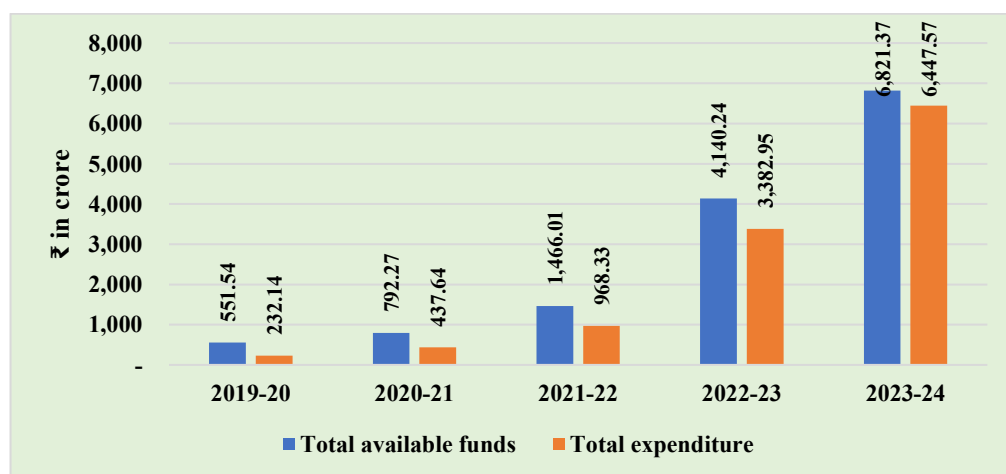
2.2.1 Utilisation of funds

The fund sharing pattern between the Central and State Government under JJM was 50:50 for coverage (creation of assets) and 60:40 for support activities (IEC, human resource development and training, Community mobilisation *etc.*) and Water Quality Monitoring and Surveillance (WQMS).

The State Water and Sanitation Mission (SWSM) approved (between January 2020 and February 2023) 98,067 schemes⁶ under JJM at an estimated cost of ₹ 24,360.91 crore. Of these, 97,535 schemes had been taken up for execution at an agreed cost of ₹ 24,665.29 crore. As of December 2024, 27,249 (28 *per cent*) schemes were complete. Out of the 70,286 incomplete schemes, 35,783 (51 *per cent*) schemes had remained incomplete for more than two years.

Audit noticed that the Department could not utilise the funds available under JJM during 2019-24 as depicted in **Chart 2.1 and Table 2.1**.

Chart 2.1: Funds available and expenditure under JJM during 2019-24



⁶ SVS: 97,770 at an estimated cost of ₹ 8,076.34 crore and MVS: 297 at an estimated cost of ₹ 16,284.57 crore.

Table 2.1: Funds available under JJM and utilised during 2019-24

(₹ in crore)

Year	Opening Balance (Central and State)	Receipt (Central and State)	Total available funds	Total expenditure	Closing Balance	Percentage of unspent funds
2019-20	152.33	399.21	551.54	232.14	319.40	58
2020-21	319.40	472.87	792.27	437.64	354.63	45
2021-22	354.63	1,111.38	1,466.01	968.33	497.68	34
2022-23	497.68	3,642.56	4,140.24	3,382.95	757.29	18
2023-24	757.29	6,064.07	6,821.36	6,447.57	373.79	5
Total		11,690.09⁷		11,468.63	373.79	

It can be seen from the **Table 2.1** that the State could utilise only ₹ 11,468.63 crore out of the available funds of ₹ 11,842.42 crore during 2019-24. The unspent balance which was 58 *per cent* of the available funds in 2019-20 came down to five *per cent* in 2023-24. Short utilization of funds in the initial years of launch of JJM was mainly due to the COVID pandemic (2019-2022) and non-utilisation of funds under support activities and WQMS, as detailed in **Paragraph 2.2**.

This restricted completion of the ongoing schemes, which affected the planned FHTC coverage of rural HHs. In addition, award of works to inefficient contractors who lacked capital and manpower, was another reason for slow progress of work, leading to underutilization of fund as discussed in **Paragraph 4.2** and **4.3**.

2.2.2 Short utilisation of funds on support activities and water quality monitoring

As per JJM Guidelines, besides creating water infrastructure, the Scheme also aimed at building capacities of different stakeholders especially local communities to own, manage, operate, and maintain in-village water supply systems. For this purpose, JJM made a provision of up to five *per cent* of the annual allocation to the States as funds for Support Activities. These funds were to be used to spread awareness and sensitise communities about judicious use of water, community contribution and ownership, capacity building of GPs and/or its sub-committees to plan, implement, manage, operate and maintain in-village infrastructure, focus on setting up long-term sustainable institutional mechanisms, build skills of various human resources required, viz. masons, plumbers, electricians, motor mechanics, pump operators, etc. These activities were to develop responsible and responsive leadership among communities to ensure long-term sustainability of the water supply systems.

Further, WQMS was essential for ensuring supply of safe and clean water to communities. To achieve this goal, a provision of up to two *per cent* of the

⁷ Including bank interest of ₹ 53.04 crore and miscellaneous receipts of ₹ 76.87 crore.

allocation to States had been made for carrying out WQMS activities which included setting up of laboratories at the State/District/Sub-divisional level, laboratories under PPP mode, upgradation of existing water quality testing laboratories which *inter alia* included procurement of equipment, instruments, chemicals/reagents, glassware, consumables, hiring of outsourced human resources, hiring of vehicles for transportation of water samples, expenses incurred for NABL accreditation, procurement of FTKs, refills and bacterial detection kits.

Audit observed that GoI had released ₹ 5,917.46 crore during 2019-24 under JJM, with a direction to use the prescribed percentage of funds on Support Activities and WQMS. As such, the State had ₹ 493.12 crore⁸ for spending on Support Activities and ₹ 197.25 crore⁹ on WQMS. However, the State could utilise Central share of only ₹ 83.35 crore (1.41 *per cent*) on the Support Activities and ₹ 50.58 crore (0.85 *per cent*) on WQMS, during 2019-24. GoI later on allowed (May 2023) the states to utilise unspent balance of Support and WQMS on execution of schemes. Accordingly, the State utilised unspent balance of Support Activities amounting to ₹ 160 crore on execution of schemes.

Less expenditure on Support Activities and WQMS, despite availability of funds, led to delay in appointing of Implementation Support Agencies and Third Party Inspection Agencies (as discussed in **Paragraphs 2.3.2 and 2.4.5**) and less procurement of FTKs, chemicals and equipment for laboratories (as discussed in **Paragraphs 2.5.1, 2.5.2 and 2.5.4**). Shortfall in utilisation of these funds also had an adverse impact on preparation of VAPs, generation of awareness amongst beneficiaries, and conduct of water quality tests against all prescribed parameters.

In reply, the Department stated (July 2025) that sufficient funds would henceforth be utilised on Support Activities and WQMS.

Recommendation 1: The Department may utilize the prescribed support and water quality monitoring funds to ensure long term sustainability of the water supply systems and supply of quality water.

Physical progress

2.2.3 Coverage of households

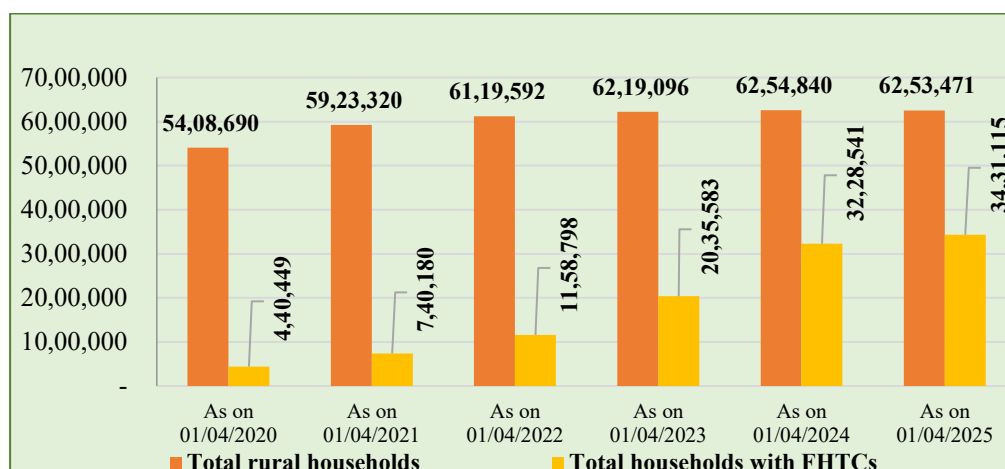
In August 2019, when JJM was launched, there were 52,27,214 rural households (HHs) in Jharkhand as per the JJM Portal. Of these, 3,45,165 (seven *per cent*) HHs had already been covered with tap water connections. As of

⁸ Five *per cent* of ₹ 5,917.46 crore = ₹ 295.87 crore (60 *per cent* being GoI share) plus ₹ 197.25 (40 *per cent* matching state share)

⁹ Two *per cent* of ₹ 5,917.46 crore = ₹ 118.35 crore (60 *per cent* being GoI share) plus ₹ 78.90 (40 *per cent* matching state share)

March 2025, 34,31,115 (55 *per cent*) out of 62,53,471 HHs¹⁰ had been provided FHTCs in Jharkhand, as shown in **Chart 2.2.2**.

Chart 2.2.2: FHTC coverage during 2019-20 to 2024-25 in the State

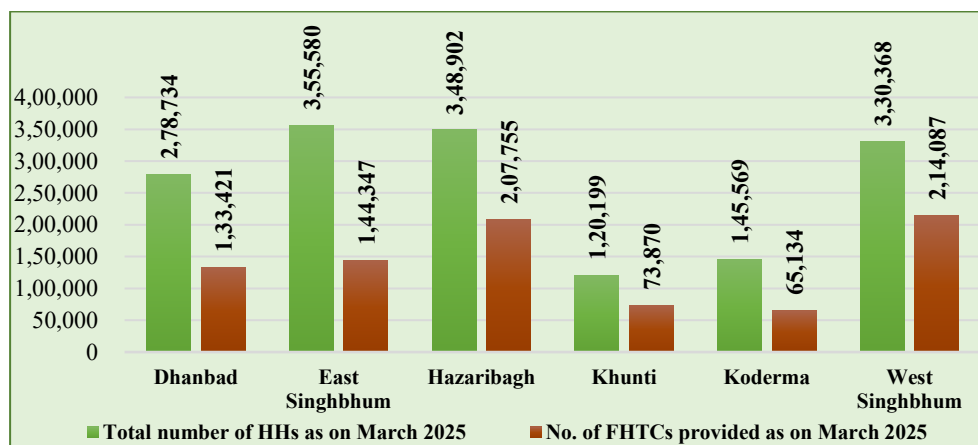


(Source: JJM dashboard)

The FHTC coverage of nearly 55 *per cent* in the State as of March 2025 was, however, below the national average of 80 *per cent*¹¹.

With regard to the test-checked districts, Audit noticed that 8,38,614 (53 *per cent*) out of 15,79,352 HHs had been provided FHTCs as of March 2025, as shown in **Chart 2.2.3**.

Chart 2.2.3: Number of FHTC provided in the test-checked districts



(Source: JJM dashboard)

The FHTC coverage in the test-checked districts ranged between 41 *per cent* (East Singhbhum) and 65 *per cent* (West Singhbhum). Achievements in three¹² out of the six test-checked districts was below the State average of 55 *per cent*, as of March 2025.

Thus, the objective of providing piped water supply through FHTC to each rural

¹⁰ Number of HHs varies on JJM portal as HHs data is updated regularly.

¹¹ 15,56,62,752 out of 19,36,40,317 HHs.

¹² Dhanbad: 48 *per cent*, East Singhbhum: 41 *per cent* and Koderma: 45 *per cent*.

HH could not be achieved within the initial duration of the Mission *i.e.*, by December 2024. In the light of extension of the Mission till December 2028, the State Government was in the process of rescheduling the timelines of the ongoing projects.

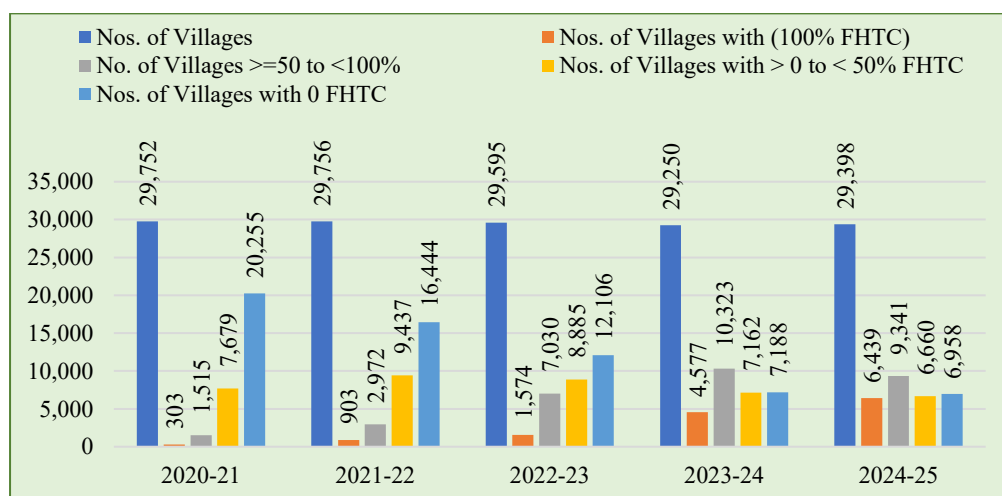
In reply, the Department stated (July 2025) that JJM period had been extended till December 2028 to complete the remaining work and accordingly, the plan is being revised to cover all rural HHs by March 2028. In the exit conference (June 2025), the Department stated that the coverage would go up on completion of ongoing mega water supply projects.

2.2.4 Coverage of villages

As per JJM guidelines, if a revenue village achieves 100 *per cent* FHTC, it would be declared as a 100 *per cent* FHTC village termed as a *Har Ghar Jal* (HGJ) reported village. For this, the concerned water supply division would certify that water is being supplied through taps to all HHs and public institutions *viz.*, schools, *Anganwadi* centres *etc.* in the village. The certificate would then be verified by the *Gram Sabha* concerned which would then pass a resolution to confirm the village as a HGJ certified village.

Coverage of villages with FHTCs in percentage terms is shown in **Chart 2.2.4**.

Chart 2.2.4: Coverage of villages in the State during 2020-25 (up to March 2025)



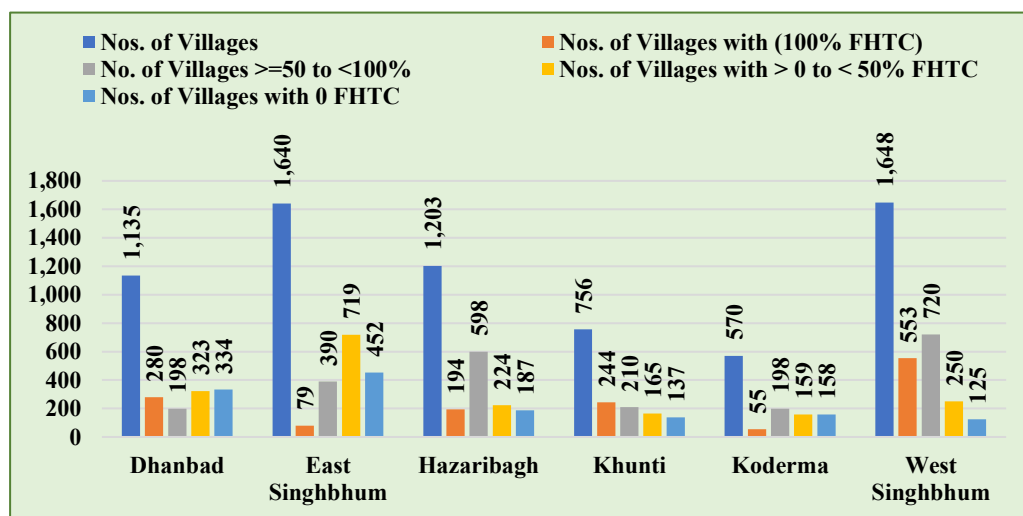
(Source: JJM dashboard)

It can be seen from **Chart 2.2.4** that 6,439 (22 *per cent*) out of 29,398 villages had full FHTC coverage, as of March 2025. The remaining 22,959 villages (78 *per cent*) were yet to be provided full FHTC coverage. Of the 6,439 fully covered villages, 4,631 villages (72 *per cent*) had been certified as HGJ reported villages by the concerned DWS divisions. Of these, only 2,279 (49 *per cent*) villages had been confirmed as HGJ villages by the concerned *Gram Sabha*, mainly due to non-verification of FHTCs by the *Gram Panchayats*.

Further, 6,958 villages (24 *per cent*) of the State had no FHTCs as of March 2025, mainly due to non-completion of ongoing schemes.

The percentage of coverage in the 6,952 villages of the six test-checked districts, as of March 2025, is shown in **Chart 2.2.5**.

Chart 2.2.5: Coverage of villages in the test-checked districts



(Source: JJM dashboard)

As depicted in **Chart 2.2.5**, only 1,405 (20 *per cent*) villages in the test-checked districts had FHTC coverage of 100 *per cent*.

In reply, the Department stated (July 2025) that a Standard Operating Procedure (SoP) had been developed (December 2024) to report and certify HGJ villages after *cent per cent* verification of FHTCs by the divisional engineers to avoid the gaps in the number of HGJ certified villages.

The reply is not acceptable as against the fully covered 6,977 (24 *per cent* of 29,398) villages as of July 2025, the number of HGJ reported villages was 69 *per cent* (4,830) but HGJ certified villages remained at 39 *per cent* (2,705). As such, reporting and certification of HGJ villages did not improve despite developing SoP for the purpose.

2.2.5 Adequacy of water supply

Under JJM, adequate quantity (minimum 55 lpcd) of drinking water is to be provided on a regular basis to every rural household through FHTCs.

Audit noticed that a sensor based Remote Monitoring System (RMS) was connected to each Single Village Scheme¹³ (SVS) taken up under JJM to track the inflow of water into the storage tank. The RMS data (for July and September 2024) of 40 SVSs in five¹⁴ test-checked divisions revealed that:

- Twenty out of the 40 SVSs were to provide 983 FHTCs and as such, water inflow of 81.10 lakh litre per month (30 days) was required to ensure supply of at least 55 lpcd to each HH. However, the water inflow of these SVSs

¹³ A ground water based scheme with drilled tube-well as source with arrangements of automatic start and stop function with water level detection system.

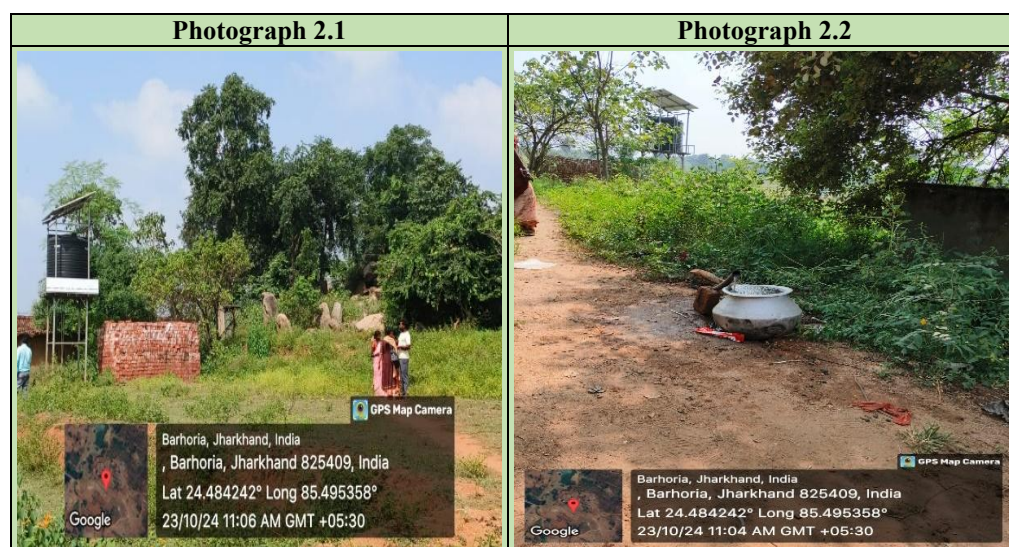
¹⁴ Chaibasa, Dhanbad II, Hazaribagh, Khunti and Jhumritilaiya.

was 29.89 lakh litre (37 *per cent*) in the test-checked months for 873 connected FHTCs.

- The remaining 20 SVSs had been planned for 421 FHTCs and hence water inflow of at least 34.73 lakh litre per month was required to ensure the minimum quantity of supply. Against the requirement, the water inflow of these SVSs was 69.34 lakh litre (200 *per cent*) for 338 connected FHTCs.

Thus, 50 *per cent* of test-checked SVSs supplied less than half (37 *per cent*) of the minimum prescribed quantity of water to the beneficiaries while the remaining 50 *per cent* SVSs were providing excess water to beneficiaries.

During the beneficiary survey (September and October 2024), 10 beneficiaries of Bamraja¹⁵ village stated (September 2024) that the solar pump of the SVS did not function properly during rainy/cloudy days resulting in the water tank remaining empty. As a result, they had to collect water from the existing hand pump/open well located at a considerable distance. The storage tank of the SVS in Barhoria village¹⁶ was found installed at a lower height¹⁷ (**Photograph 2.1**) resulting in reduced pressure and insufficient supply of water to the beneficiaries. Six beneficiaries of the SVS stated (October 2024) that they had to carry water from a broken distribution pipeline (**Photograph 2.2**) situated near the storage tank or from an existing hand pump.



Thus, supply of the prescribed minimum quantity of water to all beneficiaries was not ensured in the physically verified SVSs, due to deficiencies in their working or faulty installation of storage tank.

In reply, the Department stated (July 2025) that functioning of RMS was being reviewed regularly. The Deputy Commissioners of the districts had also been directed by the Chief Secretary to monitor the same. The Department also

¹⁵ Panchayat- Bamraja, Block- Karra and District: Khunti.

¹⁶ Panchayat: Jarga, Block: Koderma and District: Koderma.

¹⁷ Less than 10-12 meter as prescribed in the model estimates.

accepted (July 2025) less water discharge from solar based schemes during the rainy season due to inadequate sun light.

In the exit conference (June 2025), the Department stated that operation and maintenance of functional projects were to be monitored by villagers for which awareness programmes were being organised regularly. The Department also stated that new source of water for SVSs have been created, on need basis, with State funds.

Recommendation 2: The Department may ensure supply of the minimum prescribed quantity of water to every beneficiary by rectifying defects in the functional SVSs.

2.2.6 Beneficiary survey

JJM Guidelines provide for Social Audit to be conducted by respective *Gram Panchayats*, to help narrow the gap between the Department's provision of services and the beneficiaries' level of satisfaction.

Further, JJM guidelines envisaged supply of adequate quantity of water of the prescribed quality to beneficiaries on regular basis through FHTCs provided in every household with three delivery points *viz.*, kitchen, washing area and toilet. Out of the three delivery points, one point was to be funded under JJM. Information, Education and Communication (IEC) activity was also to be carried out to familiarise the local communities with the objective of JJM and to develop responsible and responsive leadership among them to own, manage, operate and maintain in-village water supply systems.

Audit noted that Social Audit of JJM had not been conducted in Jharkhand during 2019-24 by the respective *Gram Panchayats*. To analyse the level of satisfaction of end users, Audit conducted beneficiary survey of 479 beneficiaries in the 26 test-checked villages of the six test-checked districts.

It was noticed that out of 479 beneficiaries, four¹⁸ beneficiaries had not been provided FHTCs whereas 114 beneficiaries (24 *per cent*) were not getting supply of water from their FHTCs. The remaining 361 beneficiaries were facing multiple issues. While 145 beneficiaries (40 *per cent*) did not get daily/regular water supply, 138 beneficiaries (38 *per cent*) did not receive sufficient quantity of water and 67 beneficiaries (19 *per cent*) reported getting dirty water.

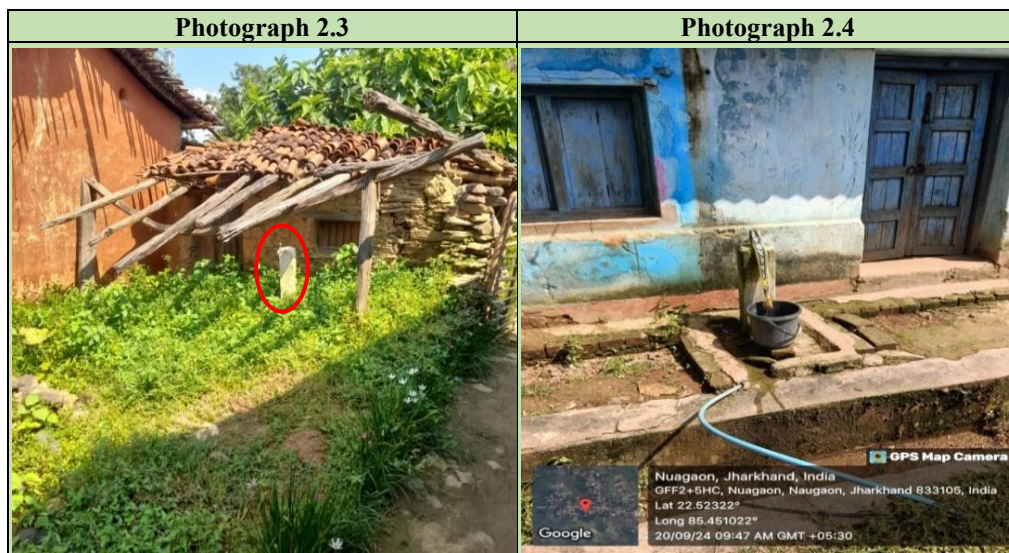
Further, 111 out of 479 beneficiaries (23 *per cent*) did not get FHTCs at the prescribed delivery points or close to their premises and 397 beneficiaries (83 *per cent*) did not get involved in IEC activities.

Thus, 19 to 40 *per cent* of beneficiaries were not satisfied with the service provided to them under JJM.

¹⁸ Three beneficiaries of a HGJ Certified village Chaiudhi of Domchanch block in Koderma district and one beneficiary of Bandarchuwan village of Baliyapur block in Dhanbad district.

During the beneficiary survey, audit also noticed that:

- The supply pipe connected with the storage tank of the SVS in Nawagaon village¹⁹ of West Singhbhum district was found damaged. A tap connection was seen fixed by the side of an abandoned house (**Photograph 2.3**). The delivery pipe was also found lying over the ground (**Photograph 2.4**), though it was required to be laid beneath the ground as per the estimate of the particular SVS.

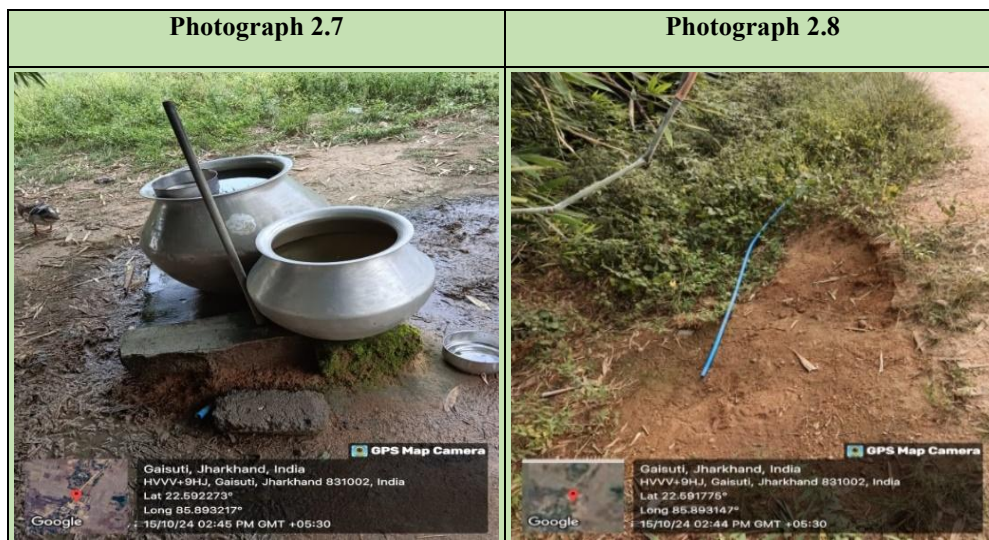


- The State Level Scheme Sanctioning Committee (SLSSC) approved (November 2020) model estimate of rural water supply schemes in which FHTCs were to be provided through concrete based standposts. However, FHTCs with standposts were not found provided in test-checked Kursi and Gaisuti villages²⁰. Besides, the delivery pipes were found lying over the ground without any taps (**Photographs 2.5 to 2.8**).



¹⁹ Panchayat: Beljori, Block: Sonua and District: West Singhbhum.

²⁰ Panchayat: Kursi, Block: Chaibasa Sadar and District: West Singhbhum.



In reply, the Department stated (July 2025) that GoI had conducted several functionality assessment studies and that the State Government had taken appropriate action on the findings of such studies. It was also stated that the Department has constituted (April 2025) Circle-wise teams headed by a Superintending Engineer (SE) to assess sustainability, functionality and reliability of all completed water supply schemes and for regular verification. The Department further stated that Social Audit would be taken up.

2.3 Institutional set up and planning

2.3.1 Planning based on inconsistent data

As per JJM Guidelines, a bottoms-up approach was to be adopted in planning and implementation of the Scheme. All revenue villages along with their habitations, as enumerated in the census, were to be taken as the basic unit for planning. A Village Action Plan (VAP) was to be prepared for each village. Thereafter, the District Action Plan (DAP) was to be prepared aggregating VAPs and finally the State Action Plan (SAP) aggregating DAPs was to be prepared, to provide FHTCs to all rural HHs by 2024.

The Local Government Directory (LGD) of the Ministry of *Panchayati Raj*, GoI, assigned a unique location/census code (LGD code) to each revenue village (inhabited and uninhabited). The data of revenue villages, as entered on the JJM Portal, was to be verified from the data of LGD.

Audit noticed that there were 32,737 villages in Jharkhand as per LGD while it was 29,398 as per JJM Portal. As such, 3,339 villages, though appearing as census villages in the LGD, were not included in the JJM Portal.

The difference in the number of villages in the LGD and as per the JJM Portal in the test-checked districts, is shown in **Table 2.3.1**.

Table 2.3.1: Difference in numbers of villages in the test-checked districts

District	Numbers of villages as per LGD			Numbers of villages on JJM Portal	Numbers of villages not taken on JJM Portal
	Inhabited	Uninhabited	Total		
Koderma	612	91	703	570	133
Khunti	757	00	757	756	1
East Singhbhum	1,784	01	1,785	1,640	145
West Singhbhum	1,659	28	1,687	1,648	39
Dhanbad	1,139	75	1,214	1,135	79
Hazaribagh	1,322	01	1,323	1,203	120
Total	7,273	196	7,469	6,952	517

It can be seen from **Table 2.3.1** that 517 villages (including 321 inhabited villages of the test-checked districts) were not included in the JJM Portal, although these appear as census villages in the LGD.

The SLSSC, while approving (March 2023) the AAP for 2023-24, discussed the issue of difference in the number of villages between LGD and the JJM Portal and decided to reconcile the same. However, the data has not been reconciled by the State PMU as of November 2024.

Audit further noticed that 70 villages in the six test-checked districts, shown as uninhabited in the LGD, were shown as inhabited villages in the JJM Portal and FHTCs were provided to 2,692 out of total 8,063 HHs of these villages.

As the number of rural HHs, included in the VAPs of villages, were basic units for providing FHTCs under JJM, there was risk of non-provision of FHTCs in villages not included in the JJM Portal.

In reply, the Department stated (July 2025) that the issue of difference in the number of revenue villages has been addressed and a letter for reconciliation of data of LGD *Panchayats* and villages has been sent to GoI.

2.3.2 Village level institutions

As per JJM guidelines, the VAP was to be prepared by the Gram Panchayat (GP) and/or its sub-committee (Village Water & Sanitation Committees (VWSC)/*Paani Samiti*/User Group) with the support of the Implementation Support Agency (ISA), the Water Supply Department and DWSM. Each VWSC was to have 10 to 15 members.

Audit noticed that:

- The Department/SWSM empaneled (September 2021) 36 NGOs through open tender as ISAs for a contract period of 12 months. ISAs were to assist the GPs to prepare VAPs; form VWSCs; mobilize the community through Information, Education and Communication (IEC) and Social and Behavioral Change Communication (SBCC) activities; assist water quality testing through Field Test Kits (FTKs); facilitate geo-tagging of FHTCs and update the related data; and to facilitate handing over of the completed assets to VWSCs. The PMU further directed (July 2023) the divisions to extend the contract period of ISAs up to March 2024 after reviewing their past performance against assigned

works viz. preparation of VAPs, IEC and SBCC activities, water quality testing etc.

The Executive Engineers (EEs) of the test-checked divisions executed (between September 2021 and January 2022) initial agreements with 10 ISAs to prepare VAPs of 600 out of 6,952 villages²¹ in the six test-checked districts. Further, an additional target of 4,305 VAPs²² was fixed (February 2022 and May 2023) by the PMU. However, the test-checked divisions did not initiate any action to extend the contract period of the ISAs. As a result, ISAs could assist in preparation of only 821 VAPs²³ during 2021-24 against the target of 4,905 VAPs. Test check of 32 VAPs, prepared by ISAs revealed that two VAPs did not have details of members of VWSCs whereas nine VAPs had details of only two to five members of VWSCs, though VWSCs with 10 to 15 members were required to be formed.

- Prior to engagement of ISAs, the divisions prepared VAPs at their level with the supposed involvement of the VWSCs and *Gram Panchayats* concerned, and uploaded them on the JJM Portal in 2020-21. Audit scrutiny of the uploaded VAPs of 26 test-checked villages revealed that four out of the 26 VAPs did not have details of members of VWSCs while 20 VAPs had details of only one to three members. Further, though 111 VAPs of Dhanbad district prepared by the divisions had the signature of the head of the Gram Panchayat (*Mukhiya*) or *Jal Sahiya* of VWSCs, they did not contain details of members of VWSCs besides other details like date of organizing *Gram Sabha*, total HHs in the village, requirement of FHTCs in the village etc. Only names of the village, *Panchayat*, block and district were found mentioned in these VAPs.

As such, there was no evidence of the participation of the VWSCs in the preparation of the VAPs.

On being pointed out in audit, the Department stated (July 2025) that ISAs were engaged to provide technical support to VWSCs in preparation of the VAPs. The ISAs had started their work in the divisions only from January 2022. Hence, the divisions had prepared the maximum number of VAPs with hand holding support given by the State level teams.

The reply is not convincing as VWSCs were not formed in all villages with prescribed numbers of members and the participation of the VWSCs in the preparation of the VAPs also appears doubtful.

²¹ Dhanbad: 1,135, East Singhbhum: 1,640, Hazaribagh: 1,203, Khunti: 756, Koderma: 570 and West Singhbhum: 1,648

²² Dhanbad: 732, East Singhbhum: 1,009, Hazaribagh: 730, Khunti: 461, Koderma: 371 and West Singhbhum: 1,002.

²³ Dhanbad: Nil, East Singhbhum: 180, Hazaribagh: 184, Khunti: 88, Koderma: 60 and West Singhbhum: 309.

2.3.3 Higher level institutions

Audit noted that the SWSM with SLSSC (Apex Committee of SWSM) at the State level and DWSMs at the district level were in place. However, DWSMs did not ensure preparation of DAPs based on VAPs as per JJM guidelines. The schemes²⁴ under JJM were proposed by the divisions or departmental authorities and approved by SLSSC without the involvement of DWSMs.

As per JJM guidelines, the DWSMs were supposed to meet monthly. Three²⁵ out of the nine test-checked divisions could produce only minutes of 40 meetings (MoM) of DWSMs though 165 meetings were required to be held between September 2019 and March 2024, since the launch (August 2019) of JJM. Scrutiny of MoMs of DWSMs revealed that generally delay in completion of ongoing schemes or providing FHTCs to beneficiaries and IEC activities were discussed in these meetings. However, DWSMs did not examine reasons for non-preparation of VAPs with the participation of the community, their compilation into DAPs and submission of DAPs to the SWSM.

Thus, DWSMs did not make any effective contribution in planning and implementation of JJM.

In reply, the Department stated (July 2025) that district level workshops had been held during 2021-23 for the stakeholders. Regional level consultation meetings were also held to ensure proper planning process of JJM. State level workshop was conducted to discuss the role of VWSCs and DWSMs in JJM. Training and hand holding support programmes had also been organised to make programme planning and to define the role of different institutions at different levels.

The reply is not acceptable as the DWSMs did not ensure preparation of VAPs as envisaged and their compilation into DAPs to ensure effective planning under JJM. During the exit conference, the Principal Secretary stated (June 2025) that involvement of DWSMs in the planning process of JJM would be ensured henceforth.

2.3.4 Involvement of the rural community in planning

As per JJM guidelines, the VAP was to be approved by the concerned *Gram Sabha* with the presence of 80 per cent of its members.

Examination of VAPs in the test-checked divisions revealed the following.

- Analysis of VAPs of the test-checked 26 villages, prepared by the divisions, revealed that twelve out of 26 VAPs had been prepared without holding any

²⁴ Ongoing and incomplete schemes taken up under NRDWP, *Nir Nirmal Yojana*, *Mukhya Mantri Janjal Yojana*, State Plan etc; schemes sanctioned under State Plan but not commenced; schemes for which technical sanction given by the competent departmental engineers and schemes approved by the Committee headed by the Engineer-in-Chief, DWSD.

²⁵ Hazaribagh: 12, Khunti: 8, Koderma: 20.

meeting of the *Gram Sabha*, four VAPs did not mention the number of members who attended the *Gram Sabha*, six VAPs were approved by only two to six *per cent* of members²⁶ of the *Gram Sabha*, two VAPs were approved by 12 to 17 *per cent* of members while the other two VAPs were approved by 23 and 25 *per cent* of members. As such, community participation in planning was not ensured by the divisions as envisaged.

- Analysis of 32 VAPs of three²⁷ test-checked divisions, prepared with the assistance of ISAs, revealed that nine VAPs of Chaibasa division did not have information regarding meetings of *Gram Sabha*, whereas 23 VAPs of the remaining two divisions were approved by one to 12 *per cent* of members of the *Gram Sabha*.

Thus, VAPs were not prepared with the involvement of the village community as envisaged. Further, during the beneficiary survey, 191 (40 *per cent*) out of 479 beneficiaries stated that they had not been contacted before selection and execution of schemes under JJM.

In reply, the Department stated (July 2025) that all Deputy Commissioners and Executive Engineers had been directed (August and September 2020) to ensure community engagement in preparation of VAPs with the assistance of ISAs. However, most of the VAPs were prepared by the divisions before engagement of the ISAs. Further, in the exit conference (June 2025), the Principal Secretary, DWSM acknowledged discrepancies in some of the prepared VAPs due to rapid implementation of the Scheme and stated that efforts are being made to involve and activate the DWSM and the concerned Deputy Commissioner in the planning process.

2.3.5 Micro level planning

As per JJM guidelines, a VAP was to be prepared based on a baseline survey which would include the history and availability of water supply in the village, mapping of available sources of water and requirements/needs of the village community. It was to include status of the existing infrastructure in the village including community assets, status of existing water sources, proposal for the required water supply project (SVS or part of MVS) with their location, location of cattle trough, implementation schedule of in-village water supply infrastructure, grey water management plan²⁸, long-term O&M plan, convergence plan with other schemes and financial planning. All drinking water-related works in the village were to be taken up as per the approved VAPs.

²⁶ As per Election Commission of India data, almost 60 *per cent* of the population (1.97 crore amongst a population of 3.29 crore) of Jharkhand are voters. Accordingly, 60 *per cent* of the population of a village has been considered as members of the *Gram Sabha* as every voter of a village constitute the *Gram Sabha*.

²⁷ Chaibasa-09; Chakradharpur-09 and Khunti-14.

²⁸ Basic treatment of domestic non-fecal waste-water, also called grey water, which typically accounts for nearly 80 *per cent* of all domestic water.

There were 29,398 villages in the State against which 29,174 VAPs had been prepared, as of November 2024, including 6,927 VAPs in the six test-checked districts. Analysis of VAPs of the 26 test-checked villages revealed that:

- VAPs prepared by the divisions generally had information about population of the village, number of HHs, number of HHs having no tap connection and number of public institutions like schools and *Aanganwadis*. They did not have details of the existing infrastructure, available water sources, grey-water generation and its management mechanism. VAPs also did not contain proposals regarding the suitable water supply schemes (MVS/SVS) to be taken up, need of cattle troughs, periodical implementation plan and financial planning.
- Analysis of 32 VAPs of three²⁹ test-checked divisions, prepared with the assistance of ISAs, revealed that they also did not contain analysis of daily water requirement, history of water supply, status of grey water generation/management, analysis of source sustainability, water quality of available sources *etc.*, as required.
- Discrepancies were also noticed between the data of VAPs prepared by ISAs (between February 2022 and March 2024) and VAPs prepared by the divisions (July and August 2021), as shown in **Table 2.3.2**.

Table 2.3.2: Discrepancies in VAPs prepared by ISAs and the test-checked divisions

Category	As per VAPs prepared with the assistance of ISAs	As per VAPs prepared by divisions
Population of Villages	25,615	28,007
Number of total HHs	5,889	5,671

It can be seen from **Table 2.3.2** that the population of 32 villages was less in the VAPs prepared by ISAs while the number of HHs was more compared to VAPs prepared by the divisions.

Thus, though the VAPs were the main documents for planning and implementation of JJM, they lacked crucial details such as history and availability of water supply in the village, mapping of available sources of water and requirements/needs of the village community, as required in the Scheme guidelines.

During beneficiary survey, it was seen that 231 FHTCs had been provided in Kursi village³⁰ including tap connections in the Upgraded Primary School, Ladurbasa, through Kursi RPWSS, which was taken up (November 2017) under District Mineral Foundation Trust (DMFT) and was functional since November 2019. However, drinking water facility had been set up again in the same school by the *Gram Panchayat* at a cost of ₹ two lakh from its own funds in 2022-23. This indicated lack of convergence plan in VAPs to avoid duplicity of schemes.

²⁹ Chaibasa-09; Chakradharpur-09 and Khunti-14.

³⁰ Panchayat: Kursi, Block: Chaibasa and District: West Singhbhum.

In reply, the Department stated (July 2025) that duplicate works would be avoided through inter-departmental meetings at the DWSM level. It was further stated that maintaining quality of the VAPs was really a challenge and stated that all important aspects will be considered while upgrading the VAPs.

2.3.6 Macro level planning

As per JJM guidelines, DWSMs were to prepare District Action Plans (DAPs) by aggregating the VAPs and were to give a roadmap to achieve provision of FHTCs to all HHs by 2024. DAPs were to focus on long-term drinking water security of the district by preparing annual district water budget based on availability of surface and ground water and its domestic, agricultural and industrial uses. DAPs were to incorporate planning for water conservation activities, water quality monitoring/surveillance, financial resources planning, IEC activities, skill development, mobilisation of local communities *etc.*

The State Action Plan (SAP) was to be prepared by the SWSM by aggregating DAPs for the period up to 2024, covering overall strategic plan, modalities for implementation, activities to be taken up, output to be achieved with timelines and financial outlay. The Annual Action Plan (AAP) of the State for JJM was to be drawn from the SAP.

Audit analysis revealed the following.

- DAPs were not furnished to Audit by the test-checked divisions. Analysis of DAPs uploaded on the JJM portal revealed that they contained only data regarding numbers of blocks, *panchayats*, villages, community assets, total number of HHs, HHs with tap connections, and requirement of FHTCs and coverage of villages through tap connections, in percentage terms. These DAPs did not include total requirement of water in the district, availability of water in the district, road map for construction of water supply projects, plan for water conservation and required financial resources.
- Despite requisition, SAP was not furnished to Audit by the PMU. The water supply schemes of JJM were approved by the SLSSC based on proposals submitted by the departmental authorities. In the absence of SAP, Audit could not ascertain the adequacy of the strategy/planning of the State to achieve *cent per cent* coverage of rural HHs by the end of 2024.
- The AAPs for 2020-21 to 2023-24 of the State mainly included status of uncovered HHs, target of FHTCs for the year, financial resources required and achievements against the preceding AAPs. However, differences were noticed in the number of HHs in the AAPs for different years, as shown in **Table 2.3.3**.

Table 2.3.3: Difference in data of HHs in AAPs of different years

Category	AAP for 2020-21	AAP for 2021-22	AAP for 2022-23	AAP for 2023-24
Total HHs in quality affected villages	17,700 ³¹	13,177	7,638	Not Available
Uncovered HHs in drought-prone and desert area	22,52,816	26,05,320	21,84,403	Not Available
Uncovered HHs in SC/ST dominated villages	20,70,789	25,38,392	20,35,364	17,63,847
Uncovered HHs in PVTG habitations	21,384	399	Not Available	37,765

It can be seen from **Table 2.3.3** that the number of total and uncovered HHs of different categories was not consistent during 2020-24. Increase or decrease in the number of HHs was directly linked with the provision of FHTCs to eligible beneficiaries and achievement of FHTCs under JJM. The SLSSC also discussed (March 2023) the difference in the number of HHs (13.81 lakh³²) between the JJM Portal and Swachh Bharat Mission- Gramin (SBM-G) but the same has not been reconciled by the State PMU, as of November 2024.

Thus, macro level planning was not based on reliable data adversely impacting provision of FHTCs to all eligible HHs.

In reply, the Department stated (July 2025) that a road map had been developed earlier for saturation of the State under JJM by 2024 and accordingly targets for FHTCs and other related activities had been fixed. After extension of the period of JJM till December 2028, the Department has prepared (January 2025) revised action plan for completion of ongoing schemes and conducting other activities. It was further stated that the issue of differences in the number of HHs in the JJM Portal and SBM (G) has been addressed in coordination with the GoI and the issue would be resolved fully.

2.3.7 Sustainability of water sources

Long-term planning for sustainable water sources to ensure availability of water throughout the year was required as per JJM Guidelines. Source sustainability ensured functioning of a water supply scheme throughout its design period. This was to be achieved through sustainability measures like rainwater harvesting and artificial recharge. In case of groundwater-based sources, bore well recharge structures were to be included in the estimates.

Audit observed that:

- The SWSM set up (June 2020) a Source Finding Committee (SFC) under the chairmanship of the SE of the DWS Circle concerned where JJM schemes were to be implemented. The Committee was to certify the sustainability of the water source prior to submission of proposals of water supply schemes to the

³¹ Number of uncovered HHs. Total number of HHs in quality affected villages not given in AAP of 2020-21.

³² JJM: 62,02,675 and SBM (G): 48,21,197.

SLSSC. Audit noticed that though the SE certified source sustainability of 21 test-checked MVSSs, such certificates were not found with the estimates/proposals of the test-checked 454 ground water based SVSSs. Estimates of SVSSs also did not have provision for recharge of bore wells.

- Different models of SVSSs, with different bore depths³³, had been sanctioned under JJM based on the storage capacity³⁴ of ground water-based SVSSs. However, prior to drilling, the test-checked divisions did not follow any scientific method³⁵ to ensure source sustainability of the bore sites. Water discharge reports from drilled bores were also not obtained from the contractors by the divisions to verify their sustainability. This indicated that only bore depths were considered as the source of sustainability in all models of SVSSs. This led to insufficient water inflow from SVSSs.

In reply, the Department stated (July 2025) that for sustainability of SVS sources, it had converged with different departments for creating infrastructure for water conservation and bore well recharge through constructing rain water harvesting structures, check dams, irrigation tanks and rejuvenation of river and other water bodies. All Deputy Commissioners have also been requested to develop rain water harvesting systems and soak pits for grey water management. The fact remains that source sustainability of the SVSSs was not ensured at the planning stage adversely impacting the implementation of the Scheme.

2.4 Procurement of works

The Department sanctioned various models of SVSSs³⁶ in Clusters/Groups (several SVSSs in single Cluster or Group) considering the number of HHs to be covered in villages, which could not be covered through MVSSs due to the limited number of perennial rivers in Jharkhand.

Audit further noticed that in six test-checked districts, 21,339 schemes³⁷ had been taken up at an agreed cost of ₹ 7,127.80 crore to provide 13,37,982 FHTCs. Of these, 18,726 schemes³⁸ were completed as of September 2024 and 6,26,793 FHTCs had been provided. Of the remaining 2,613 schemes, 1,842 were incomplete with delays of four to 59 months against their scheduled completion dates (before September 2024), while 771 schemes were scheduled for completion beyond September 2024.

³³ Model-1A and 1B were generally sanctioned with bore depth of 60 metres and Model-2 with bore depth of 90 metres.

³⁴ Model-1A with storage capacity of 2,000 litres, Model-1B with storage capacity of 5,000 litres and Model-2 with storage capacity of 8,000 litres.

³⁵ There is a Hydro-Geo-Morphological map prepared by the National Remote Sensing Centre (NRSC), Hyderabad to determine the probable location of ground water availability and the locations for recharge of the aquifers.

³⁶ Model 1A with existing source having storage capacity of 2,000 litre, Model 1A new source having storage capacity of 2,000 litre, Model 1B with existing source having storage capacity of 5,000 litre, Model 1B new source having storage capacity of 5,000 litre and Model 2 with storage capacity of 8,000 litres.

³⁷ MVS: 103 SVS: 21,236.

³⁸ MVS: 27, SVS: 18,699.

Audit analysed 28 agreements relating to 20 MVSs and eight clusters/groups of 454 SVSs (**Appendix 2.1**) sanctioned at ₹ 2,342.10 crore for which agreements were executed (between November 2017 and June 2023) with contractors at ₹ 2,016.24 crore. Additionally, evaluation process of 39 bids (**Appendix 2.2**) were analysed at the Department level. Audit findings in the test-checked works are discussed in the succeeding paragraphs.

2.4.1 Non-adherence to prescribed time for submission of bids

As per Rule 159 (a) of the Jharkhand Public Work Department (JPWD) Code, seven to 14 days were to be given for sale of Bill of Quantities (BOQ) and 14 to 28 days for receipt of tender after the last date of sale of BOQ, based on the tendered cost of the work. As such, 21 to 42 days³⁹ were to be allowed in case of e-tendering where BOQ is available online from the date of publication of tender. However, in case of emergency, the prescribed timeline can be reduced as per the requirement, with the prior approval of the SE.

Analysis of the evaluation process of 39 bids (**Appendix 2.2**) revealed that time limit as prescribed for submission of bids was not allowed in 36 bids (92 per cent). Approval of the SE as required, with justification for not allowing the prescribed period was also not found on record. Details of the 36 bids are shown in **Table 2.4.1**.

Table 2.4.1: Prescribed time not allowed for submission of bids

Tendered cost of the work	Number of works	Prescribed time as per JPWD Code	Time allowed as per NIT	Time taken to decide on the tender	Time taken in issuing LoA after decision
			(in days)		
₹ 2.5 crore to ₹ 20 crore	18	31	5 to 10	26 to 156	3 to 32
	11		12 to 22	32 to 157	1 to 114
₹ 20 crore to ₹ 50 crore	4	35	5 to 18	32 to 154	3 to 31
More than ₹ 50 crore	3	42	5 to 17	43 to 62	5 to 19
Total	36				

It can be seen from **Table 2.4.1** that only five to 22 days were allowed for submission of 36 bids against the prescribed 31 to 42 days. However, 26 to 157 days were taken by the Department to take a decision on these bids and up to 114 days were taken in issuing Letter of Acceptance (LoA) to the successful bidders, clearly indicating that there was no emergency to execute these works.

Further, of these 39 bids, three bids were single bids, 34 bids had only two bidders, and the remaining two bids had four and five bidders. The 37 bids having one or two bidders, were finalised at premiums ranging between 0.5 per cent and 9.7 per cent over the tendered cost. This included 26 bids of

³⁹ Work costing ₹ 2.50 lakh to ₹ 2.5 crore: 21 days, ₹ 2.5 crore to ₹ 20 crore: 31 days, ₹ 20 crore to ₹ 50 crore: 35 days and more than 50 crore: 42 days.

SVS clusters which were finalised at a uniform premium of 4.5 *per cent*. The remaining two bids with four and five bidders, were finalised at 8.10 *per cent* and 14.64 *per cent* below the tendered cost.

On being pointed out in Audit, the Department stated (July 2025) that SVSs had been proposed mostly in those habitations which were located either in forest or hilly areas. Agencies showed less interest to participate in tenders related to such areas and as such, in many cases, repeated tenders were invited with a short period for bid submission.

The reply is not acceptable as 12 out of 16 bids in two test-checked divisions (Khunti and Chakradharpur) had been finalised at the first call whereas four bids were finalised at the second call.

2.4.2 Award of work to an ineligible bidder

Audit analysis revealed that seven out of the 39 test-checked bids had been awarded (March to June 2023) to a contractor (Agency D⁴⁰) at ₹ 54.05 crore by the Departmental Tender Committee (DTC). The same contractor had also been awarded (between February 2022 and July 2023) 13 other bids valued at ₹ 94.07 crore. Analysis of tender papers of the seven bids revealed the following:

- As per the bid conditions, the bidder was required to submit books of accounts for five financial years and his bid capacity was to be calculated on the basis of turnover of civil works executed by him. However, the bidder had submitted the complete Profit & Loss (PL) accounts and Balance Sheets (BS) for only two financial years (*i.e.* 2020-21 and 2021-22) in all the seven bids. For the remaining three years, incomplete PL Accounts had been submitted.

The PL Account for FY 2021-22 depicted gross turnover of ₹ 56.04 crore which included civil engineering works for ₹ 5.27 crore. However, the bid capacity (₹ 72.46 crore to ₹ 159.36 crore⁴¹) was worked out on the basis of the gross turnover instead of on the value of civil engineering works. Based on the value of civil engineering works, the bid capacity was negative (- ₹ 6.87 crore⁴²), as calculated by Audit. As such, bids were awarded to a contractor who did not have the bid capacity as per the bid conditions.

- For timely completion of a work, requirement of a set of technical manpower (engineers *etc.*) and equipment (drill machine *etc.*) had been

⁴⁰ Sri Sai Construction, Ranchi.

⁴¹ Considering gross turnover of ₹ 56.03 crore in 2021-22 which was worked out to be equivalent to ₹ 61.64 crore in 2022-23 with multiplying factor of 1.1. Bid capacity = $2AN - B = (2 \times ₹ 61.64 \text{ crore} \times 1.5) - ₹ 25.56 \text{ crore} = ₹ 159.36 \text{ crore}$. Where A = Maximum value of works executed in any one year during the last five years updated to the price level applying the multiplying factor, N = completion time, and B = value of existing commitments.

⁴² Bid capacity = $2AN - B = (2 \times ₹ 5,79,51,006.30 \times 0.75) - ₹ 15,56,00,000 = (-) ₹ 6,86,73,490.55$ where A = ₹ 5,26,82,733 x 1.1 (multiplying factor), N = 9 months (0.75 years) and B = ₹ 15,56,00,000 (existing commitments).

prescribed in the bid document. It was seen that the contractor had submitted the list of the same technical personnel and equipment in all the seven bids. This aspect was not looked into while awarding the bids to the same contractor though all the seven bids were finalized by the same DTC.

Audit further noticed that agreements in respect of these 20 bids⁴³ had been executed (between February 2022 and July 2023) for completion of works between November 2022 and September 2024. However, only three out of 20 works were completed as of September 2024. The remaining 17 works were incomplete (September 2024) despite lapse of five to 22 months from the scheduled date of completion with physical progress ranging between 23 to 98 per cent.

Thus, multiple tenders were awarded to a contractor who did not have sufficient bid capacity and resources (manpower and equipment) as per the bid conditions, which ultimately led to non-completion of works.

In reply, the Department, while remaining silent on erroneous calculation of bid capacity and overlooking the capability of the contractor with respect to manpower and equipment available with him, stated (July 2025) that the agencies had to engage required manpower according to the volume of awarded works.

The reply is not convincing as the technical and financial capability of the contractor was to be evaluated prior to finalising the bids to ensure timely completion of works.

2.4.3 Absence of transparency in bid evaluation

Test check of 39 bids revealed instances of collusive bidding and bid rotation as detailed below:

- Only two contractors (Agency X⁴⁴ and Agency Y⁴⁵) participated (November 2021 to May 2022) in five bids valued at ₹ 38.62 crore pertaining to work of SVS clusters of two divisions⁴⁶. Of this, three bids⁴⁷ were awarded (August 2022) to Agency X at ₹ 23.04 crore in one Division (Chakradharpur) while the other two bids⁴⁸ were awarded (January to June 2022) to Agency Y at ₹ 17.32 crore in another Division (Chaibasa). Bids pertaining to two MVSs (one each in Garhwa and Jamshedpur) were found awarded (August 2021 and December 2022) at ₹ 89.65 crore to the Joint Venture (JV) of Agency X and Agency Y.

Agency X or its JV (with maximum stake of Agency X) had also participated (December 2021 and March 2022) in four other bids of SVS clusters valuing

⁴³ Seven test-checked bids and 13 other bids that were awarded to the contractor.

⁴⁴ M/s Priti Enterprises, Bokaro.

⁴⁵ M/s Aditya Arav Dev Construction Company Pvt. Ltd., Dhanbad.

⁴⁶ Chakradharpur and Chaibasa.

⁴⁷ Cluster 4A, Cluster 4B and Cluster 6 C.

⁴⁸ Cluster 9A and Cluster 11A.

₹ 25.98 crore of Chakradharpur division with another contractor (Agency Z⁴⁹ or its JV). Of these, three bids⁵⁰ were awarded (April and July 2022) to Agency X or its JV at ₹ 21.13 crore and the remaining one (August 2022) bid (Cluster 6A) was awarded to the JV of Agency Z at ₹ 6.02 crore.

As such, the agencies were awarded bids of particular divisions either separately or through their JVs. Hence, collusive bidding⁵¹ in these bids could not be ruled out.

- It was noticed that only two contractors (Agency M⁵² and Agency N⁵³) participated (November and December 2021) in 11 bids (valued at ₹ 74.08 crore) of two divisions (Ranchi East and Khunti) pertaining to SVS clusters. Of these, nine tenders⁵⁴ were awarded (January and May 2022) to Agency M at ₹ 60.50 crore while the remaining two tenders (Cluster 5A and 8B) of Ranchi East Division were awarded (March 2022) to Agency N at ₹ 16.62 crore.

Scrutiny further revealed that Agency M had purchased the demand drafts for 10 out of 11 bids for both the bidders for submission against the cost of BOQs, while Agency N had purchased the demand drafts for the remaining one bid for both the bidders.

Purchase of demand draft for competitors indicated possibility of bid rotation⁵⁵ or collusive bidding by these Agencies.

- Clause 4.5.B (b) of SBD (Instructions to bidders) require each bidder to demonstrate availability of experienced key personnel⁵⁶ for each project.

Audit noticed that 15 tenders pertaining to SVS clusters were awarded (between January 2022 and August 2022) to two contractors (nine to Agency M and six to Agency X) in the jurisdiction of three⁵⁷ different divisions. Further, all the awarded works were to be completed in nine months (between October 2022 and May 2023) and, therefore, different sets of manpower were required to be deployed for each work for completion within the stipulated time. However, it was seen that these contractors had submitted details of the same manpower/key

⁴⁹ M/s Mosus Infrastructure Pvt. Ltd., Lohardaga.

⁵⁰ Cluster 6B, Cluster 12A and Cluster 12C.

⁵¹ Collusive bidding/cartel formation creates illusion of competition to maximize the profits of cartel members. The bidders join together and manipulate the rates. The cartel decides winnability of the bid, bid in a preferred location, increasing of contract cost by quoting higher/non-competitive and lowest rates with mutual consent.

⁵² Mr. Saroj Narayan Prasad Singh, Nalanda, Bihar.

⁵³ Sri Sameer Saurav, Nalanda, Bihar.

⁵⁴ (i) all seven tenders (Cluster 8A, 8B, 9A, 9B, 10A, 10B and 11A) of Khunti Division and (ii) two (Cluster 3A and 3B) out of four tenders of Ranchi Division.

⁵⁵ An arrangement among bidders to get tenders on rotational basis by agreeing in advance that which of the bidders should win which contract.

⁵⁶ Project Manager: 1, Site Engineer: 1, Site Supervisor: 2, Supervisor: 1 and Social Mobiliser: 1

⁵⁷ Chakradharpur: 6, Khunti: 7 and Ranchi East: 2.

personnel in all the bids awarded to them. This aspect was not duly considered by the DTC and multiple contracts were awarded to the same contractor in different divisions. Absence of sufficient manpower with the contractor led to delays ranging between 15 and 21 months in completion of eight out of 15 works, as of September 2024.

Thus, the DTC did not examine the capability of the contractors with respect to technical manpower available with them prior to awarding multiple contracts to the same contractor resulting in delay/non-completion of works.

In reply, the Department stated (July 2025) that bids were decided by the competent authorities after evaluation of bid capacity and other allied issues as per the provision of the contract documents. It was further stated that a transparent process was adopted in tender finalisation and there was no question of bid rigging, bid rotation or collusive bidding.

The reply is not acceptable as the pattern of bidding and offer of rates, and documents of key personnel submitted along with the bid documents points towards collusive bidding/bid rotation.

2.4.4 Irregularities in execution of works

Audit also noticed cases of excess payments, non-recovery of mobilisation advance, irregular payment of price variation, non-recovery of liquidated damages besides delays in execution of work, as discussed below.

➤ As per the payment schedule of the contract, the contractor was to be paid 85 *per cent* of the cost of DI pipes after their supply and laying, and the remaining 15 *per cent* after commissioning of the project. Further, as per clauses 39 and 40 of the contract, the contractor was required to include all variations in the updated work programme for obtaining approval of the Engineer.

Jagannathpur Rural Pipe Water Supply Scheme (RPWSS) was taken up (April 2023) at an agreed cost of ₹ 118.60 crore under Chaibasa Division for providing 13,072 FHTCs in 54 villages of Jagannathpur Block. The scheme was to be completed by July 2025. Audit noticed that the contractor was paid (till March 2024) 100 *per cent* of the cost of DI pipes (₹ 34.05 crore) after supply and laying of pipes instead of 85 *per cent* (₹ 28.94 crore) as the project, with physical progress of 48 *per cent*, had not been commissioned, as of September 2024. Also, the contractor had been paid ₹ 2.75 crore for laying of additional distribution pipelines (150 and 300 mm diameter) over and above the agreed quantities (ranging between 32 and 154 *per cent*) without submitting any proposal for variation or obtaining the required approval. As such, inadmissible payment of ₹ 5.11 crore was made to the contractor against cost of DI pipes, and ₹ 2.75 crore against variation beyond the agreed quantity as per the contract.

In reply, the Department stated (July 2025) that the work was in progress and the inadmissible payment would be adjusted from the future running account bills of the contractor.

➤ Aita and Purana Chaibasa, two RPWSSs was taken up (February 2019) under the Chaibasa Division at an agreed cost of ₹ 94.03 crore for providing 17,963 FHTCs to 52 villages of Chaibasa block. The works were to be completed by February 2022. The contractor was paid ₹ 13.81 crore (as of September 2024) instead of the payable amount of ₹ 12.69 crore (85 *per cent*) against cost of pipes leading to inadmissible payment of ₹ 1.12 crore without commissioning of the schemes. Physical progress of the schemes was 30 *per cent* (Aita RPWSS) and 60 *per cent* (Purana Chaibasa RPWSS), as of September 2024.

Further, as per clause 51 of the contract, 10 *per cent* of the contract price was to be given as mobilization advance to the contractor for mobilization of resources. The mobilization advance was to be recovered within the stipulated date of completion from the interim payments made the contractor.

The Division had granted mobilisation advance of ₹ 9.40 crore (between June 2019 and July 2019) to the contractor without insisting on invoices or other documents in support of purchase of equipment or mobilisation of resources. As of September 2024, only ₹ 1.61 crore could be recovered within the stipulated date of completion (February 2022) with ₹ 7.79 crore pending recovery. The schemes were incomplete (September 2024) mainly due to non-deployment of required manpower and slow execution⁵⁸ by the contractor, delay in submission/approval of design and drawings of various components (up to September 2024), delay in providing (October 2023) site for water treatment plant (WTP) of Aita RPWSS and delay in getting no objection certificates (NOCs⁵⁹) for laying pipelines. It was further seen that the Division, other than issuing reminders, had not initiated any action against the contractor.

In reply, the Department stated (July 2025) that the EE concerned had been directed to recover the amount from the next running account bill of the contractor.

➤ The Department sanctioned (November 2021) 12 SVS clusters (total of 2,481 SVSs) at ₹ 214.05 crore in Chaibasa Division to cover 283 villages with 66,301 FHTCs. Thirty agreements were executed (February 2022 and May 2023) at ₹ 216.89 crore for completion of the works within nine months. As of September 2024, 2,303 out of 2,481 SVSs (in various clusters) were complete at a cost of ₹ 155.34 crore through which 56,719 FHTCs had been provided.

Scrutiny of three⁶⁰ agreements (executed between February and August 2022 for one cluster) valued at ₹ 19.98 crore, out of thirty agreements, revealed that

⁵⁸ The EE reminded (June 2020 to February 2024) the contractor regarding slow execution of components *viz.*, Intake Wells, Elevated Service Reservoirs, pipe laying and non-execution of works on some components/sites from last six to 12 months.

⁵⁹ NOCs from Railways and Road for laying pipelines and from Water Resources Department for constructing WTP of Aita RPWSS was pending as of September 2024.

⁶⁰ Cluster 11 A: 7 SBD/2021-22 for ₹ 7.21 crore, Cluster 11 B: 2 SBD/2021-22 for ₹ 7.48 crore and Cluster 11 C: 9 SBD/2022-23 for ₹ 5.29 crore of Chaibasa division sanctioned in November 2021.

no work had been executed against one agreement (Sub-cluster 11B having provision of 77 SVSs and 4,016 FHTCs), as of September 2024. In the remaining two agreements, models and numbers of SVSs sanctioned were changed during execution by the EE/SE, as shown in the **Table 2.4.2**.

Table 2.4.2: Details of models and number of SVSs changed during execution

Sub-cluster	Models of SVSs sanctioned and agreements were executed for				Models constructed		
	Model	Numbers	Storage capacity (in litre)	Maximum FHTCs to be provided	Numbers	Storage capacity created	FHTCs
11A	1 A with source	11	22,000	110	Nil	Nil	Nil
	1 B with source	39	1,95,000	780	53	2,65,000	1,060
	1 B without source	Nil	Nil	Nil	2	10,000	40
	Model 2 (with source)	31	2,48,000	1,240	Nil	Nil	Nil
	Sub total	81	4,65,000	2,130	55	2,75,000	1,100
11C	1 A with source	15	30,000	150	3	6,000	30
	1 A without source	1	2,000	10	Nil	Nil	Nil
	1 B with source	11	55,000	220	43	2,15,000	860
	1 B without source	5	25,000	100	12	60,000	240
	Model 2 (with source)	29	2,32,000	1,160	13	1,04,000	520
	Sub total	61	3,44,000	1,640	71	3,85,000	1,650
	Grand total	142	8,09,000	3,770	126	6,60,000	2,750

It can be seen from the **Table 2.4.2** that the sanctioned SVSs were to create storage capacity of 8.09 lakh litres to provide maximum of 3,770 FHTCs. However, due to change in Models and numbers of SVSs, storage capacity of only 6.60 lakh litres could be created which was only sufficient to provide a maximum of 2,750 FHTCs.

As the Models of SVSs had been sanctioned considering the number of uncovered HHs in a village/habitation, the changes adversely impacted the coverage of targeted HHs.

In reply, the Department stated (July 2025) that the SVS schemes were executed as per agreement but a few models had been changed as per site conditions to provide FHTCs to all beneficiaries.

The reply is not acceptable as the storage capacity created was lower as compared to that envisaged which would ultimately lead to less coverage of HHs.

➤ The Department sanctioned (2021-23) 132 SVSs (in 25 Groups) at ₹ 13.35 crore to provide 3,470 FHTCs in 25 villages of West Singhbhum district under Chaibasa Division. The Division executed (between February 2021 and May 2023) 25 agreements valued at ₹ 13 crore for the execution of these schemes. These SVSs were completed with 3,466 FHTCs and payment of ₹ 9.66 crore was made to the contractors, as of September 2024.

- Scrutiny of three⁶¹ out of 25 agreements revealed that 409 FHTCs had been provided from 17 SVSs against two agreements (14 and 21 F2). However, 166 FHTCs were provided from 10 SVSs of Model 1A and 1 B, which were designed for providing a maximum of 140 FHTCs. It was further seen that only 243 FHTCs were provided from seven SVSs of Model 2 though they were designed for providing up to 280 FHTCs. As such, FHTCs were provided to HHs without considering the capacity of SVSs which would impact the supply of the prescribed quantity of water to the beneficiaries, as shown in **Table 2.4.3**.

Table 2.4.3: Details of FHTCs provided to HHs from SVSs

Agreement No.	Model of SVSs	Nos. of SVSs constructed	Maximum FHTCs to be provided	FHTCs provided
14 F2/2023-24	Model 1A	3	30	31
	Model 1A	3	30	43
	Model 1B	1	20	25
21 F2/2023-24	Model 1B	3	60	67
	Sub total	10	140	166
14 F2/2023-24	Model 2	5	200	175
21 F2/2023-24	Model 2	2	80	68
	Sub total	7	280	243
	Grand total	17	420	409

- In one agreement (2 F2), six SVSs of Model 2 were constructed in four habitations⁶² that were different from the sanctioned habitations. Further, it was seen that one SVS of Model 1A was constructed at Buruborta Khas in place of the sanctioned two SVSs (one each of Model 1B and Model 2).
- In another agreement (14 F2), one SVS of Model 1A was constructed at Lowasai in place of the sanctioned SVS of Model 2.

Thus, due to deviation in the model or location of the SVSs, the targeted rural HHs could not be provided FHTCs as planned and sanctioned.

In reply, the Department stated (July 2025) that works had been done as per site conditions and to cover nearby habitations.

The reply is not acceptable as the approval of SLSCC was not obtained, as required, for changing the model or the location of the SVSs.

- The Khariodih RWSS scheme was initially sanctioned (June 2018) under the State Plan and the work was started (June 2019) at an agreed cost of ₹ 18.35 crore to be completed by June 2021. The work was later brought under JJM (June 2020) with sanction of ₹ 16.25 crore to provide 4,075 FHTCs in 16 villages of Jainagar Block of Koderma district under Jhumritilaiya Division. Due to slow progress of work, the contractor was debarred (April 2021) for six months by the CE, Central Design

⁶¹ Agreements Nos. 2, 14 and 21 F2/2022-23 executed in April and May 2023 at ₹ 2.56 crore.

⁶² Botanghatu-1, Hesapi-2, Tolasai-1 and Totang-2 in place of sanctioned Buruborta Khas, Ulipi, Mundasai, Sirkapi and Yodhattu.

Organisation (CDO), from participating in any bid of the Department. Despite this, the contractor did not expedite the work and his contract was finally rescinded in July 2024. Final measurement of work done was not carried out and penal action was not taken against the contractor, as of September 2024. The contractor had been paid ₹ 1.88 crore against executed work value of ₹ 1.98 crore (as of March 2024) with the physical progress of the work being 31 *per cent*⁶³. As such, the objective of the Scheme could not be achieved due to not initiating timely action against the contractor and commencement of execution of the balance work.

In reply, the Department stated (July 2025) that the contractor could not complete the work even after three years of the stipulated date of completion and hence the agreement was rescinded and the contractor blacklisted. It was further stated that the final measurement of work has now been taken, the estimate for the remaining work has been prepared and would be taken up on receiving administrative approval.

- Sanction for an amount of ₹ 214.41 crore was granted for the Koderma-Domchanch-Jainagar Mega RWSS scheme (January 2023) to provide 30,390 FHTCs under Jhumritilaiya Division. The work was started (March 2023) at an agreed cost of ₹ 217.91 crore and was to be completed by June 2025. During execution, an Elevated Service Reservoir (ESR) built by the contractor collapsed (June 2024). The SE, DWS Circle, Hazaribagh, reported (June 2024) that non-adherence to the approved drawing and design and not ensuring quality of the work were the reasons for collapse of the ESR. The contract was rescinded in July 2024. As of February 2024, the contractor had been paid ₹ 25 crore against the executed work value of ₹ 26.49 crore. The physical progress of the work was 16 *per cent*.

In reply, the Department stated (July 2025) that the final measurement of the work had been taken and estimate of the remaining work had been prepared. It was further stated that fresh tender for the balance work would be invited after getting administrative approval.

- The Katiya-Madhopur RWSS scheme had been taken up (March 2022) for providing 4,055 FHTCs under Jhumritilaiya Division at an agreed cost of ₹ 24.66 crore and was to be completed by March 2024. It was seen that the contractor was paid (till March 2024) ₹ 17.36 crore against the executed work value of ₹ 19.09 crore which included inadmissible payment of ₹ 1.94 crore (100 *per cent* of pipe work) for supply and laying of pipes without ensuring commissioning of the scheme as per conditions of the contract. Besides, liquidated damages of ₹ 2.47 crore had also not been recovered from the contractor for delay in execution of work. The work was incomplete, as of October 2024.

⁶³ Progress of WTP, Intake Well and three ESRs ranged between 10 and 65 *per cent*. Pipeline laid in 1.91 Km out of agreed 48.32 Km.

In reply, the Department stated (July 2025) that payments were done as per the schedule of payments.

The reply is not acceptable as 100 *per cent* payment was made against supply and laying of pipes though 15 *per cent* of the payment was to be released only after commissioning of the scheme. Further, applicable liquidated damages were not realised for delay in execution of works.

- The Ulihatu and adjoining village RPWSS scheme had been taken up (August 2022) under Khunti Division at an agreed cost of ₹ 15.45 crore and was to be completed by August 2024. As of August 2024, the work was incomplete with overall physical progress of 95 *per cent* and the contractor had been paid (till November 2023) ₹ 11.82 crore against the executed work value of ₹ 12.26 crore. The Division had not calculated the price adjustment⁶⁴ despite decrease in the cost of DI pipes during August 2023 to October 2023. As a result, ₹ 41.01 lakh (**Appendix 2.3**), as worked out by Audit, had not been adjusted on account of price variation.

In reply, the Department stated (July 2025) that the applicable amount of price adjustment was being calculated and would be recovered from the payment due to the contractor.

- The Pachra RPWSS had been taken up (July 2021) under Hazaribagh Division for providing 2,519 FHTCs in seven villages of Keredari Block at an agreed cost of ₹ 12.75 crore to be completed by July 2023. The scheme was complete (October 2024) and the contractor had been paid (till July 2024) ₹ 10.47 crore against the executed work value of ₹ 15.20 crore. The payment included excess payment of ₹ 94.75 lakh (**Appendix 2.4**) due to inter-change⁶⁵ in the quantity of two items in the approved BOQ, which was not corrected during finalisation of tender, while executing the agreement or while preparing the bill.

In reply, the Department assured (July 2025) that the excess payment would be recovered from the upcoming bills of the contractor.

- Two surface water based RPWSS had been taken up (October 2017) by Dhanbad I Division for providing house connections to 1,27,363 HHs of 439 villages of two blocks (Govindpur and Nirsa) of Dhanbad district at an agreed cost of ₹ 522.40 crore⁶⁶. The schemes were to be completed by July 2020. The physical progress of work was around 50 *per cent* after 19 months from the scheduled date of completion and contractors had been

⁶⁴ Clause 47.1 of SBD agreement provides that the contract price would be adjusted for increase or decrease in rates and price of materials.

⁶⁵ The estimated rate of MDPE pipe was ₹ 23 per meter while for GM ferrules, it was ₹ 497.31 each. Due to interchange in the items, the agreed rate for MDPE pipe was considered as ₹ 400 per meter and that for GM ferrules as ₹ 24 each.

⁶⁶ Govindpur Nirsa North: ₹ 334.95 crore and Govindpur Nirsa South: ₹ 187.45 crore.

paid ₹ 158.50 crore⁶⁷ (till October 2021). Thereafter, it was seen that the Department rescinded (March 2022) the agreements for both the schemes as the contractors had not adhered to the time schedule in execution of works.

For the balance work, two fresh agreements were executed (December 2023) at ₹ 644.75 crore⁶⁸ to complete the schemes by March 2026. However, as of September 2024, the works were yet to start. This was despite the fact that the contractor of one Scheme (Govindpur Nirsa North) had been provided mobilisation advance of ₹ 42.78 crore in January 2024.

In the intervening period, 292 SVSs (in 92 Groups) were taken up (between July 2022 and December 2022) under JJM at an agreed cost of ₹ 23.53 crore for providing 6,635 FHTCs in 92 villages, which were to be covered by the two RPWSSs that were incomplete. As of September 2024, 280 out of 292 SVSs were complete and the contractors were paid ₹ 17.02 crore. Thus, SVSs were sanctioned and constructed in those villages which were to be covered by the RPWSS. In addition, the delay in construction of the RPWSS led to cost overrun of ₹ 280.85 crore⁶⁹.

In reply, the Department stated (July 2025) that the works of the RPWSS was in progress and mobilisation advance was being recovered as required from every payment. It was further stated that cost overrun was due to increase in rates in the new Schedule of Rates (SoR) and the Bills of Quantity (BOQ) for the remaining works was approved on new SoR.

The reply is not convincing as the RPWSS has remained incomplete for more than five years since commencement in October 2017 as a consequence of which the SVSs had to be taken up.

- Porahat RPWSS (MVS) was taken up (February 2019) under Chakradharpur Division at an agreed cost of ₹ 58.82 crore and was to be completed by May 2021. The RPWSS was to cover one of the test-checked villages (Nawagaon) of Sonua Block. The Scheme remained incomplete, as of August 2024, despite expenditure of ₹ 57.92 crore as NOC could not be obtained from the Road Construction Department for pipe laying along the flank of a PWD road due to delay in submitting application and encroachment in some stretches.

Instead of resolving the issues of the RPWSS, 11 SVSs were taken up (April 2023) under JJM at an agreed cost of ₹ 77.60 lakh to provide 245 FHTCs in the village with a total of 284 HHs. Work of the SVSs were also in progress as of August 2024 after incurring an expenditure of ₹ 71 lakh. As per measurement books, 222 house connections had been provided from

⁶⁷ Govindpur Nirsa North: ₹ 105.64 crore and Govindpur Nirsa South: ₹ 52.86 crore.

⁶⁸ Govindpur Nirsa North: ₹ 427.79 crore and Govindpur Nirsa South: ₹ 216.96 crore.

⁶⁹ Additional contract cost of ₹ 122.35 crore over the original contract plus paid amount of ₹ 158.50 crore.

10 SVSs having storage capacity of 32,000 litres though these SVSs were designed for providing up to 140 connections based on their storage capacity. The remaining one SVS was found incomplete (September 2024) during joint physical verification as the bore-well of the SVS did not yield water. However, 40 house connections were found to have been given from this SVS.

In reply, the Department stated (July 2025) that in the initial survey of the Scheme, Nawagaon village was not in the scope of MVS and hence SVSs were taken up to cover the village. It was further stated that the bore of one mentioned SVS was providing water discharge initially and hence FHTCs had been provided. But in due course the borewell was unable to provide sufficient discharge.

The reply is not acceptable as the MVS included provision of FHTCs to all 284 HHs of Nawagaon village. Further, the Department did not create new source of water for SVS with the dry borewell to ensure water supply to the connected 40 HHs.

- The Department sanctioned (January 2022) nine SVSs⁷⁰ to provide 119 FHTCs in seven habitations of a test-checked village (Raghui) of West Singhbhum District under Chakradharpur Division. The work was taken up in August 2022 and completed in May 2023 at a cost of ₹ 30.44 lakh. However, during execution, the scope of nine SVSs was revised (October 2022) by the SE to four SVSs⁷¹ to provide 149 FHTCs. It was further seen that no SVS was given in two (Lohar Tola and Raghui) habitations of the village, though three SVSs had been sanctioned by the Department for these habitations. Two habitations (Bich Tola and Gope Tola), for which no SVS was sanctioned, were also found to have been included without the approval of the SLSSC.

Further, 45 FHTCs were provided from one SVSs of Model 2, which was designed for providing up to 40 connections and 24 FHTCs was provided from one SVS of Model 1B, which was designed to provide up to 20 FHTCs.

Thus, the location of the SVSs were changed without proper approval and FHTCs were provided in excess of the capacity of the SVSs which would lead to insufficient or no supply of water to the targeted beneficiaries.

In reply, the Department stated (July 2025) that the planning of schemes was revised considering topography of the village and full coverage to all habitations. The reply was silent on provision of FHTCs in excess of the designed capacity of the SVSs.

⁷⁰ Three SVSs of Model 1B with storage capacity of 5,000 litres each and six SVSs of Model 1A with storage capacity of 2,000 litres each.

⁷¹ Three SVSs of Model 2 with storage capacity of 8,000 litres each and one SVS of Model 1B.

The reply is not acceptable as not only was the scope of work revised by the SE during execution but the location of the SVSs were also changed and FHTCs in excess of the capacity were provided without the approval of the SLSSC.

- The Department sanctioned (December 2021) 11 SVSs under Cluster 7B in the test-checked Bamraja village of Khunti district. The work was taken up in May 2023. During execution the number of SVSs was changed to seven. As per measurement books, ₹ 46.98 lakh had been paid to the contractor against execution of five out of the seven SVSs. However, on the JJM Portal, an expenditure of ₹ 75.59 lakh was reported against 11 SVSs. As such, reporting of expenditure and number of SVSs did not match the basic records and hence data uploaded on the JJM Portal was not reliable.

In reply, the Department stated (July 2025) that the same will be corrected in the JJM Portal.

- The Kanti RPWSS, completed in October 2021 at a cost of ₹ 4.84 crore under Khunti Division, provided 673 FHTCs in nine villages including 173 FHTCs in a test-checked village (Kanti). The village was also certified (August 2022) as HGJ certified village by the *Gram Sabha*. However, it was noticed that two SVSs were taken up (in April 2023) in the same village. As of September 2024, construction of these SVSs was completed at a cost of ₹ 17.78 lakh and 15 FHTCs had been provided from one out of the two SVSs. As such, the SVSs were constructed in a village which was already certified as having full coverage with surface water based MVS.

In reply, the Department stated (July 2025) that the Detailed Project Report (DPR) of the MVS was prepared on the basis of population of the year 2013 and the MVS was commissioned in the year 2021. Population/HHs of the village increased between 2013 and 2021 and to cover them two SVSs had been constructed.

The reply is not acceptable as the DPR of the MVS was prepared and sanctioned to cover the projected population of the targeted villages till the year 2045. Further, the *Gram Sabha* concerned had certified (August 2022) the village as fully covered on the basis of reports (August 2022) of the Division itself.

- The Department sanctioned (November 2023) ₹ 463.63 crore for construction of 43,510 Deep Tube Wells (DTWs -10 per *Panchayat*) in the State to resolve scarcity of drinking water in villages, especially during the summer season. The sanction included 1,050 DTWs in Koderma district at a cost of ₹ 10.95 crore. To execute the work, 15 agreements valued at ₹ 10.42 crore were executed (February and March 2024) by the Jhumritilaiya Division with the stipulated date of completion between May and September 2024. As of September 2024, 907 DTWs had been constructed in different

villages of Koderma district, which included 38 DTWs in 16 HGJ reported villages including 10 HGJ certified villages. This indicates that HGJ reported/certified villages were also facing scarcity of water despite coverage under JJM.

- Khutta-Nawadih RWSS was taken up (January 2023) under the Jhumritilaiya Division for providing 4,160 FHTCs at an agreed cost of ₹ 26.15 crore. Though the scheme was to be completed by July 2024, the physical progress of the work was 54 *per cent* as of November 2024 with payment of ₹ 9.39 crore (till March 2024) to the contractor including mobilisation advance of ₹ 2.50 crore. Despite delay in the execution of work, the Division did not recover LD of ₹ 2.61 crore from the contractor. Further, mobilization advance of ₹ 1.98 crore along with applicable interest was not recovered within the original stipulated date of completion.

In reply, the Department stated (July 2025) that no payments were made after the stipulated date of completion and that audit instructions would be followed in future.

Thus, undue financial aid of ₹ 27.13 crore was extended to the contractors in the form of inadmissible payment (₹ 8.17 crore), payment for unauthorised variation (₹ 2.75 crore) in executed work quantities, non-recovery of liquidated damages (₹ 5.08 crore), excess payment (₹ 94.75 lakh), non-adjustment of price variation (₹ 41.01 lakh) and non-recovery of mobilisation advance (₹ 9.77 crore), besides cost overrun of ₹ 280.85 crore.

2.4.5 Third party inspections

JJM guidelines stipulated empanelment of a Third Party Inspection Agency (TPIA) by the SWSM to check the quality of work executed under the Scheme. TPIA inspection and certification of all works was mandatory before releasing any payment to the contractors.

The Department engaged four⁷² TPIAs in the State only in July 2022 *i.e.*, almost three years after the launch of JJM. Prior to engagement of TPIAs, expenditure of ₹ 1,578.25 crore was incurred (till March 2022) on the scheme works executed in the State. This included payment of ₹ 479.32 crore made by the nine test-checked divisions for works executed under the supervision and certification of the divisional engineers. The test-checked divisions executed five agreements (July and September 2022) with the four selected TPIAs. Audit scrutiny of records related to TPIAs revealed the following:

- In eight works in two test-checked divisions involving an expenditure of ₹ 64.86 crore, TPIAs observed (August to November 2023) that inferior quality of steel and pipes were used in the works, structural work was inferior,

⁷² (1) WAPCOS Ltd. (2) SGS India Pvt. Ltd. (3) Mars Planning and Engineering Service Pvt. Ltd. and (4) TUV SUD South Asia Pvt. Ltd.

reinforcement had not been done as per the approved design and drawing, sub-standard material were used, shuttering done was improper, concrete mix was unsatisfactory etc. (**Appendix 2.5**). However, action taken reports, if any, were not found available on record. Of these, in six works of Khunti Division, TPIAs recommended review of six Running Account (RA) bills, but the Division paid ₹ 13.20 crore against these bills without ensuring correction of defects as pointed out by the TPIA.

- The TPIAs of two test-checked divisions (Chaibasa and Chakradharpur) did not submit their reports regarding deployment of manpower⁷³, monthly progress report of ongoing works, site inspection report and reports regarding delay in execution of schemes as required under the contract. The divisions also did not take action to obtain the required reports and released payment (March 2023) of ₹ 6.21 lakh⁷⁴ for certifying the bills related to 54 agreements (September 2024).

Thus, mandatory certification and inspection of all works taken up under JJM by TPIAs was not ensured before making payments for the works. In addition, TPIAs did not fulfill their contractual obligation in two out of the six test-checked districts.

On being pointed out in Audit, the Department stated (July 2025) that action had been taken against faulty TPIAs and quality inspection was ensured wherever complaints were found. It was further stated that necessary action had been taken on the observations of TPIAs.

The reply is not convincing as no documentary evidence regarding action taken on the observations of TPIAs was furnished to Audit.

Recommendation 3: The Department may ensure mandatory third party inspection of all projects. Action may also be taken on adverse observations of TPIAs before release of any payment to contractors.

2.4.6 Operation and maintenance

As per JJM guidelines, the SWSM had to develop an operation and maintenance (O&M) strategy to meet recurring costs like electricity charges, cost of chemicals, expenditure on preventive/breakdown maintenance and remuneration of pump operators, and decide monthly tariff/user charges for ensuring financial sustainability of the water supply systems. The guidelines also emphasised promoting and ensuring voluntary ownership among the local community by way of contribution in cash, kind and/or labour to assist in ensuring the sustainability of the system.

⁷³ TPIA was to deploy one Senior Quality Control (QC) Engineer, one QC Engineer (Mechanical/Electrical) and four QC Engineers (Civil) in each division and a Team Leader and an Environment Engineer at Zone (Chaibasa).

⁷⁴ Chaibasa: ₹ 3.49 lakh and Chakradharpur: ₹ 2.72 lakh.

Audit noticed that:

- Prior⁷⁵ to JJM, the Department had issued (September 2013) instructions for O&M of MVSSs, by forming multi panchayat/village water and sanitation committees (VWSCs) to collect connection fee (minimum ₹ 310 per connection) and user fee as decided by the VWSCs. The collected amount was to be kept in a bank account to meet the O&M expenses viz., electricity charges, remuneration to pump operators, cost of chemicals and repair work. However, no such committee was formed in eight⁷⁶ out of the 26 test-checked villages, where FHTCs were provided through MVSSs, nor user fee rates fixed.
- The SLSSC discussed (June 2020) the issue of community contribution in its meeting and decided to submit a proposal to the State Cabinet. Pending this, community contribution was not made mandatory. However, the Department had not submitted any proposal to the SWSM or to the State Cabinet (as of November 2024). Hence, voluntary contribution from the village community was not realised in any of the test-checked divisions.
- To meet the financial burden of O&M of the completed projects, the SLSSC decided (June 2020) to study the system of O&M in other States. The SLSSC also advised (March 2023) the Department to frame O&M policy for the State. However, action taken in this regard was not found on record (as of November 2024). The Department instructed (February 2024) all EEs to ensure collection of water/user fee of ₹ 62 per month from all beneficiaries for meeting the O&M expenses. The test-checked divisions, however, did not have information regarding collection of user fees by the VWSCs. The VWSCs of the test-checked villages also did not furnish their bank account or details of user fee collected, if any to Audit.
- In three test-checked agreements of two divisions, the rates⁷⁷ quoted for O&M for five years by the contractor for two SVS clusters were 69 to 100 *per cent* (₹ one per annum only) while that of the MVSS was 51 *per cent* below the estimated/tendered cost. However, the Departmental Tender Committee (DTC) did not ask for rate justification during finalisation of the tenders to ensure proper O&M of the completed schemes as provided under clause 29⁷⁸ of the SBD. Absence of O&M of the completed schemes was

⁷⁵ Under JJM, all contracts included the provision of O&M for five years by the contractors, after completion of the scheme. Thereafter, the scheme was to be handed over to the VWSC.

⁷⁶ Dhanbad: Bandachuan and Baliyapur of Baliyapur block and Kumrdih of Baghmara block, Koderma: Bishnutikar of Koderma block and Chauri of Domchanch block; West Singhbhum: Kursi and Gaisutti of Chaibasa block, Khunti: Kanti of Karra block.

⁷⁷ Khunti: (i) Cluster 7B- agreed cost was ₹ 12.90 lakh against estimated cost of ₹ 41.22 lakh, (ii) Tapkara and Adjoining villages water supply scheme- agreed cost of ₹ 54.86 lakh against estimated cost of ₹ 110.93 lakh and (iii) Koderma: Cluster 4 – agreed cost of ₹ one per SVS per year against total estimated cost of ₹ 15.74 lakh for five years.

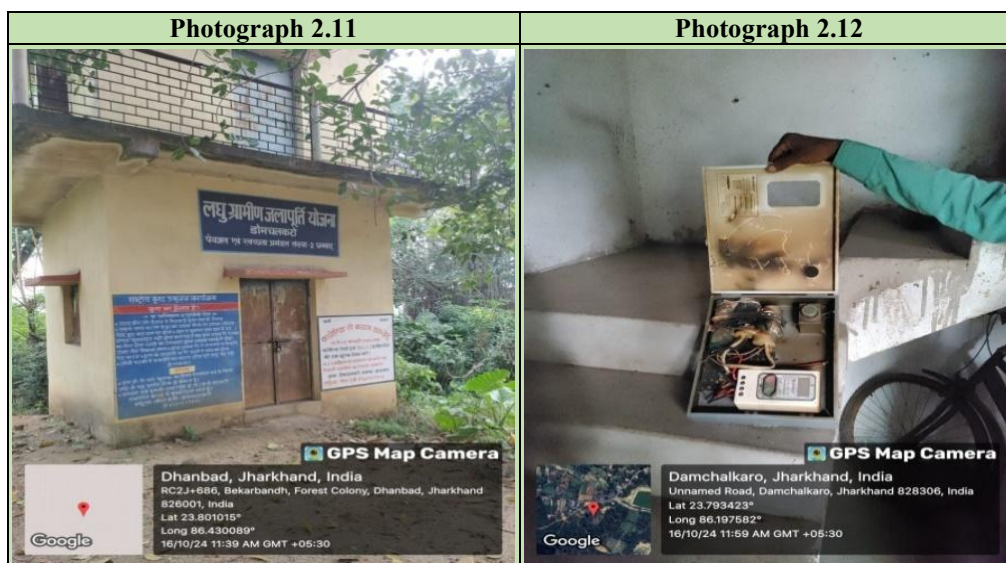
⁷⁸ Under clause 29.5 (Instructions to Bidders), the employer may require the bidder to produce detailed price analysis to demonstrate the internal consistency of the prices with the construction methods and schedule proposed, if the bid of a successful bidder is seriously unbalanced in relation to the estimated cost of the work. Clause 29.6 stipulates that, a bid which contains several items in the BOQ and are unrealistically priced low which cannot be substantiated satisfactorily by the bidder, may be rejected as non-responsive.

noticed during field visit and beneficiary survey as discussed in the following paragraphs.

- During field visit of Kursi and Gaisuti villages⁷⁹ of West Singhbhum district, the distribution pipe of an MVS (Kursi RPWSC) laid across a road was found damaged, disrupting supply of water to 12 HHs. Besides, the delivery pipeline of the MVS was also found lying in a field without any tap connected to it though the Scheme was under O&M period (**Photographs 2.9 and 2.10**).



- In Domchalkaro village⁸⁰ in Dhanbad, a mini rural water supply scheme was found non-functional due to lack of O&M viz., non-repair/replacement of burnt out electrical switch and motor pump (**Photographs 2.11 and 2.12**). Beneficiaries stated (October 2024) that water has not been supplied from the Scheme since the last two years and they were facing acute shortage of drinking water.



⁷⁹ Panchayat: Kursi, Block: Chaibasa and District: West Singhbhum.

⁸⁰ A certified village in Panchayat: Matigarha, Block: Baghmara and District: Dhanbad having 74 households.

- Two, out of 18 beneficiaries of Kanti⁸¹ village (a certified village with 173 HHs) of Khunti, stated (October 2024) that water was not being supplied through FHTCs of an MVS since its installation (April 2022). Further, all 18 beneficiaries and the *Jal Sahiya* of the concerned VWSC stated that there was no water supply since the last three months as the transformer at the intake well had burnt out. However, nothing was found on record regarding reporting of the burnt out transformer to the Division by the contractor or action for its repair despite the fact that the Scheme was under O&M period.

In reply, the Department stated (July 2025) that an O&M policy had been drafted on 19 parameters as per the direction of GoI and had been approved (May 2025) by the Cabinet.

Recommendation 4: The Department may ensure effective implementation of O&M policy for water supply projects and participation of the village community.

2.5 Water quality monitoring and surveillance

2.5.1 Water quality testing laboratories

JJM Guidelines stipulate accreditation of all water quality testing laboratories by the National Accreditation Board for Testing and Calibration Laboratories (NABL), especially for important testing parameters. It also stipulated testing of water against at least 13 basic water quality (11 chemical and two bacteriological) parameters⁸². The Drinking Water Quality Monitoring and Surveillance Framework⁸³ (DWQM&SF) envisaged NABL accreditation for 17 parameters for State and district laboratories.

As of September 2024, there were 31 laboratories (One State, 24 district and six sub-divisional) in Jharkhand. Audit observed that the State Laboratory had NABL accreditation for 17 parameters, including the 13 basic parameters required under JJM, while other laboratories had accreditation for only seven to 14 parameters. Scrutiny of records of the district laboratories in the six test-checked districts revealed the following:

- The test-checked laboratories had NABL accreditation for testing facilities of seven to 14 parameters but accreditation for five to eight basic parameters could not be obtained due to non-deployment of required manpower and non-availability of equipment. Four out of the six test-checked district laboratories had obtained NABL accreditation (between August 2022 and January 2023) after 36 to 41 months of launch (August 2019) of JJM (**Appendix 2.6**).

⁸¹ Panchayat: Larta, Block: Karra and District: Khunti.

⁸² (1) PH value (2) Total dissolved solids (3) Turbidity (4) Chloride (5) Total alkalinity (6) Total hardness (7) Sulphate (8) Iron (9) Total arsenic (10) Fluoride (11) Nitrate (12) Total coliform bacteria and (13) E-coli or Thermo tolerant coliform bacteria.

⁸³ The framework issued in October 2021 aims to facilitate water quality testing, monitoring and surveillance activities as envisaged under JJM.

- The Drinking Water Quality Monitoring and Surveillance Framework (DWQM&SF) recommended a staff strength of eight⁸⁴ in a district level laboratory. Against this, only three to seven staff were deployed during 2019-24 in the test-checked laboratories. The shortage was mainly of Micro-biologists/ Bacteriologists and Lab Attendants, which had an adverse impact on bacteriological tests and proper maintenance of the records of tests. It was also noticed that only two (Hazaribagh and East Singhbhum) out of the six test-checked district laboratories had accreditation for conducting bacteriological tests.
- The DWQM&SF suggested 35 types of instruments/equipment for a district laboratory. Against this, the test-checked district laboratories⁸⁵ had only eight (23 *per cent*) to 16 (46 *per cent*) types of equipment in place. Spectrophotometer, required for iron tests, was found out of order in Jamshedpur and Chaibasa laboratories since 2017 and 2021 respectively.
- The District Laboratory, Dhanbad, obtained NABL accreditation (March 2020) on only seven parameters and did not have the facility to test eight basic quality parameters as prescribed under JJM. It was also seen that the laboratory had obtained fresh accreditation in October 2022 on the same seven parameters.
- The District Laboratory, Chaibasa, collected (between March and August 2023) 3,648 samples but could not conduct quality test for TDS (576 samples) and Fluoride (296 samples) due to shortage of chemicals and consumables, despite having testing facility.
- The District Laboratory, Hazaribagh, did not conduct fluoride tests due to non-availability of required chemicals and reagents though 55 habitations of 21 villages of the District were fluoride affected.

Thus, district laboratories of the test-checked districts did not have adequate facilities/manpower for testing against the 13 parameters as prescribed in JJM guidelines and as such, supply of water of the prescribed quality could not be ensured.

In reply, the Department stated (July 2025) that the test-checked district laboratories had NABL accreditation on 11 to 12 chemical parameters. Three laboratories (Jamshedpur, Hazaribagh and Dhanbad) had accreditation on two bacteriological parameters too. It had been planned to enhance the capability of all laboratories of the State to test on 17 parameters (15 chemical and two bacteriological) with deployment of required manpower in FY 2025-26. During the exit conference (June 2025), the Department stated that it is working to upgrade the district level laboratories and chemicals, manpower and equipment will be supplied to them.

⁸⁴ Chemist/Water Analyst: one, Microbiologist/Bacteriologist: one, Laboratory Assistant-two, Data Entry Operator: one, Lab Attendant: one and Field Assistant: two.

⁸⁵ Chaibasa: 12, Dhanbad: 16, Jamshedpur: 16, Hazaribagh: 15, Khunti: 15 and Koderma: 8.

Recommendation 5: The Department may take steps to ensure that NABL accreditation is obtained for testing at least 13 basic quality parameters, as required in JJM.

2.5.2 Availability of chemicals

The Uniform Drinking Water Quality Monitoring Protocol (UDWQMP) recommended availability of 67 types of chemicals in a district laboratory for testing water quality on at least 13 parameters as envisaged in JJM Guidelines. The laboratories were to have at least three months back-up of these chemicals.

Audit observed that the PMU had purchased chemicals centrally and supplied them to the field laboratories. The details of centralised purchase and its distribution to the field laboratories was not provided to Audit by the PMU. Scrutiny of records of the test-checked laboratories revealed that:

- PMU had supplied chemicals to the test-checked district laboratories only in two years (2018-19 and 2021-22) during 2019-24. No chemicals were supplied to them after 2021-22 though demand was placed periodically (between May 2023 and February 2025) by the test-checked laboratories⁸⁶. During audit (September to November 2024), only four and 15 types of chemicals were found available in Hazaribagh and Khunti district laboratories respectively.
- The Spectrophotometer, an equipment used to test iron content in water, was out of order in the test-checked District Laboratory, Chaibasa, since 2021. It was, however, seen that a chemical (Iron Standard Solution) used in the Spectrophotometer for iron testing was supplied to the laboratory in 2021-22 and had expired in February 2025 without being used. It was further seen that the same chemical was not available with the District Laboratory, Hazaribagh, which had a functional Spectrophotometer. As a result, iron tests were not being conducted at Hazaribagh.
- Five types of chemicals⁸⁷ were supplied to the District Laboratory, Chaibasa, during 2021-22 without requirement and ultimately two types of chemicals⁸⁸ had expired in February 2023 and August 2023, without being used.
- The District Laboratory, Hazaribagh, did not have stock of chemicals as of September 2024 for testing on all 12 parameters, for which they had NABL accreditation. Audit further noticed that the expiry date of 52 out of the 62 chemicals (supplied to the laboratory in November 2018) was between November 2019 and August 2024. The laboratory had submitted (between June 2023 and March 2024) demand to PMU but no chemicals were supplied.

⁸⁶ Chaibasa: June and November 2023; Dhanbad: February 2024, December 2024 and February 2025; East Singhbhum: June 2022 and May 2023.

⁸⁷ Concentrate of Glacial Acetic Acid, Phenanthroline (GR 1,10), Sodium Acetate Solution, Nitrate Standard Solution and Ammonium Acetate AR.

⁸⁸ Nitrate Standard Solution in February 2023 and Sodium Acetate Solution in August 2023

As a result, the laboratory had conducted quality tests only on two parameters (pH value and colour) in October 2024.

Thus, the test-checked district laboratories did not have the required chemicals as recommended in UDWQMP. In addition, the mandatory backup stock of the chemicals was not ensured. Absence of required chemicals in the district laboratories had adversely impacted the quality testing of water.

In reply, the Department stated (July 2025) that procurement of chemicals, glassware and apparatus required for water quality testing on 17 parameters, were under process. After procurement, all laboratories would have sufficient chemicals and other required materials on regular basis.

2.5.3 Water quality tests

JJM Guidelines recommends that district laboratories test 250 water sources/samples per month, randomly covering all sources spread geographically, including the positive tested samples referred by lower-level laboratories. All laboratories were to maintain proper records of sampling and analysis.

It was seen that the State Government had fixed targets of testing (300 to 600 samples per month) for district laboratories during 2019-24. Five out of the six test-checked district laboratories had achieved the targets of testing except the district laboratory at Dhanbad, where only 25,080 (87 *per cent*) tests were conducted against the target of 28,800 tests.

Audit analysis of data of six months (March 2023 to August 2023) recorded in the quality test register maintained by the District Laboratory, Chaibasa, revealed that against entries of 3,648 samples, details of source (name of scheme/habitation/village/block) in respect of 475 samples, the time/date of sample collection in respect of 381 samples and time of testing of any sample had not been recorded in the register. As such, the test-checked district laboratories did not maintain proper records of testing to analyse the details of chemical or biological tests, village/habitation covered in sample collection, turnaround time of testing *etc.*

Details of villages covered under water quality tests by the test-checked district laboratories, as uploaded in the JJM Portal, is shown in **Table 2.5.1**.

Table 2.5.1: Total villages in the test-checked districts vis-à-vis villages where quality tests were conducted

Name of district/Year	2021-22		2022-23		2023-24	
	No. of villages		No. of villages		No. of villages	
	Total	Where tests conducted	Total	Where tests conducted	Total	Where tests conducted
Dhanbad	1,156	562	1,137	1,038	1,137	1,136
Hazaribagh	1,205	1,111	1,186	1,184	1,186	1,184
Koderma	583	519	574	568	574	574
Khunti	760	447	755	721	755	745
East Singhbhum	1,678	781	1,640	1,502	1,640	1,632
West Singhbhum	1,661	710	1,648	1,608	1,648	1,468
Total	7,043	4,130 (59)	6,940	6,621 (95)	6,940	6,739 (97)

(Source: JJM Portal)

It can be seen from **Table 2.5.1** that the coverage of villages with respect to quality tests had improved over the years. Audit findings, in this regard, are discussed below:

- JJM Portal did not have data of bacteriological tests conducted during 2019-21. During 2022-24, bacteriological tests were conducted only in two *per cent* (570), 23 *per cent* (6,761) and 34 *per cent* (9,930) villages respectively.
- During 2022-24, five out of the six test-checked district laboratories (except Chaibasa) reported 37,928 bacteriological tests on the JJM Portal. However, Audit noticed that none of the five laboratories had Microbiologists/ Bacteriologists during this period and three of these laboratories (except East Singhbhum and Hazaribagh) did not have NABL accreditation for bacteriological tests.
- The DWQM&SF emphasized that timely availability of test results is the key for expeditious and comprehensive management of contaminated water sources. It recommended that the turnaround time⁸⁹ for testing the chemical parameters should not exceed 24 hours, whereas for testing biological parameters, it should not exceed 48 hours.

The test-checked district laboratories did not maintain proper records showing date and time of collection of samples and their testing to analyse turnaround time. However, as reported in the JJM Portal, the turnaround time in the State ranged between six and 42 days while it ranged between 12 and 33 days in the test-checked district laboratories.

Thus, the test-checked district laboratories did not have required specialists and NABL accreditation to substantiate the bacteriological tests reported on the JJM Portal. Besides, they did not maintain proper records of test data to enable verification of the achievements reported on the JJM Portal.

⁸⁹ Period from when the sample(s) are received at the laboratory to the time when the reports are finalised.

In reply, the Department stated (July 2025) that earlier H2S vials were used (by *Jal Sahiya* or any lab person) for bacteriological test and the test reports were entered on JJM Portal. Option for entering reports of bacteriological tests conducted using H2S vials has been disabled by the Government of India, resulting in fewer bacteriological tests being reported. In FY 2025-26, NABL accreditation on bacteriological parameters would be obtained for all the district laboratories and tender had been floated to procure equipment and hire Microbiologists/Chemists. It was further stated that turnaround time was high as data from August 2022 (when data was not being entered regularly) onwards was taken for calculation of turnaround time and that directions has now been issued to all laboratories to reduce the turnaround time by entering test results within 24 hours. In the exit conference (June 2025), the Department stated that proper training and mobile phones have been provided to *Jal Sahiyas* to conduct frequent water quality tests and timely entry of data to reduce the turnaround time.

The reply is not convincing as only two to 23 *per cent* of villages had been covered under bacteriological tests during 2021-23. Further, during verification (July 2025) of 39 samples tested (in June and July 2025) in four⁹⁰ test-checked laboratories, it was noticed that 31 samples were analysed within two days and eight samples within three days. However, in respect of 35 out of 39 samples, an additional four to 19 days was taken from the date of analysis for generating reports and uploading on the JJM Portal. As such, data entry had not improved and delays in report generation and entry on JJM Portal had increased the turnaround time by six to 19 days in respect of 35 test-checked samples.

2.5.4 Field Test Kits

As per DWQM&SF, multi-parameter Field Test Kits (FTKs) were to be used for examination of physico-chemical contamination for initial screening at the village level. Samples that tested positive were to be referred to a nearby water testing laboratory for confirmation. All drinking water sources including private sources were to be tested for water quality at the village level using FTKs. Further, one FTK had the capacity to carry out 100 tests.

Audit scrutiny revealed the following.

- The Department had directed (February 2023) the divisions to conduct water quality tests of 16 sources every month with FTKs. Accordingly, 192 sources were required to be tested every year for which at least two FTKs were required for each village. However, the Department did not procure sufficient FTKs for distribution among the divisions. Details of distribution of FTKs to *Jal Sahiya*/VWSCs by the test-checked divisions, is shown in **Table 2.5.2**.

⁹⁰ Chaibasa, Dhanbad, Jamshedpur and Khunti.

Table 2.5.2: Year wise availability of FTKs

District	Nos. of villages as on 1 April 2022	No. of FTK kits distributed to VWSCs/Jal sahiyas (percentage in bracket)		
		2021-22	2022-23	2023-24
Dhanbad	1,156	NA	NA	537 (46)
Hazaribagh	1,205	308 (26)	898 (75)	1,204 (100)
Koderma	583	140 (24)	435 (75)	545 (93)
Khunti	760	21 (3)	154 (20)	760 (100)
East Singhbhum	1,678	280 (17)	330 (20)	1,640 (98)
West Singhbhum	1,661	324 (20)	1,339 (81)	1,661 (100)
Total	7,043	1,073 (15)	3,156 (45)	6,347 (90)

(Source: Compiled from information furnished by the Department)

It can be seen from **Table 2.5.2** that only 15 to 45 *per cent* of the villages had been provided FTKs during 2021-23. During 2023-24, FTKs were distributed to 90 *per cent* of villages. However, the distributed FTKs were not sufficient to conduct the prescribed number of monthly tests in all the villages.

The test-checked district laboratories or VWSCs of the test-checked villages did not compile the data of FTK testing. However, as per JJM Portal, tests of total 2,58,706 samples, covering 194 (three *per cent*) villages in 2021-22, 2,099 (30 *per cent*) villages in 2022-23 and 6,388 (91 *per cent*) villages in 2023-24, had been conducted through FTKs in the test-checked districts during 2021-24.

- It was seen from the JJM Portal that out of 2,58,706 samples tested using FTKs, 1,065 samples were found contaminated. However, of these, only 128 samples were re-tested in the district laboratories. Reasons for not conducting re-test of all the contaminated samples were not found on record.
- Scrutiny of stock register of FTKs in Dhanbad II Division revealed that the Division had received a total of 707 FTKs between June and August 2023. However, only 537 FTKs were distributed to VWSCs, as of 17 October 2024. The remaining 170 FTKs were found lying in the Division office (**Photographs 2.13** and **2.14**). Additionally, 288 expired (August 2024) FTKs were also found lying in the Division office (**Photographs 2.15** and **2.16**).



Audit further noticed instances of distribution of FTKs by divisions to VWSCs without imparting proper training to *Jal Sahiyas* to use the FTKs for water quality test.

During the beneficiary survey (October 2024) at Domchalkaro village⁹¹ of Dhanbad district, the *Jal Sahiya* stated that FTKs were provided by the Division just 10 days earlier without imparting any training for using them. The *Jal Sahiya* of Bamraja village⁹² of Khunti district also accepted (September 2024) that she was unable to conduct tests with FTKs as no training was given.

However, tests of 19 samples during 2024-25 (as of December 2024) in Domchalkaro village and tests of 35 samples in Bamaraja village through FTKs had been reported on the JJM Portal.

⁹¹ Panchayat: Matigarha, Block: Baghmara and District: Dhanbad.

⁹² Panchayat: Bamaraja, Block: Karra and District: Khunti.

Thus, the *Jal Sahiyas* were unable to conduct the required tests as the FTKs were distributed without imparting proper training.

In reply, the Department stated (July 2025) that work order has been issued for procurement of FTKs and would be distributed (to field units) in time. In the exit conference (June 2025), the Department assured that sufficient FTKs would be procured and distributed along with training to *Jal Sahiyas* for conducting frequent and proper water quality tests.

Recommendation 6: The Department may ensure procurement and distribution of sufficient chemicals and FTKs to field units in time, and training to Jal Sahiyas for timely testing of all water sources.

2.5.5 Sanitary inspection

As per JJM Guidelines, an on-site inspection of a water supply facility, called sanitary inspection, was to be done by the *Gram Panchayat* to identify actual and potential sources of microbiological contamination. This information was to be used for deciding appropriate remedial action.

Audit observed that the test-checked divisions had not maintained proper data of year-wise sanitary inspections carried out. The data of sanitary inspection carried out during 2019-21 was also not available on the JJM Portal. It was reported that, during 2021-23, sanitary inspections was not carried out in any of the test-checked districts (except of one source in Hazaribagh district) on 27,872 water sources. During 2023-24, sanitary inspections of 66 *per cent* of sources (18,524 out of 27,872) was reported to have been carried out.

The test-checked Khunti Division reported (May 2024) to the PMU that sanitary inspection of 1,179 sources had been conducted between 10 May 2024 and 28 May 2024. However, the reports of sanitary inspections were not furnished to Audit either by the Division or by the District Co-ordinator, MIS, who was responsible for feeding the data in the JJM Portal.

Thus, sanitary inspection of all water sources were not carried out to identify potential sources of microbiological contamination.

In reply, the Department stated (July 2025) that sanitary inspections had been carried out in all districts and that data is kept in the district laboratories.

The reply is not acceptable as the JJM Portal did not reflect any sanitary inspection in the test-checked districts during 2021-23 and the test-checked district laboratories did not furnish any data to Audit.

2.6 Monitoring and evaluation

2.6.1 Integrated Management Information System

JJM guidelines stipulate creation of an Integrated Management Information System (IMIS) to monitor activities like planning, sanction, financial management, physical achievement, water quality and support activities. A dedicated JJM Portal (JJM Dashboard) was developed by GoI on which data/information was to be uploaded by the DWS divisions.

Audit noticed that:

- A Project Manager and five District Coordinators (ISA, IEC, Capacity Building, MIS and Water Quality), based on the size of the district and quantum of work, were to be engaged in each district to support the DWSMs in implementation of JJM.

Audit noticed that against the above requirement, the PMU sanctioned (April 2022) only two posts of District Coordinators (IEC and MIS) and one post of District Water Coordinator in each division. In the six test-checked districts having nine divisions, only 18 District Coordinators (IEC and MIS) were deployed against the prescribed 30 District Coordinators and six Project Managers. These Coordinators and Project Managers were responsible for supporting the DWSMs in organising related activities and feeding data/information in the JJM Portal. However, these District Coordinators had not maintained proper records of data/information being uploaded by them on the JJM Portal. As per monthly progress reports of the six test-checked districts, 6,26,793 FHTCs were provided, as of September 2024, whereas, it was 8,30,995 FHTCs as per the JJM Portal. As such, there was over-reporting of 2,04,202 FHTCs on the JJM Portal which was not supported by the progress reports of the divisions.

In reply, the Department stated (July 2025) that all divisions had been directed to keep the records of data being uploaded on JJM portal.

Recommendation 7: The Department may ensure maintenance of proper records in support of data uploaded on the JJM Portal.

2.6.2 Jhar Jal IMIS

JJM Guidelines stipulate the use of sensor-based Internet of Things (IoT) by utilizing mobile networks for capturing real-time data without any manual intervention. This data would then be used for analysis and decision making in the implementation of JJM. The guidelines also suggested installation of Supervisory Control and Data Access⁹³ (SCADA) system in MVs to monitor water pressure, water quality, flow rate, etc.

Audit noticed that the State had an online information and monitoring system linked with the *Jhar Jal* Portal for efficient monitoring of assets created and various field activities like functioning of assets, water supply, grievance redressal, IEC activities, inspection of assets etc. Sensor based Remote Management System (RMS) installed in solar-based SVs were also linked with the *Jhar Jal* portal. Analysis of data of the *Jhar Jal* Portal revealed the following:

⁹³ SCADA is a control system for accurate and efficient water and wastewater monitoring that gives the operators instant access to operational data and production information. Using these data, system operators locate operational problems in real time to ensure supply of clean drinking water.

- Functionality of any particular SVS was very difficult to monitor as only the device ID of RMS was mapped with the Portal without displaying details of scheme viz., scheme ID and name of habitation, village and *panchayat* where the SVSs had been installed. The details of the scheme could be seen only after clicking on the device ID. As such, the monitoring of a particular scheme through RMS was difficult.
- In five⁹⁴ out of nine test-checked divisions, RMS had been installed in 7,544 SVSs. However, data of only 6,659 SVSs were available on the *Jhar Jal* Portal as all systems were not linked with the Portal. Further, complete data from RMS devices could also not be fetched due to problems in the communication network.
- There was provision for installation of a SCADA system in the test-checked Kanti MVS of Khunti district. This Scheme had been operational since April 2022. However, data of SCADA was not furnished to Audit nor was the system found linked with the *Jhar Jal* portal. Thus, Audit could not derive any assurance regarding installation or functioning of the SCADA system for the Scheme.
- As of 12 December 2024, the test-checked divisions received a total of 4,483 complaints (**Appendix 2.7**) on the *Jhar Jal* portal (since March 2022⁹⁵), mainly related to non-functional hand pumps/SVS/motors, leakage from water tanks/distribution pipelines and non-supply of water. Of these, 4,084 complaints were reported as resolved by the divisions. However, Audit could not ascertain the time taken for resolving the complaints as the date of resolution/closing of the complaints were not recorded in the database. Of the remaining 399 complaints, 185 complaints were pending at the Junior Engineer (JE) level, 83 complaints were dropped as they related to the old and defunct system which needed replacement/special repairs *etc.*, 38 complaints were forwarded to the AEs/JEs concerned, whereas no information was available on the Portal with regard to the remaining 93 complaints. Reasons for complaints remaining unsolved were not found recorded in the Portal.
- The test-checked divisions also received written complaints which were marked to the officials concerned and processed on file for redressal. These complaints had neither been uploaded on the *Jhar Jal* Portal nor compiled in the divisions to monitor their redressal.
- Audit noticed that the *Jal Sahiyas* of VWSCs, who were responsible for feeding data on to the *Jhar Jal* Portal, were not provided with required mobile phones (with internet facility) and also did not possess the required technical knowhow to feed data in the Portal.

⁹⁴ Chaibasa, Dhanbad II, Hazaribagh, Khunti and Jhumritilaiya (Koderma).

⁹⁵ Data on the *Jhar Jal* Portal is available since 16 March 2022.

As such, complete data/information on complaints and their redressal were not being uploaded on the *Jhar Jal* portal.

In reply, the Department stated (July 2025) that directions have been issued to ensure mapping of scheme details on the *Jhar Jal* portal. *Jal Sahiyas* had been provided smart phones and training to upload data on *Jhar Jal* Mobile App is in process. Regular meetings were also held with solar agencies and the IT team for accurate data display on the *Jhar Jal* portal. Regarding complaint redressal, it was stated that verification of complaints and uploading the status of their redressal would be ensured in future.

The reply is not acceptable as test-check (August 2025) of 55 complaints in five test-checked divisions revealed that the complaints were lodged between February 2024 and July 2025. Of these, 49 complaints had been resolved between May 2024 and August 2025. However, resolution of 20 out of 49 complaints took more than one month and up to 69 days. Five out of six unresolved complaints were pending from May and June 2025.

Recommendation 8: The Department may ensure mapping of scheme details on the Jhar Jal Portal for monitoring of individual SVSs.

2.7 Conclusion

As of December 2024, only 27,249 (28 *per cent*) out of 97,535 schemes could be completed. This affected planned coverage of HHs through FHTCs as 34.31 lakh (55 *per cent*) HHs had been provided FHTCs, as of March 2025, and 6,958 (24 *per cent*) out of 29,398 villages had no FHTCs. The water inflow in 20 out of the 40 test-checked Single Village Scheme (SVSs) was only 37 *per cent* of the prescribed minimum quantity of 55 litre per capita per day. Beneficiary survey revealed that 19 to 40 *per cent* of beneficiaries were not satisfied with the service provided to them under JJM.

All revenue villages were not included in the JJM Portal for the planning purpose. Village Action Plans (VAPs) were prepared without ensuring participation of the village community and lacked crucial details such as history and availability of water supply in the village, mapping of available sources of water and requirements/needs of the village community.

Multiple tenders were awarded to the same contractor, who did not have sufficient bid capacity and resources (manpower and equipment) and collusive bidding or bid rotation could not be ruled out. Undue financial aid of ₹ 27.13 crore was also extended to the contractors. During 2019-22, ₹ 1,578.25 crore was incurred on the works without ensuring mandatory inspection and certification of works by the Third-Party Inspection Agencies. User fee was also not being collected, as required, to ensure O&M of the water supply projects.

The test-checked district laboratories did not have NABL accreditation for testing of 13 basic water quality parameters required under JJM. They had only eight (23 *per cent*) to 16 (46 *per cent*) types of equipment against the recommended 35 types of equipment and lacked availability of chemicals due to which they could not conduct some tests, for which facilities were available with them.

The District Coordinators, responsible for feeding the data in the JJM Portal, did not maintain proper records to support the uploaded data. Only device ID of Remote Management System (RMS), attached with SVSs, were mapped with the online information and monitoring system (*Jhar Jal* Portal) of the State without mapping details of the scheme *viz.*, scheme ID and name of habitation/village or *panchayat*, and as such monitoring the functionality of a particular SVS was difficult.

Ranchi
The 20 May 2026


(INDU AGRAWAL)
Principal Accountant General (Audit)
Jharkhand

Countersigned

New Delhi
The 29 May 2026


(K. SANJAY MURTHY)
Comptroller and Auditor General of India

