

## CHAPTER IV IMPLEMENTATION OF SCHEMES

Out of 5,318 JJM works entrusted to the Implementing Agencies for implementation, only 2,726 (51 *per cent*) works were completed (November 2024). Nine hundred and twenty four works (17 *per cent*) had not even commenced, though the initially envisaged period of completion of project expired on 31 March 2024. Of the 7,458 applications relating to JJM works forwarded to various entities for obtaining road cutting sanction, only 3,387 applications were approved by the entities, indicating that 4,071 works (54.59 *per cent*) were kept on hold, awaiting approval for road cutting.

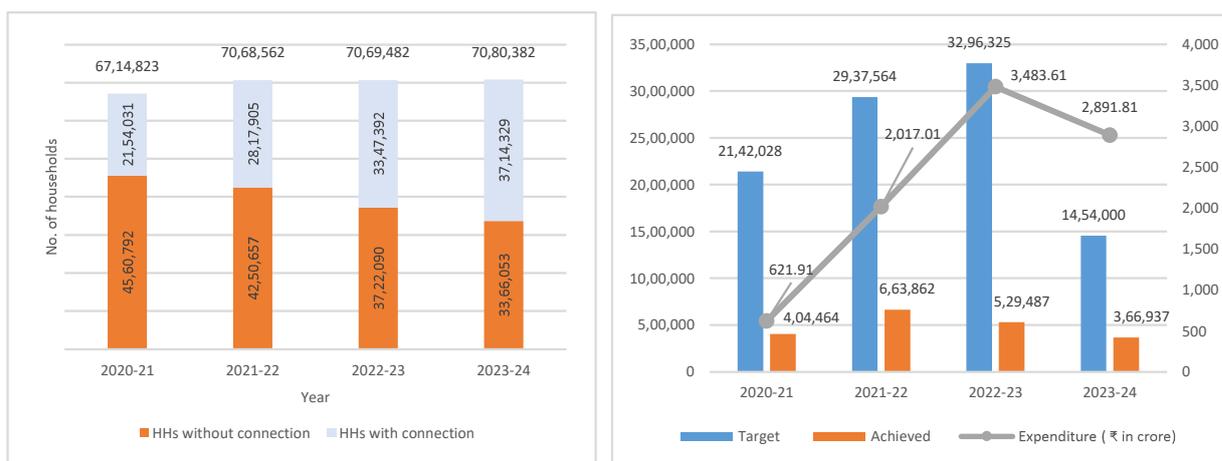
In the field offices at Kozhikode and Palakkad districts, the error in calculation of trench width adopted for different types of pipes led to excess payment amounting to ₹2.84 crore. Audit noticed that two tenders at Public Health Circle Kozhikode were not issued keeping the firm period extended after the opening of price bid. This resulted in cost escalation amounting to ₹4.05 crore, due to rate revision. Polymer pipes valuing ₹6.44 crore were left stacked at various locations for a period ranging from one to nearly two years, awaiting sanctions for laying. On scrutiny at the field offices of KWA in Kozhikode and Palakkad, pipes were seen procured by firms/contractors from firms/suppliers not included in the empanelled list, which was violative of the provisions in the pipe policy of KWA.

A critical objective of JJM i.e., to prioritise provision of FHTCs in quality affected areas, aspirational districts, SAGY villages, etc. was not fulfilled. It was also seen that not even a single FHTC was provided under JJM in three test-checked GPs, which were among the ST dominated GPs in Kerala. Audit noticed that Community Water Purification Plants were not made functional in the fluoride affected habitats in Agali GP of Palakkad district till date, even after a lapse of five years.

The implementation phase of JJM (six to 12 months) was to commence from the award of work and start of activity on the ground and extend till commissioning of the scheme. The post implementation phase was to start from the date of commissioning of the scheme and extend for three to four months.

Though JJM was rolled out nation-wide in 2019 by GoI, its implementation in Kerala started only in August 2020. The year-wise break up of implementation status in the State is shown in **Chart 4.1**:

**Chart 4.1: Year-wise break up of status of implementation of the scheme in the State**



(Source: Annual Action Plans & JJM dashboard)

Government stated (June 2025) that 21 lakh FHTCs were provided under the programme in four years which was more than the total tap connections provided in the last 50 years. Thirty *per cent* increase was achieved in coverage of rural households with FHTCs since the start of the Mission. Government also stated that unlike other states, Kerala is the only State following 100 *per cent* metering and billing of connections to ensure sustainability of schemes for years.

While Audit acknowledges the above progress achieved, deficiencies were also observed in implementation in the test-checked GPs in three sampled districts, as detailed below:

#### 4.1. Slow pace in implementation of schemes

The JJM was to assist, empower and facilitate the States/ UTs in creation of water supply infrastructure so that every rural household had Functional Household Tap Connection (FHTC) by 2024<sup>30</sup>. The Kerala Water Authority (KWA), Kerala Rural Water Supply and Sanitation Agency (KRWSA) and Ground Water Department (GWD), Government of Kerala were the three Implementing Agencies (IA) of JJM works in Kerala. The details of schemes undertaken by IAs during the audit period were as given in **Table 4.1**.

**Table 4.1: Details of schemes undertaken by the Implementing Agencies during the period 2019-24**

Name of Implementing Agency	Total number of schemes undertaken	Number of schemes dropped	Number of schemes completed	Number of schemes not completed	Percentage of schemes not completed
Kerala Water Authority	535	Nil	157	378	71
Kerala Rural Water and Sanitation Agency	69	4	33	32	46
Ground Water Department	16	1	12	3	19
<b>Total</b>	<b>620</b>	<b>5</b>	<b>202</b>	<b>413</b>	<b>67</b>

(Source: SWSM data as on 06 December 2024)

<sup>30</sup> subsequently extended till 31 March 2025

The major share of implementation of JJM with 86 *per cent* of schemes, was vested with KWA. Audit observed that 71 *per cent* of schemes undertaken by KWA remained incomplete. The percentage of non-completion of 69 schemes undertaken by KRWSA and 16 schemes undertaken by Ground Water Department stood at 46 and 19 respectively.

In respect of Multi-village schemes, the in-village piped water supply infrastructure consisted of pumping arrangement, Over Head Tanks, underground sumps, pipeline for water supply, water treatment plant, distribution network and bulk meter, etc. Accordingly, the IAs divided the schemes into several packages of works. As per the statement furnished by SWSM, 620 schemes sanctioned by the GoK comprised of 5,318 packages/works. State-wide physical status of these 5,318 works was as shown in **Table 4.2**.

**Table 4.2: Details of physical status of packages**

Total number of packages	Works completed	Ongoing works	Works not started	Works in tendering stage
5,318	2,726	1,668	377	547

(Source: Data furnished by KWA as on 05 December 2024)

Out of 5,318 works entrusted to IAs for implementation, only 2,726 (51 *per cent*) works were completed (November 2024). Nine hundred and twenty four<sup>31</sup> works (17 *per cent*) were not commenced at the time of expiry of project period on 31 March 2024. Thirty one *per cent* of works (1,668 works) entrusted to IAs were ongoing.

Of the 13 major ongoing works in test-checked GPs, the physical progress exceeded 90 *per cent* in the case of one work only. In nine works, physical progress achieved was below 70 *per cent*.

The status of implementation of JJM in the three test-checked districts was as given in **Table 4.3**.

**Table 4.3: Status of implementation of JJM in the three test-checked districts**

Year	Details	Palakkad	Kozhikode	Kollam
2020-21	Target	4,10,496	1,38,625	3,03,310
	FHTCs given	75,539	17,803	30,631
	Percentage of target achieved	18.40	12.84	10.10
2021-22	Target	3,45,886	3,58,924	3,17,168
	FHTCs given	53,609	37,873	1,12,275
	Percentage of target achieved	15.50	10.55	35.40
2022-23	Target	3,84,516	3,20,368	3,25,647
	FHTCs given	47,021	40,183	93,342
	Percentage of target achieved	12.23	12.54	28.66
2023-24	Target	1,52,596	1,10,132	1,13,111
	FHTCs given	44,477	16,747	44,863
	Percentage of target achieved	29.15	15.21	39.66

(Source: AAP and JJM IMIS data)

<sup>31</sup> Inclusive of works not started and works in tendering stage.

As against the targeted 100 *per cent* coverage of rural households with FHTCs, the State could achieve coverage of only 52.46 *per cent* by March 2024. In the three test-checked districts, the percentage of coverage was in the range of 38.70 to 70.34.

During the beneficiary survey conducted by Audit, 122 out of 342 (35.67 *per cent*) beneficiaries stated that the water connections either failed to provide water, or the supply was limited to two to four hours per day, whereas some of the locations received water only once or twice a week. Since these connections did not ensure regular supply of water in adequate quantity and prescribed quality, they cannot qualify as fully functional tap connections under JJM.

GoK attributed (June 2025) the slow pace of implementation to longer gestation periods of larger schemes, land acquisition challenges, lack of inter-agency coordination and delayed flow of funds. It was also stated that as the timeline for JJM has now been officially extended up to 2028, all the implementing agencies in the State were revising work schedules and resource planning to ensure timely and effective completion of remaining works by the revised deadline.

That the Government could not foresee the possible hindrances to hassle free implementation pointed to deficiencies in planning process. This underscores the need for formulation of VAPs and DAPs which would have facilitated identification of sources of convergence to meet the financial and institutional requirement, location of water source, implementation schedule, etc.

## 4.2. Time management in scheme execution

### 4.2.1. Delay in obtaining sanction for rail/road cutting

Scrutiny of project monitoring details uploaded in KWA website (as displayed on 30 January 2025) revealed that:

- Of the 7,458 applications relating to JJM works forwarded to various entities for obtaining road cutting sanction, only 3,387 applications were approved by the entities, indicating that 4,071 applications (54.59 *per cent*) were kept on hold, awaiting approval for road cutting. The details of such works are as shown in **Table 4.4** and **Chart 4.2**.

**Table 4.4: Details of applications relating to JJM works pending for want of road cutting sanction**

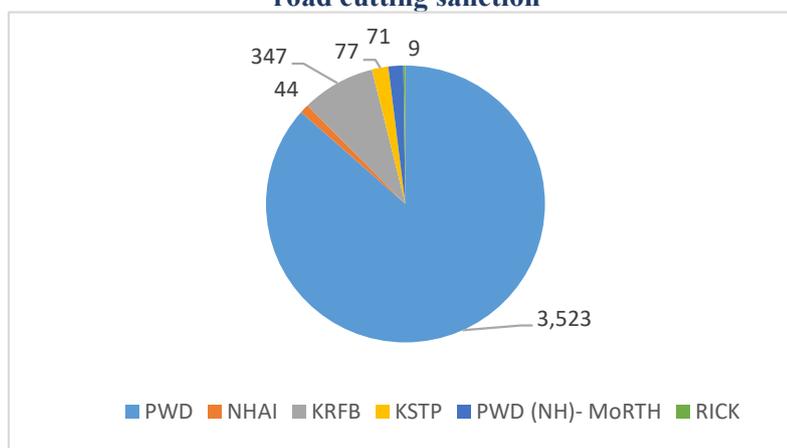
Name of the approving authority	Number of applications forwarded for road cutting sanction	Number of applications for which road cutting sanction received	Percentage of applications pending for want of sanction	Average period of delay in according sanction (in days)
Public Works Department (PWD)	6,583	3,060	53.52	154
National Highway Authority of India (NHAI)	123	79	35.77	60
Kerala Road Fund Board (KRFB)	516	169	67.25	224

Name of the approving authority	Number of applications forwarded for road cutting sanction	Number of applications for which road cutting sanction received	Percentage of applications pending for want of sanction	Average period of delay in according sanction (in days)
Kerala State Transport Project (KSTP)	113	36	68.14	180
PWD (NH) - Ministry of Road Transport and Highways (MoRTH)	110	39	64.55	390
Road Infrastructure Company Kerala Ltd. (RICK)	13	4	69.23	NA*
<b>Total</b>	<b>7,458</b>	<b>3,387</b>	<b>54.59</b>	

(Source: Data furnished by KWA)

\*Not available

**Chart 4.2: Agency-wise details of applications related to JJM works awaiting road cutting sanction**



Audit observed that the sanctioning authority with highest number of applications, PWD, had an average delay of 154 days in granting permissions. Inordinate delay on the part of the sanctioning authorities resulted in pendency extending even upto 789 days in individual cases.

Out of 90 applications submitted State-wide (as on 19 March 2025), for approval from Railways for laying pipeline through railway land, permission was granted in the case of 63 applications. However, in 39 locations, the work could not be started even though permission was granted, and seven works were ongoing.

- In Kollam district, out of six works, only one work was completed and the remaining five works for which permission had been obtained from Railway, were not yet commenced. Of these, permission was awaited from NJJM in the case of four works and the remaining work can be executed only on completion of related pipe laying work.
- In Palakkad district, out of 20 applications submitted for approval of railway authorities, two were rejected due to the issue of parallel laying of pipes. In the case of six approved applications, railway crossing works

had not started due to land issues, delay in approval of excess/extra items by Technical sanctioning authority, etc.

- In Kozhikode district, though way leave permission was granted by railway to seven applications submitted, work had not started (March 2025) in any case, due to non-issuance of caution certificate by railway.

As on 19 March 2025, in 80 cases, the required land was not available from various sources, which stood in the way of commencement of works. Of these, 29 cases related to land under Forest Department, 38 cases to private land owned by GPs and 13 cases to Government owned land.

GoK stated that (June 2025) there was delay in obtaining road cutting permissions particularly from PWD, due to which the work front could not be made available for laying pipes. The reasons for delay were attributed to shortage of funds required to remit road restoration charges, periodical bans, non-expiry of Defect Liability Periods, delays in conducting joint verification, etc. It was also stated that a formal request for the amount to be remitted to NHAI was made to the Ministry of Jal Shakti in January 2024 and that funds were yet to be received. In the case of Railway clearances, it was replied that eight cases were pending. However, no records in support of the above statements were furnished by Government.

#### 4.2.2. Extended time gap between Administrative Sanction and Technical Sanction

The schemes sanctioned under JJM were to be implemented without cost and time overrun. In case of any escalation beyond the approved cost, it was to be borne by the State and no additional expenditure out of Central share was to be made. The Guidelines also fixed the maximum time for completion of new SVS<sup>32</sup> and MVS<sup>33</sup> as 18 and 36 months respectively, from the date of awarding the work. Further, for schemes requiring up to three years to complete, the contract was to be awarded for implementation before March 2021 and for schemes requiring up to two years to complete, the contract was to be awarded before March 2022.

Audit noticed significant delay in issuance of Technical Sanction (TS) by implementing agencies in the case of major works<sup>34</sup> for which Administrative Sanction (AS) has been issued. The extent of delay in issuing TS in the case of works for which AS has been obtained is depicted in **Table 4.5**:

**Table 4.5: Abstract of major works in test-checked districts**

Name of the District	Total no. of JJM works awarded during 2019-24	Works awarded after March 2022	No. of works in which TS was issued after 12 months from the date of AS	No. of works awarded after six months from the date of TS
<b>Kollam</b>	156	89	43	25
<b>Palakkad</b>	129	73	23	9
<b>Kozhikode</b>	138	57	33	11

(Source: IMIS data - Progress Report of JJM Works as on 11 February 2025)

<sup>32</sup> Single Village Scheme

<sup>33</sup> Multi Village Scheme

<sup>34</sup> valued above ₹ one crore

In the case of works for which contract was to be awarded before March 2022, 89 works in Kollam, 73 works in Palakkad and 57 works in Kozhikode could be awarded only after March 2022, of which 43 works in Kollam, 23 works in Palakkad and 33 works in Kozhikode were plagued by inordinate delay ranging from 12 to 45 months in according TS.

GoK replied (June 2025) that TS was issued within a reasonable timeframe following surveys and approval of estimates. However, it was acknowledged that in several instances, the handover of land from the GPs/Revenue Department took longer than expected, causing delay in issuing TS.

Impediments in handing over of land could have been resolved through effective co-ordination between GPs/Departments, which would have minimised delays in issuance of TS.

### 4.3. Execution of schemes

The intake well, Raw Water Pumping Main (RWPM), Water Treatment Plant (WTP), Clear Water Transmission Main (CWTM), Overhead Service Reservoir (OHSR) and Ground Level Service Reservoir (GLSR) were critical components of a Water Supply Scheme (WSS). In case of failure/delay in awarding any of these critical components, the WSS could not become functional, thereby rendering the expenditure on laying distribution lines and FHTCs unfruitful.

#### 4.3.1. Critical components of the scheme not being awarded

As on 15 March 2024<sup>35</sup>, there were 72 JJM schemes (13.46 per cent) in the State with at least one of the critical components not awarded. The details of these schemes were as presented in **Table 4.6**:

**Table 4.6: Details of schemes where critical components were not awarded**

Critical Component not awarded (Number)	FHTC Planned (Number)	AS Amount (₹ in lakh)	Awarded PAC for rest of the components (₹ in lakh)	Total financial Progress (₹ in lakh)	Distribution planned (km)	Distribution laid (km)
<b>CWTM (13)</b>	2,18,390	1,61,037	81,594	27,203	3,708	1,107
<b>Distribution Network (1)</b>	39,521	29,519	8,982	6,899	444	0
<b>OHSR and GLSR (15)</b>	2,25,972	2,08,500	1,13,677	32,666	3,979	1,423
<b>RWTM (4)</b>	79,978	91,915	81,293	8,121	1,740	26
<b>WTP (39)</b>	5,07,526	6,31,176	3,33,280	68,981	13,029	3,557

(Source: KWA data)

Of the total amount for which administrative sanction was accorded for completion of 72 schemes, works costing only 52.80 per cent of the total sanctioned amount were awarded. The financial progress in respect of these works was only 20.69 per cent of the sanctioned amount. KWA estimated that it would require another ₹5,033 crore to meet the expenditure on remaining works when awarded, so as to commission the 72 schemes. Thus, owing to non-awarding of critical components, these schemes could not be made functional.

<sup>35</sup> the last date for awarding of JJM tenders as decided by GoI

GoK cited (June 2025) delays in land acquisition for components and timely funding for JJM schemes as the reason for the lukewarm response to tenders by contractors, which often necessitated multiple rounds of tender calls. The reply confirms the audit observation regarding non-awarding of critical components.

#### 4.3.2. Deviation from accepted procedures while adopting QCBS method

The KWA followed the practice of L1 system till 2020-21, under which eligible bidder making the lowest quote in the e-tender was awarded contract. The MD, KWA decided (March 2021) to shift from conventional technologies and adopt cutting edge technology to execute water supply infrastructure projects involving complexity and high impact, at a fast pace. For this, KWA introduced Quality and Cost-Based Selection (QCBS) as an alternative strategy for bidding all works with outlay above ₹ five crore. Under this method, the tender was to be awarded to the bidder with the highest score (R1) based on the QCBS ranking, irrespective of whether the R1 bidder quoted the lowest price or not. The Notice Inviting Tender (NIT) was to be suitably modified to incorporate the QCBS guidelines and the pre-qualified<sup>36</sup> bidders were to be ranked, with 60 *per cent* marks given to technical parameters and 40 *per cent* marks to the financial parameters. In the test-checked districts, 31 works were awarded under QCBS for ₹679.25 crore.

Government sought (February 2022) justification from MD KWA for adopting QCBS method, as its evaluation of the R1 bidder was considered as highly complicated, lacked transparency and could be subjected to favouritism. Since QCBS involved major shift in the existing tendering methodology, consent of the Government was vital for its inception. However, KWA did not obtain sanction from GoK for introducing QCBS.

Government had earlier issued orders (September 2016) instructing that work should be awarded at a rate which was least among L1 rate, local market rate (LMR) and Delhi Schedule of rates (DSR)+10 *per cent* tolerance. In the absence of specific instructions from KWA on the finalisation of price bid, the field offices while awarding the work to R1, limited the award money in accordance with the above instructions of Government. A mention of the adoption of least rate as per the above Government order was not seen recorded either in the proceedings of MD, KWA, or in the NIT used for QCBS tenders.

On account of this omission, bidders of 16 works approached the Honourable High Court (HC) for obtaining the work order at quoted price which was above the LMR/DSR. The HC held (March 2023) the view that the Government order could not be applied to these instances as the terms and conditions of the tender were not to be deviated midway. As a result, KWA was forced to review the work orders of the above works and revise the accepted Probable Amount of Contract (PAC) at the rates quoted by R1 contractor. The variation in amount as calculated in line with QCBS method with that of the Government order amounted to ₹51.30 crore, which would be payable by KWA.

<sup>36</sup> Based on financial standing, past experience and organisational capacity

Thus, the omission on the part of KWA to incorporate the key aspects of the Government order in the NIT resulted in KWA becoming liable to make good the loss sustained by the contractors.

Government stated in reply (June 2025) that QCBS method of selecting bidders was frozen by the MD, KWA in March 2022.

### 4.3.3. Delay in implementation due to realignment

With the objective of achieving 100 *per cent* FHTCs under JJM in Sholayur GP in Palakkad district, the Panchayat Committee decided (July 2021) to implement Water Supply Scheme (WSS) to Agali, Pudur and Sholayur GPs. The work was awarded to a contractor for an amount of ₹29.61 crore and an agreement was executed (May 2023), with the implementing agency, KWA, with date of completion within 12 months from the date of agreement.

Scrutiny of files revealed that the contractor requested (February 2024) KWA to re-align the Clear Water Gravity Main (CWGM) Kottamedu tank to Kottathara through Mannarkkad-Anakatty road under PWD, instead of the route through forest land, included in the original scope of work. In May 2024, the contractor informed that the realignment of CWGM would necessitate change in location of pipeline bridge across Siruvani river, thereby leading to modification of design and necessary sanction for road cutting from PWD. Further, the location of booster pump house had to be shifted and pump set redesigned due to change in alignment. Hence, the contractor sought extension of time till 31 December 2024. KWA acceded to the request of the contractor and issued directions (September 2024) to re-align the CWGM through the PWD road.

In violation of provisions<sup>37</sup> in the Kerala PWD Manual, the implementing agency identified the need for re-alignment only when pointed out by the contractor after 10 months from the date of agreement, in February 2024. The incorrect preliminary investigation by the implementing agency resulted in delay in execution of the entire project. Consequently, the work which was to be completed within 12 months from the date of agreement remained incomplete till date (March 2025). The physical progress of the work was only 77 *per cent* even after expending ₹9.49 crore.

GoK stated (June 2025) that since the original alignment was in a difficult terrain, maintenance of pipeline would be difficult in future. The process of obtaining pipe laying sanction from Forest Department was also not easy. The proposal for revised estimate is under the scrutiny of TS authority for ratification. It was also stated that the change in alignment was proposed by KWA.

The reply is not acceptable as the availability of 100 *per cent* hindrance free land was not ensured before the bidding of work, which resulted in the overhaul of the work. Further, the contention of Government that the change in alignment was proposed by KWA was not acceptable as the Assistant Engineer, KWA,

<sup>37</sup> Every work was to be properly investigated and all relevant data collected and correlated before finalising the design and estimate for the work.

while initiating the proposal had referred to the request of the contractor, in his letter to the Executive Engineer, Project Division, Palakkad.

#### 4.4. Irregularities noticed in contract management

##### 4.4.1. Excess excavation charges in laying of pipes

As per the provisions in PWD Manual, detailed estimate of a work was to be prepared after investigation of the site by the authority concerned, on the basis of detailed designs and specifications for the work. The detailed estimate of a work was to reflect the cost of work as faithfully as possible, as could be foreseen at that time.

The Chief Engineer (Projects and Operations) directed (October 2021) field offices to use polyethylene (PE) pipes instead of PVC pipes for JJM works. As per Indian Standard (IS) Code of practice for plastic pipe works for potable water supplies, the High density polyethylene (HDPE) pipeline was to be laid alongside the trench in the road portion and after joining, the pipeline was to be lowered into the trench carefully without causing undue bending. The IS specified trench width of 300 mm for laying PE pipes of sizes 20-110 mm. While shifting over to PE pipes, the field offices at Kozhikode and Palakkad districts erroneously allowed the same trench width as permitted for PVC pipes (500 mm), instead of 300 mm, in the detailed estimate. The mistake went undetected for months during the initial period of introducing PE pipes, thus permitting the contractors to claim excavation charges amounting ₹2.84 crore.

Government replied (June 2025) that a uniform trench width of 300 mm is being currently adopted for all relevant estimates. However, the fact remains that excavations were carried out in excess of actual requirement, which was against provisions.

##### 4.4.2. Deviations from accepted procedures resulting in change in scope of work

The General Financial Rules, 2017 stipulated that the terms of a contract must be precise, definite and without any ambiguities. The terms of a contract including the scope and specifications once entered into, were not to be materially varied. Whenever material variation in any of the terms or conditions in a contract became unavoidable, the financial and other effects involved were to be examined and recorded and specific approval of the competent authority obtained, before varying the conditions. Further, KWA had directed its officers (July 2001 and September 2008) not to tender any work unless the entire land required for completion and commissioning of the scheme was in complete physical possession of the Authority. The following instances noticed in audit were violative of the above conditions:

- *WSS to Ulliyeri, Moodadi and adjoining panchayats in Kozhikode district - Phase II Package III:*

HDPE pipes for laying distribution lines included in original proposal were replaced with PVC pipes, resulting in additional expenditure of ₹60.33 lakh to KWA, due to variation in rates for supplying and laying of PVC pipes with the estimated rates applicable to HDPE pipes.

- *WSS to Ulliyeri, Moodadi and adjoining panchayats in Kozhikode district-package V-Zone 1, providing FHTC by laying new distribution line at Meppayur GP:*

Non-availability of land necessitated change in design from OHSR to GLSR and identification of alternate site. However, the alternate site identified was also in dispute over approach road, due to which the work remained incomplete even after 20 months (February 2025).

- *WSS to Thenkara, Thachampara, Kanjirapuzha and Karakurussi GPs:*

The land made available for construction of OHSR was unsuitable due to insufficient bearing capacity as per the soil test results conducted. Alternate site made available by the GP also proved unfit for construction. Work remained in standstill (March 2025).

- *Phase II-WSS to Ulliyeri, Moodadi and adjoining Panchayats in Kozhikode district-Package IV-Zone II-providing FHTC by laying new distribution lines at Atholi GP:*

As the land initially proposed by the GP was found unsuitable due to soil conditions, an alternate site was proposed by the GP. The new site situated in a steep hilly terrain required considerable earth work, due to which the proposal of OHSR was changed to GLSR. The revised design of GLSR and RCC retaining wall to reinforce the site was submitted to an Engineering College and the work has not yet commenced (March 2025).

With reference to the first instance, the Government stated (June 2025) that during the installation of PE pipes, several complaints were raised by the GPs and public regarding delays in execution. One of the main concerns was the difficulty in sourcing the required special fittings, as these were not readily available in the open market. Considering the technical feasibility, the TS issuing authority sanctioned the change of PE pipe to PVC pipes without any financial burden. The Government further stated that Audit might have worked out the loss considering the tender excess for extra items. As PVC items were sanctioned as extra items and no tender excess was allowed for these items, no additional financial commitment was incurred.

The reply of Government was not acceptable, as subsequent to MD, KWA instructing field offices (August 2021) to opt for HDPE pipes instead of PVC pipes for JJM works, majority of JJM works in the State were tendered and executed with HDPE as part of scope of the work. Further, the loss was worked out in Audit considering the rates and length for PE and PVC pipes provided in the revised estimates sanctioned by the TS authority and no tender excess has been considered.

#### **4.4.3. Extra liability to KWA due to irregular rate revision**

As per Government Order issued in September 2016, all agencies undertaking public works were to ensure that the tender of the lowest bidder was accepted and the acceptable rate was to be limited to the least among the three items, viz., (i) quoted rate among the lowest bidder, (ii) local market rates of PWD, and

(iii) current DSR<sup>38</sup> plus latest cost index + 10 *per cent* tolerance limit. Further, the basic LMR adopted was to be the one prevailing at rates as on the date of opening the tender.

Audit observed that 17 tenders<sup>39</sup> in respect of WSS under JJM received at the office of the Chief Engineer (Northern region) (CE) for finalisation pertaining to four circle offices<sup>40</sup> during the period 07 June 2021 to 12 August 2021 were pending approval. Since the firm period of these tenders was due to expire in September 2021, the CE directed (September 2021) the circle offices to ensure that the firm period got extended till 31 October 2021.

Audit noted that though the two tenders at PH Circle, Kozhikode were opened on 11 June 2021, the work order was not issued keeping the firm period extended till 31 October 2021. Consequently, the work orders were issued on 19 November 2021 for both the works at ₹72.06 crore and ₹93.54 crore respectively, considering DSR and LMR at the time of opening the tender. The contractor requested (29 November 2021) for the work to be awarded considering DSR and LMR at the time of finalising the tender. The KWA, heeding to the contractor's request in violation of the prevailing Government orders, revised the work orders (30 November 2021) at ₹74.45 crore and ₹95.20 crore respectively and hence the resultant cost price escalation (**Appendix 4.1**).

On revision, LMR exceeded DSR and KWA finalised both the tenders at DSR rates which was the least among the three.

Government stated (June 2025) that for both the works, the awarded amount was below the quoted amount and the awarded amount was based on DSR PAC (2018) with 10 *per cent* excess only, which was the admissible amount.

The reply of the Government cannot be accepted since both the works were tendered with rates arrived from DSR 2016. As per the Government orders cited by Audit, the tenders can be finalised only with the prevailing DSR and LMR at the time of opening the tender. Moreover, Audit observed that though the work orders issued on 19 November 2021 were in tune with the prevailing Government orders, KWA, on behest of the contractor and in clear violation of the prevailing Government orders, revised the work order which resulted in committed extra liability of ₹4.05 crore.

#### **4.4.4. Polymer pipes stacked at various locations for want of sanction for laying**

The NIT for works taken up under JJM stipulated that all materials were to be supplied by the contractor in a phased manner as per the supply schedule prepared by the agreement executing authority. Quantity and time of each supply was to be specifically mentioned in this schedule in tune with the time of completion. Each supply of material was to be done by the contractor only after getting written instruction from the Executive Engineer (EE) concerned. The EE should direct the contractor to place supply order in each phase after evaluating actual progress of laying of pipes supplied in the previous phase.

<sup>38</sup> Delhi Schedule of Rates

<sup>39</sup> Two JJM works are from Kozhikode district and one from Palakkad district.

<sup>40</sup> PH Circle, Kozhikode, PH Circle, Palakkad, PH Circle, Malappuram and PH Circle, Kannur

In violation of the above provisions, the agreement sanctioning authorities<sup>41</sup> had not prepared a road map regarding the phased schedule of supplies. Consequently, the contractors procured and stacked large quantity of polymer pipes for a long duration in respect of the works shown in **Appendix 4.2**.



*Figure 4.1: Pipes stacked near Nadapuram Hospital, Photo furnished by KWA*

Polymer pipes valuing ₹6.44 crore were stacked at various locations for a period ranging from one to nearly two years, awaiting sanctions for laying. The contractors were permitted to supply pipes without evaluating actual progress of laying of pipes supplied in the previous phase. The polymer pipes left exposed to prolonged ultraviolet radiation would turn brittle and prone to cracking due to photo-oxidation<sup>42</sup>, thereby affecting the strength and durability of pipes.

GoK replied (June 2025) that the pipes were stacked as the works were pending for want of road cutting permission and that the pipes were now properly covered and protected.

The reply was not acceptable as this was in clear violation of the provisions in the NIT where supply of pipes was to be effected only in a phased manner. Further, the Government reply (June 2025) was silent on the reasons for pipes being allowed to be supplied in such huge quantities and left idling for periods ranging from one year to two years, when there was no possibility of laying the pipes due to want of sanctions.

## 4.5. Quality Management in procurement

### 4.5.1. Irregular procurement of pipes from non-empanelled manufacturers

As per the Pipe policy of KWA, pipe material and other allied accessories contribute to over 60 *per cent* of the total cost of water supply and sewerage schemes and were critical to the success of the scheme. The GoK directed (October 2021) MD, KWA to pre-qualify and publish a list of qualified suppliers/manufacturers and include it in the NIT for works of procurement of pipes and allied items. Accordingly, MD, KWA circulated a list of empanelled manufacturers/suppliers from March 2022 onwards, instructing that materials from the prequalified manufacturers alone would be accepted by KWA.

Audit observed that pipes were being procured by firms/contractors from firms/suppliers not included in the empanelled list and utilised in JJM works at Kozhikode and Palakkad, the details of which are presented in **Appendix 4.3**.

This was violative of the provisions in the pipe policy of KWA.

Government reply was silent on the specific cases mentioned in the Appendix.

<sup>41</sup> Office of the Superintending Engineer, PH Circle offices, KWA

<sup>42</sup> A chemical process which reduces the polymer's molecular weight due to which the material becomes more brittle, with a reduction in its tensile, impact and elongation strength.

#### 4.6. Avoidable expenditure

##### 4.6.1. Charges paid by Har Ghar Jal Panchayats for tanker lorries/stand posts

The JJM envisaged achievement of overall state drinking water security by providing potable water to every household in the habitat, in such a way as to avoid arranging water supply through tankers/trains, handpump installation, etc. in any village. In the Har Ghar Jal panchayats, as 100 *per cent* of households were ensured as being provided with adequate quantity of potable water through FHTCs, the GPs were not expected to depend on alternate sources of water supply.

Audit observed that charges for standposts/supply of potable water in tanker lorries were being paid to KWA by two test-checked GPs even after being declared as Har Ghar Jal Panchayats. The details are given in **Table 4.7**:

**Table 4.7: Details of expenditure for standpost/tanker lorry by Har Ghar Jal Panchayats in test-checked districts**

Name of the GP	Name of the BP	Date of declaration as Har Ghar Jal GP	No. of standposts existing after declaration	Amount incurred for standposts (in ₹)	Amount incurred for tanker lorry operation (in ₹)
Munroethuruth	Chittumala	20 October 2022	318	3,85,814 per annum	Nil
Neendakara	Chavara	20 October 2022	46	55,810 per annum	2,46,883

(Source: Data furnished by GPs)

The fact that GPs declared as self-sufficient in terms of potable water supply continued to depend on standposts and tanker lorries in distress periods weakened the authenticity of selection of these GPs as Har Ghar Jal GPs. As the JJM envisaged 'ease of living' for rural community, especially women, non-availability of uninterrupted supply of water negates the targeted outcome of the JJM and adversely affects the ease of living of the rural community.

GoK replied (June 2025) that retention of standposts was the discretion of the Local Self Government Institutions and in case of the Har Ghar Jal GPs, KWA has ensured proper water supply through the established distribution network.

The reply is not acceptable as a GP, after being declared as Har Ghar Jal GP, continuing to depend on alternate sources of water, testifies its ineligibility to fit into the status of Har Ghar Jal GP. Further, the JJM objective of achieving overall State drinking water security by providing potable water to every household in the habitat was not achieved in the case of the aforementioned two Har Ghar Jal GPs.

##### 4.6.2. Excess road restoration charges paid by KWA

Citing inability to pool additional funds for road restoration as part of JJM schemes, KWA decided (December 2023) to review the significantly higher road restoration charges claimed by PWD. In order to check the veracity of the claim of KWA that PWD was charging exorbitantly, Audit cross-verified actual

restoration charges remitted by KWA with the amount generated in PRICE 3.0<sup>43</sup> for five works<sup>44</sup> in the test-checked districts of Kollam and Kozhikode (**Appendix 4.4**) and noticed that ₹3.22 crore was paid in excess to PWD by KWA.

Thus, PWD had charged approximately 58.43 to 119.13 *per cent* in excess of actual requirement. Inaction on the part of KWA to timely pursue the matter of exorbitant restoration charges at the level of Government resulted in avoidable excess payment from JJM funds.

The Government replied (June 2025) that the estimates provided by PWD were accepted to avoid delays in obtaining necessary permissions and that engaging in disputes or prolonged negotiations over the rates could have significantly delayed the execution of works, thereby affecting the timely commissioning of water supply schemes.

Audit observed that the action of Government in accepting excessive rates of PWD had resulted in avoidable additional charge on GoI funds pertaining to JJM.

#### **4.6.3. Compensation paid by KWA on account of damaged roads**

The PWD granted permission (January 2023) to KWA for digging and laying pipes along the left and right sides of the Vadakkencherry-Pollachi road in Palakkad district and restoring the road back to its original state. KWA deposited ₹1.71 crore as security for digging the roads which were under DLP. PWD stated that permission was granted on the condition that one side of the road had to be completed and backfilled before digging the other side. Instead, the KWA contractor dug both sides of the road simultaneously and did not restore the road to its original form, resulting in further damage to the uncut portion of the road. This necessitated additional expenditure by PWD to temporarily set right the damaged road.

As per the directions from PWD Vigilance Wing to penalise KWA for the subpar work, PWD had deducted (August 2024) an amount of ₹42.50 lakh from the security deposit of ₹1.71 crore as damage compensation by KWA for the poor workmanship. Audit noticed that KWA has not claimed the amount from the contractor, in accordance with the terms of NIT<sup>45</sup> of the work.

The Government stated (June 2025) that at the time permission for road cutting was granted, the DLP of the road had already ended. The damage to the road was not caused by the work carried out by KWA and that KWA was responsible only for the restored portions, which were in good condition. It was further stated that the forfeiture of the security deposit was temporarily withheld by the District Collector Palakkad and that a joint inspection was conducted by the

<sup>43</sup> PRICE 3.0 is the latest version of the Project Information and Cost Estimation (PRICE) software developed by the Kerala Public Works Department (PWD) for the preparation and online approval of estimates.

<sup>44</sup> For which work files were made available to Audit

<sup>45</sup> If the width of trench exceeded the minimum requirement due to faulty workmanship/protection/shoring etc. the additional payment for the extra damaged road width payable to PWD/NH, local bodies, etc. was to be recovered from the contractor's bill.

District Collector along with KWA and PWD officials and report submitted to the Secretary, PWD.

The contention of the Government that the DLP of the road had expired cannot be accepted in Audit, since demand by PWD for remitting security deposit arises only in roads covered under DLP and any subsequent damages to the road will be deducted from the security deposit submitted by KWA. Audit also observed that the damages to the road were assessed by the Vigilance wing of PWD and hence the Government's contention in justifying the contractor cannot be accepted.

#### 4.7. Source Inadequacies

##### 4.7.1. Non-completion of augmentation of Water Treatment Plant leading to inadequate supply of potable water

The Bilateral Assisted Water Supply Scheme (BAWSS) to Kundara and adjoining Panchayats, aimed to provide 2,416 number of FHTCs to Kundara and 4,414 FHTCs to Perayam by 2023, so as to ensure 100 *per cent* FHTCs to these Panchayats. The proposal included extension of pipeline, augmentation of Water Treatment Plant (WTP) at Elampal and replacement of existing Asbestos Cement (AC) distribution network. The implementing agency, KWA proposed to first provide 500 FHTCs to Kundara and 1,514 FHTCs to Perayam. The remaining connections were agreed to be provided post renovation of the WTP. The works were tendered and awarded to the contractor in July 2021. Despite expending an amount of ₹8.87 crore on these works, the above works have not been completed till date (October 2024).

The following further observations were also made:

- Though the remaining 4,816 connections<sup>46</sup> were to be laid after augmentation of WTP, it was seen that the only work taken up as part of augmentation was the dismantling of one out of the four filter beds, which has not been restored till date (October 2024). The contractor provided 5,286 connections<sup>47</sup> in both GPs without undertaking any of the works relating to the renovation of the WTP.
- On a scrutiny of outflow details, it was noticed that the average production of treated water in the WTP Elampal was nine mld<sup>48</sup> against the installed capacity of 16 mld, which indicated 44 *per cent* shortage in its installed capacity. Readings in valve operation schedule in the GPs confirmed that water was being supplied only once in a week. This was due to the non-functioning of vital components of the WTP, *viz.*, clarifier, flash mixer, flocculator, rapid sand filter, air compressor, etc.
- As per the test report of EE, Water Quality Division, Thiruvananthapuram (June 2024), the colour and turbidity of water was above the permissible limits and Coliform bacteria and E-coliform bacteria were present in the sample.

<sup>46</sup> 1,916 in Kundara and 2,900 in Perayam

<sup>47</sup> 2,526 in Kundara and 2,760 in Perayam

<sup>48</sup> Million litres per day

Source inadequacies as mentioned in the above paragraphs would hinder uninterrupted supply of quality water for consumption and hence needed to be addressed on priority.

The Government stated (June 2025) that the laxity on the part of the contractor had delayed the improvement works of WTP and assured that it will be resolved soon by taking appropriate action.

#### 4.7.2. Non-commissioning of tube wells leading to non-supply of water

The scope of work Phase I - CWSS to Chavara - Panmana Jananidhi scheme under JJM 2021-22 included construction of six tube wells by KWA as part of source improvement. KWA provided (March 2024) 2057 out of the proposed 2864 connections and requested Panmana GP for list of beneficiaries who had not been supplied with FHTCs. The GP did not provide the said list to KWA. KWA informed (July 2024) the Secretary of the GP that it was not in a position to take up the O&M work of the scheme and requested the GP to commission the scheme by taking over the tube wells. Audit scrutiny revealed that the GP had to remit arrears of bulk meter charges amounting to ₹884.11 lakh for the period from January 2014 to February 2025, to KWA. On account of persistent reluctance of the GP to pay the pending charges, KWA was not willing to take up the O&M of the scheme. Thus, the scheme continued to be non-operational, resulting in an infructuous expenditure of ₹278.90 lakh.

During the beneficiary survey, 17 out of 22 beneficiaries reported that there was no water supply through the JJM tap connections provided.

Government replied (June 2025) that water supply in the GPs was carried out by SLEC/GP and that the tube wells were constructed on the basis of resolution of GP, in order to cater to the water scarce areas. It was also stated that KWA had no role in the O&M of water supply in Panmana GP. No response has been received from Local Self Government Department till date (June 2025).

### 4.8. Quality Issues in water supply

#### 4.8.1. Non-functional Reverse Osmosis Plants in Fluoride affected habitats

The Operational guidelines of JJM stipulated that, in water quality-affected habitations, especially with Arsenic and Fluoride contaminants, potable water had to be ensured on priority. As an interim measure towards achieving this, Community Water Purification Plants (CWPP) were to be set up to provide 8-10 lpcd potable water to meet the drinking and cooking needs of every household residing in such villages/ habitations by March 2021.

An amount of ₹284.77 lakh was earmarked for the installation of CWPP for fluoride affected habitations in Palakkad district as shown in **Table 4.8**:

**Table 4.8: Details of fund allocated for CWPP in test-checked GPs**

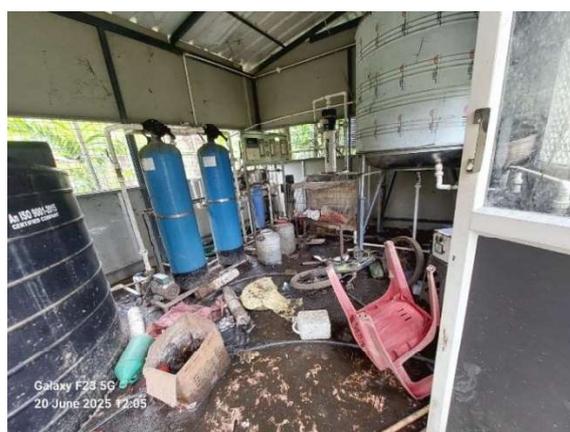
Grama Panchayat	Amount earmarked for CWPP (₹ in lakh)
Agali	52.77
Trikkaderi	89.00
Mundoor	128.00

Grama Panchayat	Amount earmarked for CWPP (₹ in lakh)
Kizhakkancherry	15.00
<b>Total</b>	<b>284.77</b>

(Source: Administrative Sanctions issued by GoK)

It is pertinent to note that the survey conducted (2023-24) as part of the National Programme for Prevention and Control of Fluorosis in three schools in a test-checked GP, Agali, confirmed fluorosis in 37 of 369 samples (10 per cent) tested. Out of 3600 samples tested all over Palakkad district, dental fluorosis was confirmed in 1280 samples (35 per cent), which called for immediate rectification measures. Apropos of the above, the District Medical Officer had sought (January 2023) details of fluoride affected regions in Palakkad from KWA and the GPs<sup>49</sup> and urged (March 2024) the local bodies to find solution to the problem in a scientific manner. However, Audit could not find any effective remedial action being taken by KWA/GPs, to address the health hazard.

Government stated in reply (June 2025) that, five<sup>50</sup> Reverse Osmosis (RO) plants<sup>51</sup> costing ₹47.01 lakh were installed (June 2021) in the test-checked GP, Agali. However, Joint Physical Verification conducted (June 2025) by Audit subsequently in Agali GP, alongwith the officials of KWA Mannarkkad Section, Palakkad, revealed that all the five RO plants installed were left non-functional in an abandoned state, as shown in **Figure 4.2**.



**Figure 4.2: Non-functional RO plant at Agali GP.**  
Photo taken by Audit party on 20 June 2025

The expenditure incurred on the RO plants had thus become unproductive, depriving the local population of access to safe drinking water.

#### 4.8.2. Non-provision of Community Water Purification Plant in Water Quality Affected areas

The Central Ground Water Board (CGWB) report recorded the prevalence of six parameters<sup>52</sup> in ground water and recommended for installation of CWPP as an immediate relief measure to provide 8-10 lpcd potable water for drinking and cooking purpose. The JJM-WQMIS data with respect to the water quality

<sup>49</sup> which included the test-checked GPs of Sholayur and Kollengode.

<sup>50</sup> Three plants in Kallumala colony, one in Kavundikkal colony and one in Thavalam colony.

<sup>51</sup> GoI directed to install CWPP including Reverse Osmosis plants in affected areas.

<sup>52</sup> Arsenic, Chloride, Fluoride, Iron, Nitrate and Salinity

affected habitats since 01 April 2019 identified Nenmeni habitation of Munroethuruth GP in Kollam district as an affected habitation.

Audit observed that the latest tests conducted (April 2025) by KWA in the samples taken from Nenmeni ward in the GP showed chemical contamination of high iron content. However, no CWPP has been provided to the habitat yet, even as an immediate relief measure. It is significant to note that Munroethuruth GP was declared as 'Har Ghar Jal' Panchayat on 20 October 2022 vide resolution passed by the GP, despite being notified for water quality issues and lack of remedial action.

In the Focus Group meeting conducted (November 2024) by Audit, the GP stated that no action has been taken by KWA to address the issue and that the residents used bottled water for consumption. The Assistant Engineer, KWA justified the non-provision of CWPP on account of a multi village scheme<sup>53</sup> with WTP being undertaken as a permanent solution for water quality issues. However, Audit noted that out of 16 packages of the above WSS, only four packages were completed and the works relating to nine packages had not even commenced. As supply of treated water from this MVS to the quality affected areas was a remote possibility in the near future, immediate relief measure like CWPP was the need of the hour.

Government stated (June 2025) that recent sample test results confirmed that the water supplied met the desired quality parameters. However, no records in support of the claim were provided to Audit. Further, the samples tested by QCDL Kollam from Nenmeni ward on 28 March 2025 on request of Audit, as depicted in Paragraph 5.3, showed high iron content of 1.28 mg/l, which is above the acceptable limit.

#### 4.9. Functional Household Tap Connections not provided in priority areas

JJM guidelines advocated provision of FHTCs by March 2021 in water quality-affected areas, Japanese Encephalitis and Advanced Encephalitis Syndrome (JE-AES) affected areas, Desert Development Programme (DDP) areas, Drought Prone Area Programme (DPAP) areas, Aspirational districts and Sansad Adarsh Gram Yojana (SAGY) villages. However, it was seen that 100 per cent FHTCs were not provided in any of the prioritised areas in test-checked districts and the only aspirational district in the State till date (March 2025) as presented in **Table 4.9**:

**Table 4.9: Details of FHTCs in priority areas**

Details of priority	District	No. of Panchayats/habitats	Total number of HHs	Number of FHTCs provided	Percentage of completion
Aspirational District	Wayanad	23 (Panchayat)	1,91,308	72,158	37.72
Quality affected areas	Palakkad	2 (habitat)	768	689	89.71
	Kozhikode	15 (habitat)	6,452	786	12.18
SAGY	Palakkad	3 (Panchayat)	19,406	8,073	41.60
	Kollam	3 (Panchayat)	31,736	20,606	64.93

(Source: JJM IMIS data as on 21 March 2025)

<sup>53</sup> WSS to Perinad, Panayam, Thrikkaruva and Munroethuruth

Thus, a critical system of JJM i.e. to prioritise provision of FHTCs in quality affected areas/ aspirational district/ SAGY villages etc. remained unfulfilled.

GoK replied (June 2025) that since most of the schemes were MVS, it was not possible to separate priority areas as most of the priority areas will be distributed among different GPs. It was further stated that once the WTPs were operational, the remaining FHTCs will be provided.

The reply is not justifiable as it reflects the low priority accorded to providing FHTCs in areas to be prioritised. The only aspirational district Wayanad had one of the lowest performances (38 *per cent*) in implementation of JJM in the State. Further, the SAGY GPs among the test-checked GPs in Palakkad, *viz.*, Agali, Pudur and Sholayur had a single scheme, WSS to Agali and adjacent GPs, and the physical achievement of the scheme as on 01 November 2024 was just 18.33 *per cent*. Not even a single FHTC was provided to the above three GPs under the scheme till date.

#### 4.10. Failure to adopt single village schemes in Q&Q Blocks

Ground water is a major source of drinking water in the State and rural households in Kerala rely on dug wells for drinking water purpose.

The Central Ground Water Board (CGWB) identified a list of Quantity and Quality blocks (Q&Q Blocks) which had ground water in adequate quantity of prescribed quality. In villages where ground water/ surface water/ spring water was available in terms of both quantity and quality, the States were advised to undertake Single Village Schemes (SVS) based on these sources. Multi Village Schemes (MVS) were suggested to be taken up in those blocks, which did not fall under the category of Q&Q blocks. Of the 152 blocks falling in the 14 districts in the State, three were categorised as ‘critical’, 27 blocks were ‘semi-critical’ and remaining 122 blocks fell under ‘safe’ category.

Of the 21 GPs test-checked, it was observed that not even a single SVS was implemented in 15 GPs situated in four<sup>54</sup> safe Q&Q blocks. KWA undertook MVS in these GPs, which remained non-functional due to delay in completion of components. In the two safe Q&Q blocks Chittumala and Chavara in Kollam district which included eight test-checked GPs<sup>55</sup>, the MVS being implemented drew water from Kallada river and Sasthamcotta lake respectively. Both these sources were facing the threat of depletion due to over exploitation.

GoK replied (June 2025) that Q&Q block may be a small geographical area where a comprehensive scheme already existed or was part of a newly designed MVS. In such cases, it was economical and sustainable to give line extension from the MVS to that area. However, Audit observed that new schemes were implemented in test-checked GPs (Panayam, Munroethuruth) with source as Kallada river, though it was included in the Q&Q blocks where SVS could have been taken up.

Further, it was stated that ground water sources were susceptible to biological contamination and O&M cost of the SVS was high. However, Audit could not find reports of any feasibility studies conducted in this regard. Evidence for

<sup>54</sup> Chavara, Chittumala, Attappadi, Melady

<sup>55</sup> Chavara, Neendakara, Panmana, Thevalakkara, Kundara, Munroethuruth, Panayam and Perayam

considering SVS while taking up new schemes was not included in the minutes of DWSM, SWSM and Source finding committee. Audit compared the cost per household for FHTCs of SVS and MVS and noticed that the cost of providing FHTCs in SVS was lower than that in MVS.

#### 4.11. Tap connections not provided at specified locations

Paragraph 3.5 (ii) of JJM guidelines mentioned that FHTCs may be planned to be provided in every household with three delivery points (taps), viz., kitchen, washing and bathing area and toilet, to keep water clean and prevent misuse. The details of tap connections provided in the houses verified by audit in test-checked BPs were as shown in **Table 4.10**:

**Table 4.10: Details of tap connections provided in test-checked Block Panchayats**

Name of the District	Name of the Block Panchayat	No. of houses verified physically by audit	No. of houses in which tap connections not provided in the specified locations	Percentage of tap connections provided in specified locations
Kollam	Chittumala	85	85	0
Kollam	Chavara	90	89	1
Palakkad	Kollengode	97	97	0
Kozhikode	Kozhikode	50	50	0
Kozhikode	Melady	20	20	0
	<b>Total</b>	<b>342</b>	<b>341</b>	<b>-</b>

(Source: Beneficiary Survey conducted by Audit)

According to the beneficiary survey, the tap connections were provided outside the houses of beneficiaries and not at locations specified. Tap connections not being provided at specified locations was a deviation from the Guidelines of the scheme.

GoK replied (June 2025) that extension of service lines inside the property of individuals would lead to increase in cost per connection and cost of JJM. The reply was not acceptable. When the estimates provided for additional lengths, it was not clear as to why KWA did not provide FHTCs in specified locations under the scheme, which would have facilitated ease of living for rural community, especially women.

#### 4.12. Lack of potable water supply to SC/ST dominated areas of test-checked Grama Panchayats

The JJM aimed at providing every rural household in the country with potable tap water supply by 2024, including those in tribal areas and areas that are not reachable by motorable road in forest and hilly regions. While allocating the fund, 10 *per cent* weightage was to be assigned to population residing in SC/ST dominated areas, to prioritise coverage in these areas. Of the 0.42 lakh rural households residing in SC/ST areas in the State, only 32 *per cent* households had access to tap water supply. Against this backdrop, Audit assessed the extent of shortage of potable water supply in the SC/ST dominated areas in the test-checked districts, the results of which are detailed in **Table 4.11**:

**Table 4.11: Status of potable water supply in SC/ST dominated habitations**

District	Test-checked BP (GPs)	Status of supply of potable water
<b>Palakkad</b>	Attappadi (Agali, Pudur, Sholayur)	<ul style="list-style-type: none"> <li>• Mini water supply schemes implemented to tide over the water crisis in the three GPs were not successful and hence a comprehensive WSS to Attappadi was conceived (May 2022) by KWA. The pace of implementation of the scheme decelerated considerably since August 2023 due to paucity of funds and delay in execution of works. Not a single FHTC was provided under JJM in the three test-checked GPs.</li> <li>• In Mulli ward in Pudur, inhabitants were excluded from JJM due to inability of KWA to provide water to the place located at very high altitude.</li> <li>• Korathipara habitation in Agali GP was not provided with distribution line and was excluded from JJM.</li> </ul>
<b>Kozhikode</b>	Melady (Keezhariyur GP)	<ul style="list-style-type: none"> <li>• Oorukunnu SC colony in the GP was excluded from the final plan without the notice of the GP. It was opined that this exclusion created gaps in expected service delivery.</li> </ul>

(Source: Minutes of Focus Group Meetings conducted by Audit)

GoK replied (June 2025) that JJM works were in progress in Agali, Pudur and Sholayur GPs. The reply is not tenable, as no progress in implementation has been recorded since August 2023. No remarks were seen offered in the case of Keezhariyur GP.

### **Recommendations**

- **Government may lay down a protocol for the implementing agencies of JJM on coordination with Departments and GPs for timely clearances for rail/road cutting.**
- **Government may ensure that Community Water Purification Plants are set up and made functional in water quality-affected habitations, so as to provide uninterrupted supply of potable water to meet the drinking and cooking needs of households.**