



THIRTEENTH KERALA LEGISLATIVE ASSEMBLY

**COMMITTEE
ON
PUBLIC UNDERTAKINGS
(2011-2014)**

THIRTY EIGHTH REPORT
(Presented on 28th January, 2014)

SECRETARIAT OF THE KERALA LEGISLATURE
THIRUVANANTHAPURAM
2014

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On

**Kerala Water Authority based on the Report of the Comptroller and
Auditor General of India for the years ended
31st March, 2004, 2005, 2006,
2007 & 2008 (Civil)**

335/2014.

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INTRODUCTION

I, the Chairman, Committee on Public Undertakings 2011-2014 having been authorised by the Committee to present the Report on their behalf, present this Thirty Eighth Report on Kerala Water Authority based on the Reports of the Comptroller and Auditor General of India for the years ended 31st March 2004, 2005, 2006, 2007 & 2008 (Civil) relating to the Government of Kerala.

The Reports of the Comptroller and Auditor General of India for the years ended 31st March 2004, 2005, 2006, 2007 & 2008 were laid on the Table of the House on 20-7-2005, 13-2-2006, 28-12-2006, 26-2-2008 and 23-6-2009 respectively. The consideration of the audit paragraphs included in this Report and the examination of the departmental witness in connection thereto was made by the Committee on Public Undertakings constituted for the years 2008-2011.

This Report was considered and approved by the Committee at the meeting held on 7-11-2012.

The Committee place on record their appreciation of the assistance rendered to them by the Accountant General (Audit), Kerala in the examination of the Audit Paragraphs included in this Report.

The Committee wish to express their thanks to the officials of the Water Resources Department of the Secretariat and Kerala Water Authority for placing before them the materials and information they wanted in connection with the examination of the subject. They also wish to thank in particular the Secretaries to Government, Water Resources and Finance Department and the officials of Kerala Water Authority who appeared for evidence and assisted the Committee by placing their considered views before the Committee.

Thiruvananthapuram,
28th January, 2014.

K. N. A. KHADER,
Chairman,
Committee on Public Undertakings.

REPORT

KERALA WATER AUTHORITY

AUDIT PARAGRAPH

Managing Director (MD), Kerala Water Authority (KWA) sanctioned (December 1995) a comprehensive rural water supply scheme under the Centrally Sponsored Accelerated Rural Water Supply Programme for providing drinking water to Thekkumkara and three adjoining water problem villages in Thrissur District at an estimated cost of ₹ 3.25 crore. The scheme comprising eight components was to be commissioned in December 1998. According to the detailed engineering report prepared by the Chief Engineer, KWA about 1.69 mld* of water was proposed to be tapped from the reservoir of Vazhani Dam in Thrissur District, managed by Irrigation Department, through a control system to be installed at the dam and through a water channel and a sump to be constructed at the dam site. KWA requested (July 1997) Irrigation Department to hand over 25 cents of land for construction of sump and a water channel at the dam site for completion of intake arrangements. Irrigation Department, however, denied (September 1997) permission to tap water for the scheme from the reservoir due to insufficiency of water and informed KWA that Government had already directed (June 1994) not to transfer land belonging to Irrigation Department to other departments. KWA decided only in December 2002 i.e., after a lapse of five years to construct an alternative source in the down stream of the dam, for which sanction of Government was not obtained as of February 2004. Pending finalisation of source, other components of the scheme constructed at a cost of ₹ 2.01 crore as of November 2003 could not be put to use.

The failure of the Chief Engineer, KWA to ensure the availability of source while formulating the project proposals and also the failure of Managing Director to identify an alternative source had resulted in the non-completion of the scheme even after 8 years of its sanction thereby depriving the facility of drinking water to the people in the problem villages.

The matter was referred to Government in July 2004, the reply has not been received (November 2004).

[Audit Paragraph 4.5.7 contained in the Report of the Comptroller and Auditor General of India for the year ended on 31st March, 2004 (Civil).]

The Notes furnished by Government on the audit paragraph is given in Appendix II.

* mld—million litres per day.
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The Committee enquired why Kerala Water Authority had not ensured the availability of sufficient water source before taking up the water supply project at Thekkumkara in Thrissur district. The witness replied that initially Vazhani dam managed by Irrigation Department was identified as the source of water for the project. But when farmers and residents of the region raised objection against the proposal due to fear of resultant scarcity of water, later a well was constructed near the dam and the project was informed to be commissioned in 2007-08 financial year as per the revised estimate and the proposal revised in 2003. According to the original proposal, the project was supposed to be commissioned in 1998.

2. The Committee enquired whether there was any supporting document for such an understanding between Kerala Water Authority and Irrigation department to use the dam as a source of water. It became evident to the Committee that no formal approval from Irrigation Department had been obtained before the project was taken up. The total expense of the project was informed to be ₹ 383.85 lakh against its estimated cost of ₹ 325 lakh and the project was fully commissioned in all villages coming under it. To a question of the Committee, the Technical Member of Kerala Water Authority informed that this project was fully completed using the fund from Government of India.

3. When the Committee expressed surprise over just 20% hike in estimate amount even after elapse of 15 years the reply was that the principal expense of the project being for laying of pipes as pipes were already bought and laid the project cost didn't go up much higher.

4. When enquired for the list of 14 schemes which were abandoned due to non-availability of land the list was agreed to be submitted to the Committee. The Technical Member added that 418 schemes out of 519 were completed, 87 schemes were ongoing. Many schemes with non-availability of land were informed to have been taken up by redesigning them to make land available. Once land was obtained for schemes which initially faced non-availability of land, by making additional distribution, such schemes were brought under the new project of coverage of habitation worth ₹ 125 crore sponsored by Government of India. As part of this, incompleting projects were identified and maximum works were done and projects which deserved cancellation were discontinued.

5. The Committee demanded a detailed report to be submitted on the ongoing 87 schemes, abandoned 14 schemes due to non-availability of land, including the total amount spend for Kalanjoor-Koodal-Enadimangalam Scheme, the number of beneficiaries of this project and the expected date of completion of remaining works.

6. When asked about the steps taken by Government/Authority to obtain land for Water Supply Schemes, it was informed that as per the condition of Government of India now Panchayats acquire land using their plan fund and hand them over to Kerala Water Authority.

Conclusions/Recommendations

7. **The Committee is at surprise to note that Kerala Water Authority has not ensured the availability of water source before taking up the Water Supply Project at Thekkumkara in Thrissur district. In not satisfying with the explanation given by KWA the Committee says that KWA has failed to obtain the formal approval from the Irrigation Department before implementing the Water Supply Scheme in Thekkumkara and three adjoining villages in Thrissur District. The Committee expresses its discontent and dissatisfaction over the inordinate delay occurred in the implementation of the project. The Committee finds it as a classical example of improper planning and lack of co-ordination prevailing in KWA. The Committee therefore recommends that KWA should conduct a feasibility study about the viability of its projects before their implementation. The Committee directs to be submitted with a detailed report on the 87 ongoing Water Supply Schemes and the 14 schemes which had been abandoned due to non-availability of land. The Committee also directs to furnish the details of the total amount spent for Kalanjoor-Koodal-Enadimangalam Scheme, the number of beneficiaries of the project and the expected date of completion of the remaining works. The Committee recommends that appropriate steps should be initiated to identify the officials responsible for the loss and stringent action should be taken against them after being fixed the liability.**

AUDIT PARAGRAPH

Government sanctioned (December 1983) a Rural Water Supply Scheme to benefit a population of 25000 in Thelliyoor, Valakuzhy and Ezhumattoor in Alappuzha District at an estimated cost of ₹ 73.18 lakh. Kerala Water Authority (KWA) awarded works relating to the six* components of the scheme to a contractor (first contractor) in March 1984 at a cost of ₹ 5.90 lakh and the work of laying distribution system to another contractor (second contractor) in August 1984 at a cost of ₹ 8.19 lakh. The scheme scheduled to be completed in December 1986 could not be completed and commissioned as of September 2004 even after incurring an expenditure of ₹ 1.25 crore as detailed below:

* Construction of well-cum-pump house, infiltration gallery, pumping main, booster pump house and sump, ground level tanks and retaining wall.

The first contractor executed only a small portion of the work awarded to him and did not undertake the construction of well-cum-pump house, as the revised design of the well to increase the diameter from 6 meter (original proposal) to 9 meter was not made available. Due to the delay in execution of the works the SE, PH Circle, Kottayam relieved (December 1988) the contractor from executing these works but allowed (January 1990) the contractor to complete the construction of booster pump house, sump and one ground level tank which were completed in July 1991.

The agreement with the second contractor was also terminated in April 1992 as he had laid only 45186 meters out of 53528 meters of pipes issued to him. Though the contract was terminated in April 1992 KWA did not recover the amount of ₹ 19.80 lakh being the value of materials not returned by the contractor for which revenue recovery proceedings was initiated only in September 2001. The amount had not been recovered so far (September 2004).

Although the balance works of the scheme viz., laying of pump main, construction of one GL tank, laying gravity main, erection of pump sets and balance work of distribution system remained at a standstill since January 1992, only the construction of a 6 meter diameter well-cum-pump house was awarded to another contractor in January 2001 which was completed in May 2003 at a cost of ₹ 45.06 lakh. The remaining works of the scheme for which an amount of ₹ 1.35 crore was required were not re-arranged as of September 2004.

Though the delay in making available the revised design of the proposed well from 6 meter to 9 meter diameter was the main reason for the delay in work it was noticed in audit that the well constructed after 19 years was of 6 meter diameter as originally proposed and the cost incurred was ₹ 45.06 lakh as against the estimated cost of ₹ 2 lakh in 1984.

The Executive Engineer, PH Division, Thiruvalla stated (August 2004) that due to paucity of funds it had been decided (June 2004) to recast the estimate for balance works by limiting the distribution system and complete the works by December 2005.

Thus, failure of SE, KWA, Kottayam in arranging the works and KWA to monitor the progress of execution of work led to the non-completion of a scheme intended to benefit a population of 25000 and their aspirations of safe drinking water remained unfulfilled even after 20 years of its commencement. It is suggested that Government may investigate the matter and take action against the persons responsible for the lapse.

The matter was referred to Government in July 2004; reply has not been received (November 2004).

[Audit Paragraph 4.5.8 Contained in the Report of the Comptroller and Auditor General of India for the year ended 31st March, 2004 (Civil).]

Notes furnished by Government on the audit paragraph is given in Appendix II.

8. The delay in Commissioning the Water Supply Scheme in Thelliyoor, Valakkuzhi and Ezhumattoor Panchayats in Alappuzha district was explained to be due to the delay in acquiring and transferring the required land by respective panchayats. By utilising the pipes purchased for the project in other schemes, ₹ 13.68 lakh out of the total loss incurred of ₹ 19.80 lakh was recovered and the balance amount of ₹ 6.12 lakh being the value of materials not returned by the contractor was informed to be still a loss. The Committee enquired whether any Revenue Recovery procedure had been initiated in this regard. It was then replied that ₹ 6.12 lakh had to be recovered from the contractors and employees and they had filed a case against this in the Hon'ble High Court. As directed by the High Court, a hearing and technical audit were conducted and the matter was pending before the Vigilance Committee. The final report of the Vigilance Committee is awaited. The balance amount was expected to be recovered as per the directions of the High Court. The Committee gave instruction that the action taken in this regard should be informed to the Committee.

9. The Committee noticed that when the diameter of the proposed well was revised from 6 m. to 9 m. the initial contractor withdrew from the work pointing out the change in specification from the initial contract. The Committee sought explanation for demanding the first contractor to increase the diameter of the well from 6 m. to 9 m. and later being content with the 6 m. diameter when the second tender was invited. The Technical Member explained that as per file record it was seen that insufficiency of 6 m. diameter for installation of the proposed pumps was the reason for the direction given from Chief Engineer level. The decision to increase the diameter of the well and thereby getting the initial contract cancelled and later proceeding with the old diameter lacked justification. A procedural lapse was admitted in this regard. The witness couldn't submit any reason for this. However it was informed that the estimate was revised. The Committee suspected that the only motive behind the demand for change of diameter of well was to get the estimate revised. On being informed that the officers who were directly related to this issue had all retired, the Committee strongly demanded to submit the reasons for initially increasing the diameter and later reverting back to the original diameter.

Conclusions/Recommendations

10. The Committee is not at all convinced about the reasons submitted by the witness regarding the delay in commissioning the Water Supply Schemes in Thellicor, Valakkuzhi and Ezhumattoor Panchayats in Alappuzha district. The Committee understands that the delay in work was due to failure in making available the revised design of the well to the contractor in time with the change in its diameter from 6 meter to 9 meter. Surprisingly to note that after a long delay of 19 years, the well was constructed with the same 6 meter diameter as originally proposed, incurring an additional cost of ₹ 43.06 lakh over and above the estimated cost of ₹ 2 lakh. The Committee observes that initially there is the demand to increase the diameter of the well proposed to be constructed as part of the project and thereby getting the initial contract cancelled but later, after many years the well is constructed with the same old design with 6 m. diameter. The Committee feels that all these action appear to be mysterious. Since the procedural lapse could not be explained, the Committee suspects ulterior motive behind the demand for change of diameter of the well in order to get the estimate revised. In expressing discontent over the reply furnished, the Committee strongly demands to submit a detailed report on the issue.

11. The Committee finds that KWA initiated recovery proceedings only after nine years to recover ₹ 19.80 lakh, the value of materials not returned by the contractor. The Committee therefore recommends to speed up the actions to recover the loss sustained to the KWA and to report the action taken in this regard to the Committee. The Committee feels that owing to the failure of KWA a scheme intended to benefit 25000 people and their basic right for safe drinking water remained unfulfilled even after 20 years of its commencement. The Committee therefore recommends KWA to monitor the progress of execution of works with clarity and transparency in its dealings. The Committee further recommends that earnest efforts should be made to identify officials responsible for the loss and stringent action should be taken against them after fixing the liability.

AUDIT PARAGRAPH

The comprehensive Water Supply Scheme to Varkala Municipality and adjoining villages envisaged supply of 18.70 million litres per day (mld) of drinking water (ultimate demand) to 2.47 lakh population in the municipality and in seven adjoining villages where the shortage of drinking water was such that in the Municipality against the demand of 6 mld of water only 0.5 mld (8 per cent of the demand) was being distributed. Government sanctioned (March 1993) part of the

scheme for supplying water to the municipal area (9.75 mld) at an estimated cost of ₹ 8.25 crore to be commissioned in December 1997. In March 2000 Government sanctioned the remaining part of the scheme for the rural area (8.95 mld) at an estimated cost of ₹ 9.06 crore under Centrally Sponsored Accelerated Rural Water Supply Scheme to be commissioned in March 2003. Source, Treatment Plant, Pumping Main, Gravity Main, Sumps, Service Reservoirs and Distribution Network were to be established, of which the first four components were common to both parts of the scheme. Kerala Water Authority (KWA) availed a loan of ₹ 6.59 crore from HUDCO (₹ 5.59 crore in March 1999 and ₹ 1 crore in March 2001) for implementation of the scheme.

In September 1995, KWA placed orders with a firm for supply of 6490 meters of 600 mm class 10 AC pipes required for the scheme. During inspection (June 1996) of pipes at the premises of the firm, the agency authorised by KWA detected inherent defects in the pipes. Though this fact was brought to the notice of the Chief Engineer, Planning, Services and General (CE) of KWA, the matter was not taken up with the firm. The pipes supplied (6487 meters) by the firm during May–August 1996 were, however, accepted by KWA and ₹ 1.05 crore was paid in October 1996.

The work of laying gravity main* was awarded to a contractor in May 1997 with the completion date as 29th November, 1997. The Contractor could, however, start the work only in March 1998 and the time of completion was extended up to 30th March, 1999 by the Managing Director, KWA. The contractor laid pipes for a length of 1697 meters till June 1998. During pressure tests conducted (June 1998), a total length of 1489 meters of pipes could not withstand the required test pressure of 7.5 Kg./cm², of which 520 meters could not withstand even the test pressure of 4.5 Kg./cm². On reporting the matter to the supplier firm, it arranged (December 1998) testing of pipes and found that 45 per cent of pipes were defective due to peeling of shell layers in the edges. Hence they shortened the length of each pipe by 10 to 30 cm., which was not in conformity with the standard of maximum tolerance on the nominal length of 40 mm of each pipe as prescribed by Bureau of Indian Standards. KWA, however, allowed these defective pipes to be laid for a length of 5150 meters by incurring an expenditure of ₹ 20.54 lakh as of July 2000. Laying of pipes was held up thereafter and the work was resumed in January 2003 only. Although the components of the scheme for the supply of 9.75 mld of water to the municipal area were completed, supply of water had not commenced (July 2004) pending completion of rectification of leak of pipes. The remaining works of construction of one sump, six service reservoirs and distribution system of the scheme

* Pipeline for transmission of clear water by gravitational pull.

to supply 8.95 mld of water to seven villages had not commenced (July 2004) even though they were to be commissioned by March 2003.

The action of the Chief Engineer in accepting defective pipes delayed the commissioning of the scheme by more than six years and the expenditure of ₹ 14.38 crore incurred on it remained unproductive. Further, as the gravity main was common to both portions of the scheme intended to distribute 18.70 mld of water to the municipal and rural areas, the capacity of the pipes to withstand the pressure when both the portions of the scheme are commissioned is doubtful.

The matter was referred to Government in June 2004, reply has not been received (November 2004).

[Audit Paragraph 4.5.9 contained in the Report of the Comptroller and Auditor General of India for the year ended 31st March, 2004 (Civil).]

Notes furnished by the Government on the Audit Paragraph is given in Appendix II.

12. Regarding the procurement of poor quality pipes the Principal Secretary explained that an order was placed for the purchase of 6490 m. 600 mm. class 10 A-C pipes from Swasthik Asbestos Cement Ltd. When inspection was conducted, it was found that 200 pipes were short of length and some were found to be poor in quality. Faulty pipes among them were replaced by the supplier and after cutting off the defective portion of other pipes the remaining portion was utilised. Phase I & II work of the project was informed to have been commissioned and Phase III work was in progress.

13. The Committee enquired whether the Authority purchased pipes for its projects without assessing their pressure withstanding capacity, based on the capacity of the respective schemes. It was further enquired about those responsible to assess the quality of pipes. The Committee pointed out that pipes with 4.5 Kg./cm.² pressure withstanding capacity were purchased in place of those requiring 7.5 Kg./cm.² which was needed for the scheme. The Committee observed that out of the pipes laid for 6.49 km., 1.48 km. was found to be defective. As the pipes couldn't withstand the tested pressure, breakage of pipes occurred when pressure test was conducted. This was definitely due to failure in conducting technical examination of the quality of pipes at the time of its purchase. Breakage of 25% of pipes laid is taken serious note of. Technical Member clarified that often, following the standards, random sampling is done in third party inspection. After testing the random samples the complete lot is sealed and supplied. Pressure test was carried out after the pipes were laid in the field. Normally the rate of failure was less than 2% when pressure test was conducted.

However, once the test was conducted for this specific lot, defect was detected and hence the entire lot was got replaced by the supplier at their cost. The Committee asked about the officer who was responsible for the purchase of poor quality pipes after quality test by third party. Water Resources Secretary answered that the third party agency SGS was prima facie guilty and that though they should have been blacklisted it was not done.

14. With regard to selection of third party agency for quality test the Committee was informed that the third party should meet the pre-qualification criteria as per the tender proceedings. SGS was informed to be such an international agency in the quality/quantity-surveying field. Selection of agency was reported to be done considering the lowest quoted rate from among such agencies. It was also added that the quote was made for random testing and if any defect was noticed on laying the supplier would be bound to replace the defectives. The witness further explained that initially SGS had not found the defect in quality of pipes. When field inspection was done at site, the defect was noticed and the supplier was made to replace them.

15. The Committee, however, wanted to know the then Chief Engineer who accepted the pipes which were defective.

16. The Committee asked whether the scheme was fully commissioned and if the pipe laying work had been completed in all areas included in the project. The Chief Engineer replied that the project was fully commissioned and functional in Varkala Municipality and two panchayats and partially commissioned in two panchayats. The partially commissioned ones are expected to be commissioned fully within one and a half years.

17. When the Committee expressed doubt whether on full commissioning of the entire project the pipes would withstand the arising pressure, it was explained that even now water is being pumped at full capacity and that pipes are withstanding the pressure.

Conclusions/Recommendations

18. The Committee understands that the purchase of defective pipes for the Comprehensive Water Supply Scheme to Varkala Municipality and adjoining Villages by KWA without assessing its pressure withstanding capacity stipulated for the scheme and without conducting technical examination about the quality of pipes led to a delay of more than six years in commissioning the scheme and caused an unproductive expenditure of ₹ 14.38 crore to KWA.

19. **Though the agency appointed by KWA for the inspection of pipes detected some inherent defects in the pipes, the KWA authorities did not take up the matter with supplier firm but proceeded to issue purchase order to the firm for the defective pipes. So the responsibility lies with the Chief Engineer who gave sanction to purchase the defective pipes. Any Officer if responsible for the loss should also be made accountable along with the Chief Engineer and stringent action should be taken against them after fixing the liability.**

20. **The Committee notices that this act of sheer negligence on the part of KWA is condemnable. The Committee is of the view that the delay in submitting report is a deliberate attempt on the part of KWA to safeguard the interest of the delinquent officials from bringing them to book. The Committee therefore directs that the replies to audit queries should be furnished at the earliest so that the action could be initiated against the erred officials.**

AUDIT PARAGRAPH

Kerala Water Authority (KWA) had been implementing the Centrally Sponsored Accelerated Rural Water Supply Project (Project) intended to provide safe drinking water to the rural population. The schemes taken up under the Project were to be completed within a period of three years utilising the Central assistance. It was noticed that implementation of schemes under the Project dragged on for years primarily due to laxity on the part of the KWA resulting in lapse of Central assistance and denying safe drinking water to the rural population in two cases detailed below:

- (1) Government sanctioned (March 1993) a Comprehensive Accelerated Rural Water Supply Scheme (Scheme) to Kilimanoor and adjoining villages at an estimated cost of ₹ 3.22* crore to provide drinking water to 67750 people as the existing facility could cater to the needs of 7950 people only. KWA purchased pipes costing ₹ 1.28 crore during November 1996 and March 1997 even before the approval of the final design of the Scheme and before getting the land required for the construction of the components of the Scheme. Though consent for relinquishment of land was received from the Panchayat/landowners during 1999-2000, no follow-up action was taken to finalise the site for construction of water treatment plant and also for not taking up the work even after a decade of its sanctioning and lapse of the Central assistance, directed (May 2003) him to give suggestions as to how the

* Source and pumping arrangements: ₹ 0.69 crore; Pumping Main: ₹ 0.60 crore; Treatment Plant: ₹ 0.22 crore; Reservoirs: ₹ 0.16 crore and Distribution System: ₹ 1.55 crore.

Scheme could be implemented in the absence of the Central assistance. As the KWA had not identified alternative source of funds, the possibility of implementing the Scheme was remote. Meanwhile, pipes costing ₹ 27.65 lakh were transferred to another division and the remaining pipes costing ₹ 1.01 crore were piled up (July 2005) in the Division. Thus, even after 12 years of its sanctioning, the scheme remained in the design stage.

- (2) Another Accelerated Rural Water Supply Scheme sanctioned (January 1999) at an estimated cost of ₹ 19.60* crore intended to provide drinking water to 1.16 lakh population of Elappara and adjoining four villages in Idukki district was to be completed by January 2002. The Scheme comprised construction of a Water Treatment Plant (WTP) of 7.5 mld capacity, raw water and clear water pumping main, 20 Ground Level Service Reservoirs (GLSR), sumps, boosting stations and 115 km. of distribution lines besides utilising the six meters diameter well, 10 GLSRs and distribution system of the existing small water supply schemes in the area. Construction of 14 GLSRs and improvements to the existing well were completed at a cost of ₹ 1.30 crore between March 2001 and July 2005. Tenders for construction of WTP at an estimated cost of ₹ 1.22 crore invited (May 2001) were not finalised, though the lowest offer received was for ₹ 1.09 crore. The MD, KWA, however, directed (November 2003) to cancel the tenders and invite fresh tenders for construction of a WTP of 9.5 mld capacity taking into account the additional requirement of water for another scheme suggested by Tourism Department which was under investigation of the KWA. Tenders for construction of 9.5 mld WTP had not been finalised even as of March 2005. Construction of four reservoirs at booster stations and master reservoir was also not taken up pending redesigning of pumping main consequent on the enhancement of capacity of WTP. The remaining works were not taken up as of July 2005.

Thus, the schemes taken up under Centrally Sponsored Accelerated Rural Water Supply Projects had been languishing for years despite availability of funds mainly due to lapses on the part of the KWA, rendering the expenditure of ₹ 2.31 crore incurred on them unproductive.

These points were referred to the Government in July 2005; reply had not been received (September 2005).

* Weir ₹ 0.30 crore; Water Treatment Plant: ₹ 0.92 crore; Service Reservoirs and Sumps; ₹ 0.94 crore; Pumping Main : ₹ 0.13 crore, Distribution System : ₹ 5.79 crore; Gravity Main: ₹ 9.70 crore; Power and Pump Sets: ₹ 1.30 crore; Contingencies : ₹ 0.52 crore.

[Audit Paragraph 4.3.6 contained in the Report of the Comptroller and Auditor General of India for the year ended on 31st March, 2005 (Civil).]

Notes furnished by Government on the audit paragraph is given in Appendix II.

21. The Committee pointed out the delay in completion of Rural Water Supply Scheme in Kilimanoor and Elappara. The Committee opined that though the Water Supply Scheme in Kilimanoor was started in 1993 not much development was seen to have occurred till 2005 and pipes worth ₹ 1.28 crore purchased for this scheme could not be utilised in time. Managing Director, Kerala Water Authority reported that pipes worth ₹ 1.01 crore, that remained after diversion of ₹ 27.65 lakh worth of pipes to another division, was utilised for two other Schemes. The Kilimanoor Scheme was informed to be placed before State Level Empowerment Committee, for approval.

22. The Committee stressed the fact that the pipes were bought specifically for the ARWSS to Kilimanoor and the tender procedure of the scheme was initiated after preparing estimate, Detailed Project Report and then obtaining technical sanction. The Technical Member, Kerala Water Authority explained that centralised procurement of materials was done from Head Office with Government approval soon after getting administrative sanction. But, the work could not be proceeded due to non-availability of land. However the pipes were diverted to other works as and when the audit objection was noticed. It was also informed that the system of centralised purchase has now been stopped and a system of 'supplying and laying' turnkey contract is being followed now.

23. When enquired about the present position of the project, the witness replied that as this scheme was announced in the budget, the proposal of the scheme has been submitted to Government for Administrative Sanction, which would be obtained after approval by working group. Once sanction is obtained the work can be started in the private land, which the Panchayat is ready to hand over. The Technical Member, Kerala Water Authority informed that though Kerala Water Authority had submitted all the required documents in the Detailed Project Report checklist to the Government, administrative sanction could not be obtained due to the criterion that only schemes having at least 25% provision would be sanctioned. The Committee strongly criticised the reply of the witness and opined that the scheme initiated in 1993 had already been delayed so long and is still remaining incomplete for want of administrative sanction. The Committee could not accept the delay in obtaining administrative sanction from the working group faced by a Scheme declared in the Government Budget; When Additional Secretary, Finance informed that though the Scheme was declared in

budget money was not kept apart for the scheme, the Committee enquired if there is any technical reason for the working group to delay sanction. The Committee also opined that a scheme declared in Budget Speech and thus approved by the House shouldn't have been deferred by the working group. It was then clarified that as per Government Order any work involving more than ₹ 3 crore should be approved by the working group. The Committee also stressed the point that the schemes pronounced in the budget need not satisfy the requirement of a minimum of 25% provision for sanction and directed that the work should be started without further delay.

24. It was explained that on 30th May, 2003 the capacity of the treatment plant in Elappara Scheme was increased from 7.5 mld to 9.5 mld, considering the tourism prospects of Vagamon. Though the work of 7.5 mld treatment plant was already tendered, the decision to increase the capacity necessitated cancellation of the tender and retender. The work of redesigned plant was informed to be completed in 2009. The Committee blamed the Authority for committing a delay of 2 years till 2003 to inspect the site for treatment plant, the construction of which was arranged on 19th July, 2001. The project proposal was approved and was aimed to be completed on 31st December, 2010. When the Committee enquired on the present position of the project, Technical Member informed that among the main 7 components of the project 4 were completed, and 2 were ongoing. The remaining one was held up for want of permission to lay pipes through an estate. However, the permission was informed to be obtained by waiver of arrear water charge due from the estate owner. Technical Member added that partial commissioning of this scheme was expected to be done by January 2011. The remaining work for catering to water requirement of adjoining villages needed additional fund, which was already approved by State Level Empowerment Committee. Administrative sanction and fund from Government of India was already obtained. The Committee accepted the explanation of the witness.

Conclusions/Recommendations

25. The Committee finds that a Centrally Sponsored Accelerated Rural Water Supply Scheme for the Kilimanoor and adjoining villages could not be launched even after 12 years of its sanctioning on account of unpardonable delay on the part of KWA. Because of this dragging as well as the laxity of the KWA, the Central Assistance got lapsed. Moreover, the original estimated cost of the project has been increased from ₹ 3.22 crore to ₹ 7.48 crore. The KWA purchased pipes costing ₹ 1.28 crore even before the approval of the final design of the scheme and also before getting the required land. The Committee expresses its discontent and displeasure on the irresponsible

attitude of the KWA officials in implementing a Rural Water Supply Scheme with the Central Assistance. Regarding the present position of the scheme, the Committee sees that it is still remaining incomplete for want of Administrative Sanction from the working group in Government. The Committee expresses strong criticism on the fact that the scheme, declared in the Budget and approved by the House could not be implemented till date for want of a mere Administrative Sanction from the Government. The Committee says that this is highly ridiculous and clear negation to the right of the House. Therefore the Committee wants a report on the issue. The Committee recommends that while implementing Centrally Sponsored Schemes KWA should foresee all aspects of the proposed project so that Central Assistance can be fully utilised. The Committee further recommends that immediate steps should be taken to identify the officers responsible for the failure of the scheme and appropriate action should be taken against them after fixing liability.

AUDIT PARAGRAPH

According to the provisions of the Public Works Manual, detailed estimates of a work are to be prepared as faithfully as possible, on the basis of detailed drawings and specifications, study of site conditions, source of supply and cost of different materials, cost of labour, etc., so that the estimates would reflect cost of the work which could be foreseen at that time. During the course of execution of work, if alterations causing change in the scope of work are anticipated or the sanctioned estimates are likely to be revised by more than five per cent, the estimates are to be revised and sanctioned by competent authority. Despite the manual provisions, the Circle/Division level officers of the Kerala Water Authority (KWA) allowed contractors to execute extra items or quantities of work not envisaged in the original schedule of works without obtaining sanction for revised estimates from competent authorities, even though payment to contractors exceeded their accepted contract value substantially.

A test check of the records of 13 works awarded during 1988-89 to 1993-94 revealed that the amounts paid to the contractors in excess of the agreed contract amount totalled ₹ 4.34 crore and the percentage of excess ranged from 59 to 775 as shown in Appendix XXVII. The KWA did not sanction or recommend to the Government, for sanction of the revised estimates of these works for which proposals were received from the divisional officers through Superintending Engineers and Chief Engineers between July 1998 and April 2003. It was also noticed that total payments made to the contractors in seven* of these works exceeded the revised estimates submitted for approval by

* Sl. Nos. 2, 5, 7, 8, 10, 11 and 12 of Appendix XXVII.

₹ 36 lakh. One of the reasons for the major increase in the cost of works was the post-contractual changes made in the original design of the work. For instance, in two* works for constructing well-cum-pump house, the diameter of wells was increased after awarding the contract, without obtaining sanction of competent authority. The executing officers allowed increase in the diameter of intake wells resulting in execution of extra items and thereby revision of estimates to ₹ 1.41 crore against the aggregate agreed contract amount of ₹ 16 lakh. The revised estimates had not been sanctioned by the competent authorities (June 2005). According to the delegation of powers, officers up to the level of the Managing Director, KWA are empowered to sanction excess over the estimated value of works only up to 50 per cent. As the revised estimates exceeded 50 per cent in all the cases mentioned in the Appendix, the payments made to contractors in excess of the agreed contract value without obtaining sanction for revised estimates from higher authorities viz., High level Committee/KWA/Government† were, therefore, irregular and amounted to an override of contract procedures.

Incidentally, it was also noticed that in 13 other works awarded at the agreed contract amount of ₹ 1.97 crore the payments made to contractors exceeded the contract amounts by ₹ 5.12 crore and the revised estimates for ₹ 9.35 crore submitted during July 1990-June 1997 had not been sanctioned as of August 2005. This indicates that the system of making payments to contractors in excess of the agreed contract value without obtaining sanction of revised estimates was a general practice in the KWA.

Thus, action of Circle/Divisional Officers of KWA in allowing contractors to execute extra items or quantities of work without obtaining sanction for revised estimates from competent authorities resulted in irregular payment of ₹ 9.46 crore to the contractors in 26 works.

The matter was referred to the Government in July 2005; reply had not been received (September 2005).

[Audit Paragraph 4.6.4 Contained in the Report of the Comptroller and Auditor General of India for the year ended on 31st March, 2005 (Civil).]

Notes furnished by Government on the audit paragraph is given in Appendix II.

26. Committee elaborated that the irregular payment of ₹ 9.46 crore to contractors in 26 projects towards tender excess which exceeded 50% of contract rate, was without obtaining sanction for revised estimate from competent

* Sl. Nos. 2 and 3 of Appendix XXVII.

† Revised estimates exceeding 70 per cent over the estimated value of works is to be sanctioned by a High Level Committee constituted by KWA, revised estimate up to ₹ 1

authorities. The witness explained that in 6 cases revised estimate has now been approved and seven cases were under consideration. It was further clarified that the Board was empowered to sanction Revised Estimate. Revised Estimate since 1990 were pending approval when audit examination was done in 2005 and hence payments were made without getting the revised estimates approved. Later revised estimates were submitted before the Committee which was constituted at CE level consequent to the audit objections in 2005. The witness also explained that as per the direction of the Board, the payments which exceeded the percentage approved by the Board have to be recovered from the concerned contractors.

27. The Committee directed that a detailed report on the position of the 26 projects after the audit examination and the action taken based on the audit objection should be submitted to the Committee within two weeks.

Conclusions/Recommendations

28. **The Committee finds that in connection with the implementation of various projects there is a general practice prevailing in KWA to make payment to contractors in cases of the contractual rate without obtaining sanction for revised estimate of the projects. The payment of ₹ 9.46 crore to contractors in 26 projects towards tender excess which exceeds 50% of contract rate, is done in this way without obtaining sanction for revised estimate from the competent authorities. The Committee sees that this is due to the extra items of work executed by the Contractor not envisaged in the original work for which sanction is to be obtained from the competent authorities. The Committee opines that deviation from the original work is due to lack of planning and foresight on the part of KWA. The Committee recommends that KWA should strictly adhere to the provisions contained in the Public Works Manual while making estimates and payments to contractors. The Committee also recommends to submit a detailed report on the position of 26 projects after the audit examination and also to take action to identify the officials responsible for the serious lapses and to take disciplinary action against them.**

AUDIT PARAGRAPH

Government sanctioned (March 1994) a scheme for supplying drinking water to Perinthalmanna Municipality area in Malappuram District at an estimated cost of ₹ 13.78 crore with loan assistance from the Life Insurance Corporation of India (LIC). The scheme, designed to supply drinking water to 0.77 lakh people of the Municipality commenced in May 1996 to be commissioned in 2003. The

components of the scheme except construction of a weir to enrich the source, gravity main, distribution system and power line extension were completed during September 1999-December 2004. The expenditure incurred on the scheme was ₹ 11.87 crore as of July 2005 including interest of ₹ 3.29 crore paid to the LIC on the loan of ₹ 4.80 crore.

Chief Engineer (CE), Kerala Water Authority (KWA) arranged (July 2000) purchase of 5353 meters of 300 mm Asbestos Cement (AC) class 10 pipes from a firm in Mumbai. The pipes valuing ₹ 25.29 lakh were supplied between November 2000 and February 2001. Fitness of the AC pipes for water supply schemes was to be determined by conducting test on six quality parameters, which included tests on hydraulic pressure and bursting. The CE, however, accepted the pipes even before receiving the final report from the Inspecting Agency authorised by the KWA for inspection of pipes at the factory premises. The report also did not reveal results of tests conducted on those quality parameters. After laying 493 meters, when the pipes were tested, these could not withstand the test pressure of 2 Kg./cm.² (gauge) to 4.5 Kg./cm.² (gauge), even though these pipes were required to withstand a field test pressure of 7.5 Kg./cm.² (gauge). Hence the work was stopped in October 2002. Though, the firm agreed (November 2004) to replace 4860 meters of pipes with good quality pipes it had not replaced the pipes as of June 2005. Although, the work on the gravity main of the scheme was held up since October 2002, due to supply of defective pipes, the CE did not make any alternative purchase of pipes for completion of the works and fix risk and cost liability against the original supplier. The bank guarantee of ₹ 15.87 lakh deposited with the KWA by the supplier firm in July 2000 had also not been invoked.

Thus, the scheme sanctioned in 1994 could not be commissioned even as of June 2005 mainly due to stoppage of work of its gravity main and the expenditure of ₹ 11.87 crore incurred on it remained unproductive.

The matter was referred to the Government in July 2005; reply had not been received (September 2005).

[Audit Paragraph 4.6.6 contained in the Report of the Comptroller and Auditor General of India for the year ended on 31st March, 2005 (Civil).]

Notes furnished by Government is given in Appendix II.

29. The Committee sought explanation for the purchase of inferior quality pipes a lion share of which were found defective at the time of laying. The witness explained that though the supplier Company had expressed their willingness to replace the entire defective pipes as per the direction of Kerala Water Authority, the Company failed to replace it due to some entry tax

related issues. The Committee strongly disagreed with the statements made by the witness and enquired about those responsible for the purchase of such defective pipes. The Committee pointed out that defects in 4860 m. pipes out of 5353 m. pipes laid signified absence of quality check before purchase.

30. The Committee also opined that there is no point in shielding the Authority as well as supplier by claiming replacement of pipes after purchase of inferior quality pipes. Secretary, Kerala Water Authority informed that pipes were inspected by M/s Project and Development India (Pvt.) Limited (P.D.I.L.) before purchase and that defects were noticed in pipes used in PH Divisions, Malappuram. He added that the cement coated pipes were purchased in 2002 and laid in 2005. The guarantee period of these pipes was one year and therefore should have been used within six months of their purchase. He informed that the pipes were found defective due to local problems such as climate change. The Committee expressed its strong resentment to the above reply of the Secretary, Kerala Water Authority and recommended police vigilance enquiry into the matter.

31. Kerala Water Authority submitted the list of its 14 projects which were not started due to non-availability of land.

Conclusions/Recommendations

32. **The Committee finds that the purchase of inferior quality pipes for the Perinthalmanna Municipality Water Supply Scheme has resulted in the non-commissioning of the project for a period over a decade and the whole expenditure to the tune of ₹ 11.87 crore remained unproductive. The Committee observes that though KWA authorised an inspecting agency to conduct fitness test on 6 quality parameters including the test on hydraulic pressure and bursting of AC pipes, the CE accepted the defective pipes even before the receipt of its final Report. Though the supplying firm agreed to replace the pipes, that is not materialised till now. The Committee opines that this is most unwelcome and criticizes the KWA's claim that the supplier would replace the defective pipes. The Committee is astonished to find the witness's reply that the breakage of pipe was due to climatic changes in the locality.**

33. **The Committee expresses its strong resentment against the above view and recommends that a Police Vigilance enquiry should be conducted to look into the whole affairs and the action taken to this effect should be**

submitted to the Committee at the earliest.

AUDIT PARAGRAPH

Government sanctioned (March 1996) an Urban Water Supply Scheme (Scheme) to Ottappalam at an estimated cost of ₹ 9.95 crore. The Scheme was to be implemented with loan assistance from LIC and was targeted for completion in 1999. An amount of ₹ 1.39 crore had been availed as loan from LIC as of March 2006. The Scheme comprised construction of cross bar (weir) across Bharathapuzha, RCC intake well-cum-pump house, treatment plant, laying raw water and clear pumping main, construction of service reservoirs, providing distribution system, etc. Scrutiny of the records of PH Division, Shornur revealed (November 2004) the following:

Construction of intake well-cum-pump house, leading channel, booster station, staff quarters, laying of pumping main and part of distribution system were completed between February 2000 and March 2004 and the work of service reservoirs was partially completed as of March 2006 at an aggregate cost of ₹ 2.63 crore. However, the major components of the scheme such as construction of weir, treatment plant, laying of raw water pumping main and clear water pumping main in 3 out of 4 zones and supply and erection of raw water and clear water pump sets had not been taken up as of March 2006.

Construction of weir across Bharathapuzha was to ensure the availability of 13 mld water required for the Scheme and also to cater to the requirements of Rural Water Supply Scheme to Thiruvilwamala and Kondazhi in Thrissur District. The estimated cost (March 1996) of construction of weir was ₹ 93.75 lakh (₹ 68 lakh provided in the estimates for UWSS to Ottappalam) which was revised to ₹ 4 crore in March 2001. No decision on this revised proposal had been taken by the Kerala Water Authority (KWA). A deviation proposal for the partial commissioning of the Scheme by providing infiltration gallery at the source at a cost of ₹ 25 lakh had also not been approved.

The site originally proposed for construction of treatment plant at an estimated cost of ₹ 1.20 crore had to be changed due to non-availability of required land. Though another site was identified in September 1998, the proposal for construction at the new site costing additional expenditure of ₹ 69.80 lakh due to additional deviations was approved only after 5 years in December 2003. However, the tender for the work had not yet been arranged by the Superintending Engineer (March 2006). The estimates for execution of raw

water pumping main and clear water pumping main proposed on 'supplying and laying basis' was also awaiting sanction of the KWA (March 2006).

Thus, the Scheme sanctioned in March 1996 had been languishing for a decade owing to the failure of the KWA to synchronise the work of various components of the Scheme and its lackadaisical approach, rendering the expenditure of ₹ 2.63 crore incurred so far on the Scheme unproductive. The matter was referred to Government in June 2006; reply had not been received (August 2006).

[Audit Paragraph 4.4.5 Contained in the Report of the Comptroller and Auditor General of India for the year ended on 31st March, 2006 (Civil).]

Notes furnished by Government on the audit paragraph is given in Appendix II.

34. At the outset, the Committee pointed out the audit objection about inordinate delay occurred in the completion of Urban Water Supply Scheme to Ottappalam and observed that out of total estimate of ₹ 9.95 crore only ₹ 2.63 crore had been spent till March 2006. The Committee noticed that the benefit envisaged in the Scheme could not be achieved even after ten years of sanctioning the project. The main reason for the delay as reported by the Kerala Water Authority, was the non-availability of land. At this point the Committee enquired the present position of the Scheme. The witness clarified that steps were being taken to complete the project by including this in the Urban Infrastructure Development Scheme for Small and Medium Town and the estimate was also revised to ₹ 18 crore. The Committee wanted the reason for the delay in the preparation of estimate even after the required land and the administrative sanctions were obtained. The witness submitted that though the administrative sanction was obtained in 1996, the land was made available only in the year 2003, by that time the period of LIC loan had lapsed. Due to lack of funds it could not be proceeded further. Now the estimate has been revised under Urban Infrastructure Development Scheme for Small and Medium Town Scheme and the project is at the tendering stage.

35. To another question of the Committee, the witness answered that the work of the weir could not be started because of the changes in design and technology. Originally, the project was formulated and was estimated by the Kerala Water Authority at the cost of ₹ 68 lakh but later the Kerala Water Authority themselves appointed a consultant i.e., M/s Engineering Service Limited, New Delhi to prepare the design and estimate. It was the deviation in the technology and design of the Project which resulted in the cost escalation to the tune of ₹ 331 lakh.

36. The Committee opined that the benefit of the Scheme could not be achieved as a result of this change in the design and estimate at regular intervals. The Committee also stressed the importance of considering all aspects while preparing the design and estimate especially at its beginning stage. The witness clarified that the projects were prepared, only after examining the availability of land assured to be handed over by the local authorities and only after the acquisition of land, the Kerala Water Authority had to enter into the tendering procedures.

37. The witness informed the Committee that as per the revised estimate. Irrigation Department prepared and submitted a proposal to Government for the construction of weir with the financial aid of NABARD. To a question of the Committee, the witness answered that the project was aimed to be completed by March 2012.

38. The Committee at this stage pointed out that the replies furnished to the Committee were too brief not containing all the details relating to audit paragraphs, which prevents the Committee from having detailed discussion on the subject. The witness assured the Committee that a detailed report would be furnished shortly in this regard.

Conclusions/Recommendations

39. **The Committee finds that KWA has failed to complete the Urban Water Supply Scheme and thereby denied the benefits of the project assured to the people of Ottappalam. KWA could not complete the project even after a decade owing to the failure in synchronizing the work of various components of the scheme. The Committee observes that the deviation in the technology and design of the Project resulted in the cost escalation to the tune of ₹ 331 lakh. The Committee further recommends that necessary steps should be taken to identify the officials responsible for the loss and stringent action should be taken against them.**

40. **The Committee is astonished to find that the scheme could not be materialised owing to intermittent changes in its design and estimate. The Committee therefore recommends that KWA should take into account of all aspects of the project before finalising the design and estimate of the project and the same should be monitored periodically so as to ensure timely completion of projects. The Committee further recommends that necessary steps should be taken to identify the officials responsible for the loss and stringent action should be taken against them after fixing the liability.**

AUDIT PARAGRAPH

Government sanctioned (October 1993) an Accelerated Rural Water Supply Scheme (ARWSS) to Airoor, Parakkadavu and Puthenvelikkara Villages in

Ernakulam District at an estimated cost of ₹ 2.10 crore. The scheme intended to provide drinking water to 57000 beneficiaries was to be completed in two years. The proposed land for construction of Water Treatment Plant could not be handed over by the Panchayat and this had badly delayed commencement of works. A revised proposal for combining the scheme with the nearby ongoing scheme of ARWSS to Chengamanad Nedumbassery Panchayat was approved and redesigned by Kerala Water Authority (KWA). The modified scheme consists of nine components. Though the redesign of the scheme had necessitated deletion/addition of certain components, a revised estimate taking into account the changes had not been prepared and approved by Kerala Water Authority (KWA). However, the works on the scheme were started in 1997. The execution of works in respect of six components had been completed between April 1998 and January 2001. Two important items of work viz., pure water pumping main from common sump and laying distribution line pertaining to the remaining three components could not be completed (March 2007) due to non-supply of pipes to contractors by KWA. The expenditure incurred on the scheme as of June 2007 was ₹ 4.91 crore. The proposal for carrying out these works on supplying and laying basis was in the estimate stage (March 2007). Failure of KWA to acquire land for Water Treatment Plant necessitated redesign of the scheme and its failure to supply pipes for the balance work of pumping main and distribution line resulted in inordinate delay in completion of the scheme

Government stated (June 2007) that the scheme for water supply to Ayiroor Village benefiting 21000 people had been commissioned (May 2005) and maximum efforts were being taken to complete the balance works. However, the objective of providing drinking water to the people of Parakkadavu and Puthenvelikkara Villages remained unachieved even after over a decade of its sanction and assets created after incurring an expenditure of ₹ 4.91 crore remained unutilized for four to six years.

[Audit Paragraph 4.4.4 contained in the Report of the Comptroller and Auditor General of India for the year ended on 31st March, 2007 (Civil).]

Notes furnished by Government on the Audit Paragraph is given in Appendix II.

41. The Committee enquired the present position of Accelerated Rural Water Supply Scheme sanctioned in October 1993 for providing drinking water facilities to 57000 beneficiaries in Ayiroor-Parakkadavu-Puthenvelikkara Villages in Ernakulam district. The witness drew the attention of the Committee to the failure on the part of the Panchayat to handover the land which resulted in the non-completion of the project. At the same time the components like pipeline,

construction of tanks, etc. had been completed during the period. Owing to the non-availability of Panchayat land the CIAL offered the land free of cost for the construction of a common sump, with an intention to provide water to the adjacent Nedumbassery Panchayat. Thus the project was redesigned and it partially covered Ayiroor Village. In some portion of Parakkadavu Panchayat the construction of distribution network, pumping main, tanks, etc. were completed with the balance amount. A pumping main of 7 Meters up to Parakkadavu and distribution network of 44 Km. in the original plan in Parakkadavu was yet to be completed. This Scheme however lagged due to non-availability of land. The witness further informed the Committee that the tendering process for the remaining work was in the final stage and the panchayat had assured the funds for the balance works remaining to be completed. The project was partially commissioned on 31-12-2010. The Committee at this stage wanted to know the total number of beneficiaries benefited due to such partial commissioning. The witness informed that about 25% of the population is said to have been benefited because of the partial commissioning. The witness added that the estimate for full commissioning of the Scheme, i.e., 44 Km. laying of pipes, had also been prepared.

42. The Committee sought the reason for the non-supply of pipes by the KWA. The witness explained that the Government had decided to ban the direct procurement and supply of pipes by KWA due to some impropriety found in the centralised purchase system practiced in KWA.

43. The Committee directed the Government to submit a detailed report on the projects which were remaining to be completed. The witness assured that the report on these projects would be submitted within two weeks.

Conclusions/Recommendations

44. **The Committee finds that the inordinate delay in completion of Water Supply Scheme sanctioned in October 1993 for providing drinking water facilities to 57000 beneficiaries in Ayiroor-Parakkadavu-Puthenvelikkara Villages in Ernakulam District is owing to the failure of KWA to acquire land for the scheme and supply of the pipes.**

45. **The Committee opines that the main constraint faced by KWA in commissioning water supply schemes is the non-availability of land. The Committee recommends that KWA should make sure the availability of required land, before the commencement of the project so that locking up of funds can be avoided in future. The Committee also directs to submit a detailed report on the projects which are remaining to be completed for want of land. The Committee recommends that a detailed enquiry should be**

conducted to identify the officials responsible for the failure of the project and stringent action should be taken against them after fixing the liability.

AUDIT PARAGRAPH

Government sanctioned (between February 1995 and March 2000) five drinking water supply schemes (total estimated cost: ₹ 31.29 crore) for which Kerala Water Authority (KWA) borrowed ₹ 6.05 crore from Life Insurance Corporation of India (LIC). Interest paid on the loan amount up to December 2006 by KWA was ₹ 6.48 crore. None of the schemes has been completed as of July 2007. Delay in completion of Water Supply Schemes rendered the expenditure of ₹ 12 crore incurred on them unfruitful. Details are given below:

<i>Estimated cost, expenditure incurred and year of sanction</i>	<i>LIC loan availed and interest paid (Rupees in crore)</i>	<i>Remarks</i>
(1)	(2)	(3)

Estimated cost : ₹ 9.99 crore Rural Water Supply Scheme to Paivalike and adjoining villages in Kasargod district Expenditure incurred: ₹ 28.18 lakh (March 2000)	Loan : ₹ 1.35 crore Interest : ₹ 1.11 crore	The Scheme intended to provide drinking water to nearly one lakh people. The work on the construction of Ground Level Tank and Break Pressure Tanks were completed between February 2002 and March 2005. But the scheme could not be completed as one panchayat refused to hand over the identified site and the local people opposed the construction at another identified site. Alternate water source for the scheme had not yet been identified (February 2007). The balance loan amount of ₹ 1.07 crore was utilized for other LIC Aided Water Supply Projects. Government stated (July 2007) that the scheme was dropped as directed by the Managing Director to arrange
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(1)	(2)	(3)
Estimated cost : ₹ 3.07 crore	Loan : ₹ 1.08 crore	Mini Water Supply Schemes by utilising the GL Reservoirs constructed.
Expenditure incurred : ₹ 1.96 crore (February 1995)	Interest : ₹ 1.41 crore	2. Augmentation of water supply to Pala Municipality in Kottayam District The project proposal of the scheme was to provide drinking water to 25000 people and it was to be completed in December 1998. As of March 2006, 13 components out of 16 were completed. The balance three components of the scheme were pending completion due to failure of KWA to finalise tender formalities and consequent delay in arranging/execution of works through contractors.
Estimated cost : ₹ 6.71 crore	Loan : ₹ 4.02 crore	
3. Rural Water Supply Scheme to two villages in Karimpuzha Panchayat in Palakkad District Expenditure incurred : ₹ 1.94 crore (March 1996)	Interest : ₹ 1.26 crore	The scheme intended to provide drinking water to 26104 people was to be completed in March 1998. However, the work on the scheme commenced only in January 2000. Out of 99 kilometres of distribution network, only seven kilometres had been completed and balance work could not be carried out for want of pipes. Certain components are still in the tender stage. LIC had stopped the loan to KWA from 2003-04 and alternate source of fund is yet to be found out (April 2007).
Estimated cost : ₹ 11.52 crore	Loan : ₹ 2.60 crore	
4. Rural Water Supply Scheme to Thachampara and Karakurussi Villages and Centrally Sponsored Accelerated Rural Water Supply Scheme to Pottasseri and II Villages Expenditure incurred : ₹ 1.33 crore (March 1998 and January 1999)	Interest : ₹ 2.70 crore	The schemes were to be completed by May 2001 and December 2002

(1)	(2)	(3)
		<p>respectively. In February 1999 the Chief Engineer, Irrigation Project, Kozhikode informed that the original site proposed for construction of Water Treatment Plant (WTP) for both the schemes could not be considered due to Tourism Development activities in the site and proximity to the dam. KWA thereupon proposed (August 2000) alternate site, but the site was not handed over to KWA so far (February 2007) by the Government. In the meantime, KWA completed certain independent components of the schemes between February 2001 and October 2005 at a cost of ₹ 1.33 crore. <u>Four common components of the schemes could not be started due to non-availability of land from the Irrigation Department.</u></p>

Thus, the failure of KWA to ensure availability of suitable land, to finalise the tender formalities in time and to supply the required materials delayed the completion of the schemes entailing the expenditure of ₹ 5.51 crore incurred on them unproductive, besides the unnecessary interest burden of ₹ 6.48 crore on the funds borrowed from LIC.

Items (2) to (4) were referred to Government in May–June 2007; reply had not been received (September 2007).

[Audit Paragraph 4.4.5 contained in the Report of the Comptroller and Auditor General of India for the year ended on 31st March, 2007 (Civil).]

Notes furnished by Government on the Audit Paragraph is given in Appendix II.

(1) *Rural Water Supply Scheme to Paivalike and adjoining Villages in Kasargod district*

46. The Committee sought explanation for the non-completion of Water Supply Scheme in Kasargod district and enquired the present position of this scheme. The witness explained that the residents of the area objected to the

construction of well and allied works. An estimate of ₹ 18 lakh was expected to be expended of the installation of distribution system for supplying water from the recently constructed tube well and necessary directions were issued to submit a revised estimate. The Committee was given to understand that the residents in the area, especially farmers were opposed to the construction of the well on the ground that their cultivation would be badly affected due to the lowering of ground water level by pumping out water from the well. A total of ₹ 28 lakh had been spent for this particular scheme, out of a total amount of Rupees two and a half crore set aside for the whole scheme, the witness answered to a question of the Committee.

(2) Augmentation of Water Supply to Pala Municipality in Kottayam district

47. The witness informed the Committee that this Scheme was partially commissioned in 2006. The balance work had been taken up by NABARD which include only the laying of raw water pumping line and this was expected to be completed within 6 to 7 months.

(3) Rural Water Supply Scheme to two Villages in Karimpuzha Panchayat in Palakkad district

48. The witness informed the Committee that this Scheme is presently included in NABARD SPAN project. It was in tendering stage and is expected to be completed by 31-3-2012.

(4) Rural Water Supply Scheme to Thachampara and Karakurussi Village and CSARWS Scheme to Pottasseri I & II Villages

49. The Committee enquired the present position of the Scheme. The witness replied that the main package of work was awarded above 40% and the Government direction was not to give the excess. The construction of an intake well, a plant and a clear water pump in the land transferred by the Irrigation Department were included in one tender, the witness added. Noticing that a period of more than six months was taken for retendering, the Committee directed the Kerala Water Authority to expedite the procedures for re-tendering and the same should be completed within 45 days.

Conclusions/Recommendations

50. The Committee understands that the schemes taken up by KWA to provide Water Supply to Paivalike in Kasargod, Pala Municipality in Kottayam, Karimpuzha Panchayat in Palakkad and Thachampara, Karakurussi and Pottasseri Villages could not be commissioned owing to various reasons such as failure to ensure suitable land, unable to finalise the tender formalities in time and non-supply of the required materials. The

Committee recommends that KWA should ensure the availability of suitable land and allied requirements for projects before going in for their tendering process. The Committee wants to have a detailed report on the projects which are remaining to be completed and directs KWA to expedite the tendering procedures of the schemes to two villages in Karimpuzha Panchayat in Palakkad and also re-tendering procedures of the Schemes in Thachampara, Karakurussi, Pottasseri I & II Villages so that the same could be completed within 45 days. The Committee recommends that stringent action should be taken against the officials responsible for the lapses.

AUDIT PARAGRAPH

Pipes worth ₹ 1.07 crore were purchased in 1997 for the Accelerated Rural Water Supply Scheme to Pathanapuram and adjacent villages sanctioned by the Government of Kerala (October 1993) at an estimated cost of ₹ 3.78 crore. Mention was made in Paragraph 7.14.8 of the Report of the Comptroller and Auditor General of India for the year ended 31st March, 2001 regarding idling of these pipes. The scheme intended to benefit five villages* and works for scheme comprised of construction of well-cum-pump house, construction of treatment plant, supply and erection of pumpsets and surge arrestors, construction of reservoirs, pumping main, distribution system, etc. The site for the construction of the treatment plant was proposed at Kuriyottumala, Buffalo Breeding Centre of the Animal Husbandry Department in Piravanthoor Village and the required land (1.50 acres) was handed over to the Kerala Water Authority (December 2005). The site for sumps and reservoirs were at Thalavoor and Mylom Villages. In a meeting convened by the Minister for Irrigation on 29th October, 2001 to review the progress of the scheme, the panchayat authorities of Thalavoor and Mylom Villages pointed out that the acquisition of proposed land at both the villages was not possible. In view of this, the Minister directed the Kerala Water Authority to limit the area of the scheme to Pathanapuram and Piravanthoor Villages only. This necessitated the preparation of a revised design and estimate for various components of the scheme. Despite the limitation in the scope contemplated in October 2001 itself, pipes and specials as per specification of the original scheme worth ₹ 33.02 lakh were procured (January 2004) based on a proposal of the Chief Engineer (HRD) in August 2003.

The revised proposal was approved by the Technical Member in July 2004. In the revised design, pipes of lesser diameter were proposed to be used because the distribution system had been limited to one zone instead of three zones as per the original proposal.

* Pathanapuram, Piravanthoor, Pidavoor, Thalavoor and Mylom in Kollam District.

Since pipes and specials worth ₹ 1.40 crore with different specification which was no longer required were purchased and not put to use, the expenditure on the said pipes and specials became infructuous. Incidentally, the first lot of pipes (cost: ₹ 1.07 crore) was procured (1997) even before the District Panchayat took a decision (2001) to hand over the land for construction of treatment plant.

Government stated (June 2008) that the expenditure could not be considered as infructuous as there was demand for pipes in other schemes. The reply of Government is not acceptable as the pipes procured in 1997 are still held in stock (October 2008) without utilisation.

[Audit Paragraph 4.2.5 contained in the Report of the Comptroller and Auditor General of India for the year ended on 31st March, 2008 (Civil).]

Notes furnished by Government on the Audit Paragraph is given in Appendix II.

51. As regards the Para the Committee noticed that there had been a policy decision for not using the AC pipes in main lines. The Committee sought explanation from the witness on the non-utilisation of pipes procured for the Scheme and enquired the present position. The witness clarified that due to the policy decision of not using AC pipes this project was also included in the Technology Mission. Once the pipes were laid, and the distribution network completed, the Scheme could be partially commissioned. At present around 25% of the work of Scheme involving intake well-cum-pump house, treatment plant, pump sets, pumping main and distribution system has been completed. The project was ready to be commissioned at any time. Regarding utilisation of pipes already procured, the Kerala Water Authority had placed a proposal that the pipes were to be used for repairing and maintenance work in the existing network in the department. The frequent bursts occurring in these pipes were also cited as a reason for taking such a policy decision. Besides, the quality of pipes which was obtained earlier was not seen in pipes obtaining at present. The witness further clarified that due to this policy decision the scheme had to be redesigned and it was decided to use cast iron and PVC pipes instead of AC pipes. The Scheme was now being Commissioned only in areas included in the Technology Mission in Pathanapuram.

52. To a query of the Committee on the possibility of utilising the unutilised AC pipes for the use in the other Departments the witness submitted that, that could be made possible and now an understanding with L.S.G. bodies had been on the anvil for transferring these pipes for their use, but no such demand from any corner had arisen till date.

53. The Committee opined that the replies being furnished on audit paragraphs by the departments on many occasions were very precise and brief not containing actual details. The Committee gave strict directions that the department should submit detailed replies on audit paragraphs. The witness agreed to do so.

Conclusions/Recommendations

54. **The Committee criticises the unnecessary and hasty purchase of AC pipes even before ensuring land for the Accelerated Rural Water Supply Scheme to Pathanapuram. The Committee wants the details of the non-utilisation of pipes procured for the scheme and its present position. The Committee recommends that steps should be taken for exploring the possibility of utilising the unutilised AC pipes by other departments. The Committee also recommends that steps should be taken to identify the officials responsible for the loss sustained to Kerala Water Authority and stringent action should be taken against them after fixing liability.**

55. **The Committee expresses its strong dissatisfaction over the overall performance of Kerala Water Authority and remarks that the failure of the Authority in conducting feasibility and viability study in identifying sources of water before undertaking projects is the main reason for the poor state of affairs prevailing in Kerala Water Authority.**

56. **The Committee also directs the Secretary, Water Resources to submit a detailed report regarding the projects undertaken by Kerala Water Authority during the last five years, their present stage, number of projects pending, the reasons for their non-completion etc. to the Committee within two months.**

57. **The Committee further recommends to establish a 'Single Window Clearance System' incorporating all the departments concerned in order to avoid the procedural delay occurring in the implementation of various projects undertaken by Kerala Water Authority.**

Thiruvananthapuram,
28th January, 2014.

K. N. A. KHADER,
Chairman,
Committee on Public Undertakings.

APPENDIX I

SUMMARY OF MAIN CONCLUSIONS/RECOMMENDATIONS

<i>Sl. No.</i>	<i>Paragraph No.</i>	<i>Department concerned</i>	<i>Conclusions/Recommendations</i>
(1)	(2)	(3)	(4)
1	7	Water	The Committee is at surprise to note that Kerala Water Authority has not ensured the availability of water source before taking up the Water Supply Project at Thekkumkara in Thrissur district. In not satisfying with the explanation given by KWA the Committee says that KWA has failed to obtain the formal approval from the Irrigation Department before implementing the Water Supply Scheme in Thekkumkara and three adjoining villages in Thrissur District. The Committee expresses its discontent and dissatisfaction over the inordinate delay occurred in the implementation of the project. The Committee finds it as a classical example of improper planning and lack of co-ordination prevailing in KWA. The Committee therefore recommends that KWA should conduct a feasibility study about the viability of its projects before their implementation. The Committee directs to be submitted with a detailed report on the 87 ongoing Water Supply Schemes and the 14 schemes which had been abandoned due to non-availability of land. The Committee also directs to furnish the details of the total amount spent for Kalanjoor-Koodal-Enadimangalam Scheme, the number of beneficiaries of the

(1)	(2)	(3)	(4)
		resources	project and the expected date of completion of the remaining works. The Committee recommends that appropriate steps should be initiated to identify the officials responsible for the loss and stringent action should be taken against them after being fixed the liability.
2	10	Water	The Committee is not at all convinced about the reasons submitted by the witness regarding the delay in commissioning the Water Supply Schemes in Thelliyor, Valakkuzhi and Ezhumattoor Panchayats in Alappuzha District. The Committee understands that the delay in work was due to failure in making available the revised design of the well to the contractor in time with the change in its diameter from 6 meter to 9 meter. Surprisingly to note that after a long delay of 19 years, the well was constructed with the same 6 meter diameter as originally proposed, incurring an additional cost of ₹ 43.06 lakh over and above the estimated cost of ₹ 2 lakh. The Committee observes that initially there is the demand to increase the diameter of the well proposed to be constructed as part of the project and thereby getting the initial contract cancelled but later, after many years the well is constructed with the same old design with 6 m. diameter. The Committee feels that all these action appear to be mysterious. Since the procedural lapse could not be explained, the Committee suspects ulterior motive behind the demand for change of diameter of the well in order to get the estimate revised. In expressing discontent over the reply furnished, the Committee strongly demands to submit a detailed report on the issue.
3	11	”	The Committee finds that KWA initiated recovery proceedings only after nine years to

(1)	(2)	(3)	(4)
		resources	recover ₹ 19.80 lakh, the value of materials not returned by the contractor. The Committee therefore recommends to speed up the actions to recover the loss sustained to the KWA and to report the action taken in this regard to the Committee. The Committee feels that owing to the failure of KWA a scheme intended to benefit 25000 people and their basic right for safe drinking water remained unfulfilled even after 20 years of its commencement. The Committee therefore recommends KWA to monitor the progress of execution of works with clarity and transparency in its dealings. The Committee further recommends that earnest efforts should be made to identify officials responsible for the loss and stringent action should be taken against them after fixing the liability.
4	18	Water	The Committee understands that the purchase of defective pipes for the Comprehensive Water Supply Scheme to Varkala Municipality and adjoining Villages by KWA without assessing its pressure withstanding capacity stipulated for the scheme and without conducting technical examination about the quality of pipes led to a delay of more than six years in commissioning the scheme and caused an unproductive expenditure of ₹ 14.38 crore to KWA.
5	19	”	Though the agency appointed by KWA for the inspection of pipes detected some inherent defects in the pipes, the KWA authorities did not take up the matter with supplier firm but proceeded to issue purchase order to the firm for the defective pipes. So the responsibility lies with the Chief Engineer who gave sanction to purchase the defective pipes. Any Officer if responsible for the loss should also be made

(1)	(2)	(3)	(4)
			accountable along with the Chief Engineer and stringent action should be taken against them after fixing the liability.
6	20	” resources	The Committee notices that this act of sheer negligence on the part of KWA is condemnable. The Committee is of the view that the delay in submitting report is a deliberate attempt on the part of KWA to safeguard the interest of the delinquent officials from bringing them to book. The Committee therefore directs that the replies to audit queries should be furnished at the earliest so that the action could be initiated against the erred officials.
7	25	Water	The Committee finds that a Centrally Sponsored Accelerated Rural Water Supply Scheme for the Kilimanoor and adjoining villages could not be launched even after 12 years of its sanctioning on account of unpardonable delay on the part of KWA. Because of this dragging as well as the laxity of the KWA, the Central Assistance got lapsed. Moreover, the original estimated cost of the project has been increased from ₹ 3.22 crore to ₹ 7.48 crore. The KWA purchased pipes costing ₹ 1.28 crore even before the approval of the final design of the scheme and also before getting the required land. The Committee expresses its discontent and displeasure on the irresponsible attitude of the KWA officials in implementing a Rural Water Supply Scheme with the Central Assistance. Regarding the present position of the scheme, the Committee sees that it is still remaining incomplete for want of Administrative Sanction from the working group in Government. The Committee expresses strong criticism on the fact that the scheme, declared in the Budget and approved

(1)	(2)	(3)	(4)
		resources	by the House could not be implemented till date for want of a mere administrative sanction from the Government. The Committee says that this is highly ridiculous and clear negation to the right of the House. Therefore the Committee wants a report on the issue. The Committee recommends that while implementing Centrally Sponsored Scheme KWA should foresee all aspects of the proposed project so that Central Assistance can be fully utilised. The Committee further recommends that immediate steps should be taken to identify the officers responsible for the failure of the scheme and appropriate action should be taken against them after fixing liability.
8	28	Water	The Committee finds that in connection with the implementation of various projects there is a general practice prevailing in KWA to make payment to contractors in cases of the contractual rate without obtaining sanction for revised estimate of the projects. The payment of ₹ 9.46 crore to contractors in 26 projects towards tender excess which exceeds 50% of contract rate, is done in this way without obtaining sanction for revised estimate from the competent authorities. The Committee sees that this is due to the extra items of work executed by the Contractor not envisaged in the original work for which sanction is to be obtained from the competent authorities. The Committee opines that deviation from the original work is due to lack of planning and foresight on the part of KWA. The Committee recommends that KWA should strictly adhere to the provisions contained in the Public Works Manual while making estimates and payments to contractors. The Committee also recommends to submit a

(1)	(2)	(3)	(4)
			detailed report on the position of 26 projects after the audit examination and also to take action to identify the officials responsible for the serious lapses and to take disciplinary action against them.
9	32	” resources	The Committee finds that the purchase of inferior quality pipes for the Perinthalmanna Municipality Water Supply Scheme has resulted in the non-commissioning of the project for a period over a decade and the whole expenditure to the tune of ₹ 11.87 crore remained unproductive. The Committee observes that though KWA authorised an inspecting agency to conduct fitness test on 6 quality parameters including the test on hydraulic pressure and bursting of AC pipes, the CE accepted the defective pipes even before the receipt of its final Report. Though the supplying firm agreed to replace the pipes, that is not materialised till now. The Committee opines that this is most unwelcome and criticises the KWA’s claim that the supplier would replace the defective pipes. The Committee is astonished to find the witness’s reply that the breakage of pipe was due to climatic changes in the locality.
10	33	Water	The Committee expresses its strong resentment against the above view and recommends that a Police Vigilance Enquiry should be conducted to look into the whole affairs and the action taken to this effect should be submitted to the Committee at the earliest.
11	39	”	The Committee finds that KWA has failed to complete the Urban Water Supply Scheme and thereby denied the benefits of the project assured to the people of Ottappalam. KWA could not complete the project even after a

(1)	(2)	(3)	(4)
		resources	decade owing to the failure in synchronising the work of various components of the scheme. The Committee observes that the deviation in the technology and design of the Project resulted in the cost escalation to the tune of ₹ 331 lakh. The Committee further recommends that necessary steps should be taken to identify the officials responsible for the loss and stringent action should be taken against them.
12	40	Water	The Committee is astonished to find that the scheme could not be materialised owing to intermittent changes in its design and estimate. The Committee therefore recommends that KWA should take into account all aspects of the project before finalising the design and estimate of the project and the same should be monitored periodically so as to ensure timely completion of projects. The Committee further recommends that necessary steps should be taken to identify the officials responsible for the loss and stringent action should be taken against them after fixing the liability.
13	44	”	The Committee finds that the inordinate delay in completion of Water Supply Scheme sanctioned in October 1993 for providing drinking water facilities to 57000 beneficiaries in Ayiroor-Parakkadavu-Puthenvelikkara Villages in Ernakulam District is owing to the failure of KWA to acquire land for the scheme and supply of the pipes.
14	45	”	The Committee opines that the main constraint faced by KWA in commissioning Water Supply Schemes is the non-availability of land. The Committee recommends that KWA should make sure the availability of required land, before the

(1)	(2)	(3)	(4)
		resources	commencement of the project so that locking up of funds can be avoided in future. The Committee also directs to submit a detailed report on the projects which are remaining to be completed for want of land. The Committee recommends that a detailed enquiry should be conducted to identify the officials responsible for the failure of the project and stringent action should be taken against them after fixing the liability.
15	50	Water	The Committee understands that the schemes taken up by KWA to provide Water Supply to Paivalike in Kasargod, Pala Municipality in Kottayam, Karimpuzha Panchayat in Palakkad and Thachampara, Karakurussi and Pottasseri Villages could not be commissioned owing to various reasons such as failure to ensure suitable land, unable to finalise the tender formalities in time and non-supply of the required materials. The Committee recommends that KWA should ensure the availability of suitable land and allied requirements for projects before going in for their tendering process. The Committee wants to have a detailed report on the projects which are remaining to be completed and directs KWA to expedite the tendering procedures of the schemes to two villages in Karimpuzha Panchayat in Palakkad and also re-tendering procedures of the Schemes in Thachampara, Karakurussi, Pottasseri I & II Villages so that the same could be completed within 45 days. The Committee recommends that stringent action should be taken against the officials responsible for the lapses.

(1)	(2)	(3)	(4)
16	54	” resources	The Committee criticises the unnecessary and hasty purchase of AC pipes even before ensuring land for the Accelerated Rural Water Supply Scheme to Pathanapuram. The Committee wants the details of the non-utilization of pipes procured for the scheme and its present position. The Committee recommends that steps should be taken for exploring the possibility of utilising the unutilised AC pipes by other departments. The Committee also recommends that steps should be taken to identify the officials responsible for the loss sustained to Kerala Water Authority and stringent action should be taken against them after fixing liability.
17	55	Water	The Committee expresses its strong dissatisfaction over the overall performance of Kerala Water Authority and remarks that the failure of the Authority in conducting feasibility and viability study in identifying sources of water before undertaking projects is the main reason for the poor state of affairs prevailing in Kerala Water Authority.
18	56	”	The Committee also directs the Secretary, Water Resources to submit a detailed report regarding the project undertaken by Kerala Water Authority during the last five years, their present stage, number of projects pending, the reasons for their non-completion, etc. to the Committee within two months.
19	57	”	The Committee further recommends to establish a ‘Single Window Clearance System’

APPENDIX II

NOTES FURNISHED BY GOVERNMENT ON THE AUDIT PARAGRAPH

<i>Para No.</i>	<i>Action Taken</i>
(1)	(2)
4.5.7	<p>A Comprehensive Rural Water Supply Scheme under the Centrally Sponsored Accelerated Rural Water Supply Programme for providing drinking water to Thekkumkara and three adjoining water problem villages in Thrissur District was taken by the Authority at an estimated cost of ₹ 3.25 crore in the year 1995. The scheme comprised of 8 components and was scheduled to be commissioned in December 1998. The Audit Para is regarding delaying commissioning of the Scheme. The Original proposal was to tap water from the reservoir of Vazhani Dam in Thrissur District managed by Irrigation Department, through a control system to be installed at the dam and through a water channel and a sump to be constructed at the dam site.</p> <p>According to the detailed project report, there is no arrangement available in the dam structure to draw water exclusively for drinking water purpose. The normal capacity of the main canal was reported to be 4.5 cu.secs., which corresponded to 1286 LPS. The sluices will be able to deliver water at this rate. The rate at which water had to be drawn for the project was estimated to be only 29.93 LPS. Hence the required water could be easily drawn through the canal sluice by regulating the sluice opening. The water was proposed to be tapped directly from the storage of the dam without any additional proposal of intake. The dam had two outlet sluices on the left bank and on the right bank. The irrigation department had constructed only the left bank canal and the right bank sluice had remained unutilised. The Irrigation Department had no proposal to construct a right bank canal. So it was proposed that with the permission of the Irrigation Department, the water required for the proposed scheme could be drawn from the dam through the sluice provided on the right bank. No formal approval of the Irrigation Department had been obtained before the project was taken up.</p> <p>When the matter was taken up with the Irrigation Department, they denied permission to draw water for the scheme from the reservoir</p>

(1)	(2)
	<p>due to insufficiency of water and they did not transfer the required land under their departmental custody as per a Government Circular. Under these circumstances, an alternate source was proposed by constructing intake well in the end of the river outlet of the dam.</p> <p>The Irrigation Department did not agree to install the intake structure close to the wing of the dam since according to them, it being an earthen dam, any type of construction might cause instability to the dam structure.</p> <p>A proposal to dig 2 or 3 borewells as an alternative source was also under consideration. No other perennial sources are available in the Panchayat. Therefore, Kerala Water Authority decided to take up the matter at the Government level for considering the source as per the original proposal itself.</p> <p>The contention of the Audit that KWA had not ensured the availability of source while formulating is partly true. The objection of the Irrigation Department is mainly due to non-availability of water to be spared for drinking purpose after meeting the requirement for irrigation purpose. The Authority had not found an alternative source for the scheme because there were no other feasible sources and all effects were to make the Irrigation Department agree for sharing the water from the dam. The only reliable source of water in that Panchayat is the water available in the dam. Discussion at the highest level at Government is in progress and KWA is hopeful of completing the scheme in the near future.</p>
4.5.8	<p>The RWSS to Thelliyoor-Valakuzhy and Ezhumattoor Panchayat estimated to cost ₹ 29.80 lakh was sanctioned by Government on 24-10-1980 on the condition that the execution of works will be taken up after getting loan assistance from LIC. The scheme was approved by LIC during 1981-82. Meanwhile, the Panchayat requested to extend the coverage of the scheme to additional areas where acute scarcity of drinking water was felt. In order to enlarge the scope of the scheme, some basic changes in the scheme already prepared by IPD were necessitated with Manimala River as source. The scheme was revised for an amount of ₹ 73.18 lakh. Government issued administrative sanction for ₹ 73.18 lakh on 24-10-1983.</p>

(1)	(2)
	<p>As per revised proposal, the following were the components for the scheme:</p> <ol style="list-style-type: none"> 1. Construction of an infiltration gallery and laying leading pipes from gallery to well. 2. Construction of well-cum-pump house. 3. Construction of retaining wall. 4. Construction of pumping main (6000 150 mm CI Tyton Class B Pipe) 5. Booster pump house and sump. 6. GL Tanks (Two numbers) 7. Distribution system (5.200 m. 150 mm AC gravity main from North Zone reservoir to South Zone reservoir and 13870 m. of distribution network with pipes from 200 mm to 63 mm—Total 19070 m.) 8. Supply and erection of pumps. <p>Items 1 to 7 of the above were arranged as two contracts—Items 1 to 6 in one contract at 9% below estimate and item 7 in another contract as 55.5% below estimate rate. Both the contracts were terminated in an incomplete stage without risk and cost of the original contractors.</p> <p>For items well-cum-pump house and GL tank for high level zone were terminated on the basis of non-availability of land since the Panchayat had not surrendered the required land.</p> <p>The original plan was to accommodate vertical turbine pump sets in the pump house to be constructed just above the well. The diameter of the intake well of the scheme was proposed to be changed from 6 meter to 9 meters mainly to enable the erection of 5 numbers to VT Pump sets and allied accessories and also considering the necessity to extent the coverage of the scheme to the entire Panchayat area.</p> <p>The delay in completing the work was due to the fault of the contractor. Notice had been issued to the contractor for completing the work. Subsequently, the work was rearranged and the contractor was permitted to undertake the construction of 20000 gls capacity sump, pump house, 20000 gls ground level masonry tank. The contractor completed only 98% of the works.</p>

(1)	(2)
	<p>Earnest efforts were taken to complete the scheme by available resources. In 2001, a proposal was placed before the State Level Sanctioning Committee to complete the balance work under NC/PC. But no sanction was obtained and hence could not proceed further. Again in 2002, fresh proposal placed for availing NABARD loan with project report of the scheme but not materialized. During 2004-05, budget meeting of KWA, the scheme was attempted to include under "07 Completion of ongoing RWSS".</p> <p>The present status of the project of works already completed:</p> <p>Distribution system—45.20 km. completed.</p> <p>Construction work of tank, booster station and pump house and laying work of pumping (RW) main 80% completed.</p> <p>Construction work of 6 meter diameter intake well, OH pump house, baby well, infiltration gallery, loading channel and retaining wall completed.</p> <p>It could be seen from the facts explained above that the delay in completion of the scheme was due to multifamous reasons most of them beyond the control of the officers of KWA including (i) uncertainty/non-availability of funds, (ii) non-availability of land due to delay in surrendering of land by the Panchayat for well-cum-pump house and GL tank, and (iii) partially due to the delay in deciding upon the diameter of the well. The cost of construction of a well at 9 m. diameter would be 2.5 times the cost of construction of a 6 m. diameter well of equal depth and therefore it would be seen that the decision of the KWA to restrict the diameter of the well to 6 meter was sensible and economical.</p>
4.5.9	<p>Para 1: No remarks—Facts confirmed.</p>
	<p>Para 2: The Authority vide supply Order No. KWA/HO/SP/348/95 dated 15-9-1995 placed Orders on Messrs. Swastik Asbestos Cement Limited for the supply of 6490 meters of 600 mm class 10 AC pipes required for the Comprehensive Water Supply Scheme to Varkala Municipality and adjoining Panchayats. The supply order <i>inter alia</i> provided for third party inspection of the pipes at the manufacturing site by an independent professional agency. Messrs. SGS India Ltd., Mumbai had been appointed by KWA for</p>

(1)

(2)

the inspection of the pipes. After inspection, the third party inspection agency (TPIA) had pointed that 200 pipes were found of length less than that had been ordered and otherwise the pipes were acceptable. According to clause 10-1-1 of IS 1592/1989 10% quantity of pipes could be accepted in short lengths and therefore, KWA vide letter No. KWA/HO/SP-348/95/AC/SWASTIK dated 28-6-1996 communicated the acceptability of the pipes to the inspection agency with a copy to the supplier. Therefore it could be seen that the inspection agency had pointed out certain deficiencies in the pipes which were acceptable and therefore the audit observation that the pipes had “inherent problems” were not apparent to KWA from the inspection report of the independent agency. The fact that KWA had not taken up the matter with the firm is also not exactly right because KWA vide letter dated 28-6-1996 had communicated the acceptability of the pipes both to the inspection agency and the supplier. The supplier supplied 6487 meters of pipes during May-August 1996. As the pipes were reported to be acceptable, payment of ₹ 1.05 crore was released to the supplier in October 1996.

Para 3: The work of laying the pipes was awarded to the contractor Sri Jamaludeen in May 1997. During the execution of work, field tests were conducted in June 1998. Few pipes burst at a test pressure of 4 to 4.5 Kg./cm.². The matter was brought to the notice of the pipe supplier who directed their representative to the site. During the field test conducted in the presence of the company representative, the pressure attained at 5.5 Kg./cm.² one of the pipes burst and the test failed. The Technical Member, KWA convened a meeting of KWA officials along with the representative of the supplier on 17-10-1998 in which it was decided that the firm should bench test all the pipes remaining to be laid for suitability if on testing of 20% pipeline already laid fails by more than 2%. As the failure was above 2%, the supplier was asked to conduct the bench testing and clear the entire pipes remaining to be laid. The pipes found defective on bench testing and which could be used after removing the portion of the pipe were corrected accordingly and which could not be corrected were replaced. Few pipes had to be cut to shorter sizes to enable laying of the pipeline and no BIS standards restrict such cutting of pipes for the purpose of laying a pipeline. While conducting test after the pipes were laid, few pipes

(1)	(2)
	<p>were found to be broken and few joints failed. The broken pipes were replaced and major portion were tested and found to be satisfactory. The pipeline has since been charged and leakages wherever found have been rectified.</p> <p>Para 4: The audit observation that the Chief Engineer in accepting defective pipes delayed the commissioning of the scheme by more than six years and the expenditure of ₹ 14.38 crore incurred on it remained unproductive is found to be not right, as it is observed that the defects reported by the inspection agency while inspecting the pipes at the factory site of the supplier were not that serious entailing rejection and were acceptable as per IS regulations. Even though few serious problems arose during the laying of the pipes these were not the main causes for the delay in commissioning of the scheme. The delay was mainly due to the non-execution of work entrusted with contractors for the construction of Well-cum-Pump house and the overhead tank at Reghunatahapuram. These works has to be re-tendered thrice and these were completed on 22-8-2003 and 30-4-2004 respectively. The work of laying pipeline had been completed much earlier to this. Regarding the apprehension of Audit about the capacity of the pipes to withstand the pressure after both the urban and rural scheme portions are commissioned it may be stated that these pipes have been tested for pressure up 7.5 Kg./cm.², which should withstand the originally designed pressure for the pipes. However, at present the pipeline is changed to the extent of the requirement of the municipal area.</p>
2004-05	<p>Kilimanoor & Adjoining Villages</p>
4.3.6	<p>Notice Inviting Tender for the subject scheme was submitted with certain deviation from the approved DER during 3/2000. These deviations were submitted to higher authorities for approval. NIT and deviation proposal was approved during 7/2000 and 5/2000 respectively.</p> <p>Again a deviation proposal has been submitted to the Chief Engineer, IPD on 16-8-2000 for approval of the design. Tender due date was extended to 14-10-2000. After the approval of the design by the CE, IPD during 10/2001. The changes were made in the</p>

(1)	(2)
	<p>scope of work. The Technical Member approved the deviation proposal on 1/2002.</p> <p>These deviations are to be incorporated in the scope of work due to change in site of Treatment Plant, type and class of pipe used for pumping main including the changes in the pipe material. The design of the distribution system had also to be got approved from the CE, IPD. In the above circumstances the tenders invited by the CE was cancelled and SE was directed to take urgent necessary action for the preparation of NIT incorporating all the deviations and also for retendering the work.</p> <p>During 11/2002 revised and Revised Estimate was submitted for the subject scheme amounting to ₹ 748 lakh and sent for sanction. The sanctioning authority vide letter dated 25-5-2003 informed that the scheme cannot be taken under ARP since 3 years had elapsed. The expenditure incurred for the scheme is ₹ 101.29 lakh and is for the procurement of pipes.</p> <p>A new proposal costing ₹ 14.63 crore for the subject scheme was prepared in ARP norms (40 lpcd) and submitted for placing before the SLSC meeting. The proposal was not taken up and will be resubmitted after verification with all relevant details as desired in the meeting on 11-8-2006 regarding the preparation of DER and the DER was returned to the EE, WS Attingal.</p> <p>Elappara & Adjoining Villages</p> <p>The scheme was sanctioned under ARP during 99 with a estimated cost of ₹ 19.6 crore and revised sanction was accorded for ₹ 21.98 crore on 7-10-2002.</p> <p>The scheme comprising of Construction of 7.5 mld water treatment plant, Raw water and clear water pumping main, GLSR, sumps, Boosting stations and 115 km. distribution line utilising the 6 meter dia well and 10 GLSRs and distribution of the existing water supply scheme.</p> <p>Tenders for the construction of 7.5 mld water treatment plant was</p>

(1)	(2)
	<p>arranged on 19-7-2001. During the tender process as requested by the Tourism Department the Technical Member, KWA had inspected the site on 30-5-2003 and recommended that the water demand of 1:5 mld for water supply to Wagamon may be included in the above scheme. In the review meeting held with the Honourable Minister for Water resources it was decided to construct a 9.5 mld water treatment plant at Heileyberia. So the tender for 7.5 mld water treatment plant was cancelled and fresh tender for 9.5 mld WTP was tendered on 17-6-2004 and estimate under preparation.</p> <p>As per the original drawing 25 numbers of service reservoirs are provided. Out of this 24 numbers have been completed (including the 10 numbers existing). Land for the construction of master tank not received. Estimate under preparation for the raw water pumping main and clear water pumping main etc. are under scrutiny.</p> <p>Hence it may please be noted that the delay occurred in implementing the scheme utilising the available funds of ARWSS is not at all due to the slackness in the part of KWA Officers. And also the remarks made in the audit that KWA had been taking up new schemes under ARP only to avail of central assistance and not interested in completing the schemes of providing drinking water to rural people in problem areas is not true because out of 519 schemes taken up by KWA under ARWSP since 1986, 418 schemes have been completed, 14 schemes are not taken up due to land problem, source failure etc. Only there are 87 schemes are to be completed.</p>
4.6.4	<p>The amount paid to the contractors in excess of the agreed contract amount without sanction of R.E. is due to multifarious reasons such as:</p> <ol style="list-style-type: none"> 1. Urgency of work such as leak rectification, Drainage extension etc. 2. Price escalation in the market. 3. Deviation proposal at the time of work. 4. Time limit for the completion.

(1)

(2)

5. Preparation of schedule based on old schedule of rates.

Two examples are furnished below:

I. Item 23 of Appendix of DP

The leak rectification work in 700 mm premo pipe from Sasthamcotta to Kollam Town

During the agreement period of the work the 700 mm premo line was the only means to bring water from Sasthamcotta to Kollam. The premo pipeline was very old and it would burst frequently causing interruption to the supply of water to Kollam Town. Rectification work has to be carried out on war-footing basis whenever leak developed in order to maintain uninterrupted supply of water to Kollam City. Revised estimate for this work is under scrutiny.

II. Item 10 of Appendix DP

T.D.S.D. Block-Zone I Nagarakavu-Plamood Sewer Main 1st reach laying 350 mm RCC Sewerage Main chainage of 330 meters

The work of laying 140 meters of 600 mm pipe was not included in the original schedule. This has been executed as extra item. This is for connecting the gap between the end of III reach & pump house. The work executed through the contractor of III reach at his quoted rate. This is because to save time and money. The original schedule was prepared based on 1990 schedule, the same is less than that of 1992 schedule of rates. There was every possibility that if tenders were invited in 1992, the quoted rates were likely to be in higher side since this is a continuation of III reach and more difficult reach. The decision was to achieve benefit for KWA to do this work within the purview of the same contract.

The steel shoring was provided for the trench portions where the depth is more than 4 meters. The chainage along with steel shoring was provided 640 m. to 690 m. and 725 m. to 899.5 m. and 920 m. to 1065.5 m. In some places the depth of trench went beyond 7 m. The area of execution is very near to Pattom Thodu, and the nature of soil is cohesive. In order to avoid accidents steel shoring necessitated.

In some cases the cost of pipes and specials were not considered

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	<p>while sanctioning the estimate. Hence the expenditure increased considerably more than the accepted PAC.</p> <p>Revised estimates have been sanctioned for some works in question. For all other works Revised Estimates are under scrutiny and action for sanction is in progress.</p>
4.6.6	<p>Supply Order was placed on the firm, M/s. Infrastructure Ltd., Mumbai for the supply of 125 mm. to 600 mm. dia AC pipes of different classes to 22 Divisions, amounting to ₹ 3,17,24,762.04. The pipes ordered were conforming to ISS and shall bear ISI marking. The pipes were to be dispatched only after proper inspection, testing and certification by Third Party Inspection Agency, authorised by Kerala Water Authority. The TPIA shall monitor the manufacture of pipes from raw material stage to finished product and conduct the hydraulic test, performance test, visual dimension and physical checking of the finished product as per BIS specification. The Third Party Inspection Agency during the period was M/s. Project and Development India Pvt. Ltd., Noida, a Government of India undertaking. The pipes were supplied by the firm during 2001 after proper inspection and certification by the Third Party Inspection Agency. The Third Party Inspection Agency conducts testing of the pipes in batches and for every batch they issue inspection certificates with the remarks 'Order Status-Incomplete-I lot or so' till the final batch is inspected. Each inspection report is the final report for the particular lot inspected and accepted. The consignees accept the material only on the basis of the inspection report issued by the TPIA. The payment for the pipes supplied is released only to the actual extend of the pipes received in good condition after visual certification of the material supplied. The pipes supplied will invariably have ISI marking and the identification mark of the TPIA assuring the inspection done over and above the supplier's identification mark.</p> <p>Even though the firm has supplied the pipes to all the 22 divisions, defects were found only on 5353 m. of AC CI-10 pipes supplied to PH Divisions, Malappuram for the gravity main. The complaint was reported by the Executive Engineer vide telegram dated 16-11-2002 and letter dated 20-12-2002. The work started on 18-9-2002. In the beginning the pipeline was laid in 3 reaches totaling to 493 m. But</p>

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higher level. Based on the meeting held on 8-7-2003 in the Chamber of Chief Engineer (HRD & GI), it was decided to conduct bench test on all pipes and pipes, which withstand the test, are to be laid and tested in the field. Accordingly 501 numbers pipes were bench tested and 362 numbers were found to be OK. Out of the 362 Nos., a length of 200 m. was laid in trenches and tested under the supervision of company personnel, but the test failed. So a meeting was convened on 25-11-2004 by the TM, KWA with the representative of the firm in which the firm agreed to replace the entire quantity with new pipes. As BIS has detected class 10 pipes of dia 200 mm and above from the purview of ISI, the firm had informed that they can replace the 300 mm CI-10 pipes without ISI marking, but after conducting the entire mandatory tests for quality as per previous ISS. This was agreed to and the firm was directed to replace the pipes. Without waiting of the replacing of the pipes, a total length of 2400 mts. has since been laid out of 3300 mts. from the quantity found good on bench testing and from the quantity available with the division supplied by the other firm. 916 mts. of the pipes are yet to be laid for completion of this work of the gravity main. The total quantity to be replaced by the firm is 2440 mts. and the cost involved comes to around ₹ 10 lakh. KWA had withheld payment to the firm to a tune of ₹ 19 lakh. Moreover Security Deposit amounting to about ₹ 100 lakh is also available at KWA. In the event of the firm failing to replace the defective pipes the loss sustained can be made good from the amount available with KWA on blocking of payment and the Security Deposit available. While the firm effected the actual supply during 2001 there were no entry tax payable to Government of Kerala at the check post while bringing AC pipes from other States. From 2003 onwards Government of Kerala has introduced entry tax for bringing AC pipes from other States to Kerala. The factory of the firm is situated in the State of Rajasthan and the pipe has to be brought from there. When the check post authorities were contacted with regard to this particular replacement, the sales tax authorities at check post informed the firm that the replacement would attract entry tax. On reporting the matter, the issue for exempting payment of entry tax was taken up with the Sales tax Authorities by KWA. The reply from the Sales tax

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	<p>authorities is still awaited. Now the firm had informed that they had since dismantled their mandrill for 300 mm. Class 10 pipe and hence they are unable to supply the pipes and requested to recover the cost of pipes to be replaced relaying charges involved.</p> <p>As 300/10 pipes are not available, sanction has been given for completing the work using 300 mm. Class 15 pipes on supplying laying basis. The work of power line extension and installation of transformer have since been completed, but could not be commissioned for want of power connection. All the components of the scheme except laying of 300 mm. AC gravity main for a length of 900 mts. has since been completed. Out of 68.5 Kms. the distribution lines were laid for a length of 15.41 Kms. (AC pipes only) for which pipes were made available. The balance pipes mainly PVC pipes are to be made available. Also the work of construction of the weir across the river, Thootha is also not arranged due to paucity of funds.</p> <p>Even though the total estimate cost of the project is ₹ 1252 lakh, the loan component is only ₹ 529.67 lakh. The loan released as on 31-3-2003 was ₹ 418.40 lakh. The total expenditure incurred till 30-6-2005 is ₹ 888.01 lakh. For the completion of the work of the scheme the balance amount as per estimate has to be made available. All schemes financed out of LIC loans are progressing very slowly due to funds constraint. Citing the reason of exceeding the limits of Government guarantee the GOK has since stopped assigning LIC loans to KWA. Marching grant sanctioned is also highly inadequate to meet the funds requirement of the LIC schemes under implementation.</p> <p>Thus, it may be noted that, out of pipes costing ₹ 3,17,24,762 failures were reported in pipes costing ₹ 20,16,365 only. KWA had accepted the pipes after following the prescribed inspection procedure and had also taken adequate timely steps for replacement of pipes by the supplier keeping sufficient payments pending for eventual recovery of the cost of the pipes from the contractor in case of their failure to replace the defective pipes. Delay in receipt of replacement pipes like due to hold up by Sales tax Authorities was beyond the control of KWA. Though the failure of pipes could be one of the reasons for delay in completion of the particular</p>

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	component of work viz., gravity main, lack of sufficient and continuous flow funds was the main reasons for the delay in completion of the scheme.
2005-06 4.4.5	Administrative Sanction was obtained in 1996 but the land for the scheme was obtained during 2002. The site proposed for the treatment plant was changed due to the non-availability of that site. Hence deviation necessitated and the sanction for the deviation proposal was obtained during 12/2003. The construction of the weir was delayed due to the following reasons: The estimate provision for the construction of the weir in the project was 68 lakh. The consultant M/s. Engineering Service, New Delhi proposed detailed design and estimate for the weir and the estimate cost was changed to ₹ 331 lakh. The revised estimate due to subsequent rate revision is ₹ 400 lakh. Non-availability of sufficient funds is one of the main reasons for the delay of constructing the weir. The weir proposed to be constructed at Koottilamukku. During summer season there will be no water in the river. Sufficient Raw Water will be available in the well only after the construction of the weir. The scheme can be partially commissioned by completing certain important components but the fund required for the same is ₹ 308 lakh. Thus the delay in completing the scheme is mainly due to the non-availability of funds. Considering the reason the objection may be dropped.
2006-07 4.4.4	<p data-bbox="494 1272 1251 1339">4. ARWSS to Airoor, Parakkadavu and Puthenvelikkara (Part) Villages</p> <p data-bbox="494 1346 1251 1473">In October 1993, Government of Kerala sanctioned implementation of Accelerated Rural Water Supply Scheme (ARWSS) to Airoor, Parakkadavu and Puthenvelikkara Villages, benefiting 57000 people at an estimated cost of ₹ 210.36 lakh.</p> <p data-bbox="494 1480 1251 1547">As per the project report the time required for completion of the scheme was two years.</p> <p data-bbox="494 1554 1251 1751">The proposals of the scheme included construction of well-cum-pump house and Treatment Plant on the side of Chalakudy river at Moozhikulam in Parakkadavu Village and construction of O.H. tank at Malaikunnu in Kunnukara Panchayath and G.L. tank at Puliyankunnu in Parakkadavu Panchayath.</p>

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	<p>As per ARWSP norms, the required land for various components of the scheme had to be given by the panchayath authorities on free of cost Since the sanction of A.S. and T.S. received, KWA was taken all efforts to obtain the land from Panchayat Authorities as offered by them.</p> <p>But the land for well-cum-pump house, and water treatment plant could not be obtained from Panchayath Authorities up to 1996. The land for O.H. tank and G.L. tank was received from Panchayath authorities only during 1996.</p> <p>Due to the inability to hand over the proposed land by the Panchayath, KWA was forced to redesign the proposed scheme. Meanwhile the International Airport was proposed in Nedumbassery and they have requested KWA to supply water for their requirements.</p> <p>As a result, a revised proposal for the scheme by combining it with the nearby ongoing scheme of ARWSS to Chengamanad, Nedumbassery Villages was decided and redesigned in 1996, after incorporating the demand of water for International Airport. CIAL offered the land on free cost for the one among component of the scheme namely common sump at Moozhiyal in Nedumbassery Panchayath.</p> <p>As a result of the redesign of the scheme, the following components such as (1) well-cum-pump house, (2) Treatment plant, (3) Raw water pumping main, (4) Clear water pumping mains from treatment plant to O.H. tank and G.L. tank, pump set, at treatment plant were deleted.</p> <p>Thereafter due to the modification, the following components were additionally required:</p> <ol style="list-style-type: none">1. Common pumping main2. Common sump at Moozhiyal3. Pump set at Chowara pump house4. Pure water pumping main from common sump to O.H. tank, Malaykunnu.5. Pure water pumping main from common sump to G.L. tank at Puliyanamkunnu.

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	<p>The item 1 to 3 is common for both the schemes and the cost is to be apportioned in the ratio of 57:43 on the basis of the benefited population of the scheme. 57% of the cost of the above 3 components are booked under ARWSS to Airoor, Parakkadavu and Puthenvelikkara.</p> <p>Due to non-receipt of land from Panchayath authorities, KWA was forced to redesign the scheme with new schedule of rates and thus the cost of the new proposal estimated about 3 times of the original Technical Sanction of ₹ 210.36 lakh. At that time no change was done for the O.H. tank, G.L. tank and distribution network from the original Technical Sanction KWA commenced the work in 1997 and the following works were completed:</p> <table border="0" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;"><i>Name of work</i></th> <th style="text-align: center;"><i>Year of completion</i></th> </tr> </thead> <tbody> <tr> <td>1. Common sump at Moozhiyal</td> <td style="text-align: center;">1998</td> </tr> <tr> <td>2. Pure water common pumping main</td> <td style="text-align: center;">1999</td> </tr> <tr> <td>3. Pure water pumping main from common sump to Malaikunnu</td> <td style="text-align: center;">2000</td> </tr> <tr> <td>4. O.H. tank at Malaikunnu</td> <td style="text-align: center;">2001</td> </tr> <tr> <td>5. Distribution line in Zone II</td> <td style="text-align: center;">2004</td> </tr> </tbody> </table> <p>Thus the Zone II of the scheme proposed for Kunnukara Panchayath (former Airoor Village) has been completed and commissioned during 5/2005. This zone is benefiting a population of 21000 people of Kunnukara Panchayath.</p> <p>In the case of Zone I i.e. Parakkadavu area, the following works were completed:</p> <ol style="list-style-type: none"> 1. G.L. tank at Puliyanamkunnu completed in 1999. 2. Pumping main from common sump to Puliyanamkunnu G.L. tank 250 mm C.I. pumping main. 6.54 km. completed in 2000. 3. Distribution line: Out of 63.20 km. of distribution line. 14.70 km. completed in 2000. <p>The common practice of execution of pipe laying works during the period were on the basis of centralized supply of pipes from KWA and the works were arranged accordingly but the required quantities of pipes were not got during the period and with the available</p>	<i>Name of work</i>	<i>Year of completion</i>	1. Common sump at Moozhiyal	1998	2. Pure water common pumping main	1999	3. Pure water pumping main from common sump to Malaikunnu	2000	4. O.H. tank at Malaikunnu	2001	5. Distribution line in Zone II	2004
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	<p>pipes the pumping main and distribution system were partially completed. Subsequently the centralized purchased system ceased and so some work for laying pipe line were terminated.</p> <p>Consequently KWA has arranged some works on supply and laying basis and completed the pipe laying works in Zone II portion and commissioned during 5/2005.</p> <p>In the case of Zone I, 50% pumping main 25% distribution have been completed. The up-to-date expenditure incurred for the scheme is ₹ 490.89 lakh.</p> <p>Even though the scheme was sanctioned during 1993 for ₹ 210.36 lakh, the scheme had been delayed for several years only due to non-receipt of land from Panchayath in time. So KWA was forced to redesign the scheme and cost escalated several times due to revision of rate and change of design. However the Zone II of the scheme benefiting a population of 21000 was completed and commissioned during 5/2005. Moreover maximum efforts have been taken to complete the balance works in Zone I.</p> <p>Revised proposal for completion of the scheme was placed before S.L.S.C. for approval. Accordingly Administrative Sanction has been accorded for taking up the scheme "Coverage of NC/PC habitations in Parakkadavu Panchayath" amounting to ₹ 249.86 lakh with the willingness of Panchayath to share the cost of providing distribution system.</p> <p>The scheme targeted to be completed on 31-12-2011. As per the approved project supplying and laying 250 mm dia DI-K9 pumping main for a length of 7.2 km. is being arranged. The following works also to be completed under this proposal:</p> <ol style="list-style-type: none"> 1. Supplying and laying distribution lines of about 4 km. of CI/PVC/GI pipes for which 80% completed. 2. Providing public taps. 3. Charging and commissioning of laid lines. <p>On completion of the above works and laying 44 kms. of</p>

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	distribution network with the help of Parakkadavu Panchayath Authorities, the expenditure incurred for the scheme can be fully utilised.
4.4.5	(1) RWSS to Paivalige and adjoining villages—Action Taken Report
	<p>The construction of the intake well of the scheme could not be started due to the severe protest from the local agriculturalists fearing that water for their agricultural purpose will be affected in future. Paivalige Grama Panchayath resolved to settle the issue for resuming the work and held discussions with the action committee, but it was not fruitful. Even though discussion was made in the presence of Hon'ble Manjeswaram MLA, the problem was not settled. The possibility of obtaining alternate well site was also not explored as the protest was against the drawal of water from the river and it was forced to drop the scheme. Chances of utilising the GL reservoir and break pressure tanks constructed by providing borewell sources were sought and borewells were dug under DRW. But unfortunately yield of the borewells were not sufficient for energising. Meeting was conducted at later stage also in the presence of Hon'ble MLA, but the issue was not settled. Hence due to the reasons beyond the control, the scheme was compelled to drop.</p>
	(2) Augmentation of Water Supply to Pala Municipality in Kottayam District
	<p>The augmentation of Water Supply Scheme, Pala is intended to provide drinking water to 25000 people of Pala Municipality. The actual date of completion of scheme was December 1998 with the Financial Assistance from LIC. At present 13 components of the scheme was completed and ₹ 267.27 lakh was incurred for the completion of 13 components. The scheme was partially commissioned and put into service. Due to partial commissioning of the scheme, it benefited more than 3 fourth people as envisaged in the original estimate. The expenditure incurred in this regard is fruitful and beneficial to the people of Pala Municipality and the surrounding panchayaths. In order to complete the scheme in all respects 10 more components has to be completed.</p>

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	<p>Administrative Sanction and Technical Sanction for the components to be completed were accorded for ₹ 230 lakh. A budget provision is included for the scheme in the current year. It is proposed to be completed before 31-3-2012 and the work is now being executed by the Project Division, Kottayam.</p> <p>Though the Administrative Sanction and Technical Sanction for RWSS to Karimpuzha I and II Villages was accorded, the site at the required reduced level for the construction of Water Treatment Plant at the time of investigation was not available as the land owner of the site was not ready to hand over the land on cash basis or any other manner. This caused change in the length of pumping main and thereby necessitated the revision of the design of pumping main.</p> <p>The following components of the Water Supply Scheme was already completed:</p> <ol style="list-style-type: none"> 1. Intake well-cum-pump house 2. OHSR for zone II 3. Sump-cum-Booster station for zone II 4. Clear water pumping main for zone II 5. Part of Distribution line (7 km.) 6. Raw water pump set. <p>After carrying out the above works by the year 2000 to 2006 amounting to ₹ 1.94 crore LIC stopped funding and hence further works were not done. Subsequently, the scheme was included under SPAN aided by NABARD.</p> <p>Out of the four packages of the work the pipe line work and construction of the approach road to Water Treatment Plant site has been completed.</p> <p>The remaining packages of :</p> <ol style="list-style-type: none"> (a) The construction of ₹ 8.74 lakh litres Clear Water Sump, Raw Water Pumping Main, Clear Water Gravity Main, installation of pump set transformers, construction of foot bridge and approach road etc.

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	<p>(b) Supply and laying network are under the tendering stage and is expected to be started at the earliest.</p> <p>All the components already constructed for these schemes will become fruitful after commissioning of the scheme.</p> <p>The IPD Wing who prepared the project report might not be aware of the Tourism Development Activities at the proposed site for the construction of Water Treatment Plant. On knowing the fact, an alternate site was identified and obtained from Irrigation Department. A deviation proposal was approved.</p> <p>L.I.C. stopped funding of the Scheme. Now the scheme is included under SPAN projects aided by NABARD and the work is under tendering stage and is expected to be completed at the earliest. Out of the four packages of this scheme:</p> <p>(a) Construction of barbed fencing at Water Treatment Plant site was completed. The remaining package of construction of intake well-cum-pump house 7 mld Water Treatment Plant, Clear Water sump and pump house are in the Tendering Stage.</p> <p>(b) Construction of raw water pumping main and clear water pumping main, distribution network of 3500 mtr. for Thachampara zone and 12650 mtr. for Karakurussi zone are also in the tendering stage.</p> <p>(c) Construction of 10.11 lakh litres OHSR laying gravity main 6230 and distribution network-Laying work completed for 27 kms.</p> <p>2007-08 Kerala Water Authority have taken appropriate action for utilising the pipes and specials already procured for the ARWSS to Pathanapuram. Necessary directions have been issued to all Project/ Scheme implementing officers of Kerala Water Authority for utilising the materials in ongoing schemes under NABARD and SLSC and JICA projects.</p>