

FOURTEENTH KERALA LEGISLATIVE ASSEMBLY

**COMMITTEE
ON
PUBLIC ACCOUNTS
(2019-2021)**

SEVENTY SEVENTH REPORT

(Presented on 14th January, 2021)



**SECRETARIAT OF THE KERALA LEGISLATURE
THIRUVANANTHAPURAM
2021**

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On

**Paragraphs relating to Irrigation Department contained in the Report
of the Comptroller and Auditor General of India for the year ended
31st March, 2013 (Economic Sector)**

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(2019-2021)

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Shri R. Venugopal, Deputy Secretary.

INTRODUCTION

I, the Chairman, Committee on Public Accounts, having been authorised by the Committee to present this Report, on their behalf present the Seventy Seventh Report on paragraphs relating to Irrigation Department contained in the Report of the Comptroller and Auditor General of India for the year ended 31st March, 2013 (Economic Sector).

The Report of the Comptroller and Auditor General of India for the year ended 31st March, 2013 (Economic Sector) was laid on the Table of the House on 8th July, 2014.

The Committee considered and finalised this Report at the meeting held on 11th January, 2021.

The Committee place on records their appreciation of the assistance rendered to them by the Accountant General in the examination of the Audit Report.

Thiruvananthapuram,
14th January, 2021.

V. D. SATHEESAN,
Chairman,
Committee on Public Accounts.

REPORT

IRRIGATION DEPARTMENT

Audit paragraph 3.3.4 - 3.3.4.1 contained in the Report of the Comptroller and Auditor General of India for the year ended 31st March 2013 (Economic Sector).

3.3 Functioning of Lift Irrigation Schemes

3.3.1 Introduction

Lift Irrigation is a method of irrigation in which water is not transported by natural flow (as in gravity-fed canal system) but is lifted with motor and pumps. Lift Irrigation Schemes (LISs) are mainly intended to enhance the irrigation potential of paddy production. LISs coming under Minor Irrigation (MI) Sector, were undertaken when the water source-rivers, canals, ponds, etc. was at a level lower than the level of area irrigated entailing lifting of water for irrigation.

There are 459 LISs in Kerala spread over in 13¹ districts, with an ayacut² of 38938 hectare (ha). These form only 18.7 per cent of the total area of 208160 ha. under paddy cultivation. The total expenditure during 2009-2013 towards construction, upkeep and maintenance of MI structures³ like LISs, Class I and II schemes, etc. was ₹ 666.20 Crore.

3.3.2 Organisational set up

Works of construction and maintenance of lift irrigation structures are being attended to by MI divisions headed by Executive Engineers who are being assisted by sub-divisional engineers and sectional engineers. Three MI circle offices are functioning to supervise the functions. The Chief Engineer (CE) (Irrigation and Administration), Thiruvananthapuram is the Administrative head of the department. The Principal Secretary to Government, Water Resources department is the head at Government level.

1 There is no LIS in Thiruvananthapuram district.

2 Ayacut – Irrigable area.

3 MI Structures are classified into three – Class I, Class II and Lift irrigation.

3.3.3 Audit Scope and coverage

Audit studied the viability of LISs by scrutinising the functioning of LISs in Ernakulam, Thrissur and Palakkad districts where 279 schemes (61 per cent of the schemes) were implemented and about ₹ 199.66 crore was incurred. The audit was conducted during April 2013 to August 2013 covering the period from 2009-10 to 2012-13.

3.3.4 Audit findings

Audit found that LISs are not delivering the intended benefits as discussed in the succeeding paragraphs.

3.3.4.1 Budget Allocation and Expenditure

The budget allocation and expenditure incurred for the construction, upkeep and maintenance of MI structures for the period between 2009-10 and 2012-13 are mentioned below:

Year	2702 -Revenue		4702 - Capital		Total		
	Allocation	Expenditure	Allocation	Expenditure	Allocation	Expenditure	Percentage of expenditure on allocation
2009-10	128.45	114.29	56.29	18.61	184.74	132.90	72
2010-11	149.45	107.56	78.49	26.35	227.94	133.91	59
2011-12	174.65	104.69	128.16	76.59	302.81	181.28	60
2012-13	186.07	139.21	161.66	78.90	347.73	218.11	63
Total	638.62	465.75	424.60	200.45	1063.22	666.20	

Source : Figures compiled by the Office of the PAG (A&E), Kerala.

There was over budgeting during all the years-for Capital as well as Revenue heads covered under review. The over budgeting was more in the Capital heads especially during 2009-10 and 2010-11, 67 per cent of the allocation under Capital outlay remained unutilised. This is an indication that new MI Schemes are not being implemented as envisaged.

(Notes furnished by Government on the above audit paragraphs are included as Appendix II)

Excerpts of the discussion of Committee with concerned department officials.

1. While examining the audit Para 3.3.4.1 'Budget allocation and Expenditure' the Committee wanted the officials to explain reasons for the decrease in Capital expenditure and revenue expenditure continuously for four years from 2009-10 to 2012-13 in Lift Irrigation Schemes which invited remark 'over budgeting' by Accountant General. The Secretary, Irrigation department explaining the reason for declining expenditure stated that the schemes for which funds were allotted through budget may not have obtained AS/TS in time thereby delaying the work and also bills for the completed works may not have been encashed during that financial year itself. He also added that there would be a back log when spill over works are being performed and hence the department could not spend entire budget amount allotted for those four years mentioned in the audit para.

2. The Committee enquired whether minor irrigation schemes were included in Lift irrigation Scheme. The witness Secretary Water Resources department appraised that only funds for LI Schemes were included in that scheme. To the Committee's query about deficit in revenue expenditure in LI Schemes, the Chief Engineer, Irrigation department answered that due to decrease in ayacut area there are only a few LI schemes for paddy cultivation which resulted in less expenditure. But apart from that irrigation of coconut plant, nut-meg tree, etc. are being done through LI Schemes.

3. The Committee pointed out that while considering the figures of expenditure till 2013, it was noted that the expenditure was far behind the allocated amount. The Committee enquired why the Revenue Expenditure is not increasing. The Committee enquired the reasons for delay in payment during the first year and why it is repeated in the subsequent years.

4. The witness, Chief Engineer from Irrigation department answered that the expenditure figures shown is actual figure arrived at after clearing of the contractor's bill and does not include bills pending payment. He added that only

50% of bills are cleared by 31st March in every current year and remaining will be either pending or the bills may be in queue to be cleared by treasury on that day. If the bills pending payments too are considered, actual expenditure will rise upto 85% of allocation. The Secretary, Irrigation Department adding to the explanation said that in every year, the bills from the month of June does not get cleared in the same financial year and as per the current status, bills upto June 18 only got cleared by March 2019. Every year 80% of the bills received are related to pending payments and they are cleared the next financial year only and this pendency is repeated every year. The witness Chief Engineer from Irrigation department further clarified that bills from July are never accounted for in the same financial year. He again added that when clearing the bills each year, 85% of bills submitted remained uncleared and is pending on the hands of the department. The same repeats periodically.

5. The Secretary, Irrigation Department answering to the query of Committee said that spill over of unpaid bills is one of the causes for lower expenditure and if lower expenditure is reckoned as overbudgeting and if it leads to lower budget allocation in the ensuing financial year then it will adversely affect the ongoing projects. Adding to that he stated that the lesser budget allocation in current financial year than the previous fiscal year would have a negative impact on the work in progress and hence department would not be able to take up the work proposed in the next year's budget. He further opined that financial expenditure does not completely reflect physical achievements. In case of Irrigation Department, physical achievement is much more than the corresponding period's financial expenditure.

6. The Secretary, Irrigation department attributed the main reason for delay in payment of bills to the delay in starting work after getting technical estimate and securing administrative sanction. He added that not only getting technical estimate on works takes time but securing administrative sanction after technical estimation usually takes more than six months and work gets started only after that.

7. The Secretary, Irrigation Department pointed out that the Finance Department allows a special provision to PWD wherein for every allocation of ₹100 administrative sanction for ₹250 is accorded. Hence PWD can expend maximum amount in a year. But for irrigation department no such privilege is allowed and only spill over of work is envisaged.

8. The Committee also noticed that the expenditure in Irrigation Department is decreasing continuously and as such the term 'over budgeting' is coined by the AG and also wanted justifiable reasons for the decreasing expenditure.

9. The witness Secretary, Water Resources department further apprised that currently a lot of progress has been achieved in technical governance and project monitoring. He further explained that in planning, the scheme approval procedure has been simplified since 2010-11 and accordingly the Chief Engineer can allow administrative sanction for schemes up to ₹ 5 Crores without referring to the Government. He further apprised that all projects except one or two of this current year have been approved.

10. The Committee pointed out that the Accountant General is not able to assess the project execution since it is currently conducting a fiscal audit instead of a performance audit in the Irrigation department. The Committee also pointed out that sanctions, administrative sanction and technical sanction, gets delayed since it is submitted for approval only on the fag end of financial year. The Committee also pointed out that payment made from Government Exchequer is not properly accounted in the Irrigation Department. The Committee doubt whether 'the spill over privilege' is causing delay in completion of work and thereby delaying the submission of bills in time.

11. The Committee directed the Finance department to take urgent measures to clear the pending payments on bills without delay.

12. The Committee directed the Irrigation department to take urgent steps to complete the procedure for availing technical sanction and administrative sanction of a project during the first quarter of the financial year itself and to start the work without delay. The Secretary, Water Resources Department agreed to do so. The Committee urges the Finance Department to examine whether to do away with the practice of spill over privilege or to extend the practice of advance sanction established in PWD to Irrigation Department also.

Conclusions/Recommendations

13. The Committee understands that in Irrigation department, technical sanction and administrative sanction for a work are to be given only on the fag

end of the year. Delay in securing administrative sanction and technical sanction of project delays the starting of the work. The Committee directs the Irrigation department to take urgent steps to complete the procedure for availing technical sanction and administrative sanction of a project during the first quarter of the financial year itself and to start the work without delay.

14. The Committee understands that in Irrigation Department delay in according technical and administrative sanction for a project causes spill over of the work to next financial year as well as clearing of the bills to next financial year. The Committee realises that in Irrigation department bills for payment from the month of July of a financial year are never accounted for in the same financial year and they are cleared only in the next financial year. The Committee doubt whether 'the spill over privilege' is causing delay in completion of work and thereby delaying the submission of bills in time.

15. The Committee directs the Finance department to take urgent measures to clear the pending payments on bills without delay.

16. The Committee urges the Finance Department to examine whether to do away with the practice of spill over privilege or to extend the practice of advance sanction which is followed in PWD to Irrigation Department also.

Audit paragraph 3.3.4.2 contained in the Report of the Comptroller and Auditor General of India for the year ended 31st March 2013 (Economic Sector).

3.3.4.2 LISs in the State

There were 459 LISs in Kerala to serve the ayacut of 38938 ha. District wise details of LISs as of July 2013 are given below:

District wise details of LISs

Sl. No.	Name of District	No. of LISs	Ayacut (in ha.)	Sl. No.	Name of District	No. of LISs	Ayacut (in ha.)
1	2	3	4	5	6	7	8
1	Thiruvananthapuram	Nil	Nil	9	Palakkad	41	4572
2	Kollam	14	572	10	Malappuram	51	6725

1	2	3	4	5	6	7	8
3	Pathanamthitta	51	357	11	Wayanad	21	1210
4	Alappuzha (Chengannur)	14	1475	12	Kozhikode	5	143
5	Kottayam	13	793	13	Kannur	4	232
6	Idukki	4	333	14	Kasargode	3	426
7	Ernakulam	141	12500	Total		459	38938
8	Thrissur	97	9600				

Source : Departmental Data/Website

In the sample check, audit noticed that there were significant variations between the details of LISs maintained by CE's office and by the division office as shown below:

Discrepancies in the number of schemes

Sl. No.	Division	Nos. As per CE	Nos. As per Division	Ayacut as per CE (in ha.)	Ayacut as per Division (in ha.)
1	Ernakulam	136	141	12500	12460
2	Thrissur	91	97	9600	8453
3	Palakkad	37	41	4572	3901
	Total	264	279	26672	24814

Source : Divisional records/website

On pointing out the discrepancies CE accepted that the total number of schemes in the three divisions was 279 but did not provide data on effective ayacut presently available.

(Notes furnished by Government on the above audit paragraph is included as Appendix II)

Excerpts of the discussion of committee with concerned department officials.

17. While considering the audit paragraph about Lift Irrigation Schemes in the State, the Committee queried about the difference in the number of LISs in the record maintained by Chief Engineer's office and by the Division Office. The witness Chief Engineer (Irrigation & Administration) Irrigation Department answered that while total no. of LISs listed by Divisional Office included the non-operational schemes also, details furnished by Chief Engineer's office included only active Lift irrigation Schemes.

18. The Committee asked about the 15 non operational Lift Irrigation Schemes (LIS) in the State, where they are situated and present status of each scheme.

19. The Chief Engineer (Irrigation & Administration) replied that four in Palakkad, six in Thrissur and five in Ernakulam are identified as non-operational LIS and four in Palakkad and 3 in Thrissur have already been commissioned. The witness further added that for the commissioning of Thottumukkam Scheme, work for ₹ 10.5 Crores has been tendered.

20. The Committee directed the witness to furnish urgently a status report on the 15 Lift Irrigation Schemes pointed out in the audit para and reportedly non-operational.

Conclusion/Recommendation

21. The Committee directs the Irrigation department to furnish urgently the present status of the 15 non-operational Lift irrigation schemes pointed out in the audit para.

Audit paragraph 3.3.4.3 contained in the Report of the Comptroller and Auditor General of India for the year ended 31st March 2013 (Economic Sector).

3.3.4.3 Drastic reduction in area under paddy cultivation

LISs were mainly intended for the benefit of paddy cultivation. Availability of water is a major requirement for paddy, as it requires regular water supply. Out of the total area under paddy cultivation, 0.55 lakh ha. has natural water supply, whereas 1.53 lakh ha. (73.61 per cent) was irrigated through various irrigation structures of major, medium and minor irrigation.

Paddy, a major crop of Kerala, was being cultivated in about 8.76 lakh ha. in 1975-76 according to the data of Bureau of Economics and Statistics (BES) but during the last several years the area under paddy cultivation had been declining drastically and it reached to the lowest level of 1.97 lakh ha. in 2012-13 as shown below.

Progressive reduction in area under paddy cultivation

Sl.No.	Year	Area (in ha.)	Percentage of reduction
1	1975-76	876022	--
2	1985-86	678281	22.57
3	1995-96	471150	46.22
4	2005-06	275742	68.52
5	2012-13	197277	77.48

The area under paddy cultivation had gone down over the years mainly because there has been a shift in terms of cropping area of paddy cultivation to other yields such as plantation, arecanut, coconut as well as conversion of paddy fields for non-agricultural purposes. One of the major objectives of LISs to increase the irrigation potential of paddy cultivation has thus become irrelevant now.

This was also evident in the reducing number of LISs commissioned recently. Most of LISs were constructed more than 30 years back considering the land use pattern and cropping pattern prevailed at that time. Only 10 schemes were commissioned during last 10 years of which three schemes were commissioned during the period covered in audit.

As per paragraph 21.1.4 of Kerala Public Works Department (KPWD) Manual, the ayacut of the LISs to be identified and verified at the time of commissioning of the schemes. The achieved ayacut for the 459 schemes commissioned more than 30 years back as per departmental website was 38938 ha. However, test check of verified ayacut for three districts showed that most of the LISs were verified more than 30 years back and achieved ayacut may not be relevant now due to the changes in the land use pattern and reduction in paddy cultivation. This necessitates a further verification to find out effective ayacut presently available under LISs in order to assess their viability.

(Notes furnished by Government on the above audit paragraph is included as Appendix II)

Excerpts of the discussion of committee with concerned department officials.

22. While considering the reply on audit para about drastic reduction in area under paddy cultivation the Committee sought clarification on department's reply that due to reduction in Aayacut new LIS proposals could not be envisaged. The Committee enquired whether there has been an increase in the area of paddy cultivation after 2012-13 and whether the data has been collected on this. The witness Chief Engineer, Water Resources Department apprised that data on ayacut area is collected by Statistical Department and further added that the custodian of canals and ponds is Local Self Governments and data on the same is available with Irrigation Department too.

23. The Chief Engineer added that Minor Irrigation Department is conducting survey on Water resources every five years under Central Government Scheme and presently the survey is going on as per the scheme. He informed that as part of Minor Irrigation census, data is being collected on Panchayat basis and Irrigation Department has collected data of ponds, streams and reservoirs on village, block, district panchayat basis as part of the Haritha Kerala Mission. The Committee enquired whether protection and maintenance of canals, ponds, reservoirs etc. in the state is vested with the Minor Irrigation Department. The witness, Secretary Water Resources Department informed that after the 73rd Amendment in Panchayati Raj & Municipality Act for protection of ponds and canals, the custodian of all water sources except the 9 main rivers are the local bodies. He added that the Irrigation Department has only a supporting role and can collect data on water resources and provide support for project preparation on the direction of Government.

24. The Committee suggested that the department should study carefully about the depletion of natural resources like ponds, canals, streams etc. and take steps to recover these.

25. The Committee directs the department to furnish a detailed report regarding the data of natural water sources collected by concerned engineers

working in Haritha Kerala Mission. The witness Chief Engineer, Irrigation Department said that now the department has data regarding water resources in 914 Grama Panchayat and would furnish the details to the Committee. The Committee asked whether the entire area under paddy cultivation can be reckoned as Ayacut. The Secretary, Irrigation department pointed out that in audit view it necessitates a further verification to find out effective ayacut presently available under LISs in order to assess their viability and agreed to furnish a report regarding the details by assessing the effective LISs.

26. The committee urged the department to furnish a detailed report which includes replies about the following :

1. Whether there is an increase in area of paddy cultivation after 2012-13;
2. Whether verification is done on Ayacut coming under the Lift Irrigation Scheme before commissioning schemes;
3. Effective ayacut available under Lift Irrigation Schemes;
4. Data of natural water resources like pond, streams, etc.

Conclusions/Recommendations

27. The committee recommends that a comprehensive survey should be conducted at the behest of the Minor Irrigation / Irrigation department to find out the effective ayacut area of lift irrigation schemes.

28. The Committee recommends to restructure / dismantle the Lift Irrigation schemes based on the availability of water resources with the active support of farmers and LSGIs and furnish a detailed report to the committee without delay.

29. The Committee expresses concern on the depletion of water bodies and suggests that the department should study carefully about the depletion of natural resources like ponds, canals, streams, etc., and directs to take steps to recover these water sources.

30. The Committee directs the department to furnish a detailed report regarding the data of natural water sources collected by the department as a part of Haritha Kerala Mission.

31. The Committee wanted to know whether there is an increase in area of paddy cultivation after 2012-13, Whether verification is done on Ayacut coming under the Lift Irrigation Scheme before commissioning schemes and whether effective ayacut available under Lift Irrigation Schemes and urges the department to furnish a detailed report in this regard.

Audit paragraph 3.3.4.4 contained in the Report of the Comptroller and Auditor General of India for the year ended 31st March 2013 (Economic Sector).

3.3.4.4 Increase in cost despite reduction in area under paddy cultivation

The construction and maintenance of LISs are attended to by the MI wing of Water Resources department. In addition to LISs the wing was in charge of the construction and maintenance of other MI Structures like Class I and Class II schemes. For the purpose, as many as 2168 staff were deployed to the wing (January 2014). However, the department was not keeping any separate data for expenditure on LISs. The expenditure on MI including LISs is increasing over the years despite decrease in area under paddy cultivation as indicated below:

Expenditure details of LISs for the period from 2003-04 to 2012-13

Period	Expenditure (₹ in crore)		
	Revenue	Capital	Total
2003-04	40.26	0.62	40.88
2004-05	49.93	0.50	50.43
2005-06	50.08	0.82	50.90
2006-07	35.47	0.38	35.85
2007-08	61.82	2.55	64.37
2008-09	77.90	1.10	79.00
2009-10	64.27	1.61	65.88
2010-11	59.98	10.54	70.52
2011-12	53.63	30.75	84.38
2012-13	80.91	22.74	103.65

Source : Figures compiled by the Office of the PAG (A&E), Kerala

(Notes furnished by Government on the above audit paragraph is included as Appendix II)

Excerpts of the discussion of Committee with concerned Department officials.

32. While considering the above audit para about increase in cost despite reduction in area under paddy cultivation, the Committee enquired whether the department is keeping the account of expenditure on Lift Irrigation Schemes separately. The witness Chief Engineer, Irrigation Department answered that there is no separate account for LISs and added that both minor irrigation schemes and LISs are jointly accounted for and the total expenditure made on Lift Irrigation Schemes is available in LIS's head.

33. The Committee remarked that the paddy cultivation is decreasing while expenditure is increasing. The witness Secretary accepting the Committee's views said that eventhough they spend more they don't get the result.

34. The Committee commented that the decrease in area under paddy cultivation and depletion of ponds, canals and reservoirs, which are the sources for lift irrigation schemes caused increase in expenditure of LISs without any effective result. But the Committee agreed with the Government reply that LISs operated in summer season paved towards the recharge of nearby wells and ponds, thus ensuring the availability of drinking water.

Conclusion/Recommendation

35. No comments.

Audit paragraph 3.3.4.5 contained in the Report of the Comptroller and Auditor General of India for the year ended 31st March 2013 (Economic Sector).

3.3.4.5 LISs not handed over to farmers

KPWD Manual (Para 21.1.1 of Chapter XXI) stipulated that, MI works benefiting an area less than 200 acres (80 ha.) were to be maintained either by lift irrigation co-operative societies or by the ryots themselves directly⁴. However, out of 279 LISs in three districts, 156 schemes having irrigable area (ayacut) less

4. Benefiting area < 200 acres but >50 acres by Lift irrigation co-operative societies, <50 acres by ryots themselves directly or through Co-operative Societies.

than 80 ha. are still maintained by the department. Expenditure on maintenance, revamping and manpower engaged for their operation during the period 2009-10 to 2012-13 was ₹ 27.25 crore as shown in Table below, which was avoidable, had the schemes been transferred to the co-operative societies/ryots.

Avoidable maintenance costs

(₹ in crore)

Districts	No. of LISs	2009-10	2010-11	2011-12	2012-13	Total
Ernakulam	72	2.88	3.45	3.18	3.07	12.58
Thrissur	62	1.72	2.98	3.48	3.56	11.74
Palakkad	22	0.16	0.51	1.53	0.73	2.93
Total	156	4.76	6.94	8.19	7.36	27.25

Source : Departmental data

(Notes furnished by Government on the above audit paragraph is included as Appendix II)

Excerpts of the discussion of committee with concerned department officials.

36. Committee enquired about the audit remarks about LISs not being handed over to farmers as stipulated in KPWD Manual. The Committee further elaborating on it asked whether apart from 156 LIS maintained by Irrigation Department out of total 279 Schemes, the remaining 123 has been handed over to farmers societies as per manual and enquired about the current status of those schemes.

37. The Chief Engineer, Irrigation Department replied that though 18 Societies have been formed, it was all related to Canal project and not LIS. The Secretary, Irrigation Department giving explanation said that for the smooth functioning of LISs, proper maintenance and repairs of motors & pump sets are utmost important. For this, permanent and non-permanent workers are to be employed. Since LIS are connected to HT electricity connections, huge amount of electricity charges are to be paid for LISs. Electricity charges and wages to employees are to be borne by the beneficiary. Eventhough KPWD Manual

stipulates handing over of LISs to farmers, farmer's societies and even Panchayats refrain from taking over LISs because of huge expenditure incurred as electricity charges and wages to employees that has to be borne by them. The witness, Chief Engineer, Irrigation Department added that in some schemes, day and night shifts may require upto four people to operate the pump and their salary and electricity charges are currently paid by the Irrigation Department. The Secretary, Water Resources Department pointed out to the discrepancy wherein the subsidy for electricity for farming is allotted to Agriculture Department when the Irrigation Department is paying the electricity charges. He opined that it would have been better if there was an arrangement where the subsidy in electricity charges was transferred to society instead of directly to Agriculture Department.

38. The Committee pointed out that it was for the benefit of the farmers that the electricity subsidy provided to farmers is included as budget allocation of Agricultural Department instead of Irrigation Department. The Committee opined that if additional burden is imposed on farmers such as electricity charges and maintenance charges, cultivation of paddy as well as other crops will not go ahead.

39. The Committee is of the view that the ultimate beneficiaries of LISs are farmers and farmers' societies must come forward to take up LIS and the LIS are to be handed over to them after taking effective measures for payment of maintenance charges, electricity charges and wages of workers and without creating any additional burden on societies.

40. The Committee also said that the system which was created to prevent overburdening of farmers would fail if there was no co-ordination between the departments. Therefore, the Committee strongly recommended that meetings should be conducted by Irrigation department with Agriculture, Power and Finance Departments for devising effective strategies for handing over LIS to farmer's societies after allaying their fears regarding payment of electricity charges, maintenance charges, wages, etc. of the LISs.

41. The Secretary Water Resources Department expressed his opinion that it would be possible to control the cost, if the maintenance of machines is handed over to farmers.

42. The Committee suggested that paying maintenance charges by farmers is not practical and opined that it is better to take departmental decision in this regard.

Conclusions/Recommendations

43. The Committee opines that the ultimate beneficiaries of LISs are farmers and points out that if additional burden is imposed on farmers such as electric charges and maintenance charges of LISs, cultivation of paddy as well as other crops will not go ahead. The Committee directs the department to encourage the farmers' society to come forward to take up LISs and for that proper environment must be created to make them take over LISs. In order to encourage the take over, effective measures for payment of maintenance charges, electricity charges and wages of workers should be taken before handing over of LIS to farmers society without creating any additional burden on society.

44. The Committee comments that the system which was created to prevent overburdening of farmers would fail if there was no co-ordination between the departments. The Committee strongly recommends that meeting should be conducted by Irrigation department with Agriculture, Power and Finance Departments for devising effective strategies for handing over LIS to farmers' societies after allaying their fears regarding payment of electricity charges, maintenance charges, wages, etc. of the LISs.

45. Though the Committee accepts that maintenance cost will be effectively controlled by handing over the machines to farmers itself, payment of maintenance charges by farmers is not practical and will have a negative impact. So Committee directs the department to take departmental decision on handing over of machines and payment of maintenance charges.

Audit paragraph 3.3.4.6 contained in the Report of the Comptroller and Auditor General of India for the year ended 31st March 2013 (Economic Sector).

3.3.4.6 Unfruitful expenditure of Lift Irrigation Scheme

Out of 279 LISs implemented in three districts, 19 LISs were not functioning for years ranging from two to 17 as of March 2013 for various reasons such as

non availability of water near the pump house, damage occurred to motor and pump sets, breaching of canal portions, theft of motors and pump sets, litigation with private party against constructing canal in their land, project found unviable later etc., as indicated in Appendix III. Out of the 19 non functional schemes implemented at a total cost of ₹ 4.74 crore, eight schemes could not even be commissioned till date (August 2013) in spite of spending an amount of ₹ 3.39 crore.

(Notes furnished by Government on the above audit paragraph is included as Appendix II)

Excerpts of the discussion of committee with concerned department officials.

46. While considering the audit paragraph 3.3.4.6, the Committee directed the department to submit a report about the present status of 19 non-functioning LISs.

Conclusion/Recommendation

47. The Committee directs the department to submit a report about the present status of non-functioning LISs.

Audit paragraph 3.3.4.7 contained in the Report of the Comptroller and Auditor General of India for the year ended 31st March 2013 (Economic Sector).

3.3.4.7 Avoidable payment of penalty on Electricity charges

Electric Motors and pump sets are used for lifting water from rivers and canals for feeding the ayacuts. Either High Tension (HT) for connected load of 100 KVA or more or Low Tension (LT) connections is provided to run the motors based on the Kilo Volt Ampere (KVA) of the motors installed in each pump house. As per clause 19 of Kerala State Electricity Board (KSEB) terms and conditions of supply 2005, every consumer should execute a service connection agreement on the occasion of availing fresh connection or whenever there were changes in connected load. Similarly for HT connections the consumer was to install Time of Day (ToD) meter. As per special conditions of “Schedule of tariff and terms and conditions for retail supply by KSEB” the maintenance and replacement of defective meters shall be done by licensees at their costs.

On failure on this count, KSEB would charge extra at the rate of 50 per cent of original tariff. As the department failed to fulfil the above conditions KSEB imposed penalty of ₹ 4.27 crore during the period from 2009-10 to 2012-13 as given table below:

Details of avoidable penalty on electricity charges

Name of MI Division	No. of HT connection	Penalty (₹ in crore)		Adjustments (penalty prior to 2010) (₹ in crore)	Total (₹ in crore)
		Meter fault	Non-execution of Agreement		
Ernakulam	16	1.56	0.78	1.12	3.46
Thrissur	7	0.12	0.1	0.15	0.38
Palakkad	6	0.17	Nil	0.26	0.43
Total	29	1.85	0.89	1.53	4.27

Source : Data furnished by department

Had the department taken timely action to execute agreements and replace the faulty meters, the penalty of ₹ 4.27 crore could have been avoided.

(Notes furnished by Government on the above audit paragraph is included as Appendix II)

Excerpts of the discussion of committee with concerned department officials.

48. While considering the audit para, the Committee enquired about in how many cases out of 29 HT connections ToD meters have been installed and whether the faulty meters have been replaced. The Committee further enquired about who is responsible for the non-installation of ToD meters and execution of agreement with KSEB which caused the payment of penalty of ₹4.27 Crore. The Committee asked about the payment details of penalty and whether penalty is still continuing because of non-execution of KSEB condition laid out in the agreement. The witness Secretary, Water Resources Department agreed to submit a detailed report regarding the Committee's query.

Conclusion/Recommendation

49. The Committee directs the department to furnish a detailed report regarding the numbers of cases out of 29 HT connections, ToD meters have been installed and whether the faulty meters have been replaced. The Committee also directed to furnish the details of the persons responsible for the non-installation of ToD meters and execution of agreement with KSEB which caused the payment of penalty of ₹4.27 Crore including the Payment details of penalty and whether the penalty is still continuing because of non-execution of KSEB condition laid out in the agreement.

Audit paragraph 3.3.4.8 contained in the Report of the Comptroller and Auditor General of India for the year ended 31st March 2013 (Economic Sector).

3.3.4.8 Payment of Electricity Charges without consuming electric power

LISs incur recurring maintenance cost and bulk of it is attributable to energy charges. As per clause 8 of the Schedule of Tariff and Terms and Conditions for Retail Supply by KSEB, electricity charges are levied based on actual consumption or minimum tariff amount whichever is higher. Further, minimum charges are imposed even if the plant or machines are not operated or no power is consumed. Thenampara LIS in Palakkad district partially commissioned in 2001 but stopped functioning in 2001 itself due to breach in the main canal which was completed partially. The department had been paying electricity charges at a minimum rate of ₹ 38,940 per month during the period of non-operation. The electricity charges paid from September 2001 to March 2013 without consuming any electric power was ₹ 54 lakh.

(Notes furnished by Government on the above audit paragraph is included as Appendix II)

Excerpts of the discussion of committee with concerned department officials.

50. While considering the above audit para, the Committee enquired the reason for not disconnecting power even after 18 years of non-functioning of LIS. The Secretary Water Resources Department answered that since connection and reconnection of HT Schemes is a huge task, the connection is maintained by remitting minimum charges so as to avoid future difficulties which will arise on re-connection once it is disconnected.

51. The witness Chief Engineer, Irrigation Department further said that water is lifted mainly in summer season and the power connection is not disconnected even when the lift irrigation is not in operation for 4 to 5 months during rainy season. He added that KSEB charged minimum even when electricity is not used.

52. To a query about the amount which has been paid as electricity charges from September 2001 onwards till date in respect of Thenampara LIS, the witness Chief Engineer, Irrigation Department answered that the Thenampara LIS is not fully commissioned and the Lift Irrigation work is going on and KSEB charges minimum tariff even when not in use.

53. The Committee pointed out that after partial commissioning of Thenampara LIS, it stopped functioning in 2001 itself due to breach in the main canal which was completed partially. The Committee was dismayed to note that though Thenampara LIS stopped functioning in 2001, electricity for running LIS was not disconnected and so electricity charges was being paid for the past 18 years even without consuming power and expressed its strong dissatisfaction over the improper functioning and mal-administration of the Department. The Committee directed the Department to furnish a report on the reason for not disconnecting electricity for the non-functional Thenampara LIS, whether electric connection is still in force, and amount paid as electricity charges from September 2001 onwards till date.

Conclusion/Recommendation

54. The Committee points out that after partial commissioning of Thenampara LIS, it stopped functioning in 2001 itself due to breach in the main canal which was completed partially. The Committee is dismayed to note that eventhough Thenampara LIS stopped functioning in 2001, electricity for running LIS was not disconnected and so electricity charges was being paid for the past 18 years even without consuming power. The Committee expresses its strong dissatisfaction over the improper functioning and mal-administration of the department to oversee the LI schemes. The Committee directs the Department to furnish a report on the reason for not disconnecting electricity for the non-functional Thenampara LIS, whether electric connection is still in force and amount paid as electricity charges from September 2001 onwards till date.

Audit paragraph 3.3.4.9 contained in the Report of the Comptroller and Auditor General of India for the year ended 31st March 2013 (Economic Sector).

3.3.4.9 Idle expenditure under MIRPA and special package

Government accorded sanction in November 2009 for revamping the existing LISs under Malabar Irrigation Package (MIRPA) and special package for Ernakulam district. MI Divisions Ernakulam, Thrissur and Palakkad purchased 431 Motor and pump sets at a cost of ₹ 5.28 crore for 254 LISs during the period between 2011 and 2013. However, 187 motor and pump sets purchased for 116 LISs for which ₹ 2.75 crore has been incurred remained idle due to non-supply of soft starter, non-completion of civil and electrical works as detailed below:

Details of idle motors and pump sets as on August 2013

Name of Division	No. of LISs taken for revamping	No. of motor and pump sets purchased	Idling of motor and pump sets		
			No. of LISs	No. of motor and pump sets	Expenditure incurred (₹ in crore)
Ernakulam	127	224	6	10	0.17
Thrissur	90	133	90	133	2.14
Palakkad	37	74	20	44	0.44
Total	254	431	116	187	2.75

Source : Departmental data

Thus due to laxity of the department, the equipment purchased for ₹ 2.75 crore for augmenting irrigation potential was remaining uninstalled and hence could not be used for intended purpose.

The matter was reported to Government in September 2013; their remarks are awaited (January 2014). The department confirmed that the basic objectives of LISs was to facilitate irrigation for paddy cultivation and that the area under paddy cultivation reduced considerably over years. However, the department stated that

due to the distribution of water through canals there was rise in ground water table which in turn helped getting potable water in wells. This contention was not tenable as the objective of the scheme was to enhance irrigable area under paddy cultivation.

3.3.5 Conclusions

From the audit findings discussed above, it was concluded that :

- There was over budgeting for capital as well as revenue heads resulting in under utilisation of the funds allotted for the LISs.
- Department did not have a complete data regarding the effective ayacut now available for irrigation as verification of ayacut of the completed schemes was done years back.
- Many LISs were idle inspite of incurring huge expenditure for their construction.
- Department has been incurring avoidable expenditure in the form of penalty on electricity charges due to non-replacement of faulty meters and non execution of agreement.
- Pumps and motors purchased for revamping the schemes are remaining idle in many cases due to non completion of civil and electrical works.
- The completed schemes having ayacut less than 80 ha. were not transferred to ryots as envisaged in the KPWD Manual. Owing to change of land use pattern and crop pattern the area of paddy cultivation has been reducing rapidly. Hence it is not likely to maintain the LISs unless there is active participation of ryots. Transfer of completed schemes to ryots would result in economical maintenance by retaining the highly warranted schemes alone due to direct participation of beneficiaries in the administration of LISs.

(Notes furnished by Government on the above audit paragraph is included as Appendix II)

Excerpts of the discussion of committee with concerned department officials.

55. The Committee enquired the reason why the department purchased motor and pump sets before the completion of civil and electrical works of LIS under Palakkad and Ernakulam division. The witness Chief Engineer Irrigation Department answered that under Ernakulam Division all the motor pump sets issued for LISs under MIRPA Scheme has been utilised and they are still working. He added that civil works have not been started in the 37 schemes of Palakkad Division.

56. The Committee urges the department to furnish a detailed report explaining the reason for purchasing motor and pump sets for LIS before the completion of its civil and electrical works and the current status regarding the number of pump sets bought, number of pump sets installed, how many yet to be installed, the number of pump sets left idle and the number of pump sets in used in Palakkad, Ernakulam and Thrissur division.

Conclusion/Recommendation

57. The Committee urges the department to furnish a detailed report explaining the reason for purchasing motor and pump sets for LIS before the completion of its civil and electrical works and the current status regarding the number of pump sets bought, number of pump sets installed how many yet to be installed the number of pump sets left idle and the number of pump sets in use in Palakkad, Ernakulam and Thrissur division.

Audit paragraph 3.4 contained in the Report of the Comptroller and Auditor General of India for the year ended 31st March 2013 (Economic Sector).

3.4 Irregularities in the execution of Regulator-cum-Bridge work

Extension of undue benefit of ₹ 2.43 Crore to the contractor by facilitating supply of sand at reduced rate.

Government issued (June 2008) Administrative Sanction (AS) for construction of Regulator-cum-Bridge across Bharathapuzha at Chamravattom in Malappuram district at a cost of ₹ 113 crore (SoR 2008) under Rural Infrastructure Development Fund (RIDF) XIII of National Bank for Agriculture and Rural

Development (NABARD). The project envisaged construction of a regulator having 70 vertically operated shutters and a bridge of 978 m length connecting Ponnani and Tirur town in Kochi-Kozhikode highway. Government issued Technical Sanction (TS) at an estimated cost of ₹ 119 crore (based on SoR 2008). While the work was nearing completion, the Executive Engineer (EE) Project Division, Chamravattom reported (April 2010) to the Superintending Engineer (SE) that no provision had been made in the estimates for construction of side protection walls of the river banks and for connecting the bridge to the either banks of the river and hence the project would be incomplete. To incorporate the additional works, the AS was revised (August 2010) to ₹ 134 crore (based on SoR 2010).

Audit noted that as per the terms and conditions of the tender, contractor had to procure all materials required for construction works including river sand. As per agreement, the contractor was eligible to get ₹ 990 per cum. of river sand to be used in construction work. This works out to ₹ 1,285 per cum. after inclusion of contractor's profit and tender premium. As the river sand was not available in the market, the contractor sought (October 2009) permission of District Collector (DC), Malappuram, through EE to mine 28000 cum. of river sand from the project site. At the first instance, DC allowed 5171 cum (7756.5 MT) of sand for preliminary works at the rate of ₹ 634 per tonne which was the rate allowed for the works executed by Nirmiti Kendra⁵. Considering the elements of contractor's profit and tender premium the cost of sand works out to ₹ 1,234 per cum. Against the allowed quantity of 5171 cum., the contractor mined only 666.66 cum. As the sand was being sold to public for ₹ 317 per tonne (₹ 617 per cum. after inclusion of contractor's profit and tender premium) by the local Panchayat, the contractor requested the DC through EE to allow him to mine sand at the same rate which was also granted to the contractor for 50000 cum. of sand. The DC, however, directed EE that in case the contract rate was more than the concessional rate, the difference should be recovered from the claim of the contractor. The contractor mined 36283.34 cum. of sand against the permitted quantity of 50000 cum. But the department did not recover the differential amount (contractual rate minus concessional rate) from the contractor. Allowing contractor to mine 666.66 cum of sand at concessional rate and failure to comply with the direction to collect differential rate for 36283.34 cum of sand had resulted in providing undue benefit to the contractor to the tune of ₹ 2.43 crore⁶ (up to October 2011).

5 An autonomous body engaged in construction works.

6 $(36,950 \text{ m}^3 \times ₹ 1,285) - (666.66 \text{ cum} \times ₹ 1,234 + 36,283.34 \text{ m}^3 \times ₹ 617)$

The matter was reported to Government in May 2013 and the reply from Government is awaited (December 2013).

(Notes furnished by Government on the above audit paragraph is included as Appendix II)

Excerpts of the discussion of committee with concerned department officials.

58. To a query about the undue benefit of ₹ 2.43 Crore to the contractor by facilitating supply of sand at reduced rate, the witness Chief Engineer, Irrigation Department said that the problem arose because the sand for work of Chamravattom regulator-cum-bridge was taken from the same river in which the project was implemented.

59. As the matter is about the loss of ₹ 2.43 Crore, the Committee wanted a vivid and accurate reply. The witness Secretary Water Resources Department informed that there was no provision regarding the rate of materials supplied in the contract since it was the contractor who had to procure all the material needed for construction. As the sand was scarce at the time of commencement of work of Regulator-cum-bridge in 2009, the contractor requested the District Collector to provide sand and the Collector provided the river sand from the project site at subsidised rate. When the sand was again required in 2011, the Collector informed the Department that if the rate of sand supplied is less than the scheduled rate in the agreement, the department should finalize the payment of the contractor only after deducting the difference in the rates from the payment. But the Collector's Order was not considered because once a contract is fixed, it is not proper to change the rate of materials mentioned in the contract and the difference in the rate of materials does not affect the contract as long as the contract remains.

60. The Committee asked whether the rate of sand is a part of the contract, the Chief Engineer, Irrigation Department replied in the negative. Regarding this the Secretary, Water Resources Department revealed that the contract was based on S.O.R. of 2008.

61. The Secretary, Water Resources Department appraised that the District Collector is the custodian of river sand and it is he who fix the rate. As requested by the contractor, the District Collector fixed the rate of sand at the concessional rate paid to the Panchayat as it was a public work. In 2009, 1000 tonne sand was allotted. When additional quantity of sand was demanded with the prior concessional rate, the Collector informed to the department that if the contract rate

was more than the concessional rate, the contractor would have to reduce the amount. The Secretary added that the department could not change the contract rate due to changes in the price of materials since the agreement based on S.O.R. was for 18 months during which no rate change is possible. Even if the price of sand goes up, the contractor has to bear it as well since no change in contract rate is possible. The witness Secretary, Water Resources Department appraised that the Collector has stated the reason for giving sand at the rate paid to the Panchayat works considering it as public work and could be completed only when sand was provided.

62. An Officer from Accountant General's office said that originally the difference in the rates of sand was recovered by the Collector. The Chief Engineer, Irrigation Department made clear that the said amount had not been recovered from the Contractor's bill. The Committee asked the difference in rate of sand supplied and rate of sand in the contract and the Secretary, Water Resources Department answered that the difference was ₹1285.

63. An official from Accountant General's office said that it was very rare case where sand, building material for which the contractor has to bear the cost, is excavated from work site itself and it is serious as it sustained a loss to public property. He added that if the Irrigation Department had informed the District Collector that it could not recover the excess amount given as concessional rate, the District Collector might have recovered the amount from the Contractor. Chief Engineer, Irrigation replied that the District Collector was made aware that the supply of sand was not part of the contract and the department is not supplying materials to its projects.

64. The Committee pointed out that as per the contract provisions, it was the obligation of the contractor to procure the materials for the project. The Committee noticed that the contractor used the sand from the same river for the project and observed that the supply of sand is not part of the contract. The Committee opined that supply/sale of sand should not be viewed as a part of work contract. The contract was between the Irrigation Department and contractor, whereas the sale of sand was based on an agreement between District Collector and Contractor. The Committee noticed that as per the proceedings of the

Collector permission to the contractor to avail sand from the river at subsidised rate was granted, following the request from the department and hence the difference in rates must be recovered from the contractor by the department itself.

65. Based on the above inferences Committee wanted the department to furnish a detailed report regarding reasons for granting undue benefit of Rs.2.43 Crore to the contractor, whether that amount has been realised from the contractor and also to provide a copy of the letter send to District Collector by Irrigation Department on this issue.

66. The Secretary, Irrigation agreed to furnish the same within 15 days.

Conclusions/Recommendations

67. The Committee opines that as per the contract provisions, it was the obligation of the contractor to procure the materials for the project. The Committee understands that the contractor used the sand from the same river for the project and observes that the supply of sand is not part of the work contract. The Committee points out that the work contract was between the Irrigation Department and contractor, whereas the sale of sand was based on an agreement between District Collector and Contractor. The Committee notices that permission to the contractor to avail sand from the river at subsidised rate was granted as per the proceedings of the collector, following the request from the department and hence the difference in rates must be recovered from the contractor by the department itself.

68. The Committee directs the department to furnish a detailed report regarding the reasons for granting undue benefit of Rs.2.43 Crore to the contractor, whether that amount has been realised from the contractor and also to provide a copy of the letter send to District Collector by Irrigation Department on this issue.

Thiruvananthapuram,
14th January, 2021.

V. D. SATHEESAN,
Chairman,
Committee on Public Accounts.

APPENDIX I

SUMMARY OF MAIN CONCLUSION /RECOMMENDATIONS

Sl. No.	Para No.	Department Concerned	Conclusions/Recommendations
1	2	3	4
1	13	Irrigation Department	The Committee understands that in Irrigation Department, technical sanction and administrative sanction for a work are to be given only on the fag end of the year. Delay in securing administrative sanction and technical sanction of project delays the starting of the work. The Committee directs the Irrigation department to take urgent steps to complete the procedure for availing technical sanction and administrative sanction of a project during the first quarter of the financial year itself and to start the work without delay.
2	14	Irrigation Department	The Committee understands that in Irrigation Department delay in according technical and administrative sanction for a project causes spill over of the work to next financial year as well as clearing of the bills to next financial year. The Committee realises that in Irrigation Department bills for payment from the month of July of a financial year are never accounted for in the same financial year and they are cleared only in the next financial year. The Committee doubt whether 'the spill over privilege' is causing delay in completion of work and thereby delaying the submission of bills in time.
3	15	Finance Department	The Committee directs the Finance department to take urgent measures to clear the pending payments on bills without delay.
4	16	Finance Department	The Committee urges the Finance Department to examine whether to do away with the practice of spill over privilege or to extend the practice of advance sanction which is followed in PWD to Irrigation Department also.

1	2	3	4
5	21	Irrigation Department	The Committee directs the Irrigation department to furnish urgently the present status of the 15 non-operational Lift irrigation schemes pointed out in the audit para.
6	27	Irrigation Department	The Committee recommends that a comprehensive survey should be conducted at the behest of the Minor Irrigation/Irrigation Department to find out the effective ayacut area of lift irrigation schemes.
7	28	Irrigation Department	The Committee recommends to restructure/ dismantle the Lift Irrigation schemes based on the availability of water resources with the active support of farmers and LSGIs and furnish a detailed report to the Committee without delay.
8	29	Irrigation Department	The Committee expresses concern on the depletion of water bodies and suggests that the department should study carefully about the depletion of natural resources like ponds, canals, streams etc., and directs to take steps to recover these water sources.
9	30	Irrigation Department	The Committee directs the department to furnish a detailed report regarding the data of natural water sources collected by the department as a part of Haritha Kerala Mission.
10	31	Irrigation Department	The Committee wanted to know whether there is an increase in area of paddy cultivation after 2012-13, Whether verification is done on Ayacut coming under the Lift Irrigation Scheme before commissioning schemes and whether effective ayacut available under Lift Irrigation Schemes and urges the department to furnish a detailed report in this regard.

1	2	3	4
11	43	Irrigation Department	The Committee opines that the ultimate beneficiaries of LISs are farmers and points out that if additional burden is imposed on farmers such as electric charges and maintenance charges of LISs, cultivation of paddy as well as other crops will not go ahead. The Committee directs the department to encourage the farmers society to come forward to take up LISs and for that proper environment must be created to make them take over LISs. In order to encourage the take over, effective measures for payment of maintenance charges, electricity charges and wages of workers should be taken before handing over of LIS to farmers' society without creating any additional burden on society.
12	44	Irrigation Department	The Committee comments that the system which was created to prevent overburdening of farmers would fail if there was no co-ordination between the departments. The Committee strongly recommends that meeting should be conducted by Irrigation Department with Agriculture, Power and Finance Departments for devising effective strategies for handing over LIS to farmers' societies after allaying their fears regarding payment of electricity charges, maintenance charges, wages, etc., of the LISs.
13	45	Water Resources Department	Though the Committee accepts that maintenance cost will be effectively controlled by handing over the machines to farmers itself, payment of maintenance charges by farmers is not practical and will have a negative impact. So Committee directs the department to take departmental decision on handing over of machines and payment of maintenance charges.
14	47	Irrigation Department	The Committee directs the department to submit a report about the present status of non-functioning LISs.

1	2	3	4
15	49	Water Resources Department	The Committee directs the department to furnish a detailed report regarding the numbers of cases out of 29 HT connections, ToD meters have been installed and whether the faulty meters have been replaced. The Committee also directed to furnish the details of the persons responsible for the non-installation of ToD meters and execution of agreement with KSEB which caused the payment of penalty of ₹4.27 Crore including the Payment details of penalty and whether the penalty is still continuing because of non-execution of KSEB condition laid out in the agreement.
16	54	Irrigation Department	The Committee points out that after partial commissioning of Thenampara LIS, it stopped functioning in 2001 itself due to breach in the main canal which was completed partially. The Committee is dismayed to note that eventhough Thenampara LIS stopped functioning in 2001, electricity for running LIS was not disconnected and so electricity charges was being paid for the past 18 years even without consuming power. The Committee expresses its strong dissatisfaction over the improper functioning and mal-administration of the department to oversee the LI schemes. The Committee directs the Department to furnish a report on the reason for not disconnecting electricity for the non-functional Thenampara LIS, whether electric connection is still in force, and amount paid as electricity charges from September 2001 onwards till date.
17	57	Irrigation Department	The Committee urges the department to furnish a detailed report explaining the reason for purchasing motor and pump sets for LIS before the completion of its civil and electrical works and the current status regarding the number of pump sets bought, number of pump sets installed how many yet to be installed the number of pump sets left idle and the number of pump sets in use in Palakkad, Ernakulam and Thrissur division.

1	2	3	4
18	67	Irrigation Department	The Committee opines that as per the contract provisions, it was the obligation of the contractor to procure the materials for the project. The Committee understands that the contractor used the sand from the same river for the project and observes that the supply of sand is not part of the work contract. The Committee points out that the work contract was between the Irrigation Department and contractor, whereas the sale of sand was based on an agreement between District Collector and Contractor. The Committee notices that permission to the contractor to avail sand from the river at subsidised rate was granted as per the proceedings of the collector, following the request from the department and hence the difference in rates must be recovered from the contractor by the department itself.
19	68	Irrigation Department	The Committee directs the department to furnish a detailed report regarding the reasons for granting undue benefit of ₹ 2.43 Crore to the contractor, whether that amount has been realised from the contractor and also to provide a copy of the letter send to District Collector by Irrigation Department on this issue.

WATER RESOURCES DEPARTMENT

ACTION TAKEN REPORT ON THE AUDIT PARAS 3.3. OF THE REPORT OF C&AG ON ECONOMIC SECTOR FOR THE FINANCIAL YEAR ENDED 31.03.2013

Sl No.	Para	Action Taken
	Functioning of Lift Irrigation Schemes	
Para 3.3.1	Introduction	
	<p>Lift Irrigation is a method of irrigation in which water is not transported by natural flow (as in gravity-fed canal systems) but is lifted with motor and pumps. Lift Irrigation Schemes (LISs) are mainly intended to enhance the irrigation potential of paddy production. LISs coming under Minor Irrigation (MI) sector were undertaken when the water source-rivers, canals, ponds etc was at a level lower than the level of area irrigated entailing lifting of water for irrigation.</p> <p>There are 459 LISs in Kerala spread over in 13 districts, with an syacut of 38,938 hectare (ha). These form only 18.7 percent of the total area of 2,08,160 ha under paddy cultivation. The total expenditure during 2009-2013 towards construction, upkeep and maintenance of MI Structures like LISs, class I and II schemes etc, was Rs.666.20 crore.</p>	<p>Irrigation can be defined as the artificial application of water on an agricultural land for the assured growth of plant life. The scarcity of water in an area makes it devoid of life and base land. Indian population mainly depends directly or indirectly on agriculture for their living. Even though India is endowed with considerable land potential and copious water resource a small portion of it is being utilized. Availability of water is restricted to 3 to 4 months in monsoon and that too is highly variable in quantity and location. Sudden changes in monsoon creates a twin problem of drought and flood condition in many parts of the country. Kerala is one of the smallest states in India occupying south western portion of the country. It receives fairly good annual rainfall which varies from 1250 to 5000 MM. There are 41 rivers big or small, most of them originates from western Ghats and flowing towards Arabian Sea. Even though these rivers convey huge quantities of flood water, it dries and flows like streams in summer due to steep terrain of upper reaches. After independence, we have constructed a large number of major Irrigation schemes in our country. It requires huge investments. But could not be completed within the stipulated time and realized the expected targets and results. In the changed, new political, social and economical condition, implementation of M.I. Schemes is the only</p>

solution to avoid huge land acquisitions, eviction and settlements, deforestation and objections of people from various corners.

Thus we have to again steer our mission on construction of M.I. Schemes which would require less investments and time of completion. Minor Irrigation Wing under Irrigation Department is formed with such a good intention and purpose to implement small Irrigation schemes in Kerala State.

Minor Irrigation Wing of the Irrigation Department is in charge of construction, operation and maintenance are of M.I. Structures like,

Lift Irrigation Schemes

Check Dams

Vented Cross bars

River regulators

Renovation and restoration of ponds

River Bank protection works.

The purpose for which Lift Irrigation Schemes are envisaged has been depicted in these paras. For the LIS, Rivers and Ponds are the main source of water for Lifting. These sources are either naturally fed or during shortage through canals of major Irrigation schemes. L.I. Schemes are not meant only for Irrigation of Paddy crops. All L.I. Schemes feed other crops including Vegetable. Moreover, Irrigation water is lifted to higher elevation and tanks are selected at higher point of the ayacut, where water is supplied to crops like Tapioca, Banana, Vegetable and cash crops like Coconut, Arecanut etc. Along steep slope Paddy is cultivated on the

		<p>plain areas at lower elevation. Thus the reduction in the paddy crop area and ayacut does not reduce the relevance of L.I. Scheme. In addition to the Irrigation all the Major Irrigation works especially L.I. Schemes recharges all the wells in the ayacut area complementing the drinking water scheme of the Project area. In some Panchayath, a single Lift Irrigation lifts water from the nearest river to the highest point of the Panchayath and distribute water through natural earthen drains running along breadth and length of the area to recharge the well of Panchayath solving all drinking and Irrigation problems of the Panchayath even in summer season. It can early be seen that most of the drinking water projects of Panchayaths and Kerala Water Authority is drawing water from the reservoir formed by check dams constructed under Minor Irrigation Schemes.</p>
3.3.2	Organisational setup	
	<p>Works of construction and maintenance of lift irrigation structures are being attended to by MI divisions headed by Executive Engineers who are being assisted by sub divisional engineers and sectional engineers. Three MI Circle officers are functioning to supervise the functions. The Chief Engineer (Irrigation and Administration), Thiruvananthapuram is the Administrative head of the Department. The Principal Secretary to Government, Water Resources department is the head at Government level.</p>	<p>MI Wing under Irrigation Divisions is in charge of construction, operation and maintenance of LI Schemes in Kerala. Works are being attended by 14 MI division in 14 districts headed by Executive Engineers who are being assisted by Sub Divisional Engineers (Assistant Executive Engineers) and Sectional Engineers (Assistant Engineers). Three MI Circles viz. MI Circle, Thiruvananthapuram, MI Central Circle, Ernakulam, MI North Circle, Kozhikode headed by Superintending Engineers are functioning to supervise the functions. The Chief Engineer (I&A) is the Administrative Head of the Department. The Additional Chief Secretary, Water Resources Department is the head at Government level.</p>

3.3.3	<p>Audit Scope and Coverage</p> <p>Audit studied the viability of LISs by scrutinizing the functioning of LISs in Ernakulam, Thrissur and Palakkad districts where 279 schemes (61 per cent of the schemes) were implemented and about Rs.199.66 crore was incurred. The audit was conducted during April 2013 to August 2013 covering the period from 2009-10 to 2012-13.</p>	<p>There are total number of 279 LI Schemes under Minor Irrigation Central Circle, Ernakulam, which are either functioning or being made functional through renovation works. Due to old age and lack of proper maintenance, these schemes fail to perform in its full potential. Due to practical difficulties in running these schemes no new schemes are now been proposed. Revamping works are now proposed which includes Civil, Electrical and Mechanical Works. These works are arranged in Co-ordination with Electrical and Mechanical wings of the departments.</p> <p>In addition to this, the Divisions are in charge of the construction and maintenance of MI Class I and Class II structures like VCBs, RCBs, and Check dams. New schemes such as RRR of Ponds, one pond in each Panchayath and salt water exclusion VCBs are also being implemented.</p> <p>The LI Schemes under the control of this Circle are functioning properly and pumping of water is facilitated to irrigate the agricultural lands connected. The decrease of paddy cultivation may be due to other factors which are not connected with the functioning of LI Schemes.</p> <p>In Palakkad Division there are 41 LI Schemes. In Thrissur Division there 97 LI Schemes. In Ernakulam Division there are 141 LI Schemes. Minor Irrigation Division, Kattappana (Idukki) constructed 4 LI Schemes.</p>
3.3.4	Audit findings	
	Audit found that LISs are not delivering the intended benefits as discussed in the succeeding paragraphs.	

3.3.4.1

Budget allocation and Expenditure

The Budget allocation and expenditure incurred for the construction, upkeep and maintenance of MI Structures for the period between 2009-10 and 2012-13 are mentioned below.

Table-3.2 Allocation and Expenditure details for MI Structures for four years

(in crores)

Year	2702- Revenue		4702- Capital		TOTAL		
	Allocation	Expenditure	Allocation	Expenditure	Allocation	Expenditure	Percentage of expenditure on allocation
2009-10	128.45	114.29	56.29	18.61	184.74	132.90	72
2010-11	149.45	107.56	78.49	26.35	227.94	133.91	59
2011-12	174.65	104.69	128.16	76.59	302.81	181.28	60
2012-13	186.07	139.21	161.66	78.90	347.73	218.11	63
TOTAL	638.62	463.75	424.60	200.45	1063.22	666.20	

Source : Figures compiled by the Office of the PAG (A&E), Kerala

There was over budgeting during all the years for Capital as well as Revenue heads covered under review. The over budgeting was more in the Capital heads especially during 2009-10 and 2010-11, 67 per cent of the allocation under Capital outlay remained unutilised. This is an indication that new MI schemes are not being implemented as envisaged.

The L.I. Schemes acts as the back bone of the irrigation purpose. Maintenance works are taken up annually and as when necessary thereby to avoid interruption of pumping water. Therefore the expenditures as noted in the table are as per actual and according to requirement. As far as the department is concerned, the sanctioned works pertained to the L.I. Schemes are taken up and completed during the time limit specified and payment made according to issuance of Fund and Letter of Credit. Scarcity of water and Non-availability of land are the main obstruction for taking up implementation of new LISs.

The budget provision under the Major heads 2702 and 4702 includes provision for Surface Water and Ground Water under sub major heads 01, 02 respectively. Out of the above the allocation for Chief Engineer, Irrigation and Administration is coming under 2702-01 and 4702-01 Surface Water, for which the reconciled figures of allocation and expenditure after final appropriation is given below.

Year	2702- Revenue		4702- Capital		TOTAL	
	Allocation	Expenditure	Allocation	Expenditure	Allocation	Expenditure
2009-10	109.243	82.4	48.13	18.61	157.393	101.01
2010-11	98.64	71.03	74.78	26.35	173.42	97.38
2011-12	84.23	57.59	98.55	76.59	182.78	134.18
2012-13	100.6	98.29	147	78.89	247.6	177.18

3.3.4.2

LISs in the State

There were 459 LISs in Kerala to serve the ayacut of 38,938 ha. District wise details of LISs as of July 2013 are given below.

Table 3.3 : District Wise details of LISs

(Rs. in crores)

Sl. No	Name of District	No. of LISs	Ayacut (in ha)	Sl.No	Name of District	No. of LISs	Ayacut in (in ha.)
1.	Thiruvananthapuram	Nil	Nil	9	Palakkad	41	4572
2.	Kollam	14	572	10	Malappuram	51	6725
3.	Pathanamthitta	51	357	11	Waynad	21	1210
4.	Alappuzha (Cheanganur)	14	1475	12	Kozhikode	5	143
5.	Kottayam	13	793	13	Kannur	4	232
6.	Idukki	4	333	14	Kasaragod	3	426
7.	Ernakulam	141	12500	Total		459	38938
8.	Thrissur	97	9600				

Source: Departmental Data /website

In the sample check, audit noticed that there were significant variations between the details of LISs maintained by CE's office and by the division offices as shown below:

Total number of LISs in Ernakulam, Thrissur and Palakkad districts are 279 as mentioned in Audit Para and it was also accepted from this office. Out of these only 264 LISs were working in 2013.

Total number of LIS under Irrigation Department as on July 2013 in Kerala was 459.

The district wise details of LISs is as follows for kind reference.

Details of LIS

District	As per AG report 2013	Total no. of LIS under Irrigation Department as on 2013
Thiruvananthapuram	Nil	Nil
Kollam	14	14
Alappuzha (Cheanganur)	14	14
Pathanamthitta	51	51
Kottayam	13	13
Idukki	4	4
Ernakulam	141	141
Thrissur	97	97
Palakkad	41	41
Kozhikode	5	5
Waynad	21	21
Malappuram	51	51
Kannur	4	4
Kasaragod	3	3
TOTAL	459	459

Table 3.4 : Discrepancies in the number of schemes

(in Crores)

Sl. No	Division	Nos.as per CE	Nos.as per Division	Ayacut as per CE (in ha)	Ayacut as per Division (in ha)
1	Ernakulam	136	141	12500	12460
2	Thrissur	91	97	9600	8453
3	Palakkad	37	41	4572	3901
	TOTAL	264	279	26672	24814

Source : Divisional records /website

On pointing out the discrepancies Chief Engineer accepted that the total number of schemes in the three divisions was 279 but did not provide data on effective ayacut presently available.

3.3.4.3

Drastic reduction in area under paddy cultivation

LISs were mainly intended for the benefit of paddy cultivation. Availability of water is a major requirement for paddy as it requires regular water supply. Out of the total area under paddy cultivation, 0.55 lakh ha has natural water supply. Whereas 1.53 lakh ha (73.61 per cent) was irrigated through various irrigation structures of major, medium and minor irrigation.

Paddy a major crop of Kerala, was being cultivated in about 8.76 lakh ha in 1975-76 according to the data of Bureau of Economics and Statistics (BES) but during the last several years the area under paddy cultivation had been declining drastically and it reached to the lowest level of 1.97 lakh ha in 2012-13 as shown below.

L.I. schemes are mainly intended for the benefit of paddy cultivation. Most of the L.I.Ss are constructed more than 25 to 30 years back. Due to lack of water at source, lack of maintenance to Canal system and lack of proper and timely maintenance of pump and motor have disturbed the supply of water for paddy cultivation and farmers turned to other economical crops. Also due to the increase in population, the inhabitants divide this land into pieces and are constructing dwelling for them. Demand for drinking and other water usage has substantially increased. The land value increased drastically in recent years and nobody is willing to surrender of land free of cost and because of that compulsory acquisition of land is needed. This is the main reason why the number of new LIS proposal reduced recently. And for that reason

Table 3.5: Progressive reduction in area under paddy cultivation

Sl. No	Year	Area (in ha)	Percentage of reduction
1	1975-76	876022	-
2	1985-86	678281	22.57
3	1995-96	471150	46.22
4	2005-06	275742	68.52
5	2012-13	197277	77.48

The area under paddy cultivation had gone down over the years mainly because there has been a shift in terms of cropping area of paddy cultivation to other yields such as plantation, arecanut, coconut as well as conversion of paddy fields for non-agricultural purposes. One of the major objectives of LISs to increase the irrigation potential of paddy cultivation has thus become irrelevant now.

This was also evident in the reducing number of LISs commissioned recently. Most of LISs were constructed more than 30 years back considering the land use pattern and cropping pattern prevailed at that time. Only 10 schemes were commissioned during last 10 years of which three schemes were commissioned during the period covered in audit.

As per paragraph 21.1.4 of Kerala Public Works Department (KPWD) Manual, the ayacut of the LISs was to be identified and verified at the time of commissioning of the schemes. The achieved ayacut for the 459 schemes commissioned more than 30 years back as per departmental website was 38938 ha. However, test check of verified ayacut for three districts showed that most of the LISs were verified more than 30 years back and achieved ayacut may not be relevant now due to the changes in the land use pattern and reduction in paddy cultivation. This necessitates a further verification to find out effective ayacut presently available under LISs in order to assess their viability.

alternate source for irrigation water such as ponds, natural "thodu" etc are being tapped.

3.3.4.4

Increase in cost despite reduction in area under paddy cultivation

The construction and maintenance of LISs are attended to by the MI wing of Water Resources Department. In addition to LISs the wing was in charge of the construction and maintenance of other MI Structures like Class I and Class II schemes. For the purpose, as many as 2,168 staff were deployed to the wing (January 2014). However, the department was not keeping any separate data for expenditure on LISs. The expenditure on MI including LISs is increasing over the years despite decrease in area under paddy cultivation as indicated below:

Table 3.6 : Expenditure details of LISs for the period from 2003-04 to 2012-2013

(Rs. in crores)

Period	Expenditure		
	Revenue	Capital	Total
2003-2004	40.26	0.62	40.88
2004-2005	49.93	0.50	50.43
2005-2006	50.08	0.82	50.90
2006-2007	35.47	0.38	35.85
2007-2008	61.82	2.55	64.37
2008-2009	77.90	1.10	79.00
2009-2010	64.27	1.61	65.88
2010-2011	59.98	10.54	70.52
2011-2012	53.63	30.75	84.38
2012-2013	80.91	22.74	103.65

Source : Figures compiled by the office of the PAG (A&E), Kerala

The LISs under M.I. Circle are important for the public and farmers because drinking water is ensured in surrounding areas of L.I. Schemes. It is reported by the Public and Panchayath authorities that wherever L.I. Schemes are functional and operated in summer season for Irrigation, they are getting the advantage of recharge of nearby wells, ponds etc and hence able to save substantial amount in the expenditure towards the cost of drinking water brought and supplied by the tankers.

<p>3.3.4.5</p>	<p>LISs not handed over to farmers</p> <p>KPWD Manual (para 21.1.1 of Chapter XXI) stipulated that MI works benefiting an area less than 200 acres (80 ha) were to be maintained either by lift irrigation co-operative societies or by the ryots themselves directly. However, out of 279 LISs in three districts, 156 schemes having irrigable area (ayacut) less than 80 ha are still maintained by the department. Expenditure on maintenance, revamping and manpower engaged for their operation during the period 2009-10 to 2012-13 was Rs.27.25 crore as shown in Table below, which was avoidable, had the schemes been transferred to the co-operative societies/ryots.</p> <p>Table 3.7 : Avoidable maintenance costs (Rupees in crores)</p> <table border="1" data-bbox="232 409 879 593"> <thead> <tr> <th>Districts</th> <th>No. of LIS</th> <th>2009-2010</th> <th>2010-2011</th> <th>2011-2012</th> <th>2012-2013</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td>Ernakulam</td> <td>72</td> <td>2.88</td> <td>3.45</td> <td>3.18</td> <td>3.07</td> <td>12.58</td> </tr> <tr> <td>Thrissur</td> <td>62</td> <td>1.72</td> <td>2.98</td> <td>3.48</td> <td>3.56</td> <td>11.74</td> </tr> <tr> <td>Palakkad</td> <td>22</td> <td>0.16</td> <td>0.51</td> <td>1.53</td> <td>0.73</td> <td>2.93</td> </tr> <tr> <td>TOTAL</td> <td>156</td> <td>4.76</td> <td>6.94</td> <td>8.49</td> <td>7.36</td> <td>27.25</td> </tr> </tbody> </table> <p>Source: Departmental data</p>	Districts	No. of LIS	2009-2010	2010-2011	2011-2012	2012-2013	TOTAL	Ernakulam	72	2.88	3.45	3.18	3.07	12.58	Thrissur	62	1.72	2.98	3.48	3.56	11.74	Palakkad	22	0.16	0.51	1.53	0.73	2.93	TOTAL	156	4.76	6.94	8.49	7.36	27.25	<p>For the smooth functioning of LISs proper maintenance and repairs to motor and pump sets are unavoidable. Technical and non technical staff are required for the preparation of estimate, availing required fund for the work and implementing the works as per Government rules.</p> <p>Under Minor Irrigation division, Thrissur LISs are connected with HT electricity connections, huge amount of electrical bills are to be paid for each LIS's Rs. 72.07 lakh paid for the year 2012-13. More than that permanent and Non-permanent workers are to be employed for the pumping of water in 3 shift including Night shift for ensuring sufficient water in cultivated area. Mainly due to huge electricity and wages, Farmers' Societies and even Panchayaths are not ready to take over L.I. Schemes. Handing over of LIS's to Farmers or any connected societies is not practical and it will badly affect the smooth functioning of LIS's and thereby the agricultural activities.</p> <p>Under Idukki Division, the three L.I. Schemes were not handed over to beneficiary societies/LSGD due to lack of interest from them. Though they were demanded several times, not responded yet. The fourth schemes was not completed.</p>
Districts	No. of LIS	2009-2010	2010-2011	2011-2012	2012-2013	TOTAL																															
Ernakulam	72	2.88	3.45	3.18	3.07	12.58																															
Thrissur	62	1.72	2.98	3.48	3.56	11.74																															
Palakkad	22	0.16	0.51	1.53	0.73	2.93																															
TOTAL	156	4.76	6.94	8.49	7.36	27.25																															
<p>3.3.4.6</p>	<p>Unfruitful expenditure on Lift Irrigation Schemes.</p> <p>Out of 279 LISs implemented in three districts, 19 LISs were not functioning for years ranging from two to 17 as of March 2013 for various reasons such as non availability of water near the pump house, damage occurred to motor and pump sets, breaching of canal portions, theft of motors and pump sets, litigation with private party against constructing canal in their land, project found unviable later etc; as indicated in Appendix 3.1. Out of the 19 non functional schemes</p>	<p>In Palakkad Division, Tenampara LIS partially commissioned in 2001. The work of canal was not fully completed and hence water distribution could not done to the targeted Ayacut areas. The process of revising and submitting the estimates, was done several times. But only in the year (2014-15) the necessary sanction were received for the work and the work is being arranged.</p>																																			

	<p>implemented at a total cost of Rs.4.74 crore, eight schemes could not even be commissioned till date (August 2013) in spite of spending an amount of Rs.3.39 crore.</p>	<p>Under Idukki Division, an amount of Rs. 52.84 lakhs were utilized for the four projects. Due to handing over the schemes to LSGD/beneficiary committee, effective steps are taken to make the scheme beneficial at the earliest.</p>
3.3.4.7	<p><u>Avoidable payment of penalty on Electricity charges</u></p> <p>Electric Motors and pump sets are used for lifting water from rivers and canals for feeding the ayacuts. Either High Tension (HT) for connected load of 100 KVA or more or Low Tension (LT) connections is provided to run the motors based on the Kilo Volt Ampere (KVA) of the motors installed in each pump house. As per clause 19 of Kerala State Electricity Board (KSEB) terms and conditions of supply 2005, every consumer should execute a service connection agreement on the occasion of availing fresh connection or whenever there were changes in connected load. Similarly for HT connections the consumer was to install Time of Day (ToD) meter. As per special conditions of "Schedule of tariff and terms and conditions for retail supply by KSEB" the maintenance and replacement of defective meters shall be done by licensees at their costs. On failure on this count KSEB would charge extra at the rate of 50 per cent of original tariff. As the department failed to fulfill the above conditions, KSEB imposed penalty of Rs.4.27 crore during the period from 2009-10 to 2012-13 as given in table below:</p>	<p>Installation of TOD meters is complete in most of the canals. Steps are being taken to timely replace of faulty meters and also execute agreement with KSEB so as to avoid payment of penalty on electricity charges.</p>

Table: 3.8 : Details of avoidable penalty on electricity charges

Name of MI Division	No. of HT connection	Penalty for (Rs. in crore)		Adjustments (Penalty prior to 2010) (Rs. in crore)	Total (Rs. in Crore)
		Meter Fault	Non Execution of Agreement		
Ernakulam	16	1.56	0.78	1.12	3.46
Thrissur	7	0.12	0.11	0.15	0.38
Palakkad	6	0.17	nil	0.26	0.43
Total	29	1.85	0.89	1.53	4.27

Source: Data furnished by department

Had the department taken timely action to execute agreements and replace the faulty meters, the penalty of Rs.4.27 crore could have been avoided.

3.3.4.8

Payment of electricity charges without consuming electric power

LISs incur recurring maintenance cost and bulk of it is attributable to energy charges. As per clause 8 of the Schedule of Tariff and Terms and Conditions for Retail supply by KSEB, electricity charges are levied based on actual consumption or minimum tariff amount which ever is higher. Further, minimum charges are imposed even if the plant or machines are not operated or no power is consumed. Thenampara LIS in Palakkad district partially commissioned in 2001 but stopped functioning in 2001 itself due to breach in the main canal which was completed partially. The department had been paying electricity charges at a minimum rate of Rs.38,940 per month during the period of non operation. The electricity charges paid from September 2001 to March 2013 without consuming any electric power was Rs.54 lakh.

In Palakkad Division, Thenampara LIS partially commissioned in 2001. The work of canal was not fully completed and hence water distribution could not be done to the targeted ayacut areas. The process of revising and submitting the estimates was done several times. But only in the year (2014-15) the necessary sanction was received for the work and the work is being arranged.

As the connection and reconnection of HT schemes is a huge task, the electricity connection was maintained in the hope of getting sanction every year. The minimum charge of HT schemes only are paid to KSEB during this period. Now the work shall be arranged in a short period and the scheme can be made functional without delay.

3.3.4.9

Idle expenditure under MIRPA and Special Package

Government accorded sanction in November 2009 for revamping the existing LISs under Malabar Irrigation Package (MIRPA) and Special package for Ernakulam district. MI Divisions, Ernakulam, Thrissur and Palakkad purchased 431 Motor and pump sets at a cost of Rs.5.28 crore for 254 LISs during the period between 2011 and 2013. However, 187 motor and pump sets purchased for 116 LISs for which Rs.2.75 crore has been incurred remained idle due to non-supply of soft starter, non completion of civil and electrical works as detailed below:

Table: 3.2 : Details of idle motors and pump sets as on August 2013

Name of Division	No. of LISs taken for revamping	No. of Motor and pumpsets purchased	Idling of motor and pump sets		
			No. of LISs	No. of Motor & Pump sets	Expenditure incurred (Rs.in Crores)
Ernakulam	127	224	6	10	0.17
Thrissur	90	133	90	133	2.14
Palakkad	37	74	20	44	0.44
TOTAL	254	431	116	187	2.75

Source: Departmental Data

Thus due to laxity of the department the equipment purchased for Rs.2.75 crore for augmenting irrigation potential was remaining uninstalled and hence could not be used for intended purpose.

The matter was reported to Government in September 2013, their remarks are awaited (January 2014). The department confirmed that the basic objective of LISs was to facilitate irrigation for paddy cultivation and that the area under paddy cultivation reduced considerably over years. However, the department stated that due to the distribution of water through canals there was rise in ground water table which in turn helped getting potable water in wells. This contention was not tenable as the objective of the scheme was to enhance irrigable area under paddy cultivation.

Under Palakkad Division, Revamping of 37 Nos. of LIS were proposed under MIRPA, Civil works were proposed for 36 schemes, one remaining scheme ie, Velliyankalkkadavu LIS is pending for want of decision regarding the shifting of the location of scheme.

Under Ernakulam Division, all the motor pumpsets issued under MIRPA Scheme to MI section, Aluva have been erected.

All the motor pumpsets except Sreeboothapuram and Neeleswaram issued under MIRPA scheme to Irrigation electrical wing section Kalady have been erected. The Pumpsets in Sreeboothapuram and Neeleswaram have not erected due to the non-completion of civil works.

It is also reported that all the pumpsets issued to Irrigation Electrical wing section Ramamangalam have already been erected.

Under Thrissur Division, the works under MIRPA is nearing completion. All civil works completed. Out of 73 Mechanical works 60 Nos. completed and out of 66 Electrical works 47 completed and 24 Nos. are in good progress.

3.3.5

CONCLUSION

From the audit findings discussed above, it was concluded that;

1. There was over budgeting for capital as well as revenue heads resulting in under utilisation of the funds allotted for the LISs.

2. Department did not have a complete data regarding the effective ayacut now available for irrigation as verification of ayacut of the completed schemes was done years back.

1. The L.I. Schemes acts as the back bone of the Irrigation purpose. Maintenance works are taken up annually and as when necessary thereby to avoid interruption of pumping water. Therefore the expenditures as noted in the table are as per actual and according to requirement. The sanctioned works pertained to the L.I. Schemes are taken up and completed during the time limit specified and payment made according to issuance of Fund and Letter of Credit. Scarcity of water and Non-availability of land are the main obstruction for taking up implementation of new LISs. There are 41 rivers big or small, most of them originates from Western Ghats and flowing towards Arabian Sea. Even though these rivers convey huge quantities of flood water, it dries and flows like streams in summer due to steep terrain of upper reaches. After independence, we have constructed a large number of major Irrigation schemes in our country. It requires huge investments. But could not be completed within the stipulated time and realize the expected targets and results. Even though ample funds were provided in the budget, both under capital and revenue heads for LIS, the target could not be achieved due to the hindrances noted above, which resulted in under utilization of funds.
2. L.I. schemes are mainly intended for the benefit of paddy cultivation. Most of the L.I.Ss are constructed more than 25 to 30 years back. Due to lack of water at source, lack of maintenance to Canal system and lack of proper and timely maintenance of pump and motor

3. Many LISs were idle inspite of incurring huge expenditure for their construction.

have disturbed the supply of water for paddy cultivation and farmers turned to other economical crops. Also due to the increase in population, the inhabitants divide this land into pieces and are constructing dwelling for them. Demand for drinking and other water usage has substantially increased. The land value increased drastically in recent years and nobody is willing to free surrender of land and because of that compulsory acquisition of land is needed. This is the main reason why the number of new LIS proposal reduced recently. And for that reason alternate source for irrigation water such as ponds, natural "thodu" etc are being tapped.

3. The LISs are important for the public and farmers because drinking water is ensured in surrounding areas of L.I. Schemes. It is reported by the Public and Panchayath authorities that wherever L.I. Schemes are functional and operated in summer season for irrigation, they are getting the advantage of recharge of nearby wells, ponds etc and hence able to save substantial amount in the expenditure towards the cost of drinking water brought and supplied by the tankers. There are total number of 279 L.I. Schemes under Minor Irrigation Central Circle Ernakulam. Out of which 41 L.I. Schemes are under Palakkad Division, which are either functioning or being made functional through renovation works. "

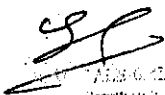
In Thrissur Division there are 97 L.I. Schemes.

In Ernakulam Division there are 141 L.I. Schemes.

	<p>4. Department has been incurring avoidable expenditure in the form of penalty on electricity charges due to non replacement of faulty meters and non execution of agreement.</p> <p>5. Pumps and motors purchased for revamping the schemes are remaining idle in many cases due to non completion of civil and electrical works</p> <p>6. The completed schemes having ayacut less than 80 ha were not transferred to ryots as envisaged in KPWD Manual. Owing to change of land use pattern and crop pattern the area of paddy cultivation has been reducing rapidly. Hence it is not likely to maintain the LIS unless there is active participation of ryots. Transfer of completed schemes to ryots would result in economical maintenance by retaining the highly warranted schemes alone due to direct participation of beneficiaries in the administration of LISs.</p>	<p>M.I. Division Kattappana (Idukki), constructed 4 Lift Irrigation Schemes.</p> <p>4. Installation of TOD meters is complete in most of the canals. Steps are being taken to timely replace faulty meters and also execute agreement with KSEB so as to avoid payment of penalty on electricity charges. As the connection and reconnection of HT schemes is a huge task, the electricity connection was maintained in the hope of getting sanction every year. The minimum charge of HT schemes only are paid to KSEB during this period. Now the work shall be arranged in a short period and the scheme can be made functioned without delay.</p> <p>5. In many cases Civil works were delayed because of the lack of response from contractors for the tender calls. Non completion of Civil works has affected the electrical and mechanical works. Practical difficulties and delay in co-ordination of activities of civil, electrical and Mechanical wings are also affecting the completion of revamping work in most of the scheme. Action being taken to overcome the problem and complete the work as scheduled.</p> <p>6. For the smooth functioning of LISs proper maintenance and repairs to motor and pump sets are unavoidable. Technical and non technical staff are required for the preparation of estimate and execution of works for proper implementation of the works as per Government rules.</p>
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LIS's are connected with HT electricity connections, huge amount of electrical bills are to be paid for each LIS's. More than that permanent and Non-permanent workers are to be employed for the pumping of water in 3 shift including Night shift for ensuring sufficient water in cultivated area.

Mainly due to huge electricity and wages, Farmer's Societies and even Panchayaths are not ready to take over L.I. Schemes. In the above circumstances handing over of LIS's to Farmers or any connected societies is not practical and it will badly affect the smooth functioning of LIS's and thereby the agricultural activities.


Secretary, L.I. Schemes
Kannur District
Kannur, Kerala
11-11-2021

Details of Non commissioned schemes and Non functional schemes as on August 2013

(Reference: paragraph 3.3.4.6; Page-58)

No.	Name of PWS	Area in ha	Year of commissioning	Estimated cost in Lakhs	Estimated cost in Crores	Actual cost in Lakhs	Actual cost in Crores	Year of completion	Remarks
(A) Non commissioned schemes									
1.	Thampara	140	Not Commissioned	83.44	Nil	83.44	2007	2007	Non completion of main canal for 700 m and breach of main canal.
2.	Chadayampara	36	Not commissioned	12.57	Nil	12.57	2008	2008	Want of electric connection.
3.	Kakkopady	96	Not Commissioned	19.55	Nil	19.55	2001	2001	Theft occurred in 2001 and electrical items were stolen. The project authorities resolved to abandon the scheme as the ability of the scheme was considerably reduced due to conversion of silted area to residential area.
4.	Kukkimpalayam	52	Not commissioned	7.24	2.10	9.34	2007	2007	Want of rectification of damaged pumps. During trial run sand and pebbles entered into the pumps making it not operational.
5.	Mangalamkulam (pooopathy Harina colony)	154	Not commissioned	41.23	Nil	41.23	2008	2008	Want of rectification work for the leakage found in the pipeline. As the pipeline came under the PWD road, rectification was possible only after digging up the road. Facing public protest, the attempt was abandoned.
6.	Pynookryal	148	Not Commissioned	42.36	Nil	42.36	2008	2008	Partial completion of canal as about 50% of the canal was not constructed. A portion of the canal through private land as prior permission was not obtained from the owner of the land.
7.	Kondazhikal, Malakkal Koppanthi	291	Not commissioned	76.08	Nil	76.08	1986	1986	Non completion of major works such as construction of silted channel, electrical and mechanical works. Project fund unavailing.
8.	Thodumtham	820	Not Commissioned	54.14	16.11	54.11	2009	2009	Non completion of silted for a length of 1391 m. Only 425

No.	Name of LIS	Area (ha)	Year of Commissioning (of LIS)	Cost (in Lakhs)	MIRA (in Lakhs)	Total (in Lakhs)	Year	Remarks
	Total (A)			336.48	2.30	338.78	(6)	in completed works 30.56 as required
	(B) Non Functional Schemes							
9	Koodalpur	162	1965	11.94	10.44	12.38	2006	Non availability of water near pump house
10	Valityankal Kadavu	93	1977	10.74	Nil	10.74	2002	Non availability of water near pump house
11	Mannamoor	37	1995	12.56	1.20	19.30	2006	Went of maintenance of electrical installation, such as delivery pipe line, canal and overhauling of motor pump
12	Kanakkannur	22	1996	5.75	0.30	6.05	2004	Went of motor repair & Electricity disconnection
13	Chemmanamthode	58	1996	58.24	20.81	79.05	2008	Went of motor repair & Electricity disconnection
14	Chalisyar	30	1983	3.32	1.38	4.65	1999	Motor and pumpset damaged
15	Changanamudi II	72.24	1949	3.19		3.19	2011	No irrigation activity in the ayacut area
16	Chattamattom	172	2006	NA	NA	NA	2011	Scarcity of water. If pumping is done Kerala water Authority cannot pump drinking water as both schemes use same source
17	Karimghal	56.23	1986	NA	NA	NA	1998	Source of water not enough for pumping
18	Chakkalathodu	33.24	1972	NA	NA	NA	2009	Source of water not enough for pumping
19	Piruroor No II	26.8	1950	NA	NA	NA	1998	Source of water not enough for pumping
	Total (B)			118.63	24.73	143.36	(15)	
	Total (A)+ (B)			447.23	26.83	474.06		