



SIXTEENTH KERALAM LEGISLATIVE ASSEMBLY

COMMITTEE

ON

**PUBLIC UNDERTAKINGS
(2026-2028)**

FOURTH REPORT

(Presented on 14th October 2026)

**SECRETARIAT OF THE KERALAM LEGISLATURE
THIRUVANANTHAPURAM**

2026

SIXTEENTH KERALAM LEGISLATIVE ASSEMBLY

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**PUBLIC UNDERTAKINGS
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FOURTH REPORT

On

**Kerala Agro Industries Corporation Limited
&
Kerala Agro Machinery Corporation Limited**

**(Based on the audit para contained in the Report of the Comptroller and
Auditor General of India for the year ended 31st March, 2021)**

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COMMITTEE ON PUBLIC UNDERTAKINGS

(2026-2028)

COMPOSITION

Chairperson:

Prof. Abid Hussain Thangal

Members:

Shri G. R. Anil

Shri I. C. Balakrishnan

Shri Chandy Oommen

Shri Jyothikumar Chamakkala

Shri C. R. Mahesh

Shri P. Mammikutty

Shri A. C. Moideen

Shri Kurukkoli Moideen

Smt. Uma Thomas

Shri Vishnu Mohan

Legislature Secretariat:

Shri Shaji C. Baby, Secretary-in-Charge

Smt. Reena V. R., Joint Secretary

Smt. Mable Antony, Deputy Secretary

Shri Ratheeshmon P., Under Secretary

INTRODUCTION

I, the Chairperson, Committee on Public Undertakings (2026-28) having been authorised by the Committee to present the Report on its behalf, present this 4th Report on Kerala Agro Industries Corporation Limited & Kerala Agro Machinery Corporation Limited, based on the Report of the Comptroller and Auditor General of India for the year ended 31st March, 2021 relating to the Public Sector Undertakings of the State of Kerala.

The aforesaid Report of the Comptroller and Auditor General of India was laid on the Table of the House on 26.08.2022. The consideration of the audit paragraphs included in this report and the examination of the departmental witness in connection thereto were made by the Committee on Public Undertakings (2023-2026) at its meetings held on 30.04.2024 and 14.11.2024.

This Report was considered and approved by the Committee (2026-2028) at its meeting held on 7.10.2026.

The Committee places on record its appreciation for the assistance rendered to them by the Accountant General (Audit), Kerala in the examination of the Audit paragraphs included in this Report.

The Committee wishes to express thanks to the officials of the Agriculture Department of the Secretariat, Kerala Agro Industries Corporation Limited and Kerala Agro Machinery Corporation Limited for placing the materials and information solicited in connection with the examination of the subject. The Committee also wishes to thank in particular the Secretaries to Government, Agriculture and Finance Department and the officials of the Kerala Agro Industries Corporation Limited and Kerala Agro Machinery Corporation Limited who appeared for evidence and assisted the Committee by placing their views before the Committee.

Thiruvananthapuram,
14th October 2026.


Prof. ABID HUSSAIN THANGAL
Chairperson,
Committee on Public Undertakings.

**REPORT
ON
KERALA AGRO INDUSTRIES CORPORATION LIMITED
&
KERALA AGRO MACHINERY CORPORATION LIMITED
Audit Report (2020-2021)**

2.2. Implementation of projects by State Public Sector Undertakings under Rashtriya Krishi Vikas Yojana

Deficiencies in Detailed Project Reports, diversion of project fund by implementing agencies, deficiencies in implementation and monitoring of projects etc., resulted in delayed completion of projects and underutilisation of assets created with consequent non-achievement of targets and intended benefits of the projects.

2.2.1. Introduction

As per Rashtriya Krishi Vikas Yojana (RKVY), funds were released to State Governments on the basis of projects approved by State Level Sanctioning Committee (SLSC). The Director of Agriculture was the Nodal Officer in the State and projects under RKVY were implemented through various agencies¹ including Public Sector Undertakings (PSUs).

During the period 2014-15 to 2018-19, the Government of Kerala (GoK) implemented 119 projects under RKVY through 12 PSUs, of this, Audit examined 33 projects² implemented by 10 PSUs³ during September 2019 to January 2020 (Appendix 2.8). The objective of audit was to assess the level of compliance of RKVY guidelines and other relevant Government Orders in planning, implementation and monitoring of projects. Audit criteria were derived from RKVY Operational Guidelines 2014 and RKVY-RAFTAAR⁴ Operational Guidelines (2017-18 to 2019-20). Audit findings are discussed in the succeeding paragraphs.

2.2.2. Planning

¹ Departments of Animal Husbandry, Fisheries and Dairy Development.

² Selected through stratified random sampling.

³ Kerala State Poultry Development Corporation Limited (KSPDCL), Kerala Feeds Ltd. (KFL), Kerala Live Stock Development Board Ltd. (KLDB), Kerala Land Development Corporation Ltd. (KLDC), Kerala Agro Industries Corporation Ltd. (KAICO), Vazhakkulam Agro and Fruits Processing Company Ltd. (VAFPC), Kerala State Coconut Development Corporation Ltd. (KSCDC), Kerala Agro Machinery Corporation Ltd. (KAMCO), Meat Products of India Ltd. (MPI), Plantation Corporation of Kerala Ltd. (PCK).

⁴ Based on the feedback received from States and inputs provided by stakeholders. RKVY guidelines were revamped as RKVY-Romunorative

Deficiency in preparation of Detailed Project Report

The Scheme guidelines 2014 stipulated that Detailed Project Reports (DPR) should be prepared for all projects incorporating all necessary ingredients including feasibility studies. In this regard, Audit observed the following.

2.2.2.1. Kerala Agro Industries Corporation Limited (KAICO) did not prepare DPR as envisaged or conduct any technical feasibility of using Combined Harvesters (CHs) while implementing 'Agricultural Mechanisation' project. As part of this project, KAICO purchased (April 2011) 50 CHs of Kubota make at a cost of ₹10.80 crore. It was envisaged that the CHs would be utilised for 400 hours per annum.

Audit noticed that the CHs were not suitable for the soggy paddy fields and wet conditions due to which there was hesitance from farmers in using them. Hence, 20 CHs remained idle without utilisation while the utilisation of remaining 30 CHs during 2014-15 to 2020-21 varied from 1.70 per cent to 75.64 per cent⁵ of the standard 400 hours per annum.

Government stated (October 2021) that CHs were purchased after detailed technical study and those machineries which qualified in the field trial were only purchased. But some farmers had hesitancy to use machines of a particular brand due to which the machines remained idle.

The reply was not tenable as no field trial was conducted before purchase of Kubota make CHs. Field trials were conducted before purchase of subsequent lots in which Kubota make did not qualify.

2.2.2.4. Government approved (January 2013) a project of Kerala Agro Machinery Corporation Limited (KAMCO) for manufacturing New Generation Power Tillers (NGPT) at an estimated cost of ₹20.22 crore. The project was to be implemented based on a technical collaboration agreement (September 2011) with a foreign firm. Based on a proposal (April 2013) of KAMCO, GoK sanctioned ₹10 crore under RKVY for this project and released ₹seven crore upto 2015-16.

⁵ Up to 10 per cent (three CHs) between 11 per cent and 20 per cent (11 CHs) between 21 per cent and 30 per cent (five CHs) between 31 per

Audit observed that KAMCO prepared the DPR without assessing the technical feasibility of proposed model of NGPT offered by the foreign firm. The technology offered by the foreign firm was found (March 2014) not suitable to Indian climatic conditions by an internal committee of KAMCO after a field study. Further, the cost of manufacturing NGPT was found to be high (September 2015) compared to existing tillers. Hence, KAMCO could not commence the manufacturing of NGPT till March 2021.

Government stated (October 2021) that commencement of NGPT production was delayed due to delay in selection of engine suitable for a model offered by the technology partner. A suitable engine for another model offered by the technology partner was sourced and regular production of NGPT would commence by December 2021.

The reply was not tenable as KAMCO did not assess the technical feasibility of the model proposed by foreign firm before preparation of the DPR which delayed the commencement of the project even after nine years of approval of the project.

Non-maintenance of project-wise accounts and submission of incorrect utilisation certificates

2.2.3.3. RKVY guidelines prescribed that project-wise accounts were to be maintained by the implementing agencies and utilisation certificates (UCs) were to be furnished. Audit, however, observed that:

- Project-wise accounts were not maintained in respect of five projects implemented by four⁶ PSUs. Government stated (October 2021) that KSCDC, KAICO and MPI henceforth would maintain separate project-wise accounts.
- In respect of 13 projects implemented by nine⁷ PSUs, UCs were submitted for ₹61.18 crore though the actual expenditure was only ₹22.96 crore (*Appendix 2.9*).

6 MPI, KAICO, KFL (two projects) and KSCDC.

7 KFL, VAFPC, KLDB, MPI, KSCDC, KAICO, KLDC, PCK and KSPDCL.

Government stated (October 2021) that KAICO furnished revised UCs.

- Government directed (May 2010) KAICO to open separate bank account for depositing hire charges to be received against hiring of machines procured under Farm Mechanisation projects⁸. Government also instructed to create a redemption fund for replacement of machines on expiry of its life.

Audit observed that KAICO neither opened separate bank account for depositing the hire charges nor created the redemption fund as envisaged.

Government stated (October 2021) that as sufficient hire charges were not generated, separate bank and redemption fund were not created and that the audit observation was noted for future guidance.

2.2.4. Project Implementation

Out of 33 projects selected for audit, only one project was completed in time and 14 were completed with delays ranging from seven to 48 months. While six projects were partially implemented, eight were in progress, three were abandoned and implementation of one was yet to commence (March 2021). Various issues relating to implementation and monitoring of projects are discussed below.

Non-revision of hire charges for Combined Harvesters

2.2.4.3. As per GoK direction (May 2010), KAICO was to meet expenditure for repair and maintenance of CHs from the hire charges to be collected from the farmers for using them. KAICO procured 200 CHs under two packages sanctioned under RKVY.

Audit observed that KAICO did not prescribe any norm either for fixation of hire charges or its revision. KAICO though fixed the hire charges at ₹900 per hour initially, it was reduced (March 2012) to ₹750 per hour. The rent was last revised to ₹800 per hour in October 2014 and no revision was made

thereafter. A revision of hire charges even at the rate fixed initially would have generated an additional income of ₹71.47 lakh⁹.

Government stated (October 2021) that hire charge fixed initially was reduced to ₹750 as part of social commitment. The hire charge was exclusive of cost of fuel, handling charge, transportation etc. Considering the hire charge (₹1,600 to ₹1,900) levied by private parties in the neighbouring States which included fuel, handling charge and transportation, the rate charged by KAICO was comparable.

The reply was not acceptable as the hire charges collected were not sufficient for meeting even the routine repair and maintenance of CHs. Hence, KAICO could not create the redemption fund for replacement of CHs as directed by GoK.

Delay in completion of projects

2.2.4.5. As per Section 2116.1 of the KPWD Manual, delay in completion of work attracted Liquidated Damages (LD) at the rate of 0.1 per cent of contract price for every week of delay subject to maximum of 10 per cent of the contract price.

Audit noticed that in 20 completed projects¹⁰ there were delays ranging from seven to 48 months¹¹. Eight projects were not completed even after delays upto 72 months¹². Reasons for major delays as noticed in audit are detailed in Appendix 2.10. The PSUs, however, did not levy LD for the delays. Further, in respect of 10 projects, KLDC granted exemption from payment of LD on the grounds like quarry strike, waterlogging etc. In the case of four projects, the delay was due to delayed taking over of land by the contractors. Government stated (October 2021) the following:

- KAMCO would deduct applicable LD from the final bill of the contractor.

2.2.5 - Performance of Projects

Non-achievement of target and idling of infrastructure

⁹ Calculated based on the actual hourly utilisation of 150 CHs during 2014-15 to 2020-21, i.e., 71,469 hours x (₹900-₹800).

¹⁰ Six projects were partially implemented

¹¹ 'KLDC- Improvements to Nettam thodu in Angamaly' completed in March 2019 as against the scheduled date of March 2015.

¹² 500 TPD Cattle Feed plant at Arikuzha in Idukki of KFL.

2.2.5.1. RKVY envisaged increase in public investment in agriculture and allied sectors. It was, therefore, important to achieve the project-wise target set while sanctioning the projects. Audit observed that six PSUs did not achieve the envisaged target as per DPR in eight projects as detailed in Table 2.2.

Table 2.2: Statement showing non-achievement of targets

PSU/ Project (cost)	Target	Achievement		
KAICO – Farm mechanisation for Integrated Kole Development (₹14 crore)	- Operate and maintain a fleet of machines for Kole wetlands including 50 Combined Harvesters (CHs) to provide adequate machinery service facility to the paddy planting and harvesting activity. - Targeted standard operating hours for CH was 400 hours per annum. - Provide training on modern farm machineries.	- No trainings imparted for operating modern farm machines which affected actual utilisation of CHs. - The actual average utilisation of 200 CHs procured under the two projects during 2014-15 to 2020-21 were as under.		
		Number of CHs	Average utilisation	
			From	To
		50	Not utilised	
		68	1 hour	50 hours
KAICO – Agricultural mechanisation (₹38.33 crore)	- Purchased 150 CHs, 92 Tractors, 10 Trailers and 50 Power Tillers under Kuttanad Package at a cost of ₹36.36 crore. - Targeted standard operating hours for CH was 400 hours per annum.	40	51 hours	100 hours
		38	101 hours	150 hours
		4	151 hours	217 hours
		Location and utilisation details of other machines were not maintained.		

(Source: Data obtained from DPRs and respective PSUs)

In this regard, Audit observed that :

KAICO fixed the target for utilisation of CHs at 400 hours per annum. None of the CHs procured under Kuttanad Package and Kole Land scheme were, however, operated as per norms except five CHs which were used for more than 400 hours in one year each during 2014-15 to 2020-21. In the absence of details regarding basis of fixing the targets, the correctness of projected utilisation of CHs could not be ascertained. In the case of 150 CHs procured under Kuttanad Package, 120 CHs were with KAICO, 21 CHs were found to be distributed to various agencies and details of the remaining nine were not on record. Similarly, the details such as utilisation, location

etc., of Tractors/ Power Tillers/Trailers procured under Kule Land scheme were not maintained.

Government stated (October 2021) that for maximum utilisation of machines purchased under Kuttanad Package, machines were transferred to other districts. Hence, a consistent list of machines deployed could not be made. Since training programme for operation and maintenance of machines could not be conducted due to paucity of fund, the actual utilisation of machines procured under Kule Land Scheme was affected.

The reply was not tenable as the actual utilisation of the machines procured under Kuttanad Package did not improve even after transferring them to other districts. The exact location of 23 CHs, 62 Tractors, five Trailers and 22 Power Tillers were not made available to Audit. Further, the reply was silent on the efforts taken by KAICO in arranging the training for ensuring operation of machines procured under Kule Land Scheme.

2.2.7 - Conclusion

Deficiencies in Detailed Project Reports, diversion of RKVY fund by implementing agencies, deficiencies in implementation and monitoring of projects etc., resulted in delayed completion of projects, underutilisation of assets created with consequent non-achievement of targets and intended benefits of the projects.

2.2.8 - Recommendations

Government may ensure that:

- Projects approved under the Scheme are feasible.
- The implementing agencies comply with the Scheme guidelines and other relevant rules and regulations in the implementation of projects.
- SLSC and SLMC review the progress of implementation of projects on a regular basis and ensure their timely completion.
- A post-implementation evaluation of projects is carried out to assess the benefits derived from RKVY projects.

[Audit Paragraph 2.2-2.2.8 contained in the Report of the Comptroller and Auditor General of India for the year ended 31st March 2021]

(The notes furnished by the Government on the audit paragraphs are given in Appendix II)

Discussion and Findings of the Committee

Kerala Agro Industries Corporation Limited (KAICO)

Audit Para 2.2 (2020-2021)

2.2.2- Deficiency in preparation of Detailed Project Report

To a query of the Committee about the audit observation that KAICO did not prepare DPR as envisaged or conduct feasibility study using the CHs while implementing the project, the witness informed that KAICO was only a procurement agency for projects under RKVY. He added that a State-level purchase monitoring committee was formed under the Chairmanship of Agriculture Secretary as per Government order dated 12-05-2010. Under the State level Purchase Monitoring Committee, a Technical Committee was established consisting of the Dean of Thavanoor Agriculture Engineering College, the Secretaries of the Finance and Agriculture Departments, the Director of the Agriculture Department, the Project Officer for the Kuttanad Package, the Director of the PPM Cell, the State Agricultural Engineer and the Managing Director of KAICO.

The witness further stated that M/s CLAAS India Pvt Ltd, M/s Kubota Agricultural Machinery India Pvt Ltd and M/s Mahindra and Mahindra were shortlisted by the Committee after conducting field test by following all the criteria. He also informed that M/s Mahindra & Mahindra was found unsuitable when trial run was conducted and the other two companies were enlisted. However, machines of M/s. Kubota Agricultural Machinery India Pvt Ltd didn't function properly in deeper areas of Kuttanadu and the same were shifted to Thrissur region and machines of M/s. CLASS India Private Limited were used in Kuttanadu. During harvest season, there is a requirement of around 880 harvest machines but only 200 machines could be supplied and the rest are supplied through private agencies. He added that the private agencies deployed the machines manufactured by M/s CLAAS India Private Ltd.

The Committee enquired whether KAICO had supplied the Combined Harvesters after testing their suitability in Kuttanad. The witness replied that KAICO supplied CHs of companies like Kubota and CLAAS and purchases were made after meeting all criteria. He also informed that trial run was conducted by including competent personnel during the feasibility study and it was done by a committee consisting of farmers. He added that normally trial run would not be conducted in remote and deeper areas and they had a study report with all technical specifications.

To a query of the Committee about audit observation that KAICO neither prepared the DPR nor conducted any technical feasibility study on the use of CHs as envisaged in the implementation of Agricultural Mechanisation project, the witness replied that KAICO was merely an implementing agency and the Agricultural Department was in charge of preparing the DPR.

The Senior Audit Officer pointed out that Agriculture Department had only submitted a proposal. He further added that DPR should have been prepared incorporating technical compatibility after conducting field trial and considering its cost. But KAICO had implemented the project based on the proposal prepared by the Agriculture Department. The Director, PPM Cell claimed that the Director had submitted a proposal to the RKVY State Level Sanction Committee of 2009-10 in accordance with the guidelines of RKVY Project and KAICO was granted permission to procure CHs and to implement the project.

To the query of the Committee, the Managing Director, KAICO informed that no instruction was received from the Government regarding the preparation of the DPR and that KAICO had only implemented the decision of the Technical Committee and the tender was invited according to the specifications given by the Committee. He further stated that M/s Kubota Agricultural Machinery India Pvt Ltd was the lowest bidder, while M/s CLAAS India Private Ltd submitted the second lowest price in the tender. The Technical Committee suggested that both the companies were

technically competent and hence M/s Kubota Agricultural Machinery India Pvt Ltd was chosen being the lowest bidder.

The Committee inquired about the present status of the Combined Harvesting machines. The witness replied that it has been 10 years since the machines were purchased and the same has been utilised to its maximum. The witness further added that only 59 of 200 machines are now functioning and the maximum life span of these machines is only 7 years and KAICO only charges rent for the machines as a social responsibility and is maintaining accounts of the same.

The Committee enquired about meeting the purchase cost and benefits of the machines during the life span of these machines. The witness replied that considering the purchase cost, initially the rent was fixed at ₹900 per hour but due to the insistence of various agencies it was reduced to ₹750 per hour and later increased to ₹800 per hour. He also informed that currently private agencies charge ₹2300 as rent, which varies due to intermediaries and KAICO had demanded a rent increase upto ₹1000 per hour. He added that around one thousand harvesting machines were needed and that KAICO could supply only a minimum number of machines and had to rely on private agencies for the remaining.

From the above discussion the Committee arrived at a conclusion that no proper DPR was prepared by the Agriculture Department for the execution of the project which in turn led to its failure. So the Committee decided to reconsider the audit para in the presence of the Department Secretary.

But in the meeting convened on 14.11.2024, the Principal Secretary of Agriculture Department informed the Committee that a DPR was prepared by the Department and KAICO had only procured the machines.

The Committee accepted the reply. Hence no remarks.

Audit Para 2.2.3.3 - Non-maintenance of project-wise accounts and submission of incorrect utilisation certificates

The Committee sought an explanation about the non-maintenance of a separate bank account and the creation of a redemption fund. The witness replied that the Deputy Chief Engineer was in charge of the CHs and the accounts were kept under him in a separate bank account since 2021 and till then the accounts were kept in the general account of KAICO. He added that the repair and maintenance of the CHs are met from the account of KAICO as part of its social commitment. The Committee recommended to furnish the details of the accounts. The witness replied that the account details will be furnished within two days.

The Committee inquired about the Company's profitability and the status of 147 idle equipments. The witness replied that the Company has been working in profit for last two years. He further added that permission had been acquired from the Government to sell the idle machines in auction and there were agencies to buy such machines at scrap value. The Senior Audit Officer informed that it was the yardstick of the Company to use the CHs for 400 hours but they have not utilized 20 CHs out of the 50 CHs which were purchased initially and about 19 CHs were utilized below 30%. The witness replied that all of the machines had been utilised for 400 hours in Thrissur fields but not in Kuttanadu fields.

To the query of the Committee the witness informed that the machines were taken by the Padasekhara Samithi after signing an agreement by making an initial deposit of ₹20000. Following that the rent was determined based on the operating hours and KAICO had no control over it. The witness informed that the Padasekara Samiti removes the timer and GPS claiming that the machines would slant in mud and it was reported to the Government by KAICO.

The Committee observed that KAICO had rented out the machines to Padasekhara Samithi at a very low rate. After they were rented out, KAICO was unable to check how many hours they were used or how the machines were being maintained. Despite the instructions given by the Government to open a separate bank account for depositing the hire charges and to create

redemption fund KAICO neither opened a separate bank account nor created redemption fund.

The Committee recommended to furnish the account details immediately and also to furnish a report detailing the present status of the CHs.

The Agriculture Department has forwarded a report from the Managing Director of KAICO on 14.11.2024 showing the account details and the status of CHs used by the Padasekhara samithi.

Audit Para 2.2.4.3 - Non-revision of hire charges for Combined Harvesters

The Committee inquired about the audit observation that KAICO did not prescribe any norms either for the fixation of hire charges or its revision and that the hire charge should have been compared with those of the private agencies. The Committee also sought an explanation about the statement in the Government reply that the cost becomes comparable when the cost of private agencies including other charges are compared to that of KAICO which excludes other charges.

The witness responded that this reply was given earlier and now the hire charges of KAICO was ₹800/hour, while that of private agencies was ₹2300/hour. He added that the cost incurred for CHs of private agencies was ₹1600 while that of KAICO was ₹1400.

To a query of the Committee the witness replied that a proposal to modify the hire charges has been submitted to the Government but he was not expecting a positive response, citing that it will not be approved by the District Collector and the Padasekhara Samithi. He assured the Committee that a report detailing the number of Padasekhara Samithi which hires CHs from KAICO would be furnished to the Committee.

The report from the Managing Director of KAICO detailing the number of Padasekhara Samithis was forwarded by the Agriculture Department to the Committee on 14.11.2024.

Audit Para 2.2.5 - Performance of Projects

2.2.5.1 - Non-achievement of target and idling of infrastructure

The audit observation was that out of the 150 CHs procured under the Kuttanad Package, 120 CHs were with KAICO, 21 CHs were found to be distributed to various agencies and details of the remaining nine were not on record. The details such as utilisation, location etc., of Tractors/ Power Tillers/Trailers procured under Kole Land scheme were not maintained. The Committee demanded clarification on the audit observation and enquired whether the details were made available to the audit. The witness replied that currently all the information is available and some mistakes might have occurred in the past and that they keep and equalise the stock register. The Committee criticized the Company for not submitting the records for auditing.

To a query of the Committee, the witness stated that the machines purchased under the Kuttanad Package were transferred to other districts and hence a consistent list of machines deployed could not be made.

The Managing Director doubted that the audit para on the matter might have been written off. But the Senior Audit Officer informed that it was not at all written off and that the Committee was discussing the para for the first time.

The Committee enquired whether training had been imparted to farmers. The witness informed that an ITI in Punalur imparted training and that all the matters regarding training was being controlled by the Agriculture Department. But the Committee opined that as per the audit observation no training was given to the farmers and criticized the Company for the same. In response to this, the witness informed that the drivers of CHs were given training by the Company and that no direction had been received from the Agriculture Department to impart training to farmers. But the Senior Audit Officer refuted the reply by stating that there was a direction to impart training to 25 farmers in each Grama panchayath and it had been informed by the Agriculture Department that training programme could not be conducted due to paucity of funds.

The Committee criticized the lackadaisical attitude of both the Agriculture Department and KAICO in implementing such an important

project without any proper plan and the irresponsible responses while considering the audit paras. Hence the Committee decided to reconsider the audit paras in the presence of the Secretary, Agriculture Department.

In the meeting convened on 14.11.2024, the Chairperson opined that the Committee decided to reconsider the paras as the Additional Secretary represented the Secretary, Agriculture Department in the meeting held on 30.04.2024 was unable to render a clear reply to the questions of the Committee. The Committee sought further clarification on the matter.

The Managing Director, KAICO replied that the DPR was prepared by the Department of Agriculture and only the procurement and utilization of Combined Harvesters was entrusted to KAICO and 50 Combined Harvesting machines were procured in the first phase of the project. He further added that there was a technical difficulty in using the Harvesters in the Kuttanad package and that the machines made by Kubota were replaced by M/s. CLASS India Pvt Ltd. He added that 200 Combined Harvesters have been procured including 150 machines of M/s. Class India Pvt Ltd.

The Managing Director added that according to the terms and conditions of the project they had to use the machines for at least 400 hours a year, but there were practical difficulties in implementing the proposal. He further informed that the Harvesters were supplied by KAICO according to the requirement of the Agriculture Department and that these Harvesters were used only for a certain period and remained idle for the rest of time and required repair and maintenance in the next season. He added that farmers also prefer the harvesters from other states as they are economically feasible. The Principal Secretary of the Agriculture Department informed that the DPR was prepared by the department and KAICO had only procured the machines.

To a query of the Committee the Principal Secretary replied that the machines found to be the best during field trials were procured and the machines could only be used as and when there was demand. He added that combined Harvesters were used for the first time under the Kuttanad

package and that it would take some time for farmers to get used to it. He further informed that there was a fault in assessing the demand for the machine ie. 200 machines were not required for the project. While some machines have been utilised up to 75 percent, other had become idle resulting in a small financial loss.

To a query about the training to be imparted to the farmers for operating combined harvesting machine, the witness accepted the audit observation and replied that no funds have been allocated for training of Combined harvesters and therefore no training centers have been started and instead custom hiring service centers have been set up in Alappuzha, Kottayam and Vaikom.

Conclusion/Recommendation of the Committee

1) The Committee observes that there was a fault on the part of the Agriculture Department in assessing the demand for the Combined Harvesters (CHs) and 200 CHs were purchased for the project which was in excess. Therefore, the Committee recommends that the Department must be more vigilant in calculating the requirement of machines for such projects in future.

Kerala Agro Machinery Corporation (KAMCO)

Audit Para 2.2.2 (2020-2021) - Deficiency in preparation of Detailed Project Report

Para 2.2.2.4 :

The audit observation was that KAMCO did not assess the technical feasibility of proposed model of New Generation Power Tillers (NGPT) offered by the foreign firm before preparation of the DPR which delayed the commencement of the project even after nine years from the approval of the project. The Committee sought explanation about the audit observation.

The witness informed that the Company was not able to proceed with the predetermined project since KAMCO could not source an engine suitable for the tiller offered by the technology partner and was forced to select another model which delayed the project. However, KAMCO manufactured other machinery such as Reapers and Garden tillers. He

added that they had no facilities to find out the defects of the new products and were facing problems related to transportation and loading. He further informed that they have produced 50 engines on experimental basis and are expecting to achieve full fledged production shortly.

To a query of the Committee the witness informed that KAMCO has incurred loss of about ₹15 crore and ₹30 crore during the last two years and they are competing with private sector which has much lower production cost. In addition they are also facing the shortage of permanent staff. He added that the reduction in the subsidy after covid has affected the working of the Company. The Committee observed that KAMCO could survive only if the production cost is minimised similar to private sector and advised the Company to bring changes in production and marketing.

The Committee opined that there was excess permanent staff in KAMCO. The witness responded that the Company appointed temporary employees in sanctioned post to avoid queries from Government in this regard. He added that the Company's expenditure on man power ranged from ₹50 to 60 crore while the turnover of the Company was only ₹200 crore, with the cost of materials being incurred in addition to the manpower cost.

The Committee further demanded an explanation on the audit observation. The witness informed that the delay in production occurred due to the delay in selecting suitable engines. He stated that the Contractor could not supply the engines according to the new pollution norms resulting in the stoppage of production.

To a query of the Committee, the witness replied that the Company initially used an engine named Lombardini which was stopped in 2016 and was presently using TREM III engines and aiming to change to TREM-IIIA engines. He added that the material cost of each engine was ₹95000/- and intended to sell the engine at a price of about ₹1.3 lakh. He added that out of 50 engines produced so far a few engines were distributed to Agriculture University and Private parties.

Conclusion/Recommendation of the Committee

2) *The Committee observes that KAMCO prepared the DPR without assessing the technical feasibility of the proposed model of the NGPT offered by the foreign firm, which delayed the commencement of the project even after nine years of approval of the project. Hence the Committee recommends that the Company should be more vigilant in these aspects in future and also ensure sale of the newly produced engines.*

Audit Para 2.2.4.5 - Delay in completion of projects

As per KPWD Manual, delay in completion of work attracted Liquidated Damages (LD) at the rate of 0.1 per cent of contract price for every week of delay subject to maximum of 10 per cent of the contract price. The audit observation was that in the work of electrification of NGPT plant KAMCO did not complete the work and no Liquidated Damages were imposed. The Committee sought explanation about this audit observation.

The witness replied that an amount of ₹10,35,000/- has already been recovered. To another query of the Committee regarding the service of Tillers, the witness responded that a software named 'Service App' has been developed which is expected to be implemented within one month. He added that service can be provided within two days of registration of the request for service.

The Committee accepted the reply. Hence no remarks.

*Thiruvananthapuram,
07-10-2026.*


*Chairperson,
Committee on Public Undertakings.*

APPENDIX – I
SUMMARY OF MAIN CONCLUSIONS/RECOMMENDATION

Sl. No.	Para. No.	Department Concerned	Conclusions/Recommendations
1	1	Agriculture	<i>The Committee observes that there was a fault on the part of the Agriculture Department in assessing the demand for the Combined Harvesters (CHs) and 200 CHs were purchased for the project which was in excess. Therefore, the Committee recommends that the Department must be more vigilant in calculating the requirement of machines for such projects in future.</i> 1.
2	2	Agriculture	<i>The Committee observes that KAMCO prepared the DPR without assessing the technical feasibility of the proposed model of the NGPT offered by the foreign firm, which delayed the commencement of the project even after nine years of approval of the project. Hence the Committee recommends that the Company should be more vigilant in these aspects in future and also ensure sale of the newly produced engines.</i> 2.



**Committee on Public Sector Undertakings – Action taken report on
Compliance Audit ending 31st March 2021**

Audit Para	Audit Para	Reply
2.2.2	Planning <i>Deficiency in the preparation of Detailed Project Report</i> The scheme guidelines 2014 stipulate that Detailed project Reports (DPR) should be prepared for all projects incorporating all necessary ingredients including feasibility studies. In this regard audit observed the following.	
2.2.2.1.1	Kerala Agro Industries Corporation Limited (KAICO) did not prepare DPR as envisaged or conducted any technical feasibility of Combined Harvesters (CHs) while implementing Agricultural mechanization Project. As part of this project, KAICO purchased (April 2011) 50 Combined Harvesters (CHs) of Kubota make at a cost of Rs. 10.80 crore. It was envisaged	<i>For the purchase of machineries under Kuttanad Package, a State Level Purchase and Monitoring Committee under the Chairman Ship of the Secretary, Agriculture qualified the technical bids of the Combine harvesters viz, M/S CLAAS India Pvt.Ltd, M/S Kubota Agricultural Machinery India Pvt.Ltd and M/S Mahindra and Mahindra & decided to conduct a field trial of these machineries at Kuttanad paddy field. Field trials were conducted and as per report submitted by the Technical Group it was recommended to</i>

	that CHs would be utilized for 400 hours per annum. Audit noticed that the CHs were not suitable for the soggy paddy fields and wet conditions due to which there was hesitance from farmers in using them. Hence 20 CHs remained idle without utilization while the utilization of remaining 30 CHs during 2014-15 to 2020-21 varied from 1.70% to 75.64% of the standard 400 hours per annum. The GoK stated (October 2021) that CHs were purchased after detailed technical study and those machineries which qualified in the field trial were only purchased. But, some farmers had hesitancy to use machines of a particular brand due to which the machines remained idle. The reply was not tenable as <u>no field trial was conducted before purchase of Kubota make CHs.</u> Field trials were conducted before purchase of subsequent lots in which Kubota make did not qualify.	<i>consider the price Bids of M/S CLASS India Pvt.Ltd and M/S Kubota Agricultural Machinery India Pvt.Ltd</i>
2.2.2.4	The GoK approved (January 2013) a project to Kerala Agro Machinery Corporation Limited (KAMCO) for manufacturing	<i>The project was approved in January 2013 with a total project outlay of Rs.20.22 crores out of which an assistance of Rs.10 crores under</i>

New Generation Power Tillers (NGPT) at an estimated cost of Rs.20.22 crore. The project was to be implemented based on a technical collaboration agreement (September 2011) with a foreign firm. Based on a proposal (April 2013) of KAMCO, GoK sanctioned Rs.10.00 crore under RKVY for this project and released Rs.7.00 crore up to 2015-16.

Audit observed that KAMCO prepared the DPR without assessing the technical feasibility of proposed model of NGPT offered by the foreign firm. The technology offered by the foreign firm was found (March 2014) not suitable to Indian climatic conditions by an internal committee of KAMCO after a field study. Further, the cost of manufacturing NGPT was found to be high (September 2015) compared to existing tillers. Hence, KAMCO could not commence the manufacturing of NGPT till March 2021.

The GoK stated (October 2021) that commencement of NGPT production was delayed due to delay in selection of engine suitable for a model offered by the technology partner. A suitable engine for another

RKVY scheme. The setting up of the manufacturing facility had been completed in January 2016.

The Valiyavelicham Unit is intended for manufacturing of small model tillers along with other agricultural machineries. The intention was to select a new model of Power Tiller at a price around 2.0 Lakhs which is having versatile features, called New Generation Power Tiller.

As per the DPR the engine for the new Tiller was supposed to be sourced from India. Accordingly, a model named, Leopard Tiller was chosen. After the selection of model, various engines available in Indian market were tried out. However, KAMCO could not source a suitable engine which could meet the latest emission norms.

The matter was taken up with the technical collaborator M/s BarbieriSrL, Italy and he has agreed to give another model of Leopard Tiller. Engine for new model of Leopard Tiller was sourced and prototype of Eco Leopard Tiller was produced and launched on 20th of February, 2021. The sourcing of components for Eco Leopard Tiller (New Generation Power Tiller) is almost completed and trial assembly is going on. The regular production of new Eco Leopard Tiller commenced by first week of December, 2021.

	model offered by the technology partner was sourced and regular production of NGPT would commence by December 2021. The reply was <u>not tenable</u> as <u>KAMCO did not assess the technical feasibility of the model proposed by foreign firm before preparation of the DPR which delayed the project commencement even after nine years of approval of the project.</u>	<i>As mentioned in the audit Para, the infrastructure for production was ready in 2016 and commencement of Tiller production was delayed due to the delay in selection of engine. In order to utilize the facility, they have started producing other machineries like Low-Height Reaper, Garden Tiller, Brush Cutter and different models of pump sets and achieved a cumulative Turnover of Rs.18 Cr. till now.</i> <i>As the production of Eco Leopard Tiller will be commencing soon, and KAMCO utilized the facility by producing other farm equipments like Low-Height Reaper, Garden Tiller etc., it is kindly requested to drop the objections in the Composite Compliance Audit Report for the period 2019-21.</i>
2.2.3	Financial Management Diversion of Fund Non maintenance of Project wise accounts and submission of incorrect utilisation certificates RKVY guidelines prescribed that project-wise accounts were to be maintained by the implementing agencies and utilisation certificates (UCs) were to be furnished. Audit, however, observed that project-wise accounts were not	

maintained in respect of five projects implemented by four PSUs. Government stated (October 2021) that KSCDC, KAICO and MPI henceforth would maintain separate project-wise accounts.	<i>Instruction has been given to the KAICO unit office to open separate bank account for depositing hire charges to be received against hiring of machines procured under Farm Mechanization Projects. Accordingly separate bank account has been opened by Deputy Chief Engineer, Thiruvalla on 05.10.2021. The repair and maintenance of combine harvesters are carried out from the hiring charges collected from the farmers.</i> <i>Considering the above facts, the objection in the audit para may kindly be dropped.</i>
Government directed (May 2010) KAICO to open separate bank account for depositing hire charges to be received against hiring of machines procured under farm mechanisation projects. The GoK also instructed to create a redemption fund for replacement of machines on expiry of its life. Audit observed that KAICO neither opened separate bank account for depositing the hire charges nor created the redemption fund as envisaged. Government stated (October 2021) as sufficient hire charges were not generated, separate bank and redemption fund were not created and that the audit	<i>Hire charges collected were not sufficient to meet the preventive and breakdown repairs of the machines and wages for operating staff and mechanics. Corporation is meeting the additional expenses from own fund. Hence redemption fund for replacement of the machines was not created and a separate bank account was not created for this.</i> <i>Audit remarks are noted for strict future compliance and necessary directions have been issued vide interoffice communication No. KAICO/HO/Tech/83-A & B dated 14-09-2021. Based on the explanation it is requested to drop the objections in the audit para.</i>

	observation was noted for future guidance.	
2.2.4.3	Non-revision of hire charges for Combined Harvesters As per GoK direction (May 2010), KAICO was to meet expenditure for repair and maintenance of CHs from the hire charges to be collected from the farmers for using them. KAICO procured 200 CHs under two packages sanctioned under RKVY. Audit observed that KAICO did not prescribe any norm either for fixation of hire charges or its revision. KAICO though fixed the hire charges at ₹900 per hour initially, it was reduced (March 2012) to ₹750 per hour. The rent was last revised to Rs.800 per hour in October 2014 and no revision was made thereafter. A revision of hire charges even at the rate fixed initially would have generated an additional income of Rs.71.47 lakh. The GoK stated (October 2021) that hire charge fixed initially was reduced to Rs.750 as part of social commitment. The hire charge was exclusive of cost of fuel, handling charge, transportation etc. Considering the hire charge (Rs.1,600 to Rs.1,900) levied by private	<i>Initially hire charge was fixed to Rs.900/hr by Corporation based on the costing at that time. Later this rate has been reduced on the concurrence of Government as part of the social commitment to support paddy farmers. Hire charges exclude cost of fuel, handling charge, transportation etc. Private machines from neighbouring states are offered Rs.1600 - Rs.1900 including fuel, handling charge and transportation which is comparable to total expenditure incurred by KAICO.</i> <i>KAICO has informed that they have taken steps to revise the rent of combine harvesters at the rate of Rs.1000/hr from next season onwards subject to the approval of the Government. In view of the above explanation the objections in the audit paras may kindly be dropped.</i>

	parties in the neighbouring States which included fuel, handling charge and transportation, the rate charged by KAICO was comparable. The reply was not acceptable as the hire charges collected were not sufficient for meeting even the routine repair and maintenance of CHs. Hence, KAICO could not create the redemption fund for replacement of CHs as directed by GoK.	
2.2.4.5	Delay in completion of projects As per Section 2116.1 of the KPWD Manual, delay in completion of work attracted Liquidated Damages (LD) at the rate of 0.1 per cent of contract price for every week of delay subject to maximum of 10 per cent of the contract price. KAMCO would deduct applicable LD from the final bill of the contractor.	<i>The work for electrification including HT & LT electrical work of New Generation Power Tiller Manufacturing at Valiyavelicham was awarded on M/s Mechno Engineering, Calicut after E-tender process. In the due course of progress in the work, the proprietor of the contracting firm expired. By this time, almost 90 percentage of the work was completed and awarding the balance work to another contractor was not practically possible as the approval from electrical inspectorate prior to the execution of the work was received based on the schéme and electrical drawings submitted by the original contracting firm. In this situation, legal opinion was sought and work was transferred to the legal successor of the contractor who expired. The work was delayed due to various factors associated with the death of the contractor. However the functioning of the unit could be</i>

commenced with a temporary connection obtained from KSEB as the installation of the electrical items were completed.

The balance work was completed and the commissioning of the electric installation including regular HT connection was done in February 2021. As the work was delayed, the payment of security amount and a portion of the running account bills submitted by the contractor were withheld. The total withheld amount is Rs.11.94 lakhs and the final bill amounting to Rs.3.74 is still pending for payment. The penalty as well as liquidated damages which are to be deducted as per the contract terms amounts to Rs.9.99 lakhs since based on instruction of KAMCO the total of work done is for Rs.99.94 lakhs even though the estimate was for 1.473 cr. Out of Rs.15.68 payable to the contractor (11.94 withheld + 3.74 final bill) we have recovered Rs.9.99 lakhs as LD. From the above facts, it is brought to the kind notice that KAMCO has acted as per the Section 2116.1 of KPWD Manual and has recovered the Liquidated damages as required.

In view of the above explanation the objection in the audit paras may kindly be dropped.


LETHAKUMARI M.B.
Additional Secretary to Govt.
Agriculture Department
Govt. Secretariat
Thiruvananthapuram

**Committee for Public sector undertaking (2023-26)Report for the audit
report for the period of 2019-21**

Audit Para	Audit Para	Reply
2.2.2 2.2.2.1	Planning Deficiency in the preparation of Detailed Project Report The scheme guidelines 2014 stipulate that Detailed project Reports (DPR) should be prepared for all projects incorporating all necessary ingredients including feasibility studies. In this regard audit observed the following. 1 Kerala Agro Industries Corporation Limited (KAICO) did not prepare DPR as envisaged or conducted any technical feasibility of Combined Harvesters (CHs) while implementing Agricultural mechanization Project. As part of this project, KAICO purchased (April 2011) 50 Combined Harvesters (CHs) of Kubota make at a cost of Rs. 10.80 crore. It was envisaged that CHs would be utilized for 400 hours per annum. Audit noticed that the CHs were not suitable for the soggy paddy fields and wet conditions due to which there was hesitance from farmers in using them. Hence 20 CHs remained idle without utilization while the utilization of remaining 30 CHs during 2014-15 to 2020-21 varied from 1.70% to 75.64% of the standard 400	KAICO was entrusted to implement some of the components of the approved Project "Agriculture Mechanization Programme under Kuttanad Package". As per G.O.(Rt)No.874/2010/A dated : 12.05.2010 a State Level Purchase and Monitoring Committee was constituted for purchase and implementation of the scheme. All machines in this project were purchased as per decision of the Technical Committee constituted for this purpose. This Technical Committee members are: 1.The Secretary (Agriculture),Chairman 2. The Secretary, Finance (expenditure or his nominee) Member 3. Director of Agriculture, Convener 4. Dean, KCAET, Tavannur, Member 5. Project Officer, Kuttanad Package, Member

	hours per annum. The GoK stated (October 2021) that CHs were purchased after detailed technical study and those machines which qualified in the field trial were only purchased. But, some farmers had hesitancy to use machines of a particular brand due to which the machines remained idle. The reply was not tenable <u>as no field trial was conducted before purchase of Kubota make CHs</u>. Field trials were conducted before purchase of subsequent lots in which Kubota make did not qualify.	6. Director, PPM Cell, Member 7. State Agricultural Engineer, Member 8. Managing Director (KAICO), Member KAICO invited tenders in two bid system, Technical bid and Price bid. Price bids of only technically qualified tenders were opened. Field trial of the Technically qualified combine harvesters machines were conducted in the marshy field of Kuttanad in the presence of Technical Committee members, Padashekhara Samithis, Farmers etc. Price bids of the machines which were qualified in the field trial only opened and purchase order was issued to L1 bidder. Field trial of the combine harvesters qualified in the technical analysis were conducted on 23.03.2011 at Pathinanchilkadavu Padam, Paravoor, Alappuzha. Out of this CLASS, Kubota machines were qualified. Price bid of this machines were opened and out of this M/s. Kubota Agricultural India Pvt Limited was the L1 bidder. Hence supply order was issued to them for supply of 50 combine harvesters. (Copy of minutes of State Level Purchasing and Monitoring Committee meeting and field trial reports are enclosed as Annexure I) In view of the above explanation the objections in the audit paras may kindly be dropped.
2.2.3. Financial management 3	Submission of Utilization Certificate with incorrect information for the RKVY project. <i>"Area Expansion of cashew plant</i>	

s in Three districts".(Appendix 2.9)

The details are as follows

- a.RKVY fund received -Rs.4.82 crores
- b.Actual expenditure till the date when UC's submitted -Rs.0.65 crores
- c.UC submitted -Rs.4.42 crores

A copy of the Utilisation Certificate dated 30.07.2019 is attached as Annexure II.

The UC of PCK has mentioned that approximately 8 lakh cashew plants were developed, with ongoing transportation, and preparations for raising an additional 2 lakh plants were underway. Plantation Corporation of Kerala (PCK) has also mentioned that the plantation activities were progressing in the state.

The UC submitted on 30.07.2019 was intended to secure the necessary funds to support both immediate and planned project needs. PCK confirmed that the entire certified amount has been used solely for the specific project activities detailed in the UC.

In view of the above explanation the objections in the audit paras may kindly be dropped.

2.2. Non achievement of Targets
5.1 KAICO -Farm Mechanization for Integrated Kule Development (Rs.14 Crores)
14.00 crore)

Target	Achievement
Operate and maintain a fleet of Machines for Kule wet lands including 50 combine harvesters (CHs) to provide adequate	No training imparted for operating modern farm machines which affected actual utilization of CHs.
	The actual average

Farm Mechanization programme under Kule land package was partially implemented. Component for conducting training programme on operation and maintenance of procured farm machinery could not be conducted due to paucity of fund. Hence availability of sufficient number of trained personnel for operating the procured machines could not be ensured. 50 Numbers of combine Harvesters procured under this project is deployed at Thrissur Unit Office .

machinery utilization of 2010 CHs procured under the two projects during 2014-15 to 2020-21 were as under

- Targeted standard operating hours for CH was 400 hours per annum
- Provide training on modern farm machineries

Number of CHs	Average Utilization	
	From	To
50		
68	1 hour	50 hours
40	51 hour	100 hours
38	101 hour	150 hours
4	151 hour	217 hours

KAICO - Agricultural Mechanization (Rs.38.33 crore)
Target

- Purchased 150 CHs, 92 tractors, 10 trailers and 50 power tillers under Kuttanad Package at a cost of 36.36 crore.
- Targeted standard operating hours

Location and Utilization details of other machines were not maintained.

Agriculture Mechanization under Kuttanad Package (Rs.38.33 Crores)

In order to ensure maximum utilization of the machines purchased under Kuttanad Package it was decided to utilize the machines in other region of the State. Hence the machines were transferred to various district offices of the KAICO.

Machineries procured under Kuttanad Package Scheme are utilized at Thrissur and Palakkad regions. The deployment details of the machineries at present are as detailed below.

Sl. No	Unit Name	Combine Harvester	Tractor	Trailer	Power Tiller
1	Punalur	54	4	1	7
2	Thiruvalla	7	7	2	10
3	Vaikom	33	3	1	5
4	Thrissur	32	1	1	19
5	Kozhikode	-	5	1	2

Two numbers of Combine Harvesters are allotted to Cherthalla Taluk Laksham Thozhil Dhana Padhathi Sahakarana Sangham (No.A1160) vide order No.G.O(Ms)/119/15/AGRI Dtd:08.07.2015 of Agriculture (NCA) Depa

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rtment.

Twenty numbers of Combine Harvester are allotted to Assistant Executive Engineer (Agri) Kerala Agriculture Department Kottayam as per the decision taken in the meeting of Kuttanad Prosperity Council held on 17.12.2012 under the chairmanship of Hon'ble Chief Minister of Kerala.

KAICO fixed the target for utilisation of CHs at 400 hour per annum. None of CHs procured under Kuttanad Package and Kole Land scheme were, however, operated as per norms except five CHs which were used for more than 400 hours in one year each during 2014-15 to 2020-21. In the absence of details regarding basis of fixing the targets, the correctness of projected utilisation of CHs could not be ascertained. In the case of 150 CHs procured under Kuttanad Package, 120 was with KAICO, 21 were found to be distributed to various agencies and details of the remaining nine were not on record. Similarly, the details such as utilisation, location etc. of Tractors/Power Tillers/Trailers procured under Kole Land scheme were not maintained.

One number of Combine Harvester has been allotted to West Mangalaseri Nellupathaka Samathi under Ramankari Krishi Bhavan in Alappuzha District vide G.O.(Ms)No. 77/2018/AGRI dtd. 06.06.2018 of Agriculture (NCA) Department.

One number of Combine Harvester has been allotted to Karshika Seva Vipanana Sahakarana Sanhgam under Anthikkadu Block Panchayath vide G.O.(Ms)No. 14/2018/AGRI dtd. 22.01.2018 of Agriculture (NCA) Department.

The GoK stated (October 2021) that for maximum utilisation of machines purchased under Kuttanad Package, machines were transferred to other districts. Hence, a consistent list of machines deployed could not be made. Since training programme for operation and maintenance of machines could not be conducted due to paucity of fund, the actual utilisation of machines procured under Kole Land Package was affected.

In view of the above explanation the objections in the audit paras may kindly be dropped.

The reply was not tenable as the actual utilisation of the machines proc

ured under Kuttanad Package did not improve even after transferring them to other districts. The exact location of 23 CHs, 62 Tractors, 5 Trailers and 22 Power Tillers could not be made available to Audit. Further, the reply was silent on the efforts taken by KAICO in arranging the training for ensuring operation of machines procured under Kule Land Package.

Lethakumari

LETHAKUMARI M.B
Additional Secretary to Govt
Agriculture Department
Govt Secretariat
Thiruvananthapuram

Kuttanad Package

Meeting of the State Level Purchasing and Monitoring
Committee held on ----- in the chamber of Secretary
Agriculture

AGENDA

Purchase of Combine Harvester – Approval of Price Bid.

-34-
Note

Purchase of Combine Harvester – Approval of Price Bid.

As per the minutes of the meeting held on 10.02.2011 it was decided to approve the technical bids of the Combine Harvester of tenderers viz. M/s CLAAS India Pvt. Ltd, M/s Kubota Agricultural Machinery India Pvt. Ltd and M/s Mahindra Mahindra. The committee decided to open the price bids on 17.02.2011. Authorized the Managing Director KAICO for the same. It was also decided to conduct a field trial of the machines at Kuttanad.

Accordingly the price bids were opened. Tabulated statements of price bid put up as Annexure. I

The field trial of the qualified tenderers were conducted at the paddy field selected in lower Kuttanad area - Pathinanchilkadavu Padam, Paravoor on 03.03.2011, under the guidance of Dr. V. Ganesan, Professor & HOD, Department of Agricultural Engineering, K.A.U (Special officer, Kuttanadu Package). The field trial report, recommendations are put up as Annexure II.

As per the report submitted by the technical group which conducted the field trial, the Kubota make and CLAAS make machines have been technically recommended, whereas the Swaraj make machine of M/s Mahindra & Mahindra has not been technically recommended.

Point for decision

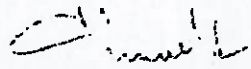
To consider and approve recommendations and suggestions of the field trial & technical report.

Approval of price Bid

Among the recommended makes M/s Kubota has quoted the lowest @Rs. 1,60,000/- per machine including ladder and taxes. The committee may consider and approve the purchase of 25 nos of Kubota make Combine Harvester based on the technical reports and per the approved specification @ Rs. 21,60,000/-per machine including ladder and taxes, F.O.R destination.

rate quoted by M/s CLAAS is Rs. 22,15,200/- per machine including ladder taxes. The committee may consider whether to approve the same or to authorize the Managing Director KAIC to negotiate the rate in comparison with that of M/s Kubota

1) Authorise M.D KAIC to accept the negotiated rates and place purchase orders for purchase of 25 nos of CLAAS make Combine Harvester based on the technical reports and as per the approved Specification if the rates are matched with that of M/s Kubota (@Rs. 21,60,00/- Per machine including ladder and taxes, F.O.B destination.).


MANAGING DIRECTOR

KERALA AGRO INDUSTRIES CORPORATION LTD

Price Bid Details (Annexure-I)

Name & Address of Tenderer	Price Quoted
Kubota Agriculture Machinery India Pvt. Ltd.	Rs.21, 60,000/- Including VAT for Combine Harvester Model KUBOTA DC 68G with ladder.
CLAAS India Pvt.Ltd,Chennai.	Rs.22,15,200/- Including VAT for Combine Harvester -Model CLAAS CROP TIGER and one set of ladder with each machine.
Mahindra&Mahindra Ltd,Chennai.	Rs.20,00,500/- Including VAT for Combine Harvester-Model SWARAJ with ladder.

Note:-

As per the field trial and technical report the tender of M/s Mahindra & Mahindra has not been recommended.

Among the recommended makes M/s Kubota Agriculture Machinery India Pvt.Ltd. has quoted the lowest rate of Rs.21,60,000/- per machine with ladder and all accessories ,F.O.R destination.

Annexure-II

FIELD TRIAL AND TECHNICAL REPORT

Kuttanad Package-Field trial of Combine Harvester on
23.03.2011 at Pathinanchilkadavu Padam, Paravoor,
Alappuzha

The meeting of the Purchase and Monitoring Committee held on 10.02.2011 decided to approve the technical bids submitted by the tenderers M/s Mahindra & Mahindra (Swaraj), M/s CLAAS and M/s Kubota and authorized Managing Director KAIC to open the price bid of the tenderers. The Committee also decided to conduct a field trial of Combine Harvesters of the qualified tenderers. Accordingly the field trial was conducted at the paddy field selected in lower Kuttanad area - Pathinanchilkadavu Padam, Paravoor on 23.3.2011.

The field trial started at 11 am. The trial was conducted under the guidance of Dr. V. Ganesan, Professor, & HOD, Department of Agricultural Engineering, K.A.U (Special Officer, Kuttanad Package). Shri. Jacob Philip, State Agriculture Engineer, Shri. N.K. Manoj, Managing Director, Kerala Agro Industries Corporation were also present. The Agricultural Officer, Punnappra Thekku Krishi Bhavan, the Engineers of Kerala Agro Industries Corporation and Research Associates of Moncompu Paddy Research Station assisted in the field trials. The authorities of the Padasekhar samithis and farmers also participated.

The following three tenderers attended the field trial.

1. Mahindra & Mahindra Ltd (Swaraj).
2. CLAAS India Pvt. Ltd.
3. Kubota Agricultural Machinery India Pvt. Ltd.

The paddy field selected for the field trial was almost identical in soil condition, crop variety, yield, for getting uniformity in results. Three plots were marked and boundaries marked with flags and allotted to tenderers by lot system.

The trial was conducted with one machine at a time and the following analysis were carried out.

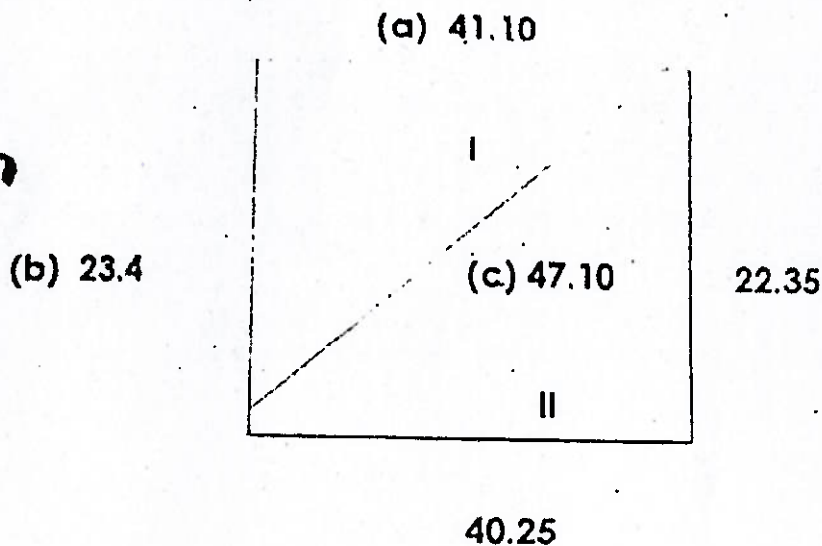
1. The coverage time was measured by using stop watches.
2. For assessing the grain quality, three samples were collected from each machine.
3. For assessing the grain loss and winnowing efficiency samples were collected from different parts of the field, marking 1 square meter area.
4. The ability for harvesting lodged crops were analysed (The crops were lodged manually).
5. Threshing quality was assessed by collecting the sample of Broken grains from 1 square meter area.
6. The leftover straw height was assessed by measuring the height of the straw from the ground.
7. The quantity of grain harvested was noted by platform balance and stacked in polythene bags.
8. The straw quality was assessed by collecting straw from the field.
9. The exact area of the field of cutting was again measured by tape and the area was calculated using the triangular method.

Field trial finished at 3 pm.

The observed values of trials are enclosed.

Area Calculation:-

Kubota (Plot I)



Area of Triangle I

$$\begin{aligned} \text{Area} &= \text{Sqrt} [s \times (s-a) \times (s-b) \times (s-c)] \\ s &= (a+b+c)/2 \\ s &= (41.10 + 23.40 + 47.10)/2 = 55.80 \\ &==== \\ \text{Area} &= 480.85\text{m}^2 \\ &===== \end{aligned}$$

Area of Triangle II

$$\begin{aligned} s &= (47.10 + 22.35 + 40.25)/2 = 54.85 \\ &==== \end{aligned}$$

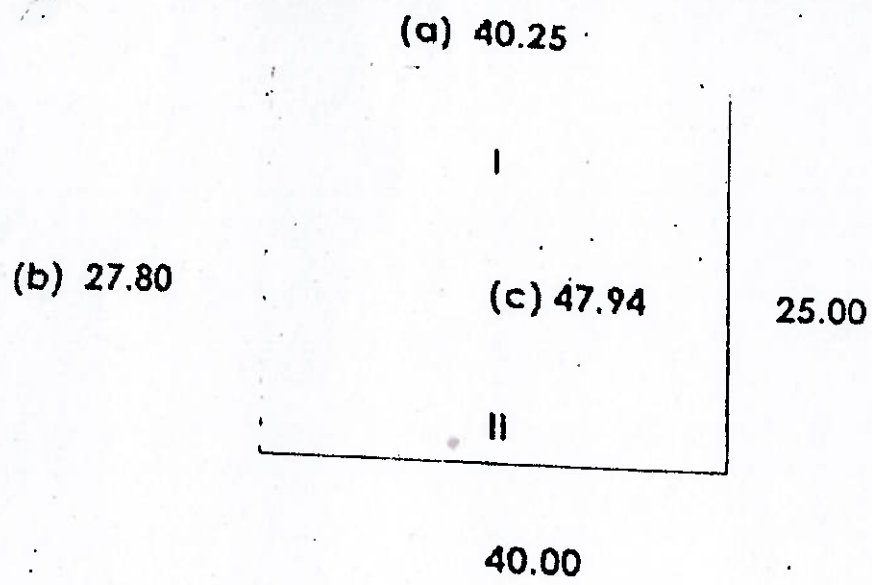
$$\begin{aligned} \text{Area} &= 449.11 \text{ m}^2 \\ &===== \end{aligned}$$

$$\begin{aligned} \text{Total area} &= 929.96 \text{ m}^2 \\ &===== \end{aligned}$$

$$\begin{aligned} &= 929.96 / 40.43 = 23.00 \text{ cent} = .23 \text{ acre} \\ &===== \end{aligned}$$

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Mahindra & Mahindra (Plot 2)



Area of Triangle I

$$\begin{aligned}\text{Area} &= \text{Sqrt} [s \times (s-a) \times (s-b) \times (s-c)] \\ s &= (a+b+c)/2 \\ s &= (40.25 + 27.80 + 47.94)/2 = 57.99 \\ &==== \\ \text{Area} &= 558.97\text{m}^2 \\ &===== \end{aligned}$$

Area of Triangle II

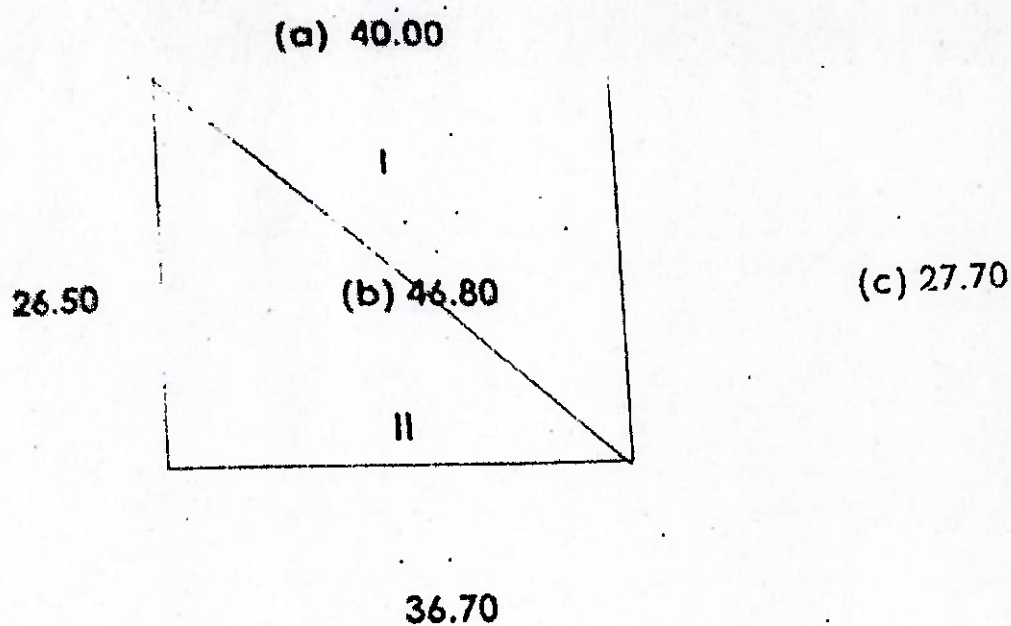
$$\begin{aligned}s &= (47.94 + 25.00 + 40.00)/2 = 56.47 \\ &==== \\ \text{Area} &= 499.66\text{m}^2 \\ &===== \end{aligned}$$

$$\begin{aligned}\text{Total area} &= 558.97 + 499.66 = 1058.64\text{m}^2 \\ &===== \end{aligned}$$

$$\begin{aligned}&= 1058.64 / 40.43 = 26.18\text{ cent} = .2618\text{ acre} \\ &===== \end{aligned}$$

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AS (Plot 3)



Area of Triangle I

$$\text{Area} = \text{Sqrt} [s \times (s-a) \times (s-b) \times (s-c)]$$

$$s = (a+b+c)/2$$

$$s = (40.00 + 27.70 + 46.80)/2 = 57.25$$

$$\text{Area} = 552.22\text{m}^2$$

Area of Triangle II

$$s = (46.80 + 26.50 + 36.70)/2 = 55$$

$$\text{Area} = 484 \text{ m}^2$$

$$\text{Total area} = 552.22 + 484 = 1037 \text{ m}^2$$

$$= 1027 / 40.43 = 25.65 \text{ cent} = .2565 \text{ acre}$$

The trial started with M/s Kubota machine in plot no.1. The machine performed the operation smoothly without any interruption. The operation of the machine was smooth and the machine was stable. The machine also harvested lodged crops satisfactorily. The designated area was harvested in 10:37 minutes. The grain tank was seen fully filled up at the end of the harvesting. The harvested paddy was unloaded from the machine.

TRIAL 2- The second machine to perform the trial was Swaraj make of M/s Mahindra & Mahindra in plot no 2. The machine performed its operation without any interruption. However the machine was having excessive vibration and rattling. The machine harvested lodged crops satisfactorily. The balancing of the machine was not satisfactory and hence not stable. The overall performance was also poor. The designated area was harvested in 16.02 minutes. The harvested paddy was unloaded from the machine.

TRIAL 3- The third machine to perform the trial was M/s CLAAS in plot no 3. The machine performed its operation without any interruption. The operation of the machine was smooth and the machine was stable. The machine harvested lodged crops satisfactorily. The designated area was harvested in 12.83 minutes. The harvested paddy was unloaded from the machine.

Observation:-

1. Harvesting time per acre of paddy for M/s Kubota was 45 minutes, CLAAS 50 minutes, whereas Mahindra Swaraj took about one hour.

In terms of Harvesting time M/s Kubota clocked the best timing. The timing of M/s Kubota and M/s CLAAS was comparable whereas M/s M&M(swaraj) lagged behind. From the above it is inferred that the performance of Kubota machine and M/s CLAAS gave better performance by way of fuel efficiency and harvesting efficiency.

Grain Quality- For assessing the grain quality, the samples collected were analysed to assess the percentage of bold grain, broken grain and other ingredients, in the sample (Please see Annexure -III table). From this it is inferred that the percentage of recovery of bold grain was maximum for Kubota. Whereas the grain quality observed from the CLAAS machine was slightly lower than M/s Kubota but was satisfactory compared to Swaraj.

3. Grain Loss-While assessing the grain loss, It is understood that least grain loss was noticed in the field where Kubota machine has operated. The grain loss for CLAAS was marginally higher than Kubota . But maximum grain loss observed in Swaraj (Mahindra & Mahindra)
4. While conducting the capacity for harvesting lodged crops, all the machines performed satisfactory.
5. Straw Recovery- The quality and length of the straw recovered was analysed. The straw was cut in very-small pieces in the case of CLAAS and Swaraj . Straw was cut in comparatively longer pieces in the case of Kubota; hence Straw recovery, during harvesting was maximum for Kubota machine.
6. The quantity of paddy harvested was weighed. M/s CLAAS harvested the maximum quantity, but when calculated based on the area harvested the Yield of paddy / acre was found to be maximum for Kubota compared with other two machines. The lowest yield/acre was recorded in Mahindra Swaraj make.
7. Field performance- While assessing the overall field performance of three machines. It is found that Kubota and CLAAS machines displayed good stability and easy manureability during operation whereas swaraj make had excessive machine vibration, rattling and was unstable.
8. The overall appearance of CLAAS and Kubota was good compared to Swaraj make .
9. The grain tank capacity is less in Kubota compared to CLAAS and Swaraj.

Recommendations:

None

From the above observations the recommendations are as follows:
Combine Harvester is a machine that can be used for harvesting of paddy alone in Kerala and that too in marshy areas in Kuttanad and harvesting is performed under critical conditions like untimely rain, flood etc. Hence an interrupted operation of the machine is inevitable.

Harvesting is a very delicate and critical operation and hence the quality of the machine, its durability, serviceability, service back up, acceptability among farmers are to be considered while selection of machines. During selection of machine, the availability of spares, credibility of the make manufacturer and service background are to be considered.

Out of about 50,000 hectares of paddy field on Kuttanad, about 20,000 hectares is occupied by upper Kuttanad where there is no marshy field. As per the test reports and considering the factor straw recovery M/s Kubota make is best suitable for this area.

The rest of the area comprises of comparatively marshy areas and around 80% of the marshy areas are suitable for machine harvesting. These areas are dried before harvesting. However in the case of rain these fields turn extremely slushy and harvesting operations are relatively difficult during such periods. The past experience reveals that during rain and extreme waterlogged conditions CLAAS make machines performed better than other makes.

The performance of CLAAS machine and Kubota make already available with KAIC are satisfactory.

Considering the above factors the technical team recommends as follows

As per the results of the field trial, the essential qualities required for Combine harvester could not be satisfied with Swaraj make of M/s Mahindra & Mahindra. Hence this machine is not technically recommended.

Kubota make and CLAAS make machine performed the field trial satisfactorily and hence are technically recommended.

As per the field test reports M/s Kubota has slightly better results than CLAAS make, Kubota make has also got good straw recovery and is found the most suitable for upper kuttanad area and during dry field conditions.

As per the decision of the committee held on 10.01.2011 a meeting was convened in the chamber of P.A.O Allapey on 15.01.2011. in which leading farmer well versed with harvesting operation in Kuttanad was invited. The farmers present had opined that CLAAS make machine is the most popular and accepted machine among farmers in Kuttanad. Copy of the minutes enclosed as Annexure IV

Hence according to the feed back collected from farmers, past experience, better network of service spares and considering the fact that CLAAS make is known to perform better in water logged conditions it is suggested to purchase 25 Nos. Kubota and 25 nos. CLAAS make machines.

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2. Shri. Jacob Philip, State Agricultural Engineer -sd-
3. Shri. N.K. Manoj, MD KAIC (Kerala Agro Industries Corporation) -sd-

Appendix 2.8

Details of projects and implementing agencies covered in Audit

(Reference: Paragraph 2.2.1)

Sl. No.	Implementing Agency	Name of Project
1	KAICO	Project proposal for Agricultural mechanisation (Kuttanad Package)
2		Farm Mechanisation for Integrated Kole Development
3	KAMCO	Setting up of New Generation Power Tiller Manufacturing Unit
4	KFL	500 TPD Cattle Feed plant
5		300 TPD Cattle Feed Plant
6		50 TPD Bye Pass Protein Plant
7	KLDB	Artificial insemination to the cattle and buffaloes in the state – Import of semen
8		Establishment of Dairy and Goat rearing units
9		Strengthening of training infrastructure at Kolahalamedu
10		Genetic Improvement in Cattle and Pig Population through imported superior Germplasm
11	KLDC	Improvements to Vanthodu between Nenmenichira and Chalakkudypuzha in Kuzhur Panchayat in Thrissur District
12		Improvements to Karikkattuchal upto Vattakulam and Karakkulam LI Scheme in Kuzhur Panchayat in Thrissur District
13		Salinity Control Project for Devikulangara, Kandallloor, Arattupuzha and Muthukulam Panchayat
14		Side protection works in Gurusannidhi thodu in Panur Panchayat in Kannur District
15		Infrastructural Development works at Nedungad Pokkali padasekharam in Nayarambalam Panchayat in Ernakulam District
16		Improvements to Nettam thodu in ward No.1 of Angamaly Municipality in Ernakulam District
17		Side protection works in Kunnummal to Varapra thodu in Kunnothuparambu Panchayat in Kannur District
18		Construction of VCB and side protection works at Kottakunnu in Mogral Puthur Panchayat in Kasaragod District
19		Infrastructure development work for Kaipuzhakkari padasekharam in Neendoor Panchayat in Kottayam
20		Infrastructural development works for Nattayam padasekharam in Champakkulam Panchayat
21		Side protection work at Vydyarkuni, Nadathodu and Kannakaithodu in Azhiyoor Panchayat in Kozhikode District
22		Construction of VCB in Cherikkal Padasekharam in Pinarayi Panchayat in Kannur District.
23		Side protection works near Koppalam Thalakkal Juma Masjid at Palathai Padasekharam in Panur Panchayat in Kannur District
24		Construction of VCB and field channel in Cheruvathur Padasekharam in Kodakara Panchayat in Thrissur District
25	KSCDC	Agro based Coconut Processing Complex at Attingal
26	KSPDCL	Feed mixing plant – Mala
27		Comprehensive Poultry Production Programme in Kole land area
28		Poultry Processing Plant and Value-added products
29	MPI	Establishment of pig satellite units 2009-10
30		Establishment of pig satellite units 2010-11
31		Establishment of pig satellite units 2014-15
32	PCK	Area expansion of cashew plants in three districts
33	VAFPCL	Modernisation of Tetrapak Unit

Appendix 2.9

Statement showing details of Utilisation Certificates with incorrect information

(Reference: Paragraph 2.2.3.3)

(₹ in crore)

Sl. No.	Implementing Agency	Name of Project	RKVY fund received	Actual expenditure till the date when UCs submitted	UCs submitted for
1	MPI	Establishment of pig satellite units (3)	7.26	2.26	7.26
2	KSCDC	Agro based Coconut Processing Complex at Attingal	2.00	1.92	2.00
3	KAICO	Farm Mechanisation for Integrated Kole Development	14.00	2.01	14.00
4	KFL	50 TPD Bye Pass Protein Plant	3.00	1.92	3.00
5		300 TPD Cattle Feed Plant	10.00	3.71	10.00
6	VAFPCL	Modernisation of Tetrapak Unit	1.97	0	1.97
7	KLDB	Genetic Improvement in Cattle and Pig Population through imported superior Germplasm	6.25	3.10	5.25
8		Artificial insemination to the cattle and buffaloes in the state – Import of semen	0.52	0	0.52
8	KLDC	RKVY 2013-14 - Improvements to Nettam thodu in ward No. 1 of Angamaly Municipality in Ernakulam District	2.43	1.33	2.43
10		RKVY 2014-15 - Construction of VCB and side protection works at Kottakunnu in Mogral Puthur Panchayat in Kasaragod District	1.76	0.39	1.76
11		RKVY 2015-16 - Improvements to Karikkattuchal upto Vattakulam and Karakkulam LI Scheme in Kuzhur Panchayat in Thrissur District	3.72	1.45	3.72
12	PCK	Area expansion of cashew plants in three districts	4.82	0.65	4.42
13	KSPDCL	Comprehensive Poultry Production Programme in Kole land area	4.97	4.22	4.85
TOTAL			62.70	22.96	61.18

Appendix 2.10

Delay in execution of projects

(Reference: Paragraph 2.2.4.5)

PSU	Project/Work	Amount	Commencement	Target	Status	Audit observations
KSPDCL	Feed mixing plant at Mala	₹15.36 crore ¹⁰⁹	May 2011	May 2012	Completed in November 2015	• Delayed by 43 months • Estimate finalised in September 2013 • Remained idle (March 2021) due to shortage of working capital • KSPDCL replied that KITCO, the consultant was responsible for delay • Specific reply called for (October 2019) from KITCO for delay by KSPDCL is awaited
KFL	500 TPD Cattle Feed plant at Arikuzha in Idukki	₹66.60 crore	December 2014	June 2016	Not completed	• Delayed by 72 months as of May 2021 • Land with uneven terrain and rocky structure delayed planning and execution of work • Work tendered and contracts signed before getting necessary approvals from authorities (Social Forestry, Geology and Mining etc.) • Construction of Plant awarded to 16 contractors, the delay in completion due to lack of synchronisation in various stages of implementation by different contractors • Delay in submission of drawings in respect of process flow, plant layout, Feed Mill Building etc., by five months • Erection of Feed Mill delayed by seven months after handing over of building • KFL replied that GoK decided to implement project at Arikuzha due to minimal financial commitment. Further, KFL admitted that terrain of site and irregular shape of land resulted in delay in finalisation of foundation of building
	300 TPD cattle feed plant in Kozhikode	₹52.90 crore	March 2013	September 2014	September 2016 (commissioned)	• Delayed by 24 months • Company could not obtain electricity connection as no building permit was granted by the Panchayat due to violation of Kerala Panchayat Building Rules¹¹⁰ • GoK exempted (March 2017) the Company from the above Rules and Panchayat issued (March 2017) building permit and finally commercial production started in May 2017 after a delay of 31 months • Audit observed that the consultant and the Company did not exercise proper care in the design and construction of the plant • KFL replied (February 2020) that there was no lapse on the part of KITCO, the consultant in exercising the supervisory role and delay occurred due to stringent implementation of KMBR by local authorities • The reply is silent about the delay in completion of work from the part of the contractor and consultant's lapse in ascertaining the flaws in the design and drawing of the structure

¹⁰⁹ GoK released ₹15.36 crore (RKVY fund ₹9.66 crore and GoK share of ₹5.70 crore released during 2012-13 to 2014-15 period) out of sanctioned amount of ₹17.98 crore

¹¹⁰ Variations in the prescribed measurements in respect of tread and riser of emergency and normal staircases

PSU	Project/Work	Amount	Commencement	Target	Status	Audit observations
KSCDC	Virgin Coconut Oil plant	₹1.43 crore	December 2014	March 2015	Completed in December 2018	• Delayed by 46 months • Contractor could not run the plant at full capacity as the Company could not provide enough labourers and uninterrupted power supply • Power requirements to the plant was provided for 10 KW instead of 70 KW • The Company paid the entire contract amount in violation of the agreement conditions even though the trial run was not successful • Plant remained idle after commissioning due to delay in getting operating licence from Panchayat due to non-installation of fire and safety equipment till December 2018 • The work of installation of fire and safety equipment awarded only in December 2018 • The plant had manufacturing defect; the company could not recover the expenditure (₹7.53 lakh) on rectification of defect from the contractor as no performance guarantee was obtained
KAMCO	Electrification of NGPT manufacturing plant	₹1.47 crore	July 2015	December 2015	Not completed	• Work not completed due to the death of the contractor and the balance work entrusted to his wife in violation of the clause of KPWD manual • Work not completed (March 2021) and no LD imposed • KAMCO replied (March 2020) they sought opinion to levy penalty after completion of work
KLDC	Development of infrastructure at Nattayam in Champakulam Panchayat	₹2.39 crore	August 2019	August 2020	Not completed	• Work started in December 2019 • As per the AS in August 2018, the work was to be started within 12 months from the date of the order otherwise it would be treated as a non-starter
KLDC	Infrastructural Development works at Kaippuzhakari Padasekaram in Neendoor Panchayat	₹1.45 crore	July 2018	-	Work abandoned	• Not completed due to disputes with the Contractor regarding the quantum of work done and finalisation of the level difference by KLDC • Prescribed quantum of test-checks (KLDC's Works Code) in respect of earth works were not exercised by the supervising officers