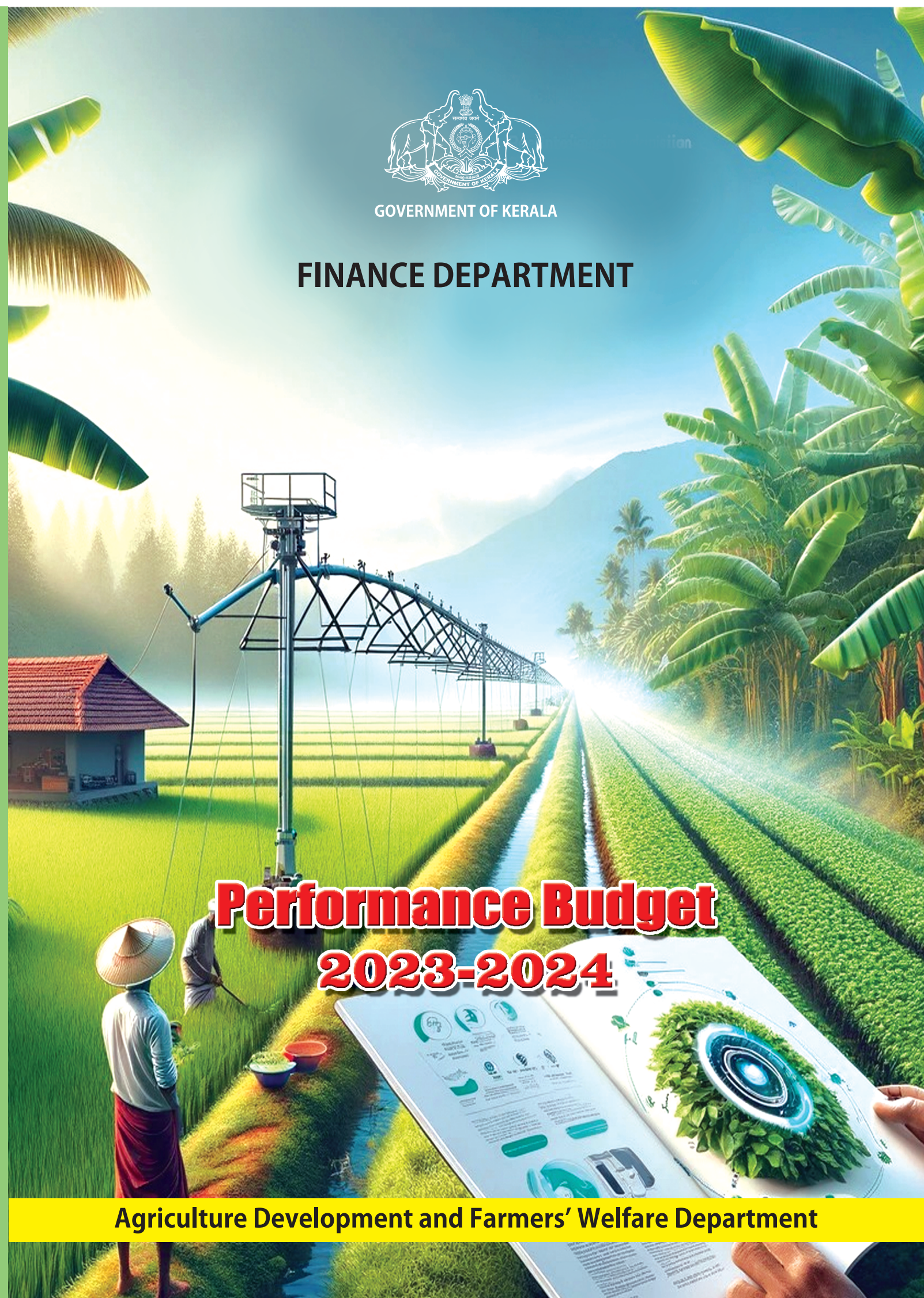




Agriculture Development and Farmers' Welfare Department

FINANCE DEPARTMENT  
**Performance Budget  
2023-2024**

Government Press Mannanthala, Thiruvananthapuram-2025



GOVERNMENT OF KERALA

**FINANCE DEPARTMENT**

**Performance Budget  
2023-2024**

**Agriculture Development and Farmers' Welfare Department**







# **PERFORMANCE BUDGET 2023-24**

## **AGRICULTURE DEVELOPMENT AND FARMERS' WELFARE DEPARTMENT**

### **FINANCE DEPARTMENT**







## CONTENTS

	Pages
Executive Summary	01-04
Chapter - I Introduction	05-32
Chapter - II Comments of Finance Department	33-98
Chapter- III Financial outlays and quantifiable deliverables	99-102
Chapter - IV Reform measures and performances	103-109
Chapter -V Financial Review	110-111
Chapter -VI Review of performance of autonomous bodies	112-116
1. Vegetable & Fruit Promotion Council, Keralam	117-129
2. Kerala Land Development Corporation Ltd	130-139
3. Kerala State Horticultural Products Development Corporation Ltd.	140-141
4. Kerala Agro Industries Corporation Ltd	142-145
ANNEXURES	146-177







## EXECUTIVE SUMMARY

The Government of Kerala has reintroduced Performance Budgeting for development schemes and associated expenditures in selected departments, based on the recommendations of the Public Accounts Committee in its 140th report (2008-2011). Among the selected departments, the Agriculture Development and Farmers' Welfare Department has been chosen for Performance Budgeting. This approach emphasizes output-oriented budgeting, focusing more on tangible achievements and outcomes rather than on modes of implementation or technical details.

Performance Budgeting serves as a structured evaluation process to assess whether predetermined targets are met within specified implementation periods. Furthermore, it reviews the adherence of schemes and programs to established norms and guidelines. This system is intended to exercise control over expenditures, ensuring effective and efficient implementation. By providing feedback on scheme performance, Performance Budgeting aims to assist policymakers in refining and improving future plans and policies, fostering continuous enhancement in program effectiveness and resource utilization.

Guidelines for the preparation of the Performance Budget for 2023-24 have been issued through Circular No. 28/2024/FIN, dated May 22, 2024, and disseminated to the relevant Heads of Departments. The preparation of the Performance Budget involved extensive consultations with department heads, officers, and staff, and, importantly, incorporated feedback and insights from farmers, including their suggestions and constraints.

Performance Budgets for the Agriculture Development and Farmers' Welfare Department for the fiscal years 2013-14 through 2022-23 were prepared and presented to the Legislative Assembly along with other budget documents in consecutive years. This initiative was undertaken to ensure optimal utilization of public funds, promote transparency, and enhance the efficiency of scheme implementation.



The Performance Budget for 2023-24 of the Agriculture Development and Farmers' Welfare Department comprises six chapters. Chapters I through VI, with the exception of Chapter II, were provided by the Agricultural Development and Farmers' Welfare Department and various autonomous organizations and agencies under it. Chapter II, on the other hand, was prepared by the Finance Department and offers a detailed analysis of various schemes based on office and field visits as well as data and feedback gathered during these engagements. Following is a summary of the chapter-wise contents of the document.

## **Chapter I**

### **Introduction**

The chapter provides an overview of the department's functions, outlining its key goals and objectives, organizational structure, and mandate. It also includes a comprehensive list of the major programs and schemes implemented by the department.

## **Chapter II**

### **Comments of Finance Department**

Chapter II offers a detailed analysis of schemes, utilizing data provided by the Agriculture Development and Farmers' Welfare Department, as well as insights gathered through targeted field visits conducted by the Finance (Performance Budget) Department team. During these visits, the team engaged interactive sessions with Heads of Departments, implementing officers and various stake holders including beneficiaries. These sessions not only emphasized the importance of Performance Budgeting to the stakeholders but also collected valuable feedback for the preparation of the 2023-24 Performance Budget document.

The chapter also highlights key findings, including the sector's constraints and risk factors, along with recommendations and suggestions for improvement.



## **Chapter III**

### **Financial outlays and quantifiable deliverables**

Chapter III presents a tabular format designed to illustrate the "vertical compression and horizontal expansion" of the statement of budget estimates. The primary aim is to establish a clear one-to-one correspondence between the financial budget for 2023-24 and the various schemes and programs implemented by the Agriculture Development and Farmers' Welfare Department. Further details are provided in **Annexure-I**.

## **Chapter-IV**

### **Reform measures and performance**

This chapter outlines the reform measures and policy initiatives undertaken by the department, detailing their impact on intermediate outputs and financial outcomes across various domains. These domains include public-private partnerships, alternative delivery mechanisms, and social empowerment initiatives particularly for women and children, enhanced decentralization, and increased transparency. The chapter demonstrates how these reforms align with and contribute to achieving specific goals in the respective fields.

## **Chapter-V**

### **Financial Review**

The chapter provides a financial review, capturing trends in expenditure compared to Budget Estimates, Revised Estimates, and Actual Expenditure over the past three financial years, including the current fiscal year 2024-25. This review is presented scheme-wise, object-head wise, and institution-wise for autonomous bodies. It also details the status of pending utilization certificates and any unspent balances held by departments and implementing agencies. Performance and outcomes for the financial years 2021-22, 2022-23, and 2023-24 are analyzed and compared through graphical representations for each program and scheme (**refer to Annexure-II**).

## **Chapter-VI**

### **Review of performance of autonomous bodies**

This chapter reviews the performance of autonomous and statutory bodies under Agriculture Development and Farmers Welfare Department. There are nine such autonomous bodies under the Department. They are:-

- a. Kerala Land Development Corporation
- b. Kerala State Horticultural Products Development Corporation Ltd.
- c. Vegetable and Fruit Promotion Council, Kerala
- d. Kerala State Agro Industries Corporation Ltd.
- e. Plantation Corporation of Kerala
- f. Kerala State Warehousing Corporation.
- g. Kerala Agro Machinery Corporation.
- h. Oil Palm India Ltd
- i. State Farming Corporation of Kerala.

Out of these, the following four autonomous bodies were selected by Finance Department for performance budgeting.

- a. Kerala Land Development Corporation.
- b. Kerala State Horticultural Products Development Corporation Ltd.
- c. Vegetable and Fruit Promotion Council, Kerala.
- d. Kerala State Agro Industries Corporation Ltd.

Thiruvananthapuram

February 2025.



## CHAPTER – 1

### INTRODUCTION

Agriculture sector plays a key role in Kerala's economy. The sector has a significant role in the development process. It influences on employment generation, food security, supply of raw materials and livelihood generation and imparts resilience to the rural economy. The diverse agro-climatic conditions prevailing in the State favour the cultivation of a variety of crops. Even though agriculture sector continues to be the dominant source of livelihood in the State, changing temperature and uneven distribution / pattern of rainfall, crop loss due to wild animal attack affects agriculture production in the state. As a measure to mitigate climate-change related problems and to reduce the risk of production decline, the agricultural development programmes of the State have been oriented to a farm plan based development approach, giving thrust to integrated farming systems. Majority of farmers in the state are small and marginal farmers with an average holding size of 0.12ha. So state is now focusing on group activities in production, value addition, and services through collectives of these farmers. Post-harvest loss management, value addition, market access to farmers produce also improved during 2023-24 compared to past years.

The Department of Agriculture Development and Farmers' Welfare formerly Department of Agriculture being one of the prominent developmental departments is continuously engaged in the service of the farming community. The history of the Department of Agriculture in Kerala also depicts the agrarian history of the State. The Department of Agriculture started functioning in the erstwhile Travancore on 27th May 1908. The Department in its present set up started functioning from 1987 for the overall development of agriculture in the State. Consequent to the adoption of farmer welfare activities along with agricultural development

activities, the Department has been renamed as “Department of Agriculture Development and Farmers ' Welfare” in 2016.

The department visions to attain self-sufficiency in food production through enhanced agricultural productivity of agricultural commodities so as to make agriculture a sustainable and viable vocation providing livelihood support. The department aims at safeguarding the interest of farmers, ensure food and nutritional security and support Kerala’s agricultural economy, achieve targeted growth rate for agriculture sector by successful implementation of various schemes, protect farmers from risk through risk management cover and from unfair and deceptive business practices, set up investment in agriculture, ensure the safety of agricultural products by ensuring supply of quality agricultural inputs, conserve and protect the state’s agricultural and natural resources by promoting environmentally safe agricultural practices.

During 2023-24, emphasize was given on programmes to raise farmers income through maximizing return from unit area by following integrated farm based approach and sustainable technologies like crop diversification, intensification and introduction of new crops or technologies. The special climatic zones, land types and biodiversity of the state are best suited for multiple cropping. Scientific assessment of existing cropping system, adoption of new technologies, scientific selection of components and suitable crop management practices based on Agro Ecological Units minimized crop loss risk. Highly fragmented nature of farm holdings of Kerala supports multiple cropping system rather than a single crop based approach. Issues such as biomass regeneration, economic returns and nutritional security were given prime importance.

### **Vision**

The vision of the Department is to attain self-sufficiency in food production through enhanced agricultural productivity of crops so as to make agriculture a sustainable and viable enterprise, providing livelihood support.

**Mission**

The mission of the Department is to safeguard the interest of farmers, ensure food and nutritional security and support Kerala's agricultural economy by enhancing agricultural production and productivity through transfer of technology and successful implementation of various schemes/programmes.

**Functions**

- Impart knowledge about latest agricultural technologies and information to the farmers through agricultural extension
- Achieve growth in agriculture sector by successful implementation of State/Central/Local Self-Government schemes and by local level farm plans
- Protect farmers from risk through risk management cover including various relief measures
- Create awareness about departmental schemes, agriculture activities, events, new initiatives, etc. by publishing information materials like leaflets, booklets, brochures, posters, etc. and through various print and visual media
- Facilitate social security support to farmers through welfare schemes
- Ensure the timely supply of quality of various agricultural inputs by enforcing various Acts
- Production distribution of quality planting materials including vegetable/paddy seeds, etc.
- Ensure marketing support/facilities for farmers and facilitate market intervention and value addition
- Training to farmers and promotion of agricultural mechanization
- Arrange credit facilities for crop development
- Conserve and protect the agricultural and natural resources by promoting environmentally safe agricultural practices



The above functions are mainly catered through 1076 Krishi Bhavans at panchayat and municipal level and 152 Assistant Directors of Agriculture at block level and also through 14 Principal Agricultural Officers at district level.

### **Organizational set up**

The Department functions under the Ministry of Agriculture in Government of Kerala with Agricultural Production Commissioner as the chief functionary, followed by Secretary (Agriculture).

The Director of Agriculture is the administrative and professional head of the department with overall technical/administrative and financial control and co-ordinates all agricultural activities of the state and is responsible for the formulation, coordination, implementation and monitoring of various agricultural schemes/activities at state level and he/she is in control of and is responsible for its efficient functioning. He/she is also the technical advisor to Government on all matters relating to agriculture. For the overall direction and supervision of all employees of the department, the Director of Agriculture shall exercise power and perform functions, duties and responsibilities. For all these, at directorate, the Director of Agriculture is assisted by; Additional Directors of Agriculture supported by technical officers and ministerial staff; Senior Administrative Officer supported by Administrative Assistants and other ministerial staff; Senior Finance Officer supported by Accounts Officers and other ministerial staff; State Agricultural Engineer supported by technical officers and ministerial staff, and Vigilance Officer(Agri) and Vigilance Officer (Finance) and supporting ministerial staff. In addition to these, a Law Officer is working in directorate to offer opinion in legal matters.

List of institutions supporting the activities of the Department.

#### **- Training Centres**

Farmer training Centres (FTC)	- 2
Regional Agricultural Technology Training Centre	- 5

(RATTC)

State level training Institute (SAMETI) - 1

Research Testing and Training Centre (RTTC) - 1

Regional Biogas Development & Training Centre (RBD &TC) - 1

- **Farms**

District Agricultural farms - 10

State Seed Farms - 33

Coconut nursery - 8

Special Farms - 13

- **Quality Control Laboratories**

Fertilizer quality Control - 2

Pesticide testing Lab - 1

State Bio control Laboratory - 1

State Bio fertilizer Laboratory - 2

State Agmark Grading Laboratories - 10

Seed Testing laboratories - 2

Organic Quality Control Lab - 1

Bio-fertilizer and Organic Manure Quality Control Laboratory - 1

- **Soil Testing services**

Central Soil and Plant Health Centre - 1

District Soil Testing Labs - 14

Mobile soil Testing labs - 11

Parasite Breeding Station - 9

- **Markets**
  - Agricultural Wholesale markets - 6
- **Others**
  - Kerala Centre for Pest Management (KCPM),  
Mancompu, Alappuzha - 1
  - Bio-technology and Model Floriculture Centre,  
Kazhakuttom, Thiruvananthapuram - 1
  - Tissue culture Laboratories established at Dept Farms - 2

The institutions / offices directly reporting to Director of Agriculture other than Principal Agriculture Offices include Farm Information Bureau (FIB), Kerala Centre for Pest Management (KCPM), Mancombu, Office of the Executive Engineer (Agri.), Alappuzha & Kozhikode, State Bio-Control Laboratory (SBCL), Mannuthy, Central Soil and Plant Health Centre (CSPHC), Parottukonam, State Fertilizer Laboratory, Parottukonam (SPTL), Fertilizer Quality Control Laboratory (FQCL), Parottukonam & Pattambi, Research Testing and Training Centre (RTTC), Vellayani, Regional Biogas Development & Training Centre (RBD&TC), Vellayani, Bio-technology & Model Floriculture Centre, Kazhakuttom, Thiruvananthapuram and Bio-fertilizer & Organic Manure Quality Control Laboratory (BOQCL), Pattambi.

The institutions/ offices under administrative and technical control of the Principal Agricultural Officer include, O/o the Assistant Directors of Agriculture, Krishi Bhavans, Regional Agricultural Technology and Training Centre (RATTC), Farmers Training Centre (FTC), O/o the Assistant Executive Engineer (Agri.), Departmental Farms, District Soil Testing Laboratory (DSTL), Mobile Soil Testing Laboratory (MSTL), State Agmark Grading Laboratory (SAGL), and Parasite Breeding Station (PBS). Some Offices are not available in all the districts viz. RATTCs are available in five districts viz; Thiruvananthapuram, Kottayam, Ernakulam, Palakkad and



Kannur districts and Farmers Training Centres (FTC) are functioning in Pathanamthitta and Kozhikode districts, etc.

There are 14 District Offices headed by Principal Agricultural Officer (JDA), with their office in District headquarters. Deputy Directors act as nodal officers for 2-3 blocks of a district.

**ATMA** - At district level, ATMA consists of one Project Director (PD) in the cadre of Joint Director of Agriculture, one Deputy Project Director in the cadre of Deputy Director from Agriculture/Animal Husbandry/ Fisheries/ Dairy and other supporting staff.

**Agricultural Engineering wing:** The engineering wing is responsible for implementation and monitoring of all the infrastructure development, engineering/mechanization works/ schemes/ programmes including preparation of estimates, issuance of technical sanction, construction, maintenance and arrangement of works, purchase and maintenance of vehicles, machinery/ equipments, implementation of RIDF/ NABARD assisted scheme/works, etc. The Agricultural engineering wing in the state is headed by State Agricultural Engineer supporting the Director at Directorate level, and is supported by technical officers and ministerial staff. The engineering wing of the department has two regional offices viz Alappuzha and Kozhikode. The office is set to monitoring and supervision of the infrastructure works of all Assistant Executive Engineers (Agri.) (14 nos.) under their jurisdiction. The Assistant Executive Engineer, one each at district level, is responsible for providing infrastructural support to agriculture sector, in terms of repair, maintenance and selection of agricultural equipment and machinery. They provide training in agricultural engineering skills to officers, Farmers and unemployed youths. The Assistant Executive engineers are supported by Assistant Engineers- 2 nos in each district except Pathanamthitta, Idukki and Wayanad districts where only one Assistant Engineer is present along with other supporting staffs.

In a block, Assistant Director of Agriculture is the supervisory as well as coordinating agency of Krishibhavans, in addition he/she is the implementing authority of block level local self-government for agriculture projects.

Krishibhavans in panchayat/municipality is the grass-root level office which is headed by the Agricultural Officer. There are 1076 Krishibhavans in the State. 2-3 Agricultural Assistants assist the Agricultural Officer. The activities of the Department are implemented and coordinated by the Agricultural Officer in his jurisdiction. Krishibhavans have a lead role in planning, formulation, and implementation of agriculture projects of local self-government.

In addition to this, the Department has set up 107 nos. Agro service Centres, 368 nos Karshika Karmasenas, 14 nos of Custom Hiring Centers, and 50 nos of Krishisree centres, for the prompt delivery of services to the farming community.

## **PROGRAMMES/SCHEMES IMPLEMENTED**

Being one of the major development departments in the State it undertakes formulation and implementation of various programmes in areas such as :

1. Crop Development
2. Area Expansion and Development Approach
3. Modernisation of Departmental Laboratories and ICT Support
4. Information and Extension Services
5. Income Assurance and Risk mitigation
6. Marketing, Storage and Warehousing
7. Core Sector schemes

These programmes are envisaged to increase the production and productivity of food crops through scientific approaches and attaining self-sufficiency in food production. The farm plan based development approach introduced in 2022-23 based on 14<sup>th</sup> Five Year Plan suggestions of Kerala State Planning Board with a shift from crop based development to farm based development was continued during 2023-24 also. The schemes of

2023-24 was popularized and extended to the farming community by using the successful capital development campaign - Njangalum Krishiyilekku and employing the organisational set up to Krishikootams

The details of the schemes implemented during 2023-24 as outlined in the Annual Plan 2023-24 are as follows:

### **SCHEMES FOR 2023-24**

<b>I.</b>	<b>Farm Plan Based Development Approach</b>
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The Farm Plan Based Development Approach, which was introduced in 2022-23 was also promoted during 2023-24 with the objective to move away from individual crop based approach towards integrated multiple cropping-farming systems based development of holdings. Development of farm was based on scientific resource based plan prepared by the Agricultural Officer with the technical support of the scientists of Kerala Agricultural University attached to Block level Agriculture Knowledge Centers in consultation with the farmer.

The approach was promoted by the department under the three schemes. The following are the three schemes under the approach:

#### **1. Farm Plan Based Production Programme including Pre-Production Support**

The size of each basic farm unit was from minimum area of 10 cents to maximum of 200 cents excluding the area occupied by house or building. Focus was on Integrated Farming system-based model of development and on cropping systems based on coconut, spices, vegetables and fruits. The beneficiary or the farm was identified as per the guidelines issued by the department and approved in consultation with LSGD authorities. While identifying the units, suitable schemes of LSGD will also be merged with the State scheme in order to bring comprehensive development of the farm. 10760 no of plots were identified under the scheme



## **2. Scheme on Development of Production Organization and Technology Support.**

The objective of the scheme is to provide technology to farmers in the field through demonstration and to support and hand hold the Farmer Producer Organisations published and proven production protocols as endorsed by Kerala Agricultural University. The Directorate of Extension, Kerala Agricultural University developed a detailed technical module to develop and disseminate technical inputs on a regular basis. The preparation of a technology dissemination and extension plan was done by Kerala Agricultural University. An amount of ₹ 100.00 lakh earmarked for KAU for this purpose was transferred in lump sum to the Director of Extension, for the purpose.

## **3. Scheme on Supply Chain/Value chain Development and Integration under Farm Plan Development approach.**

As part of the farm based development plan, during 2022-23, it was envisaged to develop a hub and spoke model of aggregation. 1076 nos of farmers' groups along with Kudumbashree units who collectivise the farm produces and the cultivated products at designated places, and undertook supply/sale operations (for local markets) was formed. The scheme outlay included the expenses related to maintenance, upgradation and refinement of the digital platform. Establishment of markets and hubs through FPOs /PACS was supported on reimbursement basis at 50 % paid up cost. Strengthening of 6 nos of hubs established during 2022-23 under the farm plan based programme was supported along with 9 newly established hubs.

<b>II.</b>	<b><i>Area Expansion and Development Approach</i></b>
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It was aimed at increasing the area under various crops by providing assistance to farmers and also for bringing about required cropping system changes following the AEU concept. Rice development, Vegetable development, Coconut development, development of Spices and

development of fruits, flowers and medicinal plants and crop diversification are the schemes covered under this.

#### **4. Rice Development**

Promotion of paddy cultivation in the state through area expansion programmes, input assistance for sustainable rice development, support for group farming activities and Royalty to paddy land owners was implemented. The seven rice growing agro ecological units will be given thrust in augmenting rice productivity.

The main component of the scheme is shown below:

- Assistance for sustainable rice development and Royalty to paddy land owners
- Support for soil and root health management and productivity improvement through lime application for paddy crop
- Area expansion ( fallow land, single crop to double crop) including specialty rice promotion
- Registered Seed Growers Programme/Seed village
- Operation Double Kule
- Project Based support for infrastructure development in padhasekharams for reviving paddy cultivation including block level convergence, establishment of rice mills, promotion of local brands
- Operational support to padasekharasamithies and Paddy development agencies
- Foliar Application of micronutrients in rice

During the year 2023-24, a new component - foliar application of micronutrients in rice was supported covering an area of nearly 4242.214 Ha. @ Rs 2000 per hectare.

#### **5. Vegetable Development**

The Vegetable Development Programme was implemented in the state with the objective of promoting vegetable production in the state in a safe-to-eat manner and to attain self-sufficiency in the sector. The scheme was carried out in a Mission Mode involving all the stakeholders in this

sector such as Agriculture Development & Farmers Welfare Department, VFPCCK, HortiCorp, SHM, PACS, FPOs, Kerala Agricultural University and LSGDs. The scheme consists of -

- Support to VFPCCK
- Distribution of hybrid seed kits and HYV pro-tray seedlings
- Promotion of open-field precision farming in new areas
- Support to Homestead vegetable cultivation
- Commercial vegetable cultivation(cluster development )
- Construction of rain shelters for vegetable cultivation. (40m<sup>2</sup> to 100 m<sup>2</sup> units)
- Project based intensive vegetable cultivation in institution
- Pesticide residue analysis in vegetables
- Technical support and contractual appointments

## **6. Coconut Development**

The strategy proposed for coconut development is integrated development of holdings aimed at maximising income from unit area through better agro management practices and promotion of multi species cropping and farming systems. Further, considering the emerging need, to enhance the production and productivity through replanting with new and high yielding palms and follow better management practices. A coconut council has been formed in the state with specific objectives to achieve this target.

Comprehensive coconut rejuvenation and planting programme was undertaken in 2023-24 through the activities of Coconut Mission. Kera Raksha Vaaraam was implemented in the entire state. Application of green manure in basins and prophylactic /curative application of biocontrol agents was promoted and 150000 palms were benefited.

First year Keragramam was integrated into this programme in 41 newly selected panchayats. Keragramam covering a minimum area of 250 ha, with the objective of increasing production and productivity through the activities such as replanting, integrated pests and disease management, integrated nutrient management, promotion of inter cultivation, improving

irrigation facilities, promotion of value addition, ensuring availability of quality planting materials and employment generation. Application of lime, micro and secondary nutrients will be ensured for effective nutrient uptake. Replanting at least 75 coconut seedlings per ward every year in the state under Coconut Council Development by the support of KAU, CDB, CPCRI, Farmer Producer Organisations, PACS and local governments was implemented during 2023-24. 1173095 West Coast Tall (WCT) seedlings and 69509 dwarf seedlings were distributed under this program during 2023-24. 14 lakh tall variety seednuts, 2.1 lakh hybrid seed nuts and 15 lakh dwarf seed nuts were collected in farms as a part of coconut council program.

## **7. Development of Spices**

Development of spices viz. black pepper, ginger, turmeric, nutmeg and clove are covered under this scheme. Agro ecological unit wise priority will be given in promoting area expansion programme of these spices. Idukki and Wayanad districts were given thrust. An amount of Rs 298.93888 lakh was expended during the year 2023-24. The scheme includes-

- Area expansion of pepper
- Area expansion of other spices (ginger, turmeric, nutmeg, clove)
- Establishment of decentralized nurseries
- Support for adoption of improved management practices

## **8. Development of Fruits, Flowers and Medicinal plants**

The objective of fruit development scheme was to expand the area under fruit cultivation in the state including indigenous, exotic and high value fruits with focus on increasing the production and productivity of fruit crops. The following components are involved in the scheme:

- Distribution of fruit plants
- Top up subsidy for fruit plant cultivation under MIDH
- Procurement , trading and processing of jackfruit through VFPCCK
- Development of flowers
- Development of medicinal plant



The amount for fruit development in 2023-24 was utilized for progeny orchards, propagation, and production enhancement through area expansion, irrigation support, hardening units, popularizing fruit plants for homesteads as well as commercial cultivation giving thrust to exotic and high value fruits. 2172113 numbers of planting materials of fruit plants in the form of grafts, layer and seedlings were distributed during 2023-24. The Mission for Integrated Development of Horticulture (MIDH) and Per Drop More Crop (PDMC) scheme (CSS) integrated with the fruit development programme to provide assistance in an area of 1035.87572 hectares to the farmers to take up cultivation of fruits.

Project based assistance was provided for the establishment of floriculture units, establishment of new floriculture nurseries including tissue culture units, establishment of grading, packing centers and market intelligence support. During 2023-24 cluster based floriculture was implemented in Wayanad, Alappuzha, Kannur, Thrissur and Pathanamthitta districts

## **9. Crop Diversification, Intensification and Introduction**

The objective of the scheme is to promote crop diversification through crop rotation, multiple cropping or inter cropping and thereby to enhance productivity. Seasonal rice fallows and interspaces of coconut plantations are targeted without affecting the main crop.

The year 2023 being designated as International Year of Millets by the United Nations. During 2023-24 thrust was given to area expansion of millets under the scheme. Pulses like grain cowpea, green gram, black gram and oilseeds, sesame and ground nut have also been promoted in suitable areas if the area is not suitable for millets.

## **10. Soil and Root Health Management & Productivity Improvement**

The main objective of the scheme was to provide support to farms and farmers to improve soil health thereby increasing productivity. Soil test

based application of nutrients and integrated nutrient management practices was promoted in non-paddy crops under the scheme.

Supply of secondary and micro nutrient based on soil test data was supported for an area of 15997.56ha. The scheme involves-

- Support for integrated nutrient management in non-paddy crops including secondary and micro nutrients
- Root health management
- Soil testing campaigns

## **11. Crop Health Management**

Crop health is an important element of sustainable agriculture and hence strategies for pest management has to be identified scientifically. Improvements in integrated pest management can lead to sound crop health management. The approach of crop health management will bring together management towards sustainable ecosystems and people's health through Good Plant Protection Practices. The scheme covers-

- Pest forecasting and advisory services, strengthening plant health clinics and ICT based pest surveillance system through IIITMK
- Pest and disease surveillance and advisories
- ICT based pest surveillance through IIITMK
- Establishment of new Plant Health Clinics
- Strengthening existing plant health clinics and operational expenses of Kerala Centre for Pest Management (KCPM)
- Upgradation of nine parasite breeding stations as satellite centres, establishment of new Parasite breeding station at Kannur with the support of KAU
- Rodent control
- Management of wild animal attack using technology solutions
- Honorarium to District Plant Health managers, Field Assistants and Pest Scouts of Plant Health Clinic

17 nos of new plant health clinic have been established. Strengthening of 133 nos of existing crop health clinic was done. Training for farmers at KCPM was achieved.

## **12. Organic Farming and Good Agricultural Practices**

The objective of the scheme was to promote safe to eat food production through organic practices and good agricultural practices. The scheme aimed as Empowerment of existing GAP clusters, promotional assistance for new GAP clusters, green manuring, model units for scientific organic manure preparation and Safe to Eat food production including Participatory Guarantee System (PGS). It also consists of-

- Promotion of Organic farming and GAP cultivation in crops including certification
- Organic farming of fruits and vegetables through SHGs and certification through VFPC
- Organic manure production programme, on farm production of bio- inputs and additional support to biogas plants
- Support for implementation

## **13. Production and Distribution of Quality Planting Materials in farms**

Planting material is a basic and critical input for agricultural production. Inadequate availability of quality seeds, planting materials and germplasm are major constraints limiting productivity. In order to meet the demand of quality planting materials, it is necessary to upscale the production of planting materials from the departmental farms ensuring quality of the seeds/planting materials.

The main objective of the scheme was to ensure timely availability of good quality planting materials in required quantity to the farmers of the State. Modernization of departmental farms and its development as centers of demonstration of advanced agricultural technology like Hi-Tech farming, precision farming, high density planting, aquaponics and Integrated Farming system models were also envisaged under the scheme. It also involves-

- Maintenance of progeny orchards & establishing new progeny orchards, Routine Planting material production, seed production,

support for IFS models, hi-tech farming, precision farming, aquaculture and tissue culture.

- Production of planting material of fruits and vegetables through VFPCCK.
- Online sale of branded products from departmental farms on project basis.
- Mechanization & infrastructure development of farms.

### **III) Modernisation of Departmental Laboratories and ICT Support**

#### **14. Modernisation of Department laboratories**

The services offered by the laboratories under the department include soil testing for soil fertility assessment, analysis of major inputs like fertilizers including organic, inorganic and bio fertilizers, pesticides and seeds for quality control of these inputs. These are critical production components which significantly affect the production and productivity of crops.

Strengthening of laboratories and NABL accreditation  
Quality Control Enforcement Wing

Strengthening of Seed testing lab, Fertilizer Quality Control lab, Pesticide Quality control lab was done during the year 2023-24. Collection and testing of seed samples, quality control of pesticides, biofertilisers etc. were also done. Surveillance on organic protectants/bio stimulants was executed by drawing samples and sending samples to NIPHM Hyderabad for quality control.

#### **15) Office Automation & IT Infrastructure**

Information and communication technology applications in agriculture sector paves way to application of improved agricultural technologies, effective production strategies and timely delivery of benefits and services directly to farmers. It also helps to address the challenges in agricultural marketing.

**16. Strengthening agricultural extension**

The success of all agricultural development strategies depends on the adoption of scientific technology by the farmers. In order to improve income of the farmers, a field visit oriented extension system is essential in the state. For the success of agricultural development programmes, the field extension services need to be strengthened. The scheme comprises of-

- Upgradation of training centres, RATTs and FTCs
- Strengthening Project directorate of ATMA including, HR support, ATMA activities and operational support
- Support to LEADS including preparation of monthly technology advisory service
- Award for best performers
- Public participation
- Krishipadashaala
- KISSAN Project
- Smart Krishi Bhavan
- VAIGA 2021-22
- Imprest Fund for immediate needs of Krishi Bhavan
- Agro clinics (new)
- Krishi darshan Programme(new)
- Njangalum Krishiyilekku- social capital mobilisation (new)

**17. Farm Information and Communication**

The Farm Information Service provides information and communication support for agricultural development. The scheme aims at the development of information dissemination through the use of mass and electronic media including web based services. Expansion of information services and supporting activities are included. A full-fledged information cum data centre at the headquarters with appropriate system for regular reporting and delivery of information with the modern communication



systems leading to cyber extension would be aimed. The component wise breakup of the scheme is shown below:

- Kerala Karshakan and Other activities
- Publications
- Media Liaison & Other communication initiatives

## **18. Human Resource Development**

During the year 2012-13, it was initiated to depute senior technical officers for post graduate courses in Agricultural Extension, Agricultural Economics, Entomology, Plant Pathology, Agronomy and Soil Science in KAU for facilitating the implementation of extension schemes. KAU reserves separate seats for the deputed candidates for the 6 courses. The scheme continued during 2023-24 also. It is necessary to depute the senior officers to attend workshops, seminars and conferences at state and national level. Another important purpose of the outlay is to depute technical officers of the Department to short term training in eminent institutions of the country and other institutions to upgrade the technical and managerial competence. The HRD scheme also is coordinated by the Project Director, ATMA for convergence at district level. The scheme consists of -

- HRD initiatives
- Capacity building in association with NIPHM including PG Diploma in Plant Health management
- Internship at Krishi Bhavans (New)

## **19. Support to Farm Mechanization**

Farm mechanization is the key to scientific crop and produce management. The objective of the scheme is to overcome the shortage of labour and to develop single point delivery system through strengthening of Agro Service Centres, Karshika Karma Senas and Custom Hiring Centres which are part of mechanization activities. It is also envisaged to bring convergence of these three institutions as sustainable Self Help Groups (SHG) in the farm sector viz. “Krishisree centres”, to facilitate a single

window service delivery to farmers under the coordination of Kerala State Agricultural Mechanization Mission (KSAMM). This was done through a project approach. The components of the scheme are-

- Establishment of new Krishisree centres
- Strengthening of existing Karshika Karma Sena
- Strengthening existing Agro-Service Centres/ Krishisree Centres based on business plan
- Group insurance scheme to members of karshika karma sena and Agro service centres and newly formed Krishisree centres
- Operational expense including wages to mobile clinics
- Functional expenses of KSAMM
- Honorarium to data entry operators of NeGP

<b>V)</b>	<b>Income and Risk Mitigation</b>
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#### **20. State Crop Insurance Scheme**

The crop insurance scheme which had been in operation covering 25 major crops grown in the State since 1995 was restructured in 2016-17 by bringing considerable enhancement in the crop loss compensation. As per GO (Ms) No.1192/2017/Agri dated 13.12.2017 2 crops have additionally been included under this scheme. The Crop Insurance Fund is operated with contributions from the participating farmers by way of registration fee and premium and Government contribution.

#### **21. Contingency Programme to meet Natural Calamities and Pests and Disease Endemic**

The scheme is intended for creating a buffer stock of seeds of paddy and other annual crops for distribution to affected farmers in the event of natural calamities and resultant crop damages. Farmers will be provided a relief assistance as cash for the crops destroyed. Assistance for strengthening of bunds to prevent breaches during floods and for removal of debris is provided in a need-based manner.

## **22. Development of Agriculture Sector in Kuttanad**

Infrastructure development works of various padasekharams of Kuttanad region and supply and installation of vertical axial flow pumps is covered under this component. Convergence of infrastructure development works of various padasekharams undertaken under RKVY, RIDF, and Punarjani is ensured. The infrastructure works carried out by KLDC is also integrated into this.

<b>Vi)</b>	<b>Marketing, Storage and Warehousing</b>
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The total outlay provided during 2023-24 under Marketing, Storage & Warehousing and other programmes was ₹7450.00 lakh. Out of this, an amount of ₹1000.00 lakh was earmarked for infrastructure development under RIDF.

### **Agriculture Marketing and Post Harvest Management**

#### **23. Support for Marketing of Agricultural Produce**

The objective of the programme is to address the issues related to price fluctuation, lack of efficient marketing system and post-harvest losses. Strengthening of existing market infrastructure, coordinating the functioning of markets at various levels in collection, transportation, storage and processing, strengthening of market intelligence and adoption of innovative technologies in agricultural marketing are the major focus areas.

#### **24. Post-harvest Management & Value addition**

Post-harvest management and value addition/agro processing has a very crucial role in improving the Kerala economy and the income of the farmer from agriculture sector.

The objective of the scheme is to promote medium, small and micro agro processing/value addition units ensuring income increase to farmers, revamping Farmer Producer Organisations (FPO) and generating

employment opportunities. Promotion of innovative technologies in value addition and entrepreneurship in agriculture was supported.

Small Farmers Agri Business Consortium (SFAC) implemented these activities performing the role of a nodal agency.

### **25.Kerala State Horticultural Products Development Corporation Ltd**

Horticorp is entrusted with the role of procurement, processing, storage and marketing of horticultural produces throughout the State, encouraging indigenous farmers to produce more vegetables and also preventing unreasonable price hikes. An amount of ₹ 100.00 lakh was allocated as support to infrastructure development to Horticorp for the year 2023-24

### **26. Assistance to Kerala State Warehousing Corporation**

During 2023-24, an amount of ₹ 100.00 lakh was allocated as assistance to Kerala State Warehousing Corporation for the construction of Godown cum Agriculture Complex. For computerization, an amount of ₹ 10.00 lakh is set apart

### **27. Farmer Welfare Fund Board**

The pension schemes and welfare programmes implemented at present through Agriculture Development & Farmers Welfare Department will be taken up through the Farmer Welfare Fund Board

### **28. Rural Infrastructure Development Fund**

The outlay was for the implementation of projects approved under RIDF. The new and ongoing projects under tranche XX-XXV were taken up during 2023-24. It was for the development of infrastructure works in agriculture sector under the funding support from RIDF of NABARD during 2023-24. The support to Kerala State Warehousing Corporation for the implementation of RIDF projects was also provided from the outlay.

## **29. International Research and Training Centre for Below Sea level Farming, Kuttanad**

An outlay of ₹ 25.00 lakh was provided for popularizing innovative activities, resolving field problems of Kuttanad region and for operational expenses during 2023-24.

### **Central Sector & Centrally Sponsored Schemes**

The Department of Agriculture implements several Centrally Sponsored Schemes and Central Sector Schemes which are grouped into various categories for administrative convenience with effect from 2023-24 onwards. They are explained below.

**Category I:** These schemes are beneficiary oriented & intended to provide income to the farmers

- (a) **PM KISAN:** is the biggest scheme which provides registered farmers financial assistance of Rs 6000 in 3 installments of Rs 2000 each in a year. We have 28.16 Lakh eligible beneficiaries registered and Govt of India is fine tuning this scheme by integration of land records with the beneficiaries data and is in progress.
- (b) **PMFBY** (Pradhan Manthri Fasal Bheema Yojana) and RWBCIS (Restructured Weather Based Crop Insurance Scheme) are crop insurance schemes implemented in Khariff and Rabi Seasons and Agriculture Insurance Company is the implementing agency. The major handicap with this scheme is that our plantation crops and spices are left out from the scheme.
- (c) **PSS** (Price Support Scheme) MSP for paddy is implemented through civil supplies Dept.
- (d) **MISS** – Interest subvention for Agricultural credit extended through banking institutions.
- (e) **PM Kisan Mandhan Yojana:** Contributory Pension scheme for farmers.

### **Category II :**

- (a) **Agriculture Infrastructure Fund:** Scheme for Interest subvention and credit guarantee to viable projects taken up for Farming activities upto primary processing by farmers, FPOs, Co-operatives and



organizations. NABCONS is the PMU for the scheme and has facilitated financing of projects for an amount of Rs 244.74 Crores. The department is provided an Administrative Cost of Rs 1.00 crores for running the PMU.

(b) **Formation of 10000 FPOs:** The scheme is implemented in the state by NABARD

(c) **eNAM:** Scheme for infrastructure support to 6 markets in Kerala. 1.8 Crores received during 2019-20 has been utilized. Further assistance to upgrade our markets are awaited.

**Category III :** Field level Schemes for production and infrastructure support which are sub categorized as Rashtriya Krishi Vikas Yojana (RKVY) Schemes and Krishonnati Yojana Schemes

## **RKVY Bunch of Schemes**

### **1. Soil Health Card**

Soil health card is for bringing in soil test based plant nutrition to every house holding in the country. Assistance for taking samples, testing, demonstrations, setting up of laboratories, strengthening of infrastructure and creation of awareness is supported in the scheme.

### **2. Rainfed Area Development (NMSA-RAD)**

Introduction of appropriate farming system suitable to the Agro climatic region by integrating crops, horticulture, livestock, fishery, forestry with agro based income generating activities. It is implemented in clusters of 100 Hectares or more area. Selected districts are Kannur, Wayanad and Thrissur.

### **3. Bharathiya Prakrithik Krishi Padhathi**

The scheme, a zero external input system of organic agriculture largely relying on the principles of Zero Budget Natural Farming, is aimed at promoting traditional indigenous practices which gives freedom to farmers from externally purchased inputs and is largely based on on-farm biomass recycling with major stress on biomass mulching, use of on-farm cow-dung urine formulations ( Such as Jivamrit and Bijamrit), time to time working for

soil aeration and exclusion of all synthetic chemical inputs directly or indirectly. All activities under BPKP will be PGS-India compliant (Participatory Guarantee Scheme). The scheme is implemented in 164 clusters in the state

#### **4. Pradhan Manthri krishi Sinchayee Yojana**

Under the component Per Drop More Crop (PDMC) support for installation of Drip Irrigation and Sprinkler Irrigation is supported

#### **5. Sub Mission on Agricultural Mechanization (SMAM)**

A scheme for increasing the reach of farm mechanization to small and marginal farmers and to the regions where availability of farm power is low, Promoting 'Custom Hiring Centres' to make available machines for small farmers, Creating hubs for hi-tech & high value farm equipment, Creating awareness and training and testing and certification of machines.

#### **6. Sub Mission on Agroforestry (NMSA-SMAF)**

A scheme for expanding the coverage under tree plantation in cultivable land suitable to local agro climatic and land use conditions to provide livelihood, environmental and bio diversity protection by encouraging farmers to grow trees in their farmland along with crops/cropping systems and/or livestock as an integral component of farming system. Under the scheme assistance will be provided for establishment of nurseries for production of planting materials and for planting and after care of agroforestry seedlings.

**7. Rashtriya Krishi Vikas Yojana (RKVY):** is a scheme where state has the flexibility to prepare projects based on the priorities of the state focusing on infrastructure creation or enhancement. Projects approved by SLSC chaired by Chief Secretary is submitted to GoI for approval which is then implemented.

#### **KRISHONNATI YOJANA group of schemes**

#### **8. Sub Mission on Agricultural Extension (SMAE-ATMA)**

The scheme is for transfer of technologies through trainings, demonstration, exposure visits, kisan melas, farm schools, farmer-scientist

interactions and organizing groups for various Agricultural activities. The scheme is implemented through Project Directors ATMA.

## **9. National Food Security Mission**

Scheme for increasing productivity of Rice and Pulses in identified districts by providing assistance for demonstration, nutrient management, irrigation and mechanization. For Rice, it is Palakkad district. For pulses, it is Palakkad, Thrissur, Kottayam, Alappuzha and Wayanad.

## **10. National Mission on Edible Oils (NMEO)**

Scheme for Oil Palm Development consisting Area Expansion Inputs component covering assistance for Planting Material, Maintenance/cultivation Cost, Inputs to inter-cropping in Oil Palm Fields during gestation period of 4 years (ii) Production Inputs component covering Drip-irrigation, Bore-well/water harvesting structure, Diesel-pump set, Vermi-compost unit, Establishment of new seed garden, Machinery & tools and Training of farmers/officers Demonstrations on oil palm at farmer's field. The Implementing agency is Oil Palm India Ltd.

**11. Mission for Integrated Development of Horticulture (MIDH)** is a Centrally Sponsored Scheme for the holistic growth of the horticulture sector covering fruits, vegetables, root & tuber crops, mushrooms, spices, flowers, aromatic plants, coconut, cashew, cocoa and bamboo. Assistance is provided for holistic development of horticulture supporting production of planting materials, area expansion of crops like vegetables, fruits, flowers, plantation crops and spices , rejuvenation, integrated nutrient and pest management, value addition, irrigation, mechanization, high tech agriculture, apiculture, mushroom culture, export, organic cultivation, support to research and training etc. The State Horticulture Mission is the implementing agency at the state level.

## **12. Digital Crop Survey**

Digital Crop Survey is a Government of India Scheme to prepare authentic Crop Sown Registry consisting of federated registry of crops being

sown and grown across the country every season, on every farm by each farmer. It aims to streamline and improve previously prevalent paper-based methods of surveying crops by introducing smartphone and image-based (including drone and satellite images in the future), more fool-proof methods of crop survey. This feature is being developed in Kerala Krishi Hub and modern field level technologies like drone survey without field level surveyors.

The Crop Sown registry prepared as a part of digital crop survey along with other components of Agristack through KKH will enable Department to estimate crop production quicker and more accurately, better understand and be more responsive to the actual crop being grown in the State and plan interventions and support to help address the crop-specific issues. It can also enable government and private service providers to better target schemes, services, seeds, fertilizers, pesticides, farm machinery, advice, credit, etc. customized to a farmer's individual needs.

During 2023-24 Digital Crop Survey was implemented in selected villages of Alappuzha, Palakkad and Wayanad Districts.

### **13. Sub-mission on seed and planting material (SMSP)**

Sub-Mission for Seed and Planting Material (SMSP) under National Mission on Agricultural Extension and Technology (NMAET) is a centrally Sponsored Scheme. It covers the entire chain of seed production activities which include Production of nucleus seed to supply of certified seeds to the farmers, to provide support for creation of infrastructure conducive for development of the seed sector.

## **SCHEMES UNDER NON PLAN**

### **1. Free Supply of Electricity to Small and marginal Farmers**

Free electricity or power tariff exemption is given to paddy farmers irrespective of area of cultivation and to others up to 2 ha. The scheme envisages to make crop cultivation a profitable one to a great extent.

## **2. Karshaka Pension**

The scheme Karshaka Pension provides financial support by way of pension to all farmers who have enrolled in the scheme, at their old age. Farmers who have attained 60 years and above are eligible for the pension @ Rs.1600/month.

## **3. Paddy Production Bonus**

To sustain paddy cultivation and to retain paddy farmers in the rice sector an incentive of Rs.1000/- per ha per season is given to paddy farmers as production bonus. Incentive is given for paddy cultivation in Village panchayat, Municipalities and Corporation.

## **4. Rubber production Incentive**

In order to support rubber growers difference above support price of rubber (Rs 170) and price of rubber as on date was credited to farmers account.

## **CHAPTER II**

### **COMMENTS OF FINANCE DEPARTMENT**

Performance Budget is a budgetary mechanism that links the allocation and expenditure of financial resources to measurable outcomes and objectives. It emphasizes performance, results, and accountability, moving beyond traditional line-item budgeting to focus on the efficiency and effectiveness of spending.

#### **1. Purpose and Objectives:**

The department focuses on improving agricultural productivity, supporting farmers' welfare, promoting sustainable farming practices, and ensuring food security. The performance budget would outline key targets such as crop output increases, improved farmer incomes, training and education programs, sustainable farming adoption, and related milestones.

#### **2. Budget Allocation:**

Allocation for the fiscal year should be defined across various schemes, such as crop insurance, subsidies, technology adoption initiatives, etc. The performance budget specifies the expected outcomes for each program area, tying budgetary resources directly to results.

#### **3. Expenditure Tracking and Analysis:**

Actual spending is monitored and compared against budgeted provisions and projected outcomes. Analysis includes how funds have been utilized to improve farmer welfare, increase productivity, or introduce sustainable practices. Metrics such as the number of beneficiaries, increased yields, or income improvements can help gauge effectiveness.

#### **4. Periodic Review and Adjustments:**

The performance budget should be regularly reviewed to assess whether targets are being achieved. Reallocation may be necessary based on the effectiveness of initiatives, emerging priorities, or unforeseen challenges.



## 5. Key Benefits:

Improves accountability and ensures funds are spent where they have maximum impact. Helps identify successful programs and those needing revision or discontinuation. Aligns government spending with the needs of Kerala's agriculture sector and farmers' welfare goals.

In summary, a performance budget for Kerala's Agriculture Development and Farmers' Welfare Department will streamline resource use by clearly linking expenditures to outcomes that benefit farmers and the agricultural sector. This ensures more effective program delivery and improved accountability for public spending.

During the 2023-2024 period, Kerala's agriculture and farming sector places a strong focus on crop diversification, digital integration, and community-based farming support. The following is a summary of the key elements driving Kerala's agricultural initiatives:

### **Paddy Cultivation & Crop Development:**

The state is focusing on expanding paddy cultivation across its agro-ecological units, offering financial incentives for sustainable practices, group farming, and crop rotation to boost production. Efforts are also made to develop vegetables, spices, coconut, and medicinal plants. Support for crop-specific expansion remains a priority.

### **Digital and IT Integration:**

Kerala is integrating digital platforms into agriculture to enhance efficiency. This includes efforts like digitizing records, implementing Internet Controlling Things (IoT) like **Precision Farming, Supply chain efficiency, E-governance and Direct benefits etc** in Krishi Bhavans, and using a centralized crop data system to provide up-to-date market information and supply chain facilitation. Farmer Producer Organizations (FPOs) are leveraged to streamline marketing and aggregation through these digital initiatives.

**Strengthening Agricultural Extension:**

This includes capacity building within Krishi Bhavans and the development of farmer-centric digital tools. Infrastructure improvements and upgraded digital service delivery mechanisms aim to support sustainable farming and enable farmers to access technological resources.

**Supply Chain Models:**

Kerala is implementing a hub-and-spoke model for crop aggregation and distribution, promoting local hubs managed by cooperatives or FPOs. This model aims to reduce market fragmentation by creating streamlined channels between producers and markets, minimizing intermediaries and enhancing market access.

**Community-Based Initiatives:**

Collaborative models like Kudumbashree units and cooperatives continue to be integral to promoting local food security, community-managed farming, and smallholder inclusion. The approach focuses on value-added processing, branding, and marketing support for small-scale producers.

Overall, Kerala's agricultural strategy for 2023-2024 aims to boost productivity through technology, enhance farmer welfare through community networks, and ensure sustainability through crop and supply chain diversification.

**Key Insights and Action Points from the 2023-24 Agriculture Plan Fund  
Evaluation: Enhancing Focus and Impact through Farmer Engagement  
and Field Analysis**

In connection with the utilization of plan funds for the Agriculture Department during the 2023-24 fiscal year, the Finance (Performance Budget) Department conducted reviews at offices of various Assistant Directors' (Agriculture) across the state. Discussions were organized with farmers in the

presence of Agricultural Officers under the respective ADAs, followed by field-level inspections as necessary. Alongside evaluating the progress of project implementation, farmers also suggested areas where the focus of Agriculture Department needs to be intensified. The key observations and areas that require the immediate attention of the state Agriculture Department, as understood from this process, are summarized below.

### **Define a farmer**

"The government has consistently designed various programs for the upliftment of the agricultural sector in the state. However, the reality is that the benefits of these programs are not reaching the actual farmers as intended." Hence a clear cut definition for a "farmer" has to be formulated so that actual beneficiary will be selected and benefited by different schemes of Government.

### **Introducing Agriculture Education from an Early Age**

In the state, the average age of true farmers who rely solely on agricultural income for their livelihood is now over 50 years. According to departmental assessments, the younger generation shows a little interest in farming. To address this, introducing agriculture as a subject from lower primary school level and dedicating one period per week for students to engage in farming activities could help children learn about the land and inculcate the culture of farming. The agriculture and education departments should jointly explore the possibility of revising the school curriculum to incorporate this initiative.

### **Farmers Producers Organization (FPO)**

The Farmer Producer Organization (FPO) is one of the most promising initiatives envisioned by the State Agriculture Department. The Finance Department has conducted a progress evaluation of this project. However, the implementation at the grassroots level is not progressing as originally envisaged. The reasons for this are outlined below:

A Farmer Producer Organization (FPO), is a collective group of 100 farmers, primarily focused on production. However, these farmers often find it challenging to expand their activities to include value-added products, trade, and market discovery due to limited exposure and time constraints. Bringing individuals with market leadership skills into the FPO could help accelerate its progress.

A major requirement for forming an FPO is a minimum of 100 farmers, but finding this number in a single block can be difficult. As a result, FPOs sometimes have to bring farmers together from neighbouring blocks. This approach, however, introduces challenges, as farmers from different regions have diverse needs and preferences, which complicates coordination and trust-building. Further, farmers from distant locations often struggle to attend regular meetings, gradually leading to disengagement from FPO activities. Thus, it would be preferable to form FPOs by focusing on either a single panchayat or two adjacent panchayats with similar type or characteristic features of farming. Experienced farmers with knowledge in agriculture, value addition, and networking can effectively lead these FPOs.

The project initially envisioned one FPO per block, but due to target pressure on officials and inadequate support infrastructure, the initiative has encountered obstacles. This also leads to alienation of government funds.

The onus to make the currently constituted FPOs a complete success should be vested in the respective Assistant Director of Agriculture (ADA). Since farm plan-based FPOs are still in their early stages, funding should only be provided for more FPOs after the current ones demonstrate successful operational outcomes.

### **Venture Capital**

The venture capital scheme was designed to help farmers increase their income by bringing their surplus produce to the market as value-added products. Field-level evaluations by the Finance Department have shown that this project is being effectively implemented. However, it is currently executed on a target basis in agricultural offices. When multiple ventures operate under this scheme within the same agricultural office jurisdiction, local market

competition arises, often preventing the project from achieving its full objectives.

Therefore, the focus should be on supporting existing, well-functioning ventures by evaluating their operational efficiency and providing the resources necessary for their growth. New venture capital initiatives should only be funded after assessing their viability and alignment with farmers' needs. Agriculture officers should assess the operational progress of venture capital projects within their jurisdiction and submit their reports through the ADA to the PAO. This will enable a comprehensive evaluation of the progress of venture capital initiatives across the state.

### **Ecoshops**

The Ecoshop initiative was introduced to help farmers sell their agricultural products. However, Finance Department's review revealed that most Ecoshops established under this scheme are currently non-operational. The location chosen for each Ecoshop plays a key role in sales, but many are set up in isolated or less important areas, resulting in poor market access and eventual closure. Despite this, new Ecoshops are continued to be approved each year.

To prevent the misuse of public funds, existing Ecoshops should be relocated to suitable areas and supported to ensure profitability. Responsibility for improving the profitability of Ecoshops under each agriculture office should rest with the respective Agriculture Officers. To make the project a success, Ecoshops must be established in prime locations.

### **Coconut Seedling Distribution Program**

The distribution of coconut seedlings is a program that requires urgent attention from the Agriculture Department. Each year, approximately 1,000 coconut seedlings are supplied to every block in the state. However, providing more seedlings than needed has become a burden for farmers. Currently, seedlings are distributed equally to both urban and rural blocks without considering whether the land is suitable for coconut cultivation or sufficient land is available for this purpose. As a result, even farmers who do not need seedlings are compelled to accept them, creating a significant responsibility for

Agricultural Officers. Such distribution of seedlings is tantamount to misappropriation of government funds.

To address this, seedlings should be supplied only after assessing the demand collected from each Agriculture Office in advance. A need analysis has to be made before formulating the plan.

### **Effective Utilization of Funds in Agricultural Schemes**

To enhance agriculture sector, the department has envisioned various schemes—such as Rice Development, Coconut Development, VDP, Development of Fruits, Flowers, and Medicinal Plants, and the Farm Plan-Based Program—through which financial assistance is provided to farmers. The Finance Department, after assessing the local progress of these schemes, has identified a crucial need for reform. It has become clear that a core improvement would be to allocate plan funds on the specific needs of each scheme at the local level. This approach would ensure that resources are better aligned with regional requirements, ultimately enhancing the effectiveness of these initiatives.

Currently, plan funds are allocated uniformly across all projects, with little consideration for variations in local farming practices. However, within an ADA's jurisdiction, agricultural offices may have distinct farming methods and types of farmland. Uniform fund allocation across these offices has created challenges in implementing projects effectively at the field level.

For the success of agricultural activities in each district, it is better that when PAOs allocate plan funds to ADAs, they shall also give ADAs the authority to allocate these funds based on the specific farming practices of each agricultural office. The Agriculture Department should urgently consider this leverage to improve project effectiveness and adaptability at the local level.

### **Co-operation of Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) with Agriculture Development**

A significant challenge confronting farmers in the state is the lack of labour force for agricultural tasks. Since the implementation of the MGNREG



scheme, finding workers for farming has become increasingly difficult, adversely affecting the agricultural sector.

Farmers have a long-standing demand for the inclusion of MGNREGS workers in agricultural fields. Considering the wage disparities across different employment sectors, it is crucial for the Agriculture Department to explore the feasibility of creating a program that enables farmers to offer additional compensation to workers in addition to the daily wages provided by employment guarantee programs. Such a strategy could help attract and retain labour in the agricultural sector.

### **Additional tax on barren land**

In the state, it is increasingly common to find land suitable for agricultural activities being left barren and uncultivated. These areas often become habitats for wild animals, such as boars, which frequently cause disturbances to both farming and human activities. Although there is legal provision requiring landowners to clear and maintain the land from overgrown vegetation, compliance is often lacking. Since, the landowners of these barren areas do not allow any agricultural activities or lease cultivation, the government should explore the possibility of imposing an additional land tax on landowners who keep agricultural land uncultivated.

### **Imposing Spot Fines for Illegal Land Conversion**

According to the Kerala Conservation of Paddy Land and Wetland Act, 2008, any unauthorized activities in paddy fields, such as filling them with soil, planting long-term crops to make rice cultivation unviable, or constructing ponds for fish farming with embankments, are strictly prohibited. If such violations are observed, the Agricultural Officer will report the matter to the Revenue Divisional Officer. The officer will then order the party concerned to restore the land to its original condition. If the party fails to comply, the double of the rate of cost of restoration will be recovered from them. However, in many cases, the restoration to the original state does not actually take place.

However, if violations are observed, the Revenue Department should be given the authority to impose fines at the spot itself. These fines should be

double of the cost of reversing any unauthorized changes made to the land and restoring it to its original condition. This measure could help reduce further unauthorized conversions to some extent. To protect the remaining wetlands in the state, the Agriculture Department should carefully review the situation and submit a detailed report to the government for further action.

### **Escalating Costs for Government: Impact of Regulator-Bridge Failures**

The Illikkal, Munayam, Ediyanchira, and Enamakkal regulators and bunds are associated with the Thrissur kole lands. Since the kole lands lie significantly below sea level, the primary purpose of the Munayam, Ediyanchira, and Enamakkal bunds/regulators is to prevent saline water intrusion from the sea. Among these, regulators were previously installed in Ediyanchira and Enamakkal, but the shutters are not operational. Although construction permission was granted for a regulator at Munayam, the project has not yet been implemented. Consequently, temporary bunds, also known as ring bunds, made of bamboo and soil, are constructed annually in these three areas to prevent saline water intrusion.

Each year, millions of rupees are spent on constructing these temporary bunds, and large mounds of soil are used. During the monsoon season, rainwater from Thrissur city areas flows into the kole lands, leading to flooding. This necessitates the removal of temporary bunds to allow the water to drain into the sea. Once the rains subside, the bund construction resumes. The primary water source for the kole lands is the Chimmini Dam.

When farming begins, water from the Chimmini Dam is released for irrigation, directed through the Karuvannur River to reach the kole farming region. The Illikkal regulator, situated across the Karuvannur River, serves this purpose. Here, water is held back to raise the water level, allowing it to be channelled vertically into the kole fields. However, the shutters here are also in poor condition, with an estimated 30% leakage, leading to a 30% loss of water.

Although heavy rains typically end by September and the water level in the kole area decreases, it takes at least three months to construct the ring

bunds. As a result, more water has to be released from the dam to keep saline water intrusion at bay until the bunds are in place. In short, making these regulators fully functional would help conserve a significant volume of valuable fresh water and save the state exchequer millions of rupees spent annually on constructing ring bunds, a practice that has been undergoing for over three decades.

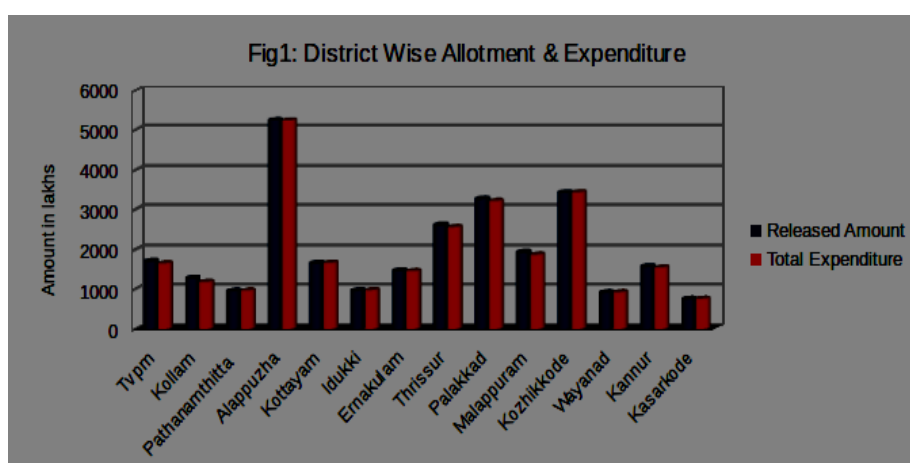
The reduced efficiency of these regulators primarily affects the kole farming, which spans around 30,000 acres. Delays in constructing the ring bunds lead to delayed planting, reduced yield, and other challenges, including the arrival of the monsoon. Currently, the responsibility and authority for managing these regulators lie with the Irrigation Department. Actions are taken only after consultations with the Agriculture Department, paddy cultivation committees, and the district administration.

The most practical and lasting solution to these issues is to make the regulators fully operational. Further, commencing the construction of the approved regulator at Munayam would be beneficial. Installing motorized shutters that can be easily opened and closed would allow farmers to begin the first crop cycle earlier and increase efforts for a second crop, ultimately boosting production and productivity.

A review of the operations of the Illikkal, Munayam, Ediyanchira, and Enamakal bunds reveals that, over the past three years, a sum of approximately Rs. 2.5 crore has been spent on constructing and dismantling temporary bunds. This pattern of expenditure has continued for over 40 years. The amount already spent on these three bunds alone could have been sufficient to construct several regulator-cum-bridges. Extending the construction and maintenance of temporary bunds is a highly negligent approach. The Agriculture Department should explore the possibility of a vigilance investigation to examine the laxity affecting the construction and maintenance of these bunds, as well as the utilisation of funds (plan fund) so far on the repeated construction and dismantling of temporary bunds."



During the fiscal year, the Department of Agriculture received ₹27829.102 lakh as the state share under plan schemes. The total expenditure under these schemes amounts to ₹27413.091 lakh. The district-level allocation and expenditure of the funds received in this category are outlined below:



To gain a comprehensive understanding of the plan fund review, the Finance (Performance Budget) Department team conducted field-level assessments by visiting offices of six Assistant Director's of Agriculture across

the state, along with their subordinate agriculture offices. This included direct interactions with farmers. Details of the visited offices are shown below:

1. Office of the Assistant Director of Agriculture, Puzhakkal.
2. Office of the Assistant Director of Agriculture, Cherp.
3. Office of the Assistant Director of Agriculture, Piravom.
4. Office of the Assistant Director of Agriculture, Mulanthuruthy.
5. Office of the Assistant Director of Agriculture, Kundara.
6. Office of the Assistant Director of Agriculture, Sasthamcotta.

## Evaluation Details

### I. Office of the Assistant Director of Agriculture (ADA) Puzhakkal

Puzhakkal, located in Thrissur, has a distinct agricultural environment shaped by its tropical climate, fertile soils, and abundant rainfall. The region benefits from Kerala's monsoon-driven climate, which supports a variety of crops. Key agricultural activities in Puzhakkal are paddy cultivation, coconut plantations, banana cultivation, and vegetable farming. The Puzhakkal River and its irrigation support also play a significant role in sustaining agricultural productivity.

The region faces challenges such as soil erosion, water management issues, and the need for sustainable agricultural practices to maintain soil fertility and adapt to climate variations. Efforts to promote organic farming, integrated pest management, and modern irrigation methods are increasingly common to enhance productivity while conserving environmental resources.

During the financial year 2023-24, the following schemes were implemented by the Assistant Director of Agriculture, Puzhakkal. The expenditure details pertaining to ADA, Puzhakkal, are outlined below:

(₹ in lakh)

Sl. No	Name of Scheme	Head of Account	Outlay	Expenditure
1.	Vegetable development programme	2401-00-119-85-00-34-00 PV	7.78352	7.78352
2.	Coconut Development	2401-00-103-87-00-34-00-PV	4.25	4.25

Sl. No	Name of Scheme	Head of Account	Outlay	Expenditure
3.	Development Of Spices	2401-00-108-59-00-00-00-PV	0.7535	0.7535
4.	Scheme for Development of Fruits plants	2401-00-119-79-00-00-00-PV	5.5541	5.5541
5.	Modernization of Departmental Laboratories	2401-00-105-86-00-34-00 PV	0.09205	0.09205
6.	Organic Farming and Good Agricultural Practices	2401-00-105-85-00-00-00-PV	0.19865	0.19865
7.	Rice Development Programme	2401-00-102-90-00-34-00-PV	65.05229	65.05229
8.	Agro Service Centres and Service Delivery-XXIX	2401-00-113-83-00-00-00-PV	3.1382	3.1382
9.	Soil Health Management and Productivity Improvement	2401-00-800-28-00-00-00-PV	38.77098	38.77098
10.	Crop Health Management	2401-00-107-78-00-00-00-PV	2.17765	2.17765
11.	Office Automation and IT Infrastructure	2401-00-001-86-00-99-00 PV	0.66142	0.66142
12.	Farm Plan Based Production Programme including Pre-production Support	2401-00-104-67-00-34-03PV	4.85717	4.85717
13.	Scheme on Supply Chain/Value Chain Development and Integration under FPD Programme-	2401-00-111-97-00-34-03 PV	0.7	0.7
14.	Market Development	2435-01-800-99-00-00-00 PV	3.00297	3.00297
15.	Support to farm mechanization	2401-00-113-83-00-00-00 PV	6.44317	6.44317

**Concerns and recommendations put forward by the farmers in the agricultural sector of Puzhakkal.**

### **1.Kole Lands Affected by Saltwater Intrusion**

Kole land is a unique and ecologically significant area located in

Thrissur district, Kerala. It refers to the vast stretches of wetlands, primarily reclaimed from the coastal marshes that are used for agricultural purposes, particularly rice cultivation. The Kole wetlands are located along the northern and southern parts of the district and cover an area of around 13,000 hectares. These lands are drained through a network of canals, with the most prominent feature being the "Kole System," a traditional method of water management. The Kole land ecosystem plays a vital role in water regulation, biodiversity conservation, and the local economy. The regulators and bunds associated with the Thrissur Kole area include Illikkal, Munayam Idiyanthira, and Enamakkal. To protect the low-lying Kole lands from saltwater intrusion, which lie well below sea level, the regulators mentioned above were installed. However, the shutters of the Enamakkal and Idiyanthira regulators have been non-functional for several years. While construction approval for a regulator in the Munayam area has been granted, the project has yet to be implemented. As a result, temporary barriers, or ring bunds, made from reeds and soil, are currently used in these three areas to prevent saltwater intrusion. The non-functioning of the regulators has had a severe impact on nearly 30,000 acres of Kole agriculture. Delays in the construction of ring bunds further hinder farming activities, leading to reduced production. Farmers also face numerous challenges, including the onset of rain during the harvest season and other related issues.

## **2. Destructive Wild Boar Damage**

Significant crop damage has been occurring due to wildlife such as wild boars, deer, and birds. If farmers are granted permission to trap wild boars, it could help mitigate this issue to some extent. The abandoned, overgrown fields are often the habitats for these destructive animals and other pests. Therefore, action should be taken against those who leave lands fallow, creating favorable conditions for those wild animals and pests to thrive.

## **3. A dedicated employee for Paddy Receipt Sheet (PRS) loan processing**

Currently, PRS loans are available through Canara Bank and SBI. Canara Bank has appointed dedicated staff at each branch to handle the process promptly and effectively. However, SBI has not appointed specific



staff for this purpose, leading to delays in the procedures. Therefore, government may take up the matter with the SBI for the appointment of a dedicated official for this task at the branches.

#### **4. Replacing Traditional Petti and Para Pumps with Submersible Pump Sets**

The replacement of traditional Petti and Para pumps with modern submersible pump sets marks a significant improvement in agricultural and water management practices. Traditional Petti and Para pumps, which are surface-level devices, have been widely used in rural areas but are often less efficient and prone to wear. In contrast, submersible pump sets, which are installed underwater, offer higher efficiency, reduced energy consumption, and lower maintenance costs. These pumps provide a more reliable and consistent water supply, especially in kole areas with fluctuating water levels. The transition to submersible pumps is a step towards modernizing irrigation systems, improving productivity, and ensuring a sustainable water supply for agriculture. There is a strong recommendation from farmers that Submersible pumps should be made available as soon as possible to those who have not yet received them, replacing the traditional Petti-Para pumps. Additionally, In regions like Thrissur and Kuttanadu, the Department of Agriculture has directly provided modern pump sets to replace the old Petti-Para pumps. However, there is currently no record of what happened to the Petti-Para pump sets which were replaced with submersible ones. Therefore, it is necessary to take an inventory of these pump sets in such areas and either reuse or auction them accordingly.

#### **5. Online submission Of Form A and B (Puncha Special Office)**

Form A and B for the subsidized pumping for rice cultivation need to be submitted twice to the Puncha Special Office. Currently, an office with 14-15 staff members functions solely for the distribution of this subsidy, causing both time and financial losses to the government. If this process were made online, it would eliminate the difficulties faced by farmers and reduce the workload for officials. The Agriculture Department, in co-ordination with the Revenue Department, should explore the feasibility of this approach, take necessary actions, and report it to the government

## **Field Visits**

Visits were made to the farms of the following farmers to evaluate the grass root level implementation of the Agriculture Department's plan schemes: Sri.Ramachandran from Ayanthol (who supplies rice to temples across Kerala), Sri. Unnikrishnan from Kaipparambu (vegetable cultivation), Smt. Rosely Jolly from APRA Farming Group (involved in business of value-added products such as pickles, chips, and payasam), M/s. Kani Farming Group (which dries and markets fruits and other products), and Smt. Sunitha Chandran from Mylakkulam (who cultivates rice on 5 acres, along with banana, coriander, pulses, and bitter gourd, while also growing the variety of banana known as 'Changalikodan' in abundance). During the field visit, it was noted that the farmers are effectively managing their agricultural activities with little or no challenges.

## **II. Office of the Assistant Director of Agriculture (ADA) Cherpu.**

Cherpu, located in Thrissur district of Kerala, has an agriculture sector that reflects the region's rich tradition of farming. The area is benefitted with fertile soils and a tropical climate, which supports the cultivation of a wide variety of crops. Paddy is a prominent features of Cherpu's agricultural landscape, along with coconut trees, bananas, and arecanut plantations. Spices such as black pepper and vegetables are also commonly grown.

The agricultural community in Cherpu faces challenges such as fluctuating market prices, changing weather patterns, and labour availability. There has been an increased emphasis on sustainable farming practices, including organic farming and integrated pest management. Local cooperatives and government initiatives often provide support to enhance productivity and ensure better market access for farmers.

In the financial year 2023-24, the Assistant Director of Agriculture, Cherpu, implemented the following schemes. The expenditure details related to ADA, Cherpu, are provided below:

(₹ in lakh)

Sl. No	Name of Scheme	Head of Account	Outlay	Expenditure
1.	Vegetable development programme	2401-00-119-85-00-04-01 PV	55.59128	55.59128
2.	Coconut Development	2401-00-103-87-00-34-00 PV	3.675	3.675
3.	Development of Spices	2401-00-108-59-00-00-00-PV	0.749	0.749
4.	Scheme for Development of Fruits plants	2401-00-119-79-00-00-00 PV	7.07783	7.07783
5.	Modernization of Departmental Laboratories	2401-00-105-86-00-34-00 PV	0.0625	0.0625
6.	Organic Farming and Good Agricultural Practices	2401-00-105-85-00-00-00 PV	0.35865	0.35865
7.	Rice Development Programme	2401-00-102-90-00-34-00-PV	47.91412	47.91412
8.	Strengthening of Agricultural Extension	2401-00-109-80-00-34-00 PV	14.29917	14.299 17
9.	Small Farm Mechanisation	2401-00-113-83-00-00-00 PV	2.92425	2.92425
10.	Soil Health Management and Productivity Improvement	2401-00-800-28-00-00-00 PV	52.89685	52.89685
11.	Crop Health Management	2401-00-107-78-00-00-00 PV	6.64635	5.48955
12.	Office Automation and IT Infrastructure	2401-00-001-86-00-99-00 PV	0.1	0.1
13.	Farm Plan Based Production Programme including Pre-production Support	2401-00-104-67-00-34-03 PV	3.98931	3.98931
14.	Scheme on Supply Chain/Value Chain Development and Integration under FPD Programme-	2401-00-111-97-00-34-03 PV	1.5	1.5
15.	Market Development	2435-01-101-85-00-00-PV	3.64518	3.64518
16.	Market Development	2435-01-800-99-00-00-00 PV	0.85	0.85

Sl. No	Name of Scheme	Head of Account	Outlay	Expenditure
17.	Farm Plan	2435-01-800-94-00-34-00 PV	2	2
18.	Support to FPO's	2401-00-109-56-00-34-03 PV	5	5

**Concerns and recommendations put forward by the farmers in the agricultural sector of Cherpu.**

### **1. Driving Efficiency: Embracing Mechanization in Dryland Farming for a Sustainable Future**

The shortage of labour availability and high wage costs are major factors contributing to increased production expenses in dryland farming. However, in paddy fields, the prevalence of group farming has alleviated these issues to some extent. In contrast, dryland cultivation often involves individual plots, making it challenging to secure skilled labourers. To address this, it is essential to implement measures aimed at mechanizing dryland farming, thereby reducing labour dependency and enhancing efficiency.

### **2. Ensuring Quality Planting Materials On Time**

For the past two years, tuber crops such as yam, colocasia, ginger, and turmeric have been severely affected by diseases, leading to significant crop losses. To prevent this, farmers from the Kurkanchery Krishi Bhavan suggested that planting materials obtained through agencies such as VFPC, KAU, RAIDCO, and KATECO should be distributed only after ensuring their efficacy and quality.

Owing to the unavailability of seeds in time at the Krishi Bhavans (according to the respective seasons), crop yields decrease and farming in the subsequent season is delayed. Additionally, because banana suckers are not available locally during the planting season, they have to be sourced from Tamil Nadu. The delay in the timely availability of planting materials disrupts the implementation of schemes, leading to inefficiencies and the potential misuse of government funds. Therefore, it is essential to implement measures to ensure the timely distribution of seeds and planting materials during the season.

### **3. Elevating 'Kerala Brand' Rice from Kole Fields to Market Excellence**

The farmers emphasized the need to incorporate high-quality planting materials into agricultural department schemes and proposed forming collectives to facilitate the procurement and distribution of superior planting stock sourced directly from farmers. Farmers from Ollur Krishi Bhavan also highlighted the potential for locally grown paddy from the Kole fields to be processed, milled, and marketed as 'Kerala Brand' rice, thereby exploring value addition and market opportunities.

One of the key challenges faced by paddy farmers is the delay in receiving prompt payments for their harvested crops. Given the current high demand for Kerala-grown paddy, there is significant potential to process it into rice and market it under the 'Kerala Brand.' Such initiatives could provide transformative solutions to the issues within the paddy cultivation sector, enhancing farmers' income while strengthening the local agronomy.

### **4. Protecting Fields: Stopping Urban Waste Discharge into Paddy Lands for a Cleaner Future**

The increasing tendency to discharge urban waste into paddy fields through drainage canals is a growing concern. This practice is rendering these areas unsuitable for cultivation, severely impacting farmers and threatening the viability of agricultural activities in the affected regions. Strict measures need to be taken to prevent urban waste from entering paddy fields through the corporation's drainage canals. This is essential to protect the health of the agricultural lands, ensure sustainable farming practices, and safeguard the surrounding environment from pollution and contamination.

### **5. Streamlining Support: Enhancing Pumping Subsidy Delivery for Paddy Fields through the Agriculture Department**

The pumping subsidy for paddy fields is currently provided through the Revenue Department's Punja Special Office. To avoid delays caused by procedural formalities within the Revenue Department, it is necessary to explore the possibility of channelling the subsidy through the Agriculture Department for more efficient distribution.

## **6. Combating the Snail Crisis: Urgent Action for Agricultural Protection and Community Safety**

The Giant African Snail (*Achatina fulica*) poses a significant threat to agriculture in the Cherpu region. This invasive species, known for its rapid reproduction and voracious appetite, damages a wide variety of crops, including vegetables, tubers, and young seedlings. By feeding on the leaves, stems, and fruits of crops, the snail leads to reduced yields and significant economic losses to farmers.

The infestation also contributes to ecological imbalance, affecting native biodiversity and disrupting soil health. Farmers in Cherpu are increasingly resorting to integrated pest management practices, such as manual collection, the use of barriers, and eco-friendly molluscicides, to control the spread of this pest.

Given that the breeding of these snails has escalated into a social concern, it is imperative for the Agriculture Department to urgently design a targeted program focused on preventing their reproduction and eradicating the species. Efforts to combat the Giant African Snail require coordinated actions and awareness campaigns, such a proactive strategy is crucial to minimizing their impact on agriculture and safeguarding community well-being.

## **7. Field Visits**

A field-level inspection carried out by the Finance Department team to assess the implementation of plan schemes in the Cherpu region highlighted several critical areas requiring departmental attention. The identified focus areas are outlined below:

The accumulation of wild banana plants and weeds in irrigation canals contaminates water and harms paddy crops. Monsoon flooding in paddy fields is common, but the Irrigation Department's efforts to remove the plants have been ineffective. Suggestions include switching from annual to running contracts or assigning the task to KLDC, along with implementing measures to control plant growth for efficient pumping.

A suggestion has been put forward to set up a market or stall for farmers to sell their organic products directly. This will promote organic farming and provide more benefits to the farmers.

As the existing coconut cultivation development programs focus primarily on individual beneficiaries, there is a need for a dedicated scheme under the Coconut Council to safeguard coconut saplings planted along the bunds of paddy fields.

Streamlining schemes by consolidating them into integrated programs can significantly reduce the workload at the Krishi Bhavan, ensuring more efficient management and implementation.

Porters are charging higher wages for loading paddy. It has been suggested to standardize these wages to ensure fairness and consistency.

### **III. Office of the Assistant Director of Agriculture (ADA) Piravom.**

The agriculture sector in the Piravom region, located in the Ernakulam district, is characterized by its rich and diverse farming practices. The area benefits from fertile soil and favorable climatic conditions, making it suitable for a variety of crops. The key agricultural activities include the cultivation of rubber, coconut, arecanut, and spices like black pepper and nutmeg. Additionally, traditional paddy fields are found in some areas, though there has been a decline in rice cultivation due to labour shortages and urbanization.

Piravom's farming community also engages in horticulture and growing bananas, tapioca, and vegetables for local consumption and trade. The region's proximity to rivers and water bodies supports small-scale irrigation, enhancing crop productivity. Despite facing challenges such as climate variability and market fluctuations, the agricultural sector remains a vital component of Piravom's economy and cultural heritage.

During the financial year 2023-24, the Assistant Director of Agriculture (ADA), Piravom, implemented the following schemes. The expenditure details pertaining to ADA, Piravom, are outlined below:

(₹ in lakh)

Sl. No	Name of Scheme	Head of Account	Outlay	Expenditure
1	Vegetable development programme	2401-00-119-85-00-04-01 PV	26.53501	26.53501
2	Coconut Development	2401-00-103-87-00-34-00 PV	14.70319	14.70319

Sl. No	Name of Scheme	Head of Account	Outlay	Expenditure
3	Development of Spices	2401-00-108-59-00-00-00-PV	1.4535	1.4535
4	Plan under Scheme for Development of Fruits plants	2401-00-119-79-00-00-00 PV	7.94146	7.94146
5	Plan under Scheme on Modernization of Departmental Laboratories	2401-00-105-86-00-34-00 PV	0.10987	0.10987
6	Plan under Organic Farming and Good Agricultural Practices	2401-00-105-85-00-00-00 PV	1.1	1.1
7	Rice Development Programme	2401-00-102-90-00-34-00-PV	19.32239	19.32239
8	Agro Service Centres and Service Delivery-	2401-00-113-83-00-00-00-PV	5.08201	5.08201
9	Crop Health Management	2401-00-107-78-00-00-00 PV	2.63605	2.63605
10	Office Automation and IT Infrastructure	2401-00-001-86-00-99-00 PV	1.05425	1.05425
11	Farm Plan Based Production Programme including Pre-production Support	2401-00-111-97-00-34-03PV	4.9956	4.9956
12	Supply Chain/Value Chain Development and Integration under FARM PLAN Programme	2401-00-111-97-00-34-03 PV	0.7	0.7
13	Market Development	2435-01-101-85	3.25764	3.25764
14	Crop Diversification and Intensification	2401-00-107-78-00-00-00 PV	0.45	0.45
15	Farm Plan Based Development Programme including Pre-production Support	2435-01-800-94-00-34-00 PV	11.5	11.5
16	Farm Plan Based Development Programme including Pre-production Support-	2401-00-109-56-00-34-03 PV	2.707	2.707
17	Market Development	2435-01-800-99-00-00-00 PV	1.11284	1.11284
18	Soil Health Management and Productivity Improvement-	2401-00-800-28-00-00-00 PV	0.44500	0.44500



Sl. No	Name of Scheme	Head of Account	Outlay	Expenditure
19	Strengthening of Agricultural Extension	2401-00-109-80-00-34-00 PV	7.3043	7.3043

## **Farmers' Concerns and Recommendations for the Agricultural Sector in Piravom**

### **1. Establishment of the Pampakuda Perumbavoor FPO under the Farm Plan Project**

As part of the Farm Plan project in Piravom Block (Pampakuda Block), a Farmer Producer Organization (FPO) named \*Pampakuda Perumbavoor FPO\* has been established in the Thirumaradi Panchayat. This organization focuses on processing agricultural products such as jackfruit, tapioca, and coconut to produce value-added products for marketing. It has already initiated the production and sale of these value-added products in the general market. The FPO was formed by incorporating farmers from 8-10 Krishi Bhavans across two neighboring blocks—Pampakuda and Perumbavoor—under the Farm Plan initiative. Despite its promising potential, the FPO faces significant challenges. Coordinating and uniting farmers from various regions remains a major obstacle. Moreover, the funds allocated under the project are insufficient to meet essential expenses, such as procuring necessary machinery. Although the Submission on Agriculture Mechanisation (SMAM) scheme provides machinery at subsidized rates, the requirement for an upfront payment of the full cost poses additional constraints, affecting the effectiveness and scalability of operations.

### **2. Waterlogging in the Kizhmuriyil-Kavunthazham Paddy Field, Ramamangalam Panchayat**

The Kizhmuriyil-Kavunthazham paddy field in Ramamangalam Panchayat is facing severe waterlogging issues, affecting nearly 30 acres of farmland. Persistent water stagnation over the years has rendered the fields unsuitable for cultivation, preventing the use of essential machinery like tractors and harvesters.

Despite the presence of two leading channels for drainage, the situation has deteriorated due to silted and collapsed drainage channels. Unauthorized land conversions in the vicinity have further intensified the waterlogging problem.

To alleviate this, the existing drainage channels running north-south need to be widened and deepened to facilitate proper water flow. With increasingly erratic and heavy rainfall caused by climate change, improving the drainage system is critical to ensuring that water from surrounding elevated areas can be effectively redirected, thus restoring the field's agricultural potential.

### **3. Rebuild Kerala Initiative 2019-20: Infrastructural Development in Pampoori Chaal Padasekharam, Ramamangalam Gram Panchayat, Ernakulam District**

As part of the post-flood rehabilitation efforts following the devastating floods of 2018, infrastructural development works were undertaken in the Pampoori Chaal Padasekharam under the Rebuild Kerala Initiative 2019-20. Despite these efforts, water from Pampoori Chaal continues to flow through the Padasekharam and eventually joins the river via Kadav Padasekharam.

However, effective water drainage to the river can only be achieved, if the said canal is further deepened by approximately 500 meters. Currently, the canal passes through residential areas, where both sides have eroded, obstructing the flow of water.

To resolve water stagnation in the Pampoori, Ullelikkun, and Kadav Padasekharams, it is essential to improve the flow in this section of the canal. Only then can flooding and waterlogging in these areas be effectively mitigated.

The successful completion of this project can only be ensured if the water flow in the canal is properly regulated to reach the river. Currently, the situation remains more complicated. Failure to fully implement the project is tantamount to a misappropriation of government funds. The Agriculture Department must take urgent action to address this issue.

#### **4. Shivali Chaal Renovation**

An amount of ₹5.88 crore has been allocated by RKVY-NABARD for the renovation of various canals in Ramamangalam Panchayat. During the renovation of these canals, farmers from the said region requested that the Engineering Department, elected representatives, and Agriculture officials collaborate and hold consultation meetings.

Farmers expressed the need for a permanent solution to waterlogging in the said areas, with the goal of making the fields cultivable. They emphasized that the project should be designed to ensure smooth water flow, with the river's level taken into consideration. The farmers also requested that obstacles in the canal be addressed to provide a lasting solution to waterlogging.

Considering the scope of the issues mentioned above, a discussion was held with the Performance Budget Team, along with farmers, irrigation engineers, agriculture officers, and local representatives. Given the need for further discussions on this matter, detailed deliberations were conducted, assuring that a permanent solution can be implemented. The progress of the next steps related to the renovation of Shivali Chaal must be communicated to the Finance Department.

#### **5. Restoration of Canal Embankments in Thirumaradi Panchayat to Revive 50 Acres of Paddy Cultivation**

In the 9<sup>th</sup> ward of Thirumaradi Panchayat, the embankment of the canal below Puthenchira in the Vadakkumpadam Padasekharam has been damaged for about 10 meters due to rainwater erosion, causing potential damage to 30 acres of paddy cultivation. If the canal embankment at the site is repaired, paddy farming can be resumed.

In addition in the 7<sup>th</sup> ward of Thirumaradi Panchayat, part of the embankment at Keezhchira has collapsed, preventing water from reaching the fields. As a result, paddy cultivation cannot be carried out on approximately 20 acres. If the collapsed embankment is repaired, 20 acres of land can be used for paddy cultivation. If the Agriculture Department take appropriate action to resolve this issue, 50 acres of paddy fields in the area can be brought into productive cultivation.

## **6. Ensuring Support for Farmers: Granting Benefits for Cultivation of Barren Land Based on Certification by Agricultural Officers**

In situations where landowners are unwilling to formalize agreements for cultivating barren land, it has been authorized that eligible farmers, who are cultivating the land under informal verbal agreements with such owners, may receive the appropriate benefits, provided they are certified by agricultural officers.

To be eligible for assistance, the land must be cultivated for a minimum of three years. During the second and third years of cultivation, farmers should be entitled to benefits such as SDR, irrigation costs, fertilizers, and other support provided by the Agriculture Department and Local Governments.

In the absence of formal contracts, the department should consider including provisions for granting benefits based on the certification of agricultural officers in the operational guidelines for future years. The possibility of incorporating this provision into the operational manual should be carefully explored by the Agriculture Department.

## **7. Addressing Wildlife-Induced Crop Damage and Unmanaged Abandoned Lands**

Significant crop damage is being caused by wild animals and birds such as wild boars, peacocks, and parrots. In many areas, abandoned and overgrown lands have become habitats for these wildlife species. Therefore, appropriate action should be taken against individuals who leave such lands uncultivated, leading to these challenges.

## **8. Free Electricity in Kerala's Agriculture Sector**

Kerala government provides free electricity to farmers in the agriculture sector to promote sustainable farming and reduce production costs. This initiative primarily benefits small and marginal farmers, ensuring affordable access to irrigation facilities and other electricity-dependent agricultural activities. By alleviating energy expenses, the scheme supports enhanced agricultural productivity and encourages farmers to engage in cultivation, particularly in regions facing economic challenges. From April 2022 onwards, the scheme was restructured to focus on restricting free electricity benefits exclusively to agricultural committees/samithies

Although samithies were formed, and the project continued from April 2022, the outstanding dues have been steadily increasing. Furthermore, since only the funds allocated for each financial year can be disbursed, both the arrears and interest have accumulated significantly. This has led to a situation where farmers receive messages and calls on their mobile phones, causing them distress. Further, these farmers often blame the Farmer's Committee, creating social issues within the community. Therefore, immediate action is required to clear the outstanding dues.

**9. Boosting Kerala's agriculture with drip irrigation and mulching: Sustainable farming practices that conserve water, improve soil health, and enhance crop yields—though farmers seek timely subsidies to manage rising costs.**

Drip irrigation and mulching are widely used in Kerala's agriculture sector to enhance water efficiency and improve soil health. Drip irrigation delivers water directly to plant roots, minimizing water wastage and promoting sustainable farming. Mulching, on the other hand, involves covering the soil with organic or synthetic materials, which helps retain moisture, suppress weeds, and regulate soil temperature. Together, these methods boost crop yields, conserve resources, and contribute to more environmentally friendly farming practices in the state. The raw components required for such farming methods come at a significant cost. As a result, farmers have requested that half of the expenses be paid in advance. Furthermore, purchasing items like mulching sheets in bulk can prove to be more economical, as any surplus materials can be utilized in the following years. The primary issue farmers are facing, however, is that the bills from this year are not eligible for the subsidy in the next year. To address this, the scheme should be revised so that submitting the bulk purchase bill for mulching sheets, along with a certificate from the agriculture officer, will be made sufficient to qualify for the next years subsidy.

**10. Streamlining Kerala's agricultural markets: Farmers call for consolidation into a unified, large-scale market to boost direct sales and ensure sector growth.**

Kerala's agriculture sector faces significant challenges due to the lack of

a well-established and efficient market system. Farmers often struggle with low prices, delayed payments, and inadequate market access, leading to financial instability. The absence of proper market infrastructure, along with middlemen exploiting price fluctuations, results in farmers receiving a minimal share of the profits. Moreover, there is a lack of direct linkage between producers and consumers, which hinders fair trade. To address these issues, there is a pressing need for a robust market system that ensures fair prices, timely payments, and better market access for farmers, fostering economic stability and growth in the agricultural sector.

At present, the agriculture department permits several markets to operate in the same area, often resulting in failure of most of them. Consequently, farmers advocate for merging these smaller markets into a single, large-scale market, which would facilitate direct sales of their products. This centralized approach is seen as crucial for the growth and sustainability of the agricultural sector. Moreover, farmers have emphasized the need to reintroduce the 'Karshika Mitra Scheme' to provide them with additional support in these efforts.

### **Field Visit**

Field visits were conducted to assess the grass root level implementation of the Agriculture Department's plan schemes at the farms of the following farmers: Sri.Sabu Mathew (Koothattukulam) – Paddy, Coconut, Payar, Kacholam, and Manjal; Sri.Raju (Piravam) – Rice and Vegetables; Sri.Jose Varghese – Ginger, Turmeric, Rambutan, and Pepper; Smt. Divya (Koothattukulam) – Vegetable cultivation; and Sri.Jayaram (Pambavila) – Rice cultivation. During the visit, it was observed that the farmers are effectively managing their agricultural activities with minimal challenges.

### **IV. Office of the Assistant Director of Agriculture (ADA) Mulanthuruthy.**

Mulanthuruthy, located in the Ernakulam district, is known for its rich agricultural practices. The region has a diverse agricultural landscape due to its favorable climate, with heavy rainfall and a mix of fertile alluvial soils. The agricultural landscape in Mulanthuruthy is a mix of traditional and modern practices, with an emphasis on diverse cropping systems that utilize the region's natural resources. While coconut, rubber, and spices dominate the

agricultural economy, challenges related to climate change and market access require adaptive measures to sustain and improve the agricultural practices in the region.

In the financial year 2023-24, the following schemes were executed under the purview of the Assistant Director of Agriculture, Mulanthuruthy. The expenditure details associated with the ADA, Mulanthuruthy are outlined below:

(₹ in lakh)

Sl. No	Name of Scheme	Head of Account	Outlay	Expenditure
1.	Vegetable Development	2401-00-119-85-00-04-01 PV	19.26602	19.26602
2.	Coconut Development	2401-00-103-87-00-34-00 PV	19.97880	19.97880
3.	Crop Diversification, Intensification & Introduction	2401-00-103-75-00-00-00-PV	0.15000	0.15000
4.	Development of Spices	2401-00-108-59-00-00-00-PV	1.16500	1.16500
5.	Development of fruits plants	2401-00-119-79-00-00-00 PV	6.14667	6.14667
6.	Moderinization of Departmental laboratories	2401-00-105-86-00-34-00 PV	0.07798	0.07798
7.	Organic Farming and Good Agricultural practices	2401-00-105-85-00-00-00 PV	2.86500	2.86500
8.	Rice Development Programme	2401-00-102-90-00-34-00-PV	19.24523	19.24523
9.	Strengthening of Agricultural Extension	2401-00-109-80-00-34-00 PV	4.39900	4.39900
10.	Agro service centres and service delivery	2401-00-113-83-00-00-00-PV	2.79300	2.79300
11.	Soil Health Management and productivity improvement	2401-00-800-28-00-00-00 PV	1.75504	1.75504
12.	Crop Health Management	2401-00-107-78-00-00-00 PV	4.45090	4.45090

Sl. No	Name of Scheme	Head of Account	Outlay	Expenditure
13.	Office Automation and IT infrastructure	2401-00-001-86-00-99-00 PV	0.63100	0.63100
14.	Farm Plan Based production programme including preproduction support	2401-00-111-97-00-34-03PV	4.36013	4.36013
15.	Supply chain/ Value chain development and Integration under FPD	2401-00-111-97-00-34-03 PV	0.60000	0.60000
16.	Farm plan based support to formation of FPOs	2401-00-109-56-00-34-03-PV	2.70700	2.70700
17.	Farm Plan Based FPS's PHM support	2435-01-800-94-00-34-00 PV	2.00000	2.00000
18.	Market Development	2435-01-101-85-00-00-PV	2.57526	2.57526
19.	Market Development	2435-01-800-99-00-00-PV	0.50000	0.50000

## **Farmers' Concerns and Recommendations for the Agricultural Sector in Mulanthuruthy.**

### **1. Preserving Mulanthuruthy's Paddy Fields: Bridging the Gap Between Farmers and Mills for a Sustainable Future**

Paddy fields in Mulanthuruthy, were once expansive landscapes that formed the backbone of the region's agrarian economy. Blessed with fertile alluvial soil, abundant rainfall, and an intricate network of water bodies, these fields thrived as centers of agricultural productivity. However, in recent decades, the relentless wave of urbanization, burgeoning real estate development, and a shift in employment preferences have led to a significant reduction in the extent of these fields. Despite this decline, pockets of active paddy cultivation persist, upheld by dedicated traditional farmers and bolstered by government and community-driven efforts to promote sustainable agricultural practices.

Paddy cultivation in the Mulanthuruthy block is confined to small,



scattered fields. Due to the limited yield from these fields, mill operators rarely collect paddy directly from the source. Instead, farmers must bear the responsibility of transporting their harvest to the mills. This arrangement creates considerable hardships for farmers, particularly when distant mills are designated for paddy procurement. Without prompt intervention from the Agriculture Department, the future of these scattered paddy fields is at serious risk, with the possibility of their disappearance in the coming years. To address this issue effectively, it is crucial for the department to consider assigning mills closer to these small-scale paddy fields. Such a step would reduce the burden on farmers and promote a more efficient and sustainable procurement system.

## **2. Tailoring Development to Local Conditions: Empowering Mulanthuruthy's Farmers through Geography-Driven Projects**

According to the opinion of the farmers in the Mulanthuruthy block, each panchayat has unique geographical features, climate, and soil characteristics, which play a crucial role in determining its agricultural and developmental potential. It is essential to design and implement projects and schemes tailored to suit these specific conditions. By adopting a localized approach, the effectiveness of development initiatives can be enhanced, ensuring sustainable growth, improved resource utilization, and better outcomes for the community.

## **3. Combating Waterlogging: Innovative Solutions for Sustainable Paddy Farming in Mulanthuruthy**

Waterlogging represents a critical risk to paddy cultivation in the Mulanthuruthy region. The combination of excessive rainfall, inadequate drainage infrastructure, and inefficient water management practices has led to frequent waterlogging of fields. This condition severely hampers root development by depriving crops of essential oxygen, resulting in stunted growth, reduced yields, and heightened vulnerability to diseases. Prolonged waterlogging can also cause significant soil degradation and erosion, further diminishing long-term agricultural productivity.

In relation to the Thottarapuncha paddy fields, it is highly recommended to explore the use of a penstock system to naturally channel excess water from the Kunnamkulam paddy fields through Keecheri to the lake. If successfully implemented, this system could be replicated to direct water from the paddy fields to the Millungal estate, improving water flow management. A shutter system should be installed to prevent water from re-entering the fields during high tide and low tide periods so as to ensure better control over water levels and protecting the fields from the adverse effects of waterlogging.

By addressing the challenges posed by waterlogging through these innovative solutions, it is possible to enhance crop health, improve yields, and safeguard the long-term sustainability of paddy farming in the region.

#### **4. Empowering Farmers: Ensuring Quality and Timely Service Through Local Machinery Purchases**

The Venture Capital Scheme aims to support innovative and sustainable agricultural ventures by providing financial assistance to farmers, agripreneurs, and agricultural startups. The scheme encourages the adoption of modern farming techniques, value-added agricultural products, and agribusiness ventures. The scheme is designed to foster entrepreneurship within the agricultural sector, boost rural development, and enhance the overall competitiveness of Kerala's agriculture industry. The scheme is structured to offer government assistance by covering a portion of the funds needed to initiate small agricultural businesses, including the purchase of machinery. When acquiring equipment for the production of value-added products under the Venture Capital Scheme from accredited agencies, the expected quality is often not met, and timely service can be difficult to obtain, resulting in delays. In contrast, sourcing equipment from local manufacturers guarantees both consistent quality and more efficient access to prompt service. Therefore, it is crucial to grant farmers the authorization to purchase locally available machinery, ensuring that the quality is thoroughly verified.

#### **Field Visit**

Under the Udayamperoor Krishi Bhavan, Sri. John Jacob is a dedicated farmer who cultivates a variety of crops, including vegetables, pepper, ginger,

yam, colocasia, and greater yam. Alongside farming, he also engages in livestock rearing, maintaining cows, chickens, ducks, quails, and fish in an efficient and sustainable manner.

The Mulamthuruthy Krishi Bhavan supports a venture capital initiative named "Hridhya Fruits Processing," which has achieved remarkable success. This unit specializes in producing and marketing high-quality products such as pickles, tapioca chips, banana chips, jackfruit chips, and pineapple jam.

In Amballoor, under the guidance of the Amballoor Krishi Bhavan, Sri. Shaji, a progressive farmer, excels in the cultivation of paddy, coconut, banana, nutmeg, vegetables, and various fruit trees, showcasing a model of diversified farming.

Additionally, the Udayamperoor Krishi Bhavan facilitates the operations of "Sasya Agro Bio Pharmacy & Eco Shop," which plays a pivotal role in supporting local farmers. The shop markets fresh vegetables and fruits sourced directly from farmers, along with value-added products like rice flour, pickles, and honey. Utilizing advanced drying facilities, the shop processes fruits into dried products for commercial sale. It also collects coconuts from farmers, processes them using dryers, and produces high-quality coconut oil and market them.

## **V. Office of the Assistant Director of Agriculture (ADA) Kundara**

Kundara, a sub urban town in the Kollam district, has a rich agricultural heritage that continues to play a vital role in the region's rural economy. Despite the growing prominence of industrial development in the area, agriculture remains a cornerstone of livelihood for many residents. The primary crops in the area include rubber, coconut, paddy, and various spices, reflecting its diverse agricultural profile. Farming in Kundara is characterized by a blend of traditional methods and modern techniques, although the adoption of mechanized practices remains limited. Notably, organic farming is gaining popularity among small-scale farmers, driven by a commitment to sustainable agriculture.

However, the sector faces significant challenges. Rapid industrialization and urban expansion have led to a reduction in agricultural land, while many agricultural workers have migrated to non-agricultural sectors, impacting

productivity. Despite these obstacles, Kundara's agricultural sector holds immense potential for growth. Establishing agro-processing units, particularly for value-added products like coconut and spices, offers a promising opportunity to strengthen the local agricultural economy. Furthermore, the increasing demand for organic and sustainably grown products provides a platform for innovative farming practices. By capitalizing on these opportunities, Kundara can unlock new markets for its produce, foster sustainability, and enhance farmer incomes.

In the financial year 2023-24, the Assistant Director of Agriculture (ADA), Kundara, implemented a series of schemes. The expenditure details associated with these initiatives are summarized below:

(₹ in lakh)

Sl. No	Name of Scheme	Head of Account	Outlay	Expenditure
1.	Vegetable development programme	2401-00-119-85-00-34-00 PV	29.3549	29.3549
2.	Coconut Development	2401-00-103-87-00-34-00 PV	23.56775	23.56775
3.	Development Of Spices	2401-00-108-59-00-00-00-PV	1.5068	1.5068
4.	Scheme for Development of Fruits plants	2401-00-119-79-00-00-00 PV	6.39744	6.39744
5.	Modernization of Departmental Laboratories	2401-00-105-86-0034-00 PV	0.0351	0.0351
6.	Organic Farming and Good Agricultural Practices	2401-00-105-85-00-00-00-PV	2.0075	2.0075
7.	Rice Development Programme	2401-00-102-90-00-34-00 PV	10.77992	10.77992
8.	Strengthening of Agricultural Extension	2401-00-109-80-00-34-00 PV	21.03424	21.03424
9.	Agro Service Centres and Service Delivery-XXIX	2401-00-113-83-00-00-00-PV	5.32625	5.32625
10.	Soil Health Management and Productivity Improvement	2401-00-800-28-00-00-00 PV	0.28	0.28
11.	Crop Health Management	2401-00-107-78-00-00-00 PV	6.73135	6.73135

Sl. No	Name of Scheme	Head of Account	Outlay	Expenditure
12.	Office Automation and IT Infrastructure	2401-00-1-86-00-99-00 PV	0.2884	0.2884
13.	Krishikootadhishtitha farm plan Vikasana Sameepanam	2401-00-104-67-00-34-03 PV	5.58019	5.58019
14.	Scheme on Supply Chain/Value Chain Development and Integration under FPD Programme-	2401-00-111-97-00-34-03 PV	0.8	0.8
15.	Scheme on support to FPO	2401-00-109-56-00-34-03 PV	2.85	2.85
16.	Post Harvest Management & Value Addition	2435-01-800-94-00-34 00 PV	0.5	0.5
17.	Onam Market	2435-01-101-85-00-00-00 PV	3.2	3.2
18.	Crop Diversification, Intensification & Introduction	2401-00-103-75-00-00-00-PV	0.75	0.75

## **Farmers' Concerns and Recommendations for the Agricultural Sector in Kundara.**

### **1. Empowering Agriculture: The Key Role of Machinery and the Need for Timely Maintenance**

Agricultural machinery plays a crucial role in boosting productivity, efficiency, and sustainability in farming. Equipment such as tractors, harvesters, and irrigation systems significantly reduce manual labour, save time, and enhance crop yields. Modern innovations, including precision farming tools and automated machinery, further optimize resource utilization and improve crop management.

However, the full potential of agricultural machinery can only be realized through proper maintenance and timely repairs. In Kerala, many tractors and harvesters remain non-functional due to delayed repair services. Minor damages, when neglected, render these machines unusable, leading to their deterioration from prolonged exposure to harsh weather conditions like rain and sunlight.

To address this issue, it is vital to enhance the efficiency of Agricultural

Engineering Wings in every district. These bodies must ensure the timely repair and maintenance of malfunctioning equipment, enabling farmers to use them effectively. Authorities should take proactive measures to guarantee that agricultural machinery provided for the sector's growth is consistently serviced, ensuring its longevity and optimal performance.

## **2. Rebuilding Trust in Agriculture: Addressing Key Challenges to Empower Farmers**

Farmers are increasingly hesitant to pursue agriculture as their primary occupation due to a range of challenges. These include the volatility of agricultural product prices, high labour costs, a shortage of skilled workers, the inability to secure fair market prices for their produce, and exploitation by intermediaries. All these issues undermine farmers' confidence and deter them from considering agriculture as a sustainable livelihood option.

To address these challenges, prompt intervention by the Agriculture Department is imperative. Efforts must focus on stabilizing agricultural product prices, reducing labour costs, ensuring the availability of skilled labour, guaranteeing fair market prices, and eradicating intermediary exploitation. Implementing these measures is essential to rebuild farmers' trust in the sector and encourage them to view agriculture as a viable and rewarding profession.

## **3. Reintroducing Sprayers and Pump Sets in the VDP Scheme**

One of the key components of the scheme established to promote vegetable cultivation is the distribution of sprayers and pump sets. However, it has become clear that these components have been excluded from the current scheme. It has been reported that many farmers have consistently requested the inclusion of sprayers and pump sets in the VDP scheme. Therefore, after assessing the situation, the Agriculture Department should decide whether these components can be reintroduced into the scheme.

## **4. Ensuring Sustainable Agriculture: The Need for Regular Cleaning of Water Channels and Bodies**

In agricultural activities, the channels and water bodies in each region play a significant role. Therefore, these water bodies and channels must be cleaned annually to ensure smooth water flow and proper drainage. To

achieve this, steps may be taken to make the services of the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) workers available for the purpose. Currently, such cleaning operations are carried out only once in every three years. As a result, due to the lack of regular cleaning, the accumulation of sand and silt causes flooding during the monsoon season, leading to the destruction of agricultural lands every year. Moreover, the reduction in the depth of the channels makes it difficult to manage the rainwater, and the drought during the summer causes further damage to the crops. Consequently, this situation forces farmers to abandon their agricultural activities.

### **Field Visit**

As part of the Plan Fund Evaluation, the Finance Department team visited several farms under the jurisdiction of the Kundara ADA. A summary of the evaluation is provided below:

#### **Kundara Krishi Bhavan:**

Under the guidance of Kundara Krishi Bhavan, Sri. Pradeep Kumar of Sankaramangalam cultivates a variety of crops, including vegetables, breadfruit, chilies, ponanganni spinach, and bananas. He also raises a significant number of cows, contributing to livestock farming.

#### **Chittumala Krishi Bhavan:**

Sri. Anil Kumar of East Kallada, operating under Chittumala Krishi Bhavan, engages in commercial farming of various crops, including yam, colocasia, greater yam, chilies, amaranth, brinjal, snake gourd, beans, butternut squash, ridge gourd, bird's eye chili, spinach, and lady's finger. He also cultivates Onam festival flowers, further diversifying his farming activities.

#### **Perayam Krishi Bhavan:**

The "Thaninadan Group," a venture capital unit operating under Perayam Krishi Bhavan, processes and markets products such as pickles and banana chips. The unit also dries and powders turmeric, chilies, coriander, finger millet, wheat, and maize using dryers for market distribution.

#### **Perinad Krishi Bhavan:**

At Perinad, the Sree Shivam Mukku Perinad Spice Producers' Committee

operates with the support of the Panchayat. Farmers are provided turmeric seeds free of cost, and the harvested turmeric is bought back at ₹25 per kilogram. The turmeric is then processed into turmeric powder and soaps, marketed under the brand name "Perinadan."

Under the leadership of Smt. Sheela Kumari Amma, a seven-member group markets coconut oil under the name "Perinadan Chakkilattiya Coconut Oil." The group collects coconuts, dries them, and processes them into oil for sale. They also source copra directly from farmers to support the local agricultural economy.

## **VI. Office of the Assistant Director of Agriculture (ADA) Sasthamcotta**

Sasthamcotta, located in the Kollam district, is known for its traditional agricultural practices, particularly in the cultivation of crops like paddy, coconut, rubber, and vegetables. The region's agriculture thrives due to its proximity to the Sasthamcotta Lake, which provides a reliable source of water for irrigation. Paddy cultivation, especially in the wetland areas, is the predominant agricultural activity, with farmers adopting a mix of traditional and modern farming methods. Besides paddy cultivation, the area is known for its spice cultivation, including crops like pepper and cardamom. Despite facing challenges like water management and market fluctuations, the agricultural sector of Sasthamcotta remains crucial to the local economy and livelihoods.

In the financial year 2023-24, the Assistant Director of Agriculture (ADA) in Sasthamcotta successfully implemented the following schemes. The detailed expenditure for ADA, Sasthamcotta, is provided below:

(₹ in lakh)

Sl. No	Name of Scheme	Head of Account	Outlay	Expenditure
1.	Office Automation and IT Infrastructure	2401-00-001-86-00-99-00 PV	0.36	0.36
2.	Rice Development Programme	2401-00-102-90-00-34-00 PV	3.73952	3.73952
3.	Crop Diversification, Intensification & Introduction	2401-00-103-75-00-00-00 PV	0.75	0.75



Sl. No	Name of Scheme	Head of Account	Outlay	Expenditure
4.	Coconut Development	2401-00-103-87-00-34-00 PV	15.63725	15.63725
5.	Farm Plan Based Production Programme including Pre-production Support	2401-00-104-67-00-34-03 PV	5.27886	5.27886
6.	Organic Farming and Good Agricultural Practices	2401-00-105-85-00-00-00-PV	1.14500	1.14500
7.	Modernization of Departmental Laboratories	2401-00-105-86-00-34-00 PV	0.06720	0.06720
8.	Crop Health Management	2401-00-107-78-00-00-00 PV	7.05622	7.05622
9.	Development of Spices	2401-00-108-59-00-00-00-PV	2.73125	2.73125
10.	Strengthening of Agricultural Extension	2401-00-109-80-00-34-00 PV	13.92445	13.92445
11.	Farm Plan based Production programme	2401-00-111-97-00-34-03-PV	0.70	0.70
12.	Support to farm mechanization	2401-00-113-83-00-00-00 PV	2.94062	2.94062
13.	Scheme for Development of Fruits plants	2401-00-119-79-00-00-00 PV	4.90248	4.90248
14.	Vegetable development programme	2401-00-119-85-00-34-00 PV	19.59250	19.59250
15.	Soil Health Management and Productivity Improvement	2401-00-800-28-00-00-00 PV	0.54500	0.54500
16.	Market Intervention	2435-01-101-85-00-00-00 PV	3.67866	3.67866
17.	Market Development	2435-01-800-99-00-00-00 PV	0.42	0.42

## **Farmers' Concerns and Recommendations for the Agricultural Sector in Sasthamcotta.**

### **1. Reviving Irrigation: Completing the Kallada Canal to Boost Agricultural Productivity and Ensure Water Supply**

The irrigation canal constructed under the Kallada Irrigation Project is currently in a deteriorated state in several areas, with some sections incomplete and in disrepair. Water is not reaching the western part of Kallada Panchayat through the KIP canal, impacting irrigation. Specifically, a section of about 100 meters between Pound Mukku and the old bus stand remains untouched, with the canal left unexcavated and the side walls unfinished. Despite numerous letters sent to authorities regarding the issue, no action has been taken thus far.

If this small section of the canal is completed, it will provide continuity to the canal, ensuring a steady water supply to the primary rice farming areas of West Kallada, including the Idiyattupuram and Nedumchal paddies. This would secure water availability, enabling farmers to shift from the current single crop to two or even three rice harvests annually. With water flowing through the canal, the production capacity could potentially double in this area, leading to increased agricultural output.

It is essential that the KIP canals undergo timely repairs and that steps are taken to ensure water is delivered effectively. Furthermore, there should be a plan to bring canal water to fields that are currently not directly serviced by the canal, possibly through the installation of a pipeline. This would significantly enhance irrigation coverage and improve crop yields.

### **2. Ensuring Timely Water Supply: A Collaborative Approach to Irrigation Infrastructure and Efficient Water Management**

A detailed and prompt action plan is required for the development of basic infrastructure in agricultural fields, in collaboration with the Kerala Water Authority and Minor Irrigation Departments. These departments should work together to implement schemes that ensure the timely supply of water for agricultural needs. It is essential that farmers are promptly informed about

which areas will be receiving water, the duration of water release, and other relevant details. This information must reach the farmers in a timely manner to ensure effective water management.

In addition, the KIP canals, including the pipes used for pumping water, should be regularly maintained and repaired without delay. Timely repairs are crucial to ensure that the water supply remains uninterrupted and that irrigation continues effectively. Proper coordination between these department/agency and prompt action on the repair and maintenance of irrigation infrastructure will ensure a consistent and regular water supply, thereby supporting agricultural productivity.

### **3. Empowering Kerala's Agriculture: Strengthening Machinery Support and Farmer-Centric Initiatives**

Agricultural machinery, along with initiatives like Karshika Karma Sena, Krishi Shree Centers, and Agro-Service Centers, plays a vital role in enhancing Kerala's agriculture sector. These resources improve efficiency, reduce labour dependency, and ensure timely farming operations. While agricultural machinery modernizes practices, Karma Sena and service centers provide skilled support, maintenance, and access to equipment, empowering farmers to increase productivity and sustainability.

A system should be established at the block level to address the maintenance and repair of agricultural machinery efficiently. Instead of forming new labour teams, efforts should focus on strengthening existing groups such as Karma Sena, Krishi Shree Centers, and Agro-Service Centers. Moreover, steps should be taken to revive the Karma Sena under the jurisdiction of Krishi Bhavan by incorporating relevant initiatives into the participatory planning projects. Farmers also emphasized the need to ensure that agricultural equipment is serviced on time and maintained in a usable condition for their benefit.

### **4. Reviving Rivers and Rescuing Agriculture: Addressing Challenges in Water Management and Farmer Livelihoods**

River deepening plays a vital role in effective water management by

increasing a river's capacity, ensuring irrigation during dry spells, and mitigating flood risks. It also aids in groundwater recharge, improves soil moisture, and supports timely farming, enhancing crop productivity and sustainability.

In the Sooranad North Grama Panchayat, paddy cultivation has significantly declined, from 200 hectares in 2016 to just 100 hectares in 2024. The primary water source for these fields, the Pallikkal River, has lost depth over the years due to silt accumulation and the growth of tree roots, severely reducing its water-carrying capacity.

During the monsoon season, the Pallikkal River overflows, causing extensive damage to paddy fields. This has disrupted timely paddy cultivation, leading to repeated crop losses and financial burdens that have discouraged farmers from continuing this practice.

Apart from rice, straw is an additional source of income for farmers. However, the use of modern harvesting machinery results in straw breaking into smaller pieces, reducing its market value. Consequently, farmers struggle to earn a fair price for this byproduct, adding to their challenges.

## **5. Empowering Farmers, Ensuring Fair Markets: Addressing the Challenges of Weekly Markets and Agrimarkets for a Sustainable Future**

The system of Azhcha Chanthas (weekly markets) and Agrimarkets are designed to provide farmers with direct platforms to sell their produce. However, these markets often face irregular functioning, lack of infrastructure, and competition from larger commercial traders. As a result, farmers frequently receive inadequate returns for their crops. In addition, inconsistent quality control and inadequate registration systems contribute to exploitation and poor governance in these markets.

Farmers encounter significant difficulties in the market due to these issues. To address these challenges, it is essential to establish systems that ensure fair prices for their products. Implementing registration procedures in these markets is crucial to prevent price discrepancies. With proper registration, only authorized farmers and traders can participate in auctions, facilitating transparent market management and reducing exploitation.

Additionally, it is necessary to collect detailed information about all markets, especially at the block level, to ensure better monitoring and regulation. Weekly markets should only be maintained if they are functioning efficiently. Non-profitable markets should be shut down to avoid wasting resources. The responsibility for these reforms and improved market management should lie with the Assistant Director of Agriculture (ADA) concerned.

By addressing these issues, we can create a more sustainable and fair market environment for farmers.

## **6. Addressing the Registration Crisis of Padasekhara Samithis: A Call for Urgent Intervention**

The Padasekhara Samithis in Kerala are instrumental in the collective management of paddy fields, promoting sustainable agricultural practices, and safeguarding farmers' welfare. Governed by the “Kerala Conservation of Paddy Land and Wetland Act, 2008”, these committees play a vital role in coordinating irrigation, addressing land and labour challenges, and facilitating access to government subsidies, financial aid, and marketing opportunities. The registration process involves forming a committee, preparing necessary documentation, and obtaining approval from agricultural authorities, ensuring seamless integration with local bodies and access to various schemes.

However, the COVID-19 pandemic disrupted the renewal of registrations, leading to challenges such as ineligibility for government benefits, delays in infrastructure projects, marketing hurdles, and administrative roadblocks. Small-scale farmers were particularly impacted, as they heavily rely on these committees for resources and support. Moreover, the backlog of pending arrears over several years has made farmers reluctant to renew registrations, further aggravating the situation. Consequently, government schemes and initiatives for paddy cultivation have been significantly hindered.

To address these issues, the Agriculture Department must urgently consider implementing **a one-time settlement scheme** to resolve pending registration arrears. Furthermore, extending renewal deadlines, simplifying the process through digital platforms, and providing interim measures and financial support are essential to strengthen the functioning of Padasekhara

Samithis. These steps are critical to ensuring the sustainability of Kerala's agrarian economy amid the challenges posed by urbanization and environmental changes.

### **Field Visits**

As part of an agricultural evaluation under Sasthamkotta ADA, several farms were visited to assess farming practices and value-addition initiatives. Below is a detailed summary of the observations:

#### **Mainagappally Krishi Bhavan:**

Sri.Raghunathan Pillai of Kalithara, operating under Mainagappally Krishi Bhavan, exemplifies a diversified farming approach by cultivating paddy, ginger, turmeric, sesame, and vegetables. Alongside crop cultivation, he efficiently manages livestock, rearing cows, chickens, and ducks.

#### **Sasthamkotta Krishi Bhavan:**

Smt. Maniyamma, a progressive farmer under Sasthamkotta Krishi Bhavan, excels in cultivating paddy, maize, and flowers, demonstrating her dedication to successful crop production.

#### **Kunnathoor Krishi Bhavan:**

Sri. Mohanan, working under Kunnathoor Krishi Bhavan, specializes in perennial crop farming with a focus on cultivating nutmeg, mango, and jackfruit trees, contributing to sustainable agriculture.

#### **Poruvazhi Krishi Bhavan:**

A dynamic Agricultural Task Force under Poruvazhi Krishi Bhavan actively engages in packaging and selling organic manure. They also supply high-quality saplings of jackfruit, mango, rambutan, and coconut, as well as premium seeds for planting. This team manages a three-hectare leased farm, cultivating crops such as ginger, turmeric, sesame, sugarcane, colocasia, greater yam, and bananas.

Furthermore, the \*Cinemaparambil Shri Ayyappa Agricultural Value-Addition Center\*, led by Smt. Krishnakumari and an eight-member team, operates under Poruvazhi Krishi Bhavan. Initiated with a ₹10 lakh loan through SMAM (Sub-Mission on Agricultural Mechanization), this center is equipped with advanced facilities, including mills for processing paddy into

rice, grinding rice flour, and extracting coconut oil. Additionally, dryers are utilized for processing turmeric, pepper, coconut, and jackfruit. This center has been functioning efficiently, adding substantial value to agricultural products while supporting local farmers.

### **Kerala Agriculture University**

After the ADA-level reviews, the Finance (Performance Budget) Department team conducted evaluation at Kerala Agricultural University, Mannuthy, regarding the utilization of plan funds. The details are as follows:

Kerala Agricultural University (KAU), established in 1971, is a premier institution dedicated to agricultural education, research, and extension services in Kerala. Headquartered at Vellanikkara, Thrissur, KAU plays a pivotal role in advancing sustainable agricultural practices, promoting innovative farming technologies, and improving rural livelihoods.

The university offers undergraduate, postgraduate, and doctoral programs in agriculture, horticulture, forestry, and related disciplines. It operates several regional research stations and Krishi Vigyan Kendras (KVKs) to address region-specific agricultural challenges and provide practical training to farmers. KAU also collaborates with state and national agencies to implement agricultural development projects and foster eco-friendly farming practices.

By integrating education, research, and extension, KAU significantly contributes to Kerala's agrarian economy and food security while emphasizing environmental conservation.

The details of the plan fund outlay, allocation and expenditure are provided in the table below:

Financial Year	Sanctioned Outlay (₹ in Cr)	Allocation and Expenditure (₹ in Cr)	Percentage
2011-12	45.02	44.47	98.75
2012-13	60	54	90

Financial Year	Sanctioned Outlay (₹ in Cr)	Allocation and Expenditure (₹ in Cr)	Percentage
2013-14	91.85	57	62.06
2014-15	63	31.325	49.72
2015-16	63	27.365	43.44
2016-17	65.5	42.245	64.5
2017-18	75	38.905	51.87
2018-19	82.5	30	36.36
2019-20	82.5	15	18.18
2020-21	71.14	37.44	52.63
2021-22	71.14	49.605	69.73
2022-23	75	19	25.33
2023-24	75	10	13.33
2024-25	75	4	5.33

Various research projects are being carried out in different departments of Kerala Agricultural University, and new technologies and methods that are directly beneficial to farmers are being developed. Some notable points from the review by the Financial Department are listed below:

### **Overview of The Kerala State Agricultural Mechanization Mission (KSAMM) Activities in Agricultural Mechanization**

#### **1. Green Army Model and Service Centres:**

Initiated in 2009, the \*Green Army Model\* provided training in agro-machinery operation and maintenance, establishing 40 Agro Machinery Operation Service Centres (AMOSCs). Later, the Agriculture Department restructured those 40 centres into 99 block-level Agro Service Centres (ASC) and 368 panchayat-level Karshika Karma Sena (KKS). As of 2021-22, 28 block-level \*Krishi Sree Centres\* were formed to integrate ASC and KKS activities. However, manpower shortages remain a challenge, necessitating



better incentives to attract young workers. Overall, KSAMM is working towards transforming agriculture in Kerala by integrating technology and mechanization, thereby improving productivity, reducing labour dependency, and making farming more sustainable and economically viable.

## 2. Uberisation in Agriculture:

Uberisation in Kerala's agriculture sector refers to the use of digital platforms and on-demand services, allowing farmers to access agricultural machinery and services easily, similar to how Uber connects riders with drivers. Through mobile apps, farmers can rent equipment for tasks like planting, harvesting, and irrigation, providing cost-effective and flexible solutions, especially for small-scale farmers. This model helps reduce labour costs, boost productivity, and promote advanced technologies. An Uber-style agro-operation service is being developed through ASC, KKS, and Krishi Sree Centres (KSC). Initial trials at Eravipuram KSC faced challenges due to limited infrastructure, but a mobile app is being planned to streamline farmer requests and services.

## 3. Repair and Service of Agro Machinery:

KSAMM conducted state-wide surveys, revealing many idle or non-operational machines. Campaigns like 'Karshika Yantram Parirakshana Yajnam' repaired over 1,855 machines, while specialized district training programs equipped personnel with repair skills. A block-level repair campaign, 'Karshika Yanthram Sarvam Chalitham', proved successful in restoring agro-machinery.

## 4. Combine Harvesters:

KSAMM repaired and operationalized combine harvesters like CLAAS and Kubota models, offering direct operational services to farmers. However, skilled manpower for operation and maintenance remains insufficient. Renting combine harvester services, rather than the machines themselves, is recommended for better management.

#### 5. New Generation Agro-Machinery:

Customized agro-machinery suited for Kerala's diverse agro-ecological zones is urgently needed. KSAMM acquired specialized equipment like aquatic weed shredders and agro-dredge crafts to support wetland cultivation.

#### 6. Revamping Agricultural Engineering Wing:

The Agricultural Engineering Wing requires restructuring to manage agro-machinery operations, repair, and maintenance more effectively. Establishing a dedicated 'Farm Machinery Operation Wing' is a need of the hour.

**KSAMM's efforts highlight the critical role of mechanization in modernizing Kerala's agriculture. However, addressing manpower shortages, enhancing infrastructure, and integrating new technologies are vital for sustainable agricultural development.**

**'Nila' Wine, crafted from seven indigenous crops, opening new opportunities for Kerala's economy and global recognition.**

The Kerala Agricultural University (KAU), utilizing plan funds, has established a winery and developed the technology to produce wine from seven distinct crops. These include banana, pineapple, cashew apple, jackfruit, jamun, coconut water, and nutmeg. At present, the only wine available in the Indian market is grape wine.

In this context, it is essential to explore and expand the potential of wines made from indigenous crops of Kerala and leverage their commercial significance. With Kerala being a leading destination for both domestic and international tourists, introducing these innovative products to the market could significantly contribute to the state's economic growth.

Introducing 'Nila' Wine, developed by the Kerala Agricultural University, to the global market is a crucial step. For this, **two approaches are recommended: producing the wine on a commercial scale through a public sector company under government supervision, or granting the**

**university permission to sell 'Nila' wine as an initial step toward commercialization.** Taking decisive action in either direction is imperative to realize its full potential.

### **Cocoa Cultivation and Research: Contributions and Prospects**

Cocoa, a versatile crop, is highly suitable for intercropping with plantations like coconut, arecanut, and rubber. Its integration into such systems enhances ecological sustainability while offering economic stability to growers. Cocoa's global demand, primarily for chocolate production, ensures a lucrative and stable income for farmers.

The Kerala Agricultural University's (KAU) involvement in cocoa research began in 1979 under a World Bank Project and gained momentum with the Cadbury-KAU Cooperative Research Project in 1987. Over 36 years, significant milestones have been achieved, including:

1. Germplasm Development: Maintenance of India's largest cocoa germplasm collection with 611 accessions.
2. Hybrid and Clone Releases: Development of 7 clones (CCRP 1-7), 8 hybrids (CCRP 8-15), and 6 pre-released hybrids with multiple resistance traits.
3. Seed Gardens: Establishment of polyclonal and biclonal seed gardens to meet the growing demand for hybrid pods.
4. Agro-Techniques: Standardization of cultivation practices, propagation techniques, and pest and disease management.

Recognizing the potential for value addition, KAU's Cocoa Research Centre (CRC) expanded its focus to product development, supported by Government of Kerala funding. This led to breakthroughs in processing and manufacturing, including:

- **Primary and Secondary Processing:** Standardization of processes such as fermentation, drying, roasting, and blending, essential for converting cocoa beans into finished products like chocolate.
- **Innovative Product Development:** Creation of 22 natural cocoa-based products without preservatives or adhesives, ensuring premium quality.
- **Cocoa Butter Extraction:** Development of techniques to extract cocoa butter, a high-value product used in the pharmaceutical and cosmetics industries.

A model cocoa processing center was established under the state plan project to develop scalable technologies and train entrepreneurs. Through CRC's initiatives, 13 entrepreneurs have successfully entered the cocoa production sector. These efforts are supported by custom-designed processing equipment developed in collaboration with Kelappaji College of Agricultural Engineering and Technology, Tavanur.

### **Challenges and Future Directions**

Despite these achievements, several challenges persist, requiring government intervention:

1. **Water Scarcity:** Drip irrigation systems should be promoted for yield enhancement, particularly under current water constraints.
2. **Support for Cocoa Clusters:** Identifying farmers and forming clusters in key cocoa-growing regions, such as Adimali, could streamline the procurement of quality beans and improve export potential.
3. **Climate Change Adaptation:** Strengthening research to address climate challenges is crucial for sustaining cocoa production.

**Cocoa has immense potential as a high-value crop, both in terms of income generation and ecological benefits. The ongoing advancements at CRC, coupled with government support, can empower farmers, boost exports, and position Kerala as a leader in sustainable cocoa production and value addition.**

## **Machinery developed for rice and coconut farming systems at Agricultural Research Station, Mannuthy, KAU**

### **Portable Circulatory Paddy Grain Dryer**

A portable circulatory paddy grain dryer was developed in collaboration with NABARD to efficiently dry paddy seeds. It has a '1.5-ton capacity per batch' and uses a '3.75 kW electric motor' to operate a bucket elevator for seed recirculation. Drying is achieved through a detachable biomass-fired kiln, utilizing residues like coconut shells and paddy husks as fuel, making it eco-friendly. The dryer maintains a consistent temperature of 40°C, requiring approximately 6 hours per batch to reduce grain moisture content to 12%. Designed for farmer collectives, SHGs, and paddy-growing regions like padashekharams in kole lands, it ensures effective drying even in unfavorable weather, promoting sustainable and efficient post-harvest processing.



### **Tractor-Operated Belt Conveyor Loader for Paddy**

A tractor-powered foldable belt conveyor loader was developed with NABARD funding to streamline paddy loading and unloading. This machine can load and unload paddy grain bags up to a height of 3 m, with a capacity of 125 bags (9 tons) per hour, at an operational cost of just ₹5 per bag. It significantly reduces the physical effort involved and ensures timely movement of harvested paddy from fields to transport vehicles. Ideal for agricultural service providers, farmer collectives, SHGs, and padashekharams of kole lands, this equipment facilitates efficient post-harvest handling, preserving grain quality and ensuring timely delivery to rice mills.



### Tractor-Powered Lime Applicator for Paddy

To address the challenges of acidic soils and reduce the labour-intensive process of lime application, a tractor-operated lime applicator has been developed. The applicator can cover 1 hectare per hour when operated with a 35–45 hp tractor. It has also been enhanced to directly powder calcium oxide (burnt lime) for application. This lime applicator is suitable for use by entrepreneurs, agricultural service providers, and Agro Service Centres (ASCs), offering an efficient and cost-effective solution for farmers, with service charges calculated on an acre/hour basis.



### Smart Copra Drier

A smart copra drier was developed with funding from the Coconut Development Board to dry 500 coconuts per batch. The drier uses heat from a coconut shell-fired furnace and features a hexagonal rotary drum equipped with six MS mesh holding cages for coconuts. The drying chamber, made of heat-resistant bamboo ply, maintains a temperature of 65–70°C, with humidity and temperature regulated by flip valves. A coconut shell crusher automatically feeds shells into the furnace at intervals, controlled by an electromechanical system. The drying process reduces the initial moisture content from 50% to 8% w.b. in just 28 hours, producing MCG1-grade copra. In comparison, traditional sun drying takes 56 hours to achieve a lesser grade. The processing cost per kilogram is ₹32. This drier is ideal for Farmer Producer Organizations (FPOs), Farmer Producer Companies (FPCs), women SHGs, Kudumbashree units, and entrepreneurs working in coconut processing, offering time savings and high-quality copra production.



### Agri-Business Incubation Centre (ABI), Thrissur

The Agri-Business Incubation Centre (ABI) in Thrissur serves as a vital hub for fostering entrepreneurship and innovation in Kerala's agricultural sector. With a focus on capacity building, entrepreneurial support, and outreach initiatives, ABI is committed to expanding its influence and contributing to the growth of agribusiness across the state.

Key Initiatives of ABI:



## 1. Capacity Building Programs

- Two-Tiered Training
- Level 1: Training for implementing officers managing schemes like AIF, SHM, and SFAC.
- Level 2: Training for both new and existing agribusiness entrepreneurs.
- District and Block-Level Coverage: Training sessions will be replicated statewide, coordinated by Agriculture Department officers and supported by initiatives like the ATMA scheme.
- Workshops and Seminars: Short one-day events tailored to local needs will promote networking, knowledge exchange, and community engagement.

## 2. Support for Entrepreneurs

- DPR Preparation: ABI will assist entrepreneurs in developing Detailed Project Reports (DPRs) at nominal costs, ensuring better project implementation and easier access to funding.
- Technological Assistance: ABI will provide guidance on technology refinement, protocol development, and equipment selection to enhance productivity and market competitiveness.

## 3. Revival of State-Level Agri Exhibitions

- Reviving events such as Value Addition for Income Generation in Agriculture (VAIGA) will provide a platform for showcasing agricultural innovations, value-added products, and best practices, inspiring stakeholders and promoting innovation in the sector.

By implementing these initiatives, ABI aims to strengthen the agribusiness ecosystem, supporting sustainable growth and innovation throughout Kerala.

## **Cashew Research Center, Madakkathara**

The Cashew Research Center at Madakkathara, Kerala Agricultural University, has developed advanced technologies for high-quality cashew production and nutrient-rich value-added products. This center has made significant contributions to cashew farming in Kerala, with innovative techniques and over eleven high-yielding varieties. It preserves more than 140



genetic resources and showcases unique features such as black cashew, giant varieties, and an impressive processing unit for cashew fruit, along with a museum and other attractions.

The center is a leader in cashew processing technology, particularly in developing methods for removing the cashew shell and producing commercial products. These products include jams, syrups, pickles, carbonated drinks, candies, sweets, and energy bars. Since 2022, the center has been transferring its technology to entrepreneurs, promoting new products such as sugar-free juices, nectars, jellies, and fruit bars.

Cashew is rich in vitamin C, phenols, flavonoids, and antioxidants, and has medicinal properties, especially for digestive disorders. Studies have highlighted its health benefits.

**Based on the information provided, the following suggestions are put forward:**

1. Distribute cashew-based products, considering their nutritional and medicinal value, to institutions like Anganwadis, through collaboration with departments like Women & Child Development and organizations like Kudumbashree.
2. Introduce cashew juice and cashew sweet distribution in schools through a joint initiative between the Agriculture, Education, and Industries Departments.
3. Organize entrepreneur fairs to promote cashew processing technologies and attract more entrepreneurs.
4. Conduct awareness campaigns about the nutritional and medicinal benefits of cashew to increase its acceptance.
5. Develop small-scale cashew processing units and facilitate technology transfer to existing fruit processing units.
6. Promote Kerala as a center of excellence in cashew research, processing, and product development.
7. Upgrade the cashew processing units to encourage hands-on learning for entrepreneurs and improve productivity.

8. Conduct training workshops for Agriculture Department officials on modern cashew farming techniques and processing technologies.
9. Develop the Cashew Research Center into a model farm tourism destination, attracting farmers and the public for educational tours.
10. Use digital media to spread awareness about cashew's health benefits and promote its products effectively.

These initiatives will enhance the impact of the Cashew Research Center, fostering economic growth and awareness of the region's rich cashew heritage.

*The review conducted by the Performance Budget team reveals that the rate of plan utilization in previous financial years has been notably low. Despite the opportunity to utilize 80% of the plan outlay, this potential has not been fully realized. Furthermore, there are numerous sectors within Kerala Agricultural University that can generate its own funds. Therefore, the department concerned must take necessary steps to establish a system that effectively coordinates these sectors.*

## **Recommendations**

### **General**

1. The Agriculture Department must formulate a clear, inclusive, and well-defined meaning to "**farmer**" to ensure that government schemes are effectively targeted and they genuinely benefit the rightful beneficiaries.
2. The Agriculture Department should explore the possibility for an active collaboration with the General Education Department to incorporate agriculture into the school curriculum starting from the lower primary level, allocating one period per week for hands-on farming activities to inspire and nurture a lasting interest in agriculture among the younger generation.
3. The Agriculture Department should focus on forming FPOs within a single grama panchayat or two adjacent panchayats, led by experienced farmers, and ensure that funding for additional FPOs is contingent upon the successful

operation of existing ones, with responsibility vested in the respective Assistant Directors of Agriculture (ADAs).

4. The Agriculture Department should support existing, successful venture capital projects only after evaluating their efficiency and providing necessary resources; New initiatives shall be taken up only after assessing their viability and alignment with farmers' needs; the Agricultural Officer being the field level supervisor shall prepare progress reports and submit through the ADA to the PAO for comprehensive state-level evaluation.

5. The Agriculture Department should take necessary steps to relocate existing non economical ecoshops to more strategic locations with better market access and hold agriculture officers accountable for improving their profitability, ensuring the initiative effectively connects farmers with the market and prevents misuse of public funds.

6. The Agriculture Department should ensure that coconut seedlings are distributed based on assessed demand from each agriculture office, avoiding unnecessary supply to unsuitable areas and preventing the misappropriation of government funds.

7. The Agriculture Department should explore the possibility to deligate ADAs the authority to allocate plan funds based on the specific needs and farming practices of each agricultural office, ensuring better alignment with local requirements and enhancing the effectiveness of agricultural schemes.

8. The Agriculture Department should explore the feasibility of a program allowing farmers to offer additional compensation to MGNREGS workers, in addition to their daily wages, to attract and retain labour in the agricultural sector.

9. The government should consider imposing an additional land tax on landowners who leave agricultural land fallow, to encourage land cultivation and reduce disturbances caused by wild animals.

10. The Revenue Department should be granted the authority to immediately impose and collect fines for violations of the Kerala Conservation of Paddy Land and Wetland Act, covering double the cost of restoration and reversing unauthorized changes, while the Agriculture Department should conduct thorough reviews and submit detailed reports to the government for further action.

11. To address the recurring issue of constructing and dismantling temporary bunds, the Agriculture Department should consider initiating a vigilance investigation to examine the inefficiencies in the construction and maintenance of these bunds ( Illikkal, Munayam, Ediyanchira, and Enamakal regulators and bunds) and the non implementation of Munayam regulator.

12. The Agriculture Department should strengthen the Agricultural Engineering Wings in every district to ensure the timely repair and maintenance of agricultural machinery, enabling farmers to utilize equipment effectively and prolong its lifespan for improved productivity.

13.. The Agriculture Department should assess the situation and consider reintroducing sprayers and pump sets into the Vegetable Development Program (VDP) scheme, as many farmers have consistently requested their inclusion.

### **ADA wise Recommendations**

#### **ADA, Puzhakkal**

14. The Agriculture Department should prioritize restoring and operationalizing the regulators at Enamakal, Idiyanthira, and Munayam to reduce reliance on temporary bunds, improve water management, and mitigate saltwater intrusion, thereby enhancing agricultural productivity and sustainability in the 30,000 acres of Kole farmland.

15. To mitigate crop damage caused by wildlife, action as per the existing provision should be taken against landowners who leave fields fallow which creates habitats for these pests.

16. To improve the efficiency of the PRS loan process, the authorities concerned should urge the SBI to appoint dedicated staff at branch levels, similar to Canara Bank, to prevent delays and streamline procedures.

17. To improve irrigation efficiency, the Agriculture Department should consider the distribution of submersible pump sets to farmers still using traditional Petti-Para pumps, and conduct an inventory of the replaced Petti-Para pumps in regions like Thrissur and Kuttanadu for proper reuse or auctioning.

18. The Agriculture Department, in coordination with the Revenue Department, should explore the feasibility of transitioning the Form A and B submission process for subsidized pumping to an online system, which would reduce time and financial losses, alleviate farmer difficulties, and ease the workload for officials.

#### **ADA, Cherpu**

19. To address labour shortages and high wage costs in dryland farming, it is essential to implement measures that promote the mechanization of dryland agriculture, reducing labour dependency and improving efficiency.

20. To prevent crop losses and inefficiencies, it is crucial to ensure timely and quality-assured distribution of planting materials through agencies like VFPC, KAU, RAIDCO, and KATECO, and to address the availability of seeds and banana suckers at local Krishi Bhavans in accordance with planting seasons.

21. To process locally grown paddy collected from the Kule fields and market it into 'Kerala Brand' rice, so as to avoid middle men in the field as well to

ensure prompt payment to farmers.

22. Strict measures must be taken to prevent urban waste to enter into paddy fields through drainage canals, protect agricultural land health, ensure sustainable farming practices, and safeguard the surrounding environment from pollution and contamination.

23. To ensure more efficient distribution and avoid delays caused by procedural formalities within the Revenue Department, the authorities should examine the possibility of channelizing the pumping subsidy for paddy fields through the Agriculture Department.

24. To address the growing threat of the Giant African Snail in the Cherpu region, the Agriculture Department must urgently implement a targeted program to prevent reproduction and eradicate the species. This should include coordinated efforts such as awareness campaigns, integrated pest management, and eco-friendly control measures to protect agricultural productivity and community well-being.

25. The Irrigation and Agriculture Departments should consider using running contracts or delegating canal maintenance to KLDC to improve weed removal and control plant growth, enhancing water quality and pumping efficiency.

26. Explore the possibility of a dedicated market or stall should be set up for farmers to sell their organic products directly, with a view to promote organic farming and increase financial benefits.

27. The possibility of a dedicated scheme under the Coconut Council should be explored to protect coconut saplings planted along paddy field bunds, ensuring the success of coconut cultivation programs and preventing sapling loss.

28. The department should assess the potential benefits of consolidating existing agricultural schemes into integrated programs, which could streamline

administration at the Krishi Bhavan, enhance efficiency, improve coordination, and lead to more effective implementation of agricultural initiatives.

29. A standardized wage system for porters should be implemented to address the rising costs of loading paddy, ensuring fairness, consistency, and transparency in the payment process.

### **ADA, Piravom**

30. The Agriculture Department should explore the possibility of offering additional financial support, including flexible payment schemes for machinery, and strengthen coordination efforts to unite farmers across regions, thereby fostering the growth of the Farmer Producer Organisation, including the \*Pampakuda Perumbavoor FPO\* in Pampakuda Block.

31. The Agriculture Department should prioritize widening and deepening the existing north-south drainage channels in the Kizhmuriyil-Kavunthazham paddy field to improve water flow, address waterlogging issues, and restore the agricultural potential of the 30-acre farmland affected by silted and collapsed channels and unauthorized land conversions.

32. The Agriculture Department should urgently take action to deepen the canal by 500 meters and regulate water flow through the Pampoori Chaal Padasekharam to ensure effective drainage, mitigate flooding and waterlogging in the Pampoori, Ullelikkun, and Kadav Padasekharams, and prevent the misappropriation of government funds.

33. The Agriculture Department should collaborate with the Agriculture Engineering wing, elected representatives, and Agriculture officials to hold consultation meetings with farmers, ensuring the design of a permanent solution to waterlogging in Ramamangalam Panchayat, while addressing obstacles in the canal ( Shivali) and considering river levels for smooth water flow.

34. The Department should prioritize repairing the damaged canal embankments in the 9th and 7th wards of Thirumaradi Panchayat to restore water flow, enabling the resumption of paddy cultivation on 50 acres of farmland.

35. The Agriculture Department should consider including provisions in the operational guidelines to grant benefits to farmers cultivating barren land under informal verbal agreements, based on certification by agricultural officers.

36. The Agriculture Department should take immediate action to clear the outstanding dues of the restructured free electricity scheme, ensuring timely disbursement of funds and addressing the distress caused to farmers.

37. The Agriculture Department should revise the current scheme to allow farmers to submit bulk purchase bills for mulching sheets, along with a certificate from the agriculture officer, for eligibility in the next year's subsidy, it also consider to pay half of the expenses in advance to ease financial burdens.

38. The Agriculture Department should consider consolidating smaller markets into a single, large-scale market to enhance direct sales, ensure fair prices, and improve market access, it may also think of reintroducing the 'Karshika Mitra Scheme' to provide additional support to farmers and promote economic stability in Kerala's agricultural sector.

#### **ADA, Mulanthuruthy**

39. The Agriculture Department should consider to assign mills closer to the small-scale paddy fields in urbanized areas like Mulanthuruthy to reduce the burden on farmers, improve the efficiency of the procurement system, and support the sustainability of these fields in the face of urbanization and changing agricultural practices.



40. The Agriculture Department should explore implementing a penstock system to channel excess water from the Kunnamkulam paddy fields through Keecheri to the lake, and install a shutter system to prevent water from re-entering the fields during tidal fluctuations, thereby improving water management, enhancing crop health, and ensuring the long-term sustainability of paddy farming in Mulanthuruthy.

41. The Agriculture Department should explore the option to authorize farmers to purchase locally available machinery for value-added agricultural products under the Venture Capital Scheme, ensuring consistent quality and timely service, which will enhance the efficiency and success of agricultural ventures.

#### **ADA, Kundara**

42. The Agriculture Department should ensure that the cleaning of channels and water bodies is carried out annually, utilizing the scope of availability of the MGNREGS workers, to prevent flooding, manage rainwater effectively, and protect agricultural lands from damage caused by sand and silt accumulation.

#### **ADA, Sasthamcotta**

43. Farmers reliant on the Kallada Irrigation Project for their agricultural needs have urged the Agriculture Department to prioritize the completion of the unfinished section of the Kallada Irrigation Canal, ensuring a continuous water supply to the rice farming areas of West Kallada. They have also called for the development of a plan to extend irrigation coverage to fields not currently served by the canal, potentially through the installation of a pipeline. The Agriculture Department may look into this in consultation with Irrigation (major) Department.

44. The Agriculture Department collaborate with the Water Authority and

Minor Irrigation Departments to develop and implement a comprehensive action plan for infrastructure development. This plan should ensure an efficient water supply to agricultural fields, timely communication with farmers regarding water availability, and regular maintenance and repairs of the KIP canals and pumping systems to sustain uninterrupted irrigation and enhance agricultural productivity.

45. The Agricultural Department may establish a block-level system to manage the maintenance and repair of agricultural machinery by strengthening existing support groups like Karma Sena, Krishi Shree Centers, and Agro-Service Centers, reviving Karma Sena under Krishi Bhavan, and integrating relevant initiatives into participatory planning projects to enhance productivity and sustainability.

46. The Agriculture Department may consider deepening the Pallikkal River in Sooranad North Grama Panchayat to restore water-carrying capacity, improve water management, reduce flood risks and support groundwater recharge, and steps may also be taken to address straw quality issues caused by modern harvesting machinery to ensure fair market value for byproducts.

47. The Agriculture Department may implement effective registration systems, improve infrastructure, and enforce better regulations in weekly markets and Agrimarkets to ensure fair pricing, reduce exploitation, and increase market efficiency.

48. It is recommended that the Agriculture Department implement a one-time settlement scheme to clear pending registration arrears, extend renewal deadlines, simplify the registration process through digital platforms, and provide interim financial support to strengthen the Padasekhara Samithis, ensuring their continued role in supporting sustainable paddy cultivation and farmers' welfare.

## **Kerala Agricultural University (KAU)**

49. It is recommended that the Agriculture Department may explore the possibility to adopt initiatives under the Kerala State Agricultural Mechanization Mission (KSAMM), such as the Green Army Model, Uberisation in Agriculture, and the revamping of the Agricultural Engineering Wing, to address manpower shortages, enhance infrastructure, and integrate new technologies for sustainable agricultural development.

50. The Agriculture Department should initiate steps to submit a proposal to the government to either establish a public sector company for the commercial-scale production of 'Nila' Wine under its supervision or grant permissions to the Kerala Agricultural University to sell 'Nila' Wine as an initial step toward commercialization, thereby fully realizing its potential in the global market.

51. Cocoa has a significant global demand, primarily driven by chocolate production, offering farmers a lucrative and sustainable source of income. Therefore, it is imperative in the current era for the Department of Agriculture, in collaboration with Kerala Agricultural University (KAU), to develop a comprehensive plan to promote cocoa cultivation among farmers.

52. The Kerala Agricultural University has pioneered the development of advanced, farmer-centric machinery such as the Portable Recirculatory Paddy Grain Dryer, Tractor-Operated Belt Conveyor Loader for Paddy, Tractor-Powered Lime Applicator for Paddy, and Smart Copra Dryer. These innovative technologies have become indispensable tools for farmers, offering significant practical benefits and addressing current agricultural challenges. To maximize their impact, it is imperative that the Department of Agriculture, in collaboration with the university, undertakes initiatives to commercialize these machines and incorporate them into the Sub-Mission on Agricultural Mechanization (SMAM) scheme.

53. The Agri-Business Incubation Centre (ABI) in KAU, Thrissur serves as a crucial hub for promoting entrepreneurship and innovation within Kerala's agricultural sector. By emphasizing capacity building, entrepreneurial support, and outreach programs, ABI is dedicated to fostering the growth of agribusiness across the state. To further this mission, the Department of Agriculture should initiate a project at the Assistant Director of Agriculture (ADA) level, ensuring the organization of at least two training sessions annually. These sessions should include a minimum of ten interested farmers from each ADA to maximize participation and impact.

54. The Cashew Research Center at Madakkathara, under Kerala Agricultural University, has pioneered advanced technologies for high-quality cashew production and the development of nutrient-rich value-added products. Building on this progress, KAU has outlined ten comprehensive recommendations detailed in its report. It is better for the administrative department to evaluate the feasibility of implementing these recommendations on a priority basis to maximize their impact.

55. There are numerous sectors within Kerala Agricultural University (Activities in Agricultural Mechanization, wine production, Cocoa and cashew Cultivation, Research and production, commercial development of machinery, etc) that can generate its own funds. Therefore, the authorities concerned must take the necessary steps to establish a system that effectively coordinates these areas.

## CHAPTER – III

### FINANCIAL OUTLAYS AND QUANTIFIABLE DELIVERABLES

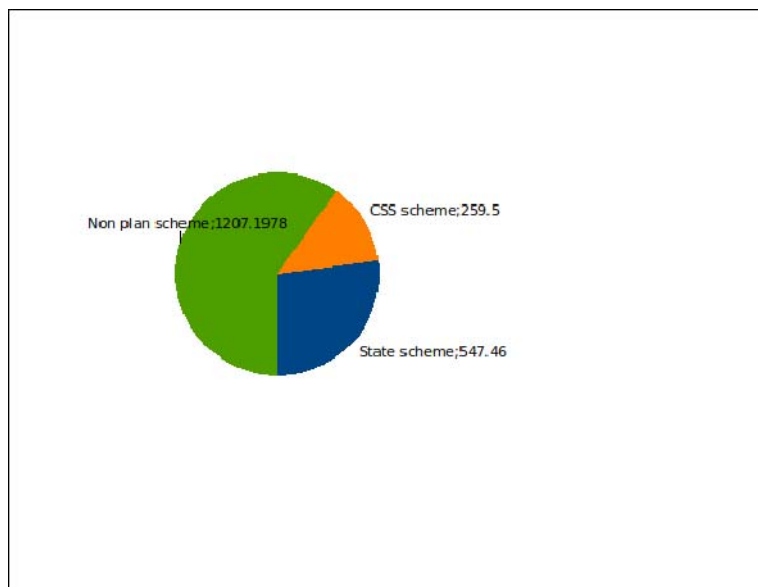
During 2023-24, the Department of Agriculture Development and Farmers Welfare implemented a vast number of schemes for the development of agricultural sector. The total outlay for 2023-24 was Rs..2014.1578 crores including that of Central sector schemes and non-plan schemes as given below:

State Plan Schemes - Rs.547.46 crores

Central sector schemes - Rs. 259.5 crores (including state share of CSS)

Non-Plan Schemes - Rs 1207.1978 crores

The allocation is graphically represented as follows:.



Based on the recommendations of the working groups of the 14<sup>th</sup> Five Year Plan, the Farm Plan Based Development Approach, which was introduced in 2022-23 was promoted during 2023-24 also. Scientific selection of components and suitable agro management practices based on

the concept of agro ecological units was given thrust at the basic unit of farm. Besides this, with the aim of increasing the area under various crops by providing assistance to farmers and also for bringing about required cropping system changes following the AEU concept ,Rice development, Vegetable development, Coconut development, Development of Spices and Development of fruits, flowers and medicinal plants were also implemented.

During the year 2023-24 under Rice Development program along with other components, an amount of ₹ 195.00 lakh was earmarked for foliar application of micro nutrients in rice which induct a new technology into this area by way of stakeholder participation and credit linkage.

Under Vegetable Development Program 2023-24 with the objective of productivity enhancement in vegetables, high yielding and hybrid varieties of seeds and seedlings procured from IIHR, IIVRI, and TNAU were distributed to farmers.

Coconut Development was ensured by Keraraksha varaam conducted in June-July 2023, coinciding with the major planting season of coconut covering new and existing plantations. Under this programme, the healthy and productive coconut palms in the entire State was subjected to basin opening and crown cleaning along with lime application, soil test based integrated nutrient management and integrated pest and disease management operations in a campaign mode in addition to Keragrammam & Coconut Council.

The year 2023 being designated as 'International Year of Millets' by the United Nations, during 2023-24 thrust was given to Area expansion of millets under Crop Diversification and RKVY scheme. Pulses like grain cowpea, green gram, black gram and oilseeds, sesame and groundnut was also promoted in suitable areas under Crop Diversification

Organic farming was promoted in potential areas with assured forward and backward linkages. National Programme for Organic Production (NPOP) certification programme was started during 2023-24

.NPOP Certification for an area of 889.27 ha under Attappadi Millet Village Scheme was a major achievement during 2023-24.

Use of quality inputs like planting materials, fertilizers, organic manures, pesticides, organic pesticides etc. are the basic and critical inputs for development of agriculture sector. For this, Modernization of Department Labs were also continued during 2023-24. NABL accreditation of State Pesticide Testing Lab, Parottukonam was obtained.

Schemes for production and distribution of quality planting materials and seeds was continued during 2023-24 through which quality seeds and planting materials were produced, established new progeny orchard of exotic fruits, initiated the process of making farms carbon neutral and online marketing of farm produce under Kerala Agro Brand was introduced.

Scheme for Strengthening of Agricultural Extension, Farm Information and Communication, Human Resource Development and strengthening and establishment of new Agro Service Centres and new Plant Health Clinics and Karshika Karma Senas were also given emphasis. Farm mechanization is the key to scientific crop and produce management. During 2023-24, it was envisaged to bring convergence of three institutions- Agro Service Centres, Karshika Karma Senas and Custom Hiring Centres as sustainable Self Help Groups in the farm sector viz. “Krishisree centres”, to facilitate a single window service delivery to farmers under the coordination of Kerala State Agricultural Mechanization Mission (KSAMM).

Risk management schemes in agriculture for compensating the crop losses due to natural calamity had also continued during 2023-24.

To strengthen the linkage agriculture market development programmes and the component on market intervention support for price stabilization and procurement operation during harvest and festival season was implemented to address the issues related to price fluctuation, lack of efficient marketing system and post-harvest losses. Steps were taken to establish Keralagro brand shops during 2023-24.

Post-harvest management and Value addition has a very crucial role in improving the Kerala economy and income of farmer from agriculture

sector. Scheme for Post-harvest management and Value addition was also taken up under State scheme.

The scheme Office Automation & IT infrastructure has implemented to develop IT and communication infrastructure like virtual class room facility in various location, strengthen e-governance, procurement of latest hardware networking devices etc.

Scheme for activities through International Research and Training Centre for Below Sea level Farming at Kuttanad, additional assistance for construction of biogas plants, Rural Infrastructure Development Fund (RIDF) projects were also continued. The state share for CSS schemes was also released from the state budget provision.

The revised budget outlay provided under Central sector schemes was Rs.289.8796 **crores** (including state share of CSS). Schemes on MIDH, NMAET, NMEO, CDB, SMAM, RKVY, BPKP and NFSM were included under this.

The total outlay under Non-plan schemes such as Free Electricity for agriculture purposes, Pension scheme for small and marginal farmers, Paddy Production bonus and Rubber Production Incentive was Rs.1207.19crores.

The scheme wise correspondence between financial budget 2023-24 and Performance/Outcome of the budget 2023-24 is detailed in Annexure I.



## CHAPTER – IV

### REFORM MEASURES AND PERFORMANCES

#### Policy Initiatives

The year 2023-24, AEU based planning was continued and at present all crop based schemes of the Department are planned and implemented based on the concept of 5 Agro Ecological Zones and 23 Agro Ecological Units across the State. This allows for greater focus on specific crops like rice for specific locations in the state.

The farm plan based development approach introduced in 2022-23 based on 14th Five Year Plan suggestions of Kerala State Planning Board with a shift from crop based development to farm based development was continued during 2023-24 also.

Crop diversification and intensification covering pulses, oilseeds and millets is promoted with the objective of increasing the crop output per unit area and improving the land use efficiency was introduced

The Vegetable Development scheme is carried out in a Mission Mode involving all the stakeholders in this sector such as Agriculture Development & Farmers Welfare Department, VFPCCK, HortiCorp, SHM, PACS, FPOs, Kerala Agricultural University and LSGDs. In order to ensure efficiency of resources, a phased strategy will be developed to shift from cash subsidies to subsidy in kind wherever possible. With the objective of productivity enhancement in vegetables, high yielding and hybrid varieties is promoted.

Organic farming mission aims at expanding organic farming to 5000 ha in Kerala in next five years through an annual target of 100 ha to encourage adoption of Sustainable Organic and climate smart farming practices in the state

Poshakasamirdhi Mission was also launched with an objective to increase the production of millets and vegetables.

An amount of ₹100.00 lakh was proposed for development of flowers under the component “Onathinu oru pookooda”. Project based assistance is proposed for the establishment of floriculture units, establishment of new floriculture nurseries including tissue culture units, establishment of grading, packing centers and market intelligence Support. Flori villages established and suitable markets identified for marketing of flowers.

Soil testing campaigns has done throughout the state with the coordination of Department of Agriculture Development & Farmers Welfare and Department of Soil Survey& Soil Conservation and the results uploaded in the Soil Digital portal to be developed by Department of Soil Survey & Soil Conservation.

NPOP certification under organic farming started

The integrated Extension Service Delivery System for agriculture, (Kerala Krishi Hub) aimed to (a) provide Digital Farmer Services Platform to capture, track and monitor the real-time information from various state and centrally driven agriculture schemes and activities (b) make spatial and non-spatial data/information accessible via customized dashboards and (c) to generate Reports to key stakeholders to assist in decision-making and thereby promote effective agricultural transformation across the state through advance extension services delivery system for farmers.

Group farmer contact system approach at ward level is envisaged through a new component “Agro clinics” to facilitate transfer of technology as well as finding solutions to field problems at local levels.

With the objective of providing a platform for addressing the problems of farmers in the field itself, ‘Krishi darshan’ programmes are envisaged.

In order to address the issue of unorganized farm production existing in the State, it is envisioned to mobilize the operations covering production, processing, value addition and services through Krishikkootams in a campaign mode.

Schemes formulated in 2023-24 emphasized to raise farmers income through maximising return from unit area by following integrated farm based approach and suitable technologies like crop diversification. It also aimed for providing organisational set up to Krishikoottams

The key initiatives of the Department in 2023-24 were:

- Farm plan based development
- Foliar application of micronutrients in rice using drones
- Open field precision farming under VDP
- Crop diversification
- Onathinu oru Pookooda
- Scientific Methods for mitigation of wild animals
- Online sale of Branded farm products through Keralagro
- Establishment of Krishisree centres
- Mobilization of funds for farm gate infrastructure through AIF
- Digital agriculture through KKH.
- All round mechanization through SMAM

**The other salient reform measures and their impact are**

- Support to rubber farmers- Difference in support price of rubber and price of rubber on date is credited to farmers account

**MAJOR ACHIEVEMENTS DURING 2023-24**

- Sustainable development of rice was implemented in 82480.9 hectares
- 678.93 hectares of fallow land has been converted into paddy cultivation during 2023-24
- paddy royalty to paddy farmers distributed for an area of 19806.09 ha

- Cultivation of special paddy varieties such as Pokali, Navara, Jeerakashala-Gandakashala, Raktasali and Basmati was implemented on 157.122 ha of land.
- Rs.134.78177 lakh available as per the provision was provided as assistance at the rate of Rs.360/- per hectare to Padasekhara samitis for meeting operational expenses towards an area of 52322.5 hectares.
- Spraying of micronutrients using drones was done in 4242.214 ha
- Vegetable cultivation was increased to 1.15 lakh hectare area and production 17.21 lakh metric tonnes when compared to 17 lakh metric ton produced from 1.14 lakh hectare area during 2020-21.
- Free distribution of 13.78 lakh vegetable hybrid seed packets and 116.66 lakh hybrid vegetable seedlings done under VDP. 50 lakh assorted see packets and 108.6 lakh vegetable seedlings were also distributed.
- Project based vegetable cultivation was implemented in 51 Govt./Non-Govt./Private institutions.
- Rs120.9894 lakh was spent for distribution of 9.93 lakh perennial vegetable seedlings like moringa, agathi, curry leaves etc. under nutritional garden.
- Installation of 27349 sqm. of rain shelter of 100 square meter size.
- 10665 units of roof top vegetable cultivation were established.
- Open precision vegetable farming in 91.868 ha under VDP.
- As part of the Coconut Council, 12, 63,567 no of coconut saplings were distributed to the farmers at 50% subsidized rate.
- 17.6 lakh no of seed nuts were procured in 64 farms and 5000 farmers benefitted.
- Keragramam component first year implemented newly in 41 panchayats.
- Crown cleaning and insecticide application for 743271 no of coconut and 1500000 no of coconut palms under green manure application conducting kerarakshavaaram respectively.
- Millet Area Expansions achieved in 1286.4 ha. An MOU has been placed between Government of Kerala by the Director of Agriculture

and Indian Institute of Millet Research for the purpose of utilising their service for supporting the millet initiative in Kerala, suitable knowledge and technical support in various aspects related to millets which will augment the quality of cultivation and post-harvest activities .

- Pulses Area Expansion achieved in 650 ha.
- Oil Seed Area Expansion achieved in 750 ha.
- To increase soil productivity green manure/pulse seeds were grown in 1000 ha
- Conducted florivillage training. Achieved cutflower cultivation in 11.2 ha and loose flower cultivation in 40.6 ha and foliage in 0.78 ha.
- 2172113 nos of saplings of fruit plants distributed to farmers .1 lakh planting materials of medicinal plants produced in departmental farms and distributed to farmers.
- Established 17 new crop health clinics and Rs.53 lakh was spent for protecting the crop from wild animal menace.
- NPOP certification for 889.27 ha in Palakkad Attappadi millet area.
- 95 new organic manure production unit
- Production and distribution of 25.89 lakh pepper seedlings, 607.56t paddy seed, seedlings, 7.7 tonnes of vegetable seeds, 52 tonnes of tubers, 4.5 tonns of pulse seed was done through Agriculture Department farms.
- 134109 soil samples were analysed in district and mobile soil testing labs
- Quality control of 4276 nos of fertiliser samples done
- NABL Accreditation received for State Pesticide Testing Lab - Parottukonam
- Social auditing completed in 68 krishibhavans
- 22 nos of new krishisree centres started
- karshakasabha completed in 19498 wards of panchayats and municipalities
- Krishidharsan programm conducted in Alappuzha district

- Cultivation of pepper expanded in an area of 1191.8150 hectares, ginger and turmeric cultivation in 449.229 hectares, nutmeg in 88.38 hectares and clove cultivation in 77.17 hectares.
- 7206 nos of farmers are benefitted under Restructured Crop Insurance Scheme. An amount of Rs 1966.09721 lakh disbursed to farmers.
- 4253 no of farmers were benefitted by Natural Calamity Assistance and an amount of Rs 394.3633 lakh was disbursed as assistance.
- E-office system is being implemented in the Department of Agriculture as part of transforming Krishi Bhavan as paperless offices.
- 37 nos of vertical axial flow pump established replacing conventional petti and para system.
- KABCO was established as per GO (MS) 71/2023/Agri dtd 7/8/2023 to streamline agriculture marketing across the state.
- 195 products from Department Farms and 10 products from State Biocontrol Lab was branded under Kerala Agro brand and listed in Amazon and Flipkart online platforms.
- Steps initiated to list 400 products of 76 entrepreneurs across the state under Keralagro brand.
- Measures were taken for the formation of 14 Keralagro brand shops
- Organized 1912 Onam markets and to ensure maximum prices to farmers and to get agricultural produce at fair prices to the public. 611 farmers benefitted under Kerala Farm Fresh fruits and Vegetables - Base price scheme .
- Procured 2.59175 lakh MT of paddy from farmers in Kerala and 100114 farmers benefitted .The procurement price of paddy has been increased to Rs.28.20 paise/kg. Kerala is the state that procures paddy at the highest price in the country
- Procured 16576.3517 metric tonnes of green coconut benefitting 37284 no of farmers.
- Procured 118.36 metric tonnes of copra through NAFED .Central warehouse was included as an agency for copra procurement.

- MoU signed with Indian Institute of Packaging, Mumbai for providing training to farmers in secure packing of value added products.
- 10,760 no. of farm plan developed in 1076 krishibhavans, of these 9760 nos are non IFS and 1000 are IFS plots.
- 1076 farmer collectives for collection of farm produce and cultivated products at designated places and undertake sale
- Established 9 new nos Hub and spoke model which offer services including inputs and information for farmers.
- 15087 farmers registration completed under Karshakashemanidhi board.
- Micro irrigation under PDMC in 420.69 ha achieved.
- A project named Management of Crop Loss due to Human Wildlife conflict under RKVY was implemented to protect the crop from wild animal attack using mitigation measures such as solar fencing, hanging solar fencing, Elephant Proof Trenches. Rs 1330.963 lakh transferred to 6 districts initially based on DPR .
- 28,047 individual farmers are benefitted under SMAM and 278 nos of farm machinery banks were formed.
- 28,08226 farmers were benefitted under PM KISSAN Samman Nidhi disbursing an amount of 1907 crores during 2023-24.
- 191.47348 lakh was provided as additional financial assistance for the cultivation (top up assistance) of fruit crops in 1035.87572 ha area under the scheme development of fruit crops implemented by the State Horticulture Mission.
- Administrative sanction was accorded for KERA Project as per GO (MS) No 9/2024/AGRI/ dtd 1/1/2024.

## CHAPTER V

### FINANCIAL REVIEW

The financial review covering overall trends in expenditure viz-a-viz budget estimate/revised estimates including the year 2023-24 is outlined in Annexure III.

The figures depict an increasing pattern in the budget provision since 2020-21. During 2020-21 the budget estimate was Rs 66264 lakh which increased to Rs 77642 during 2021-22 and Rs 80696 lakh during 2022-23 which is retained as the same during 2023-24. During 2024-25 budget provision is Rs. 80871 lakh with a slight increase compared to last year. The analysis of the salient features reveals that-

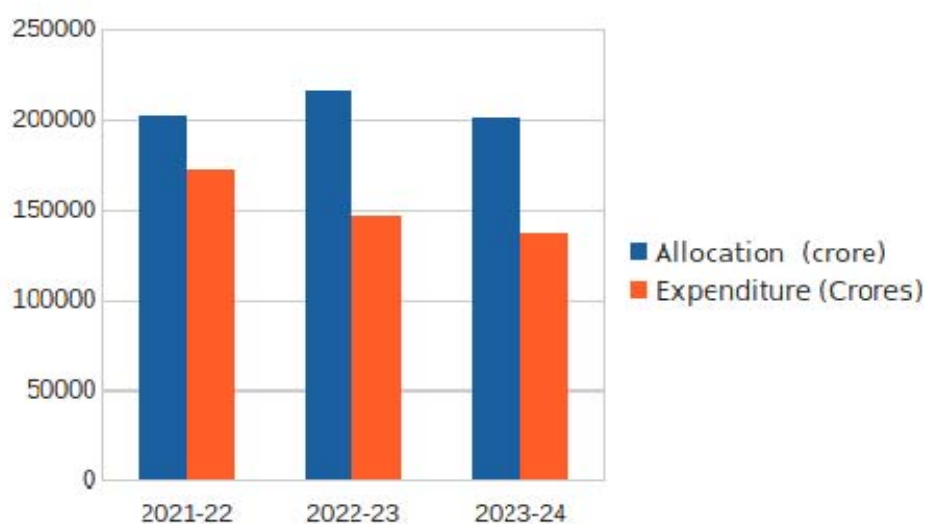
- Budget provision for area expansion and development of crops such as rice and coconut reduced during 2023-24 compared to 2021-22 and 2022-23
- Allocation for VFPCCK for Vegetable Development increased to 60% with respect to 2022-23 budget allocation
- For Crop Health Management budget provision increased from 900 lakh in 2022-23 to 1300 lakh in 2023-24
- Crop Insurance allocation was reduced by 25% in 2023-24 compared to 2022-23
- Market Intervention support for Price stabilisation increased by 5.36 % during 2023-24 compared to 2022-23.
- Being a season dependence activity budgetary ceiling in plan heads has affected scheme implementation drastically. Financial restrictions like Ways and Means clearance adds up to the problems in utilization of Central funds.



The details of budget allocation and expenditure including plan and non plan for Agriculture Department of the State is graphically represented below:

(Rs. In lakh)

Year	2021-22	2022-23	2023-24
Allocation	201879	215605	201415.78
Expenditure	172182	146736	136683.64



## CHAPTER VI

### REVIEW OF PERFORMANCES OF AUTONOMOUS BODIES

The Autonomous bodies which are under the direct control of Department of Agriculture are

#### **1. SAMETI (State Agriculture Management and Extension Training Institute), Venpalavattom, Anayara, Thiruvananthapuram**

SAMETI is an autonomous institution registered under the Travancore-Cochin Literary Scientific and Charitable Societies Act 1955 with Reg No.144/08. It provides HRD support in innovative areas of extension delivery for extension functionaries for effective implementation of ATMA scheme. The key mandates of SAMETI are

- To function as a nodal training institute at State level in the area of agricultural Management.
- To provide capacity building support in extension management and related areas to extension functionaries both in public and private sectors.
- To provide consultancy services in areas like project planning, appraisal, implementation etc.
- Organise need based training programmes for middle level and grass root level extension functionaries.
- Develop modules on management, communication, participatory methodologies etc.
- Coordinate farmers and organized field visits.
- Publish newsletters, bulletins etc.

The utilisation of State funds by SAMETI is as detailed below:

Year	Funds Utilised (Rs. In lakh)	Utilization pattern	No of training programmes conducted
2020 -21	4.46	Implementation of ATMA and activities of SAMETI	5 Trainings and 121 Facebook Live Training Programmes.
2021-22	8	implementation of ATMA and activities of SAMETI	4 nos of training of four days each provided to 100 officers of the state.
2022-23	44.63	implementation of ATMA and activities of SAMETI	49 training ,1012 participants
2023-24	216.12	implementation of ATMA and activities of SAMETI	62 trainings for officers and 143 trainings for farmers

## 2. KSSDA (Kerala State Seed Development Authority), Thrissur

The Kerala State Seed Development Authority is an autonomous body functioning under Department of Agriculture and Farmers' Development, Kerala. It was registered on 24<sup>th</sup> May 2000 under Travancore – Cochin Literary Scientific and Charitable Societies Registration Act 1955. The main objectives of the Seed Development Authority is to carry out activities for promoting multiplication and production procurement, processing and marketing of paddy and other seeds so as to cater to the needs of the farmer. The details of seed distribution undertaken is as follows:

Name of programme	Year		
	2021-22	2022-23	2023-24
Registered Seed Growers Programme	90.21mt	70.59 mt	
Paddy seed procurement	2322.33mt	2972.73mt	
Distribution of paddy seed	4970.975 mt	3966.64mt	3849.630mt
Seed distributed (Natural Calamity)	534.225mt	59.930mt	59.930mt

### 3. Farm Information Bureau, Thiruvananthapuram

Farm Information Bureau (FIB) is the only one nodal agency doing yeoman service in the field of Agricultural extension right from 1969 to provide active and complete information support to accelerate the extension and developmental activities of the departments of Agriculture, Animal husbandry and Dairy development. The bureau takes up the propaganda works of these departments to help the farming community in availing various benefits offered by the government in time. The bureau works as an effective link between research station and farming community by disseminating right scientific knowledge to the right person at the right time and providing feedback to research community. Head office of Farm information bureau is at Kowdiar, Trivandrum. The bureau has two offices at Ernakulam and Kozhikode.

The important activities of Farm Information Bureau during 2023-24 are listed below:

1. Publication of Kerala Karshakan Magazine and Kerala Karshakan E-journal:- The Kerala Karshakan of FIB is the most effective and largest circulated monthly farm journal in Kerala being published regularly since 1954. Monthly Kerala Karshakan English E-journal is publishing through Website.

2. Media liaison: - Farm Information Bureau is the only authorized agency in Govt. sector to feed the media with day to day news related to departmental activities and other programmes of the departments of Agriculture, Animal Husbandry and Dairy Developments. The press release of important Government programmes is published through e-magazine, 'Harithadalam' every fortnightly.
3. Publication:- Information materials like leaflets, booklets, brochures, posters, technical bulletins, pamphlets are regularly publishing by FIB for the benefit of farming community. FIB's Annual publication Farm Guide is the only one reference guide which contain all basic data and technical information in farm sector.
4. Farm News: FIB is broadcasting farm news every day over radio with the active co-operation of AIR.
5. Njattuvela Radio programme: The Radio programme of FIB 'Njattuvela' include success stories, agricultural news, documentaries, interviews, market information etc for the benefit of farming community. 207 nos of episodes have been broadcasted through Akashavani during 2023-24
6. Campaign & Exhibitions: - FIB is participating campaign activities in National and International exhibits of Agriculture, Animal Husbandry, and Dairy etc. Arranging Kisan melas in rural areas is another activity of campaign wing of FIB.
7. Video Programme: FIB's video programme titled "Noorumeni" is being telecast through Doordarshan and Kairali Channal. A total no of 52 episodes has been

produced during 2023-24. 126 no. of short video production have also been done.

8. Ente Keralam Exhibition - an amount of Rs. 34.21635 lakh was spent during 2023-24

9. FIB Website- The website - [www.fib.kerala.gov.in](http://www.fib.kerala.gov.in):- Provides information of current activities of the departments of Agriculture, Animal Husbandry and Dairy Development. There are YouTube and Facebook pages also

The performances of other autonomous bodies such as VFPCCK, SHM, KSHPDC, KSWC etc. have been collected separately as they are not under the direct administrative control of Department of Agriculture.

## VEGETABLE AND FRUIT PROMOTION COUNCIL KERALAM

### INTRODUCTION

Vegetable and Fruit Promotion Council Keralam (VFPCCK) is a company constituted under section 25 of the Indian Companies Act, 1956. VFPCCK is the successor organization of **Kerala Horticulture Development Programme** (KHDP) which was started in 1992 by the European Union and Government of Kerala. The Council was formed to sustain the activities of KHDP and aimed at overall development of commercial fruit and vegetable farmers of the state of Kerala. VFPCCK is an organisation which helps the farmer from seed to marketing through an effective field oriented management system. Since inception, VFPCCK is determined to make remarkable changes in the livelihood of the farmers by improving their capacities by providing adequate support in the areas of technology, credit and marketing.

#### 1. Organizational Constitution

VFPCCK is a unique farmer owned company, the first of its kind with Farmers, Government and Financial Institutions as the major stakeholders in proportions of 50, 30 and 20. VFPCCK has introduced and refined several agricultural developmental policies which can effectively address and solve many long standing problems of the country's agricultural sector.

#### 2. Objectives of VFPCCK

- To support, maintain, increase and promote the commercial production of vegetable and fruits and their consumption.
- To sustain the successful activities initiated by Kerala Horticulture Development Programme in the improvement of commercial production of fruits and vegetables.

#### 3. Services provided by VFPCCK

- i. **Technical support:** The Self Help Groups conceptualized by the Council form the basic units of all interventions like Extension, Rural

credit, Group Marketing and Value addition. The master farmers equipped in production, credit and marketing activities lead the group. Officeless extension concept by ensuring technology at farmers' doorstep gained acceptance among farmers and at present 214192 farmers in 10384 SHGs are the members of the Council.

- Soil Test Based Nutrient Application is promoted for which 5550 numbers of soil health card has been distributed. Awareness creation among farmers for adopting soil test based nutrient application has also been conducted in SHG meetings and other farmer gatherings.
- Weather Data Collection: Automated Weather Stations have been installed in different parts of the State to gather weather parameters and advisories on weather forecasted in collaboration with Kerala Agricultural University. The information is disseminated to farmers through social media groups on weekly basis in the form of advisory bulletins.
- Seed Processing Plant, Alathur: Seed Processing Plant at Alathur produces 17 items of vegetable seeds through registered seed growers who are trained for seed production. Genetic purity and production potential of seed is strictly ensured. A tissue culture lab and fruit plant unit also functions in the same premises to ensure quality planting material supply of fruit plants.
- New TC Lab assisted by RKVY fund for a capacity of 15 Lakh TC plantlets will be functional at Kakkanad this financial year to meet the demands of Tissue culture nendran, grand naine, and njalipoovan plantlets all over the state.
- Krishi Business Kendra (KBK): A one stop shop for quality planting materials, seeds and seedlings, organic manures, growth regulators, bio-control agents, farm equipment, grow bags and organic pesticides are arranged for sale at KBKs functioning in Ernakulam, Thiruvananthapuram and Kasargod. New KBKs are initiated at Pathanamthita and Kozhikode to cater to quality input and planting material needs of public and farmers



- Hitech Seedling Production Unit: In order to ensure the availability of good quality planting materials to farmers, Govt. of Kerala had entrusted the task of producing and distributing quality vegetable seedlings with RKVY project. The unit has a capacity to produce 2 crore vegetable seedlings per year. 43.74 lakh good quality vegetable seedlings were produced and distributed throughout the State during the financial year 2023-24. In total VFPCCK has distributed 81.35 lakh quality seedling through all the production units of VFPCCK in the state.
- Integrated vegetable and banana pack house: 2 Pack houses of 20 Metric Ton capacity with precooling, cooling and ripening facilities have been completed each in Wayanad and Thrissur with the fund support from Agriculture and Processed food Products Export Development Authority (APEDA).
- Organic Training cum Resource Centre: Project sanctioned from RKVY for the construction of Organic Training cum Resource Centre for providing residential training to farmers and public will be functional this financial year.
- Bio Control Lab: Considering the increasing demand for the bio control agents in Kerala, the state which is in the process of becoming an organic state, the Council has initiated one bio control lab at Aiyloor Palakkad. The Project got sanctioned to VFPCCK under the financial assistance from RKVY. Biocontrol agents like VAM and Trichoderma is produced at reasonable rates for farmers needs. Free of cost distribution to farmers are done under Government schemes like Vegetable development Support and Organic Farming.
- Soil Testing Lab : VFPCCK has established two soil and Plant Analysis and Advisory Centres in the State for giving quick and timely support to farmers to solve their cultivation related problems and to give a business orientation for commercial crop production. Soil Testing Labs have been commissioned at Thiruvalli in Malappuram District and at Thuravoor in Alappuzha District. In the financial year 2023-24, 5550 soil samples were tested and health cards issued to farmers.

- Organic Input Production Unit: The major issue hindering organic production is the lack of adequate and timely availability of good quality organic inputs and bio control products. In order to address the need of farmers and public for getting quality organic inputs, VFPCCK has production of organic inputs at KBK Ernakulam and distribution through the already established Krishi Business Kendras at Trivandrum and Kasargode.
- Capacity building, Awareness creation through training on innovative topics, exposure visits, seminars, exhibition etc. are imparted to Farmers, public and council staff. Technology dissemination is made effective through council's bimonthly publication namely "Krishianganam". Other agri- practices related publications and handout are also published by the council.
- Government schemes are implemented taking into account eco-friendly practices and latest challenges faced by farmers like climate change. Agro economic zone friendly planting materials and climate resilient agriculture is given due importance while implementing the scheme.

## ii Marketing

Swasraya KarshakaSamithies are formed in production centres to market the farmers produce directly by avoiding middlemen. Auction procedures followed in marketing leads to the transparency of deal and help in ensuring fair price to farmers. In the FY 2023-24, 96385MT fruits and vegetables to the tune of Rs.309.5 crore were traded through 295 SKSs. 160 Onam and Vishu festive markets were conducted to stabilize the prices of vegetable and fruits during festive season. 250 farmer markets are designated nodal markets for collecting price for Minimum Support Price (MSP) scheme. Primary processing centres are initiated in 9 districts.

**Branded outlet:** A Branded retail outlet is under establishment at Kakkanad which envisages catering to the requirement of urban public for quality planting material, organic inputs and a special outlet for sale of organic fruits and vegetables. The unit will be commissioned in the financial year 2024-25.

Activities related to branding of produce and supply chain management under the brand name “THALIR” is promoted for VFPCCK products.

**Cut Vegetable Units:** The Council has initiated cut vegetable units, where vegetables procured from the farmers are made available in Ready to cook ‘cut vegetables’ in packets. At present 3 units are functioning at Trivandrum, Ernakulam and Thrissur.

**Farmer Producer Company (FPC):** VFPCCK has initiated 41 FPO (Farmer Producer Organization) as part of the Central Government scheme to initiate 10000 FPO. The four registered FPC is for honey, Tapioca, and value added Fruits & vegetables. Strengthening of another 5 FPC under central SFAC is also initiated by the council. Handholding of these Farmer Producing Companies is done by the council with availability of funds from Government.

### **iii . Credit and Insurance Scheme:**

Credit facility is made available to lease land farmers under VFPCCK Credit Package by executing MoU with 11 nationalised commercial banks. Credit disbursement to the tune of Rs. 152.9 crore under KCC scheme at a very affordable interest rate was disbursed to farmers in the financial year 2023-24 benefitting 11647 farmers. Moreover farmers making prompt repayments are given 2% interest subsidy under Government scheme. Health insurance and accident insurance policy for farmers and family is also being implemented in which 11170 farmers are benefitted.

### **iv Training:**

Trainings with participatory techniques are duly imparted to farmers and study tours, interactions, exhibitions etc are conducted to empower the farmers to undertake a sustainable production system. 99 farmers’ trainings and 14 seminars were conducted throughout the state in 2023-24 equipping 2260 farmers.

VFPCCK has been implementing various schemes of the Central and State Governments during the past years in the fruit and vegetable sector

under Government of Kerala, State Horticulture Mission, Rashtriya Krishi Vikas Yojana, etc. The Council has been appreciated for the successful implementation of the programmes in a time bound manner.

v. **Export:** VFPCCK being the state nodal agency for export took initiative for export promotion. Export oriented production protocols for the crops like banana developed has been disseminated among the farmers and Council has provided selected farmers from 7 districts with specific inputs like bunch cover at the correct time to improve bunch quality. Several lots of banana thus produced have been facilitated as quality produce for domestic markets and exports. VFPCCK catered export of products including Nendran Banana, Njalipooovan etc which were sourced from farmers of Malappuram districts.

Traceability is one of the valuable business tools in exports. The entire pre and post-harvest activities have been mapped against the SOP developed by NRCB through the FOOD SIGN mobile application. All the data thus collected are maintained and documented using Block chain Technology. Increasingly consumers in many parts of the world demand for verifiable evidence of traceability as an important criterion of food product quality and safety. It enables to digitize the supply chain and make it more transparent. The farmers and officials have been trained on the various modes of implementing it. The project is ongoing and the data captured are translated using the QR code. The domestic value of the produce can also be increased through improved market access and strengthened brand equity 'THALIR'.

Export production protocol for GI tagged Vazhakulam pineapple otherwise called Mauritius, is ongoing along with a trial on developing a sea shipment protocol to Middle East with the technical guidance of Kerala Agriculture University for which the static trial is completed .The successful development of a sea protocol can pave way for enhanced exports, market access and better price realization for farmers.

A sustainable and profitable export of pineapple from Kerala can be ensured by shifting cultivation with MD2 variety which has international acceptance. The planting material availability is low for MD2. Hence

initiatives to develop tissue culture plants of MD2 by KAU was undertaken and distributed to selected farmers of Ernakulam and Kottayam .

**vi. Hybridization Programme:**

Awareness programme and Training was conducted on Hybrid seed production for the farmers at IIHR, Bangalore as part of promoting hybrid seed production. Trial plots in 10 cents for the hybrid varieties of Tomato, brinjal, bhindi, chillies and watermelon is conducted in the selected farmers field for evaluating the performance acceptability and suitability to Kerala conditions. The seeds were made available in the trial plots at Palakkad through reputed institutes like IIHR, TNAU and KAU and found suitable for Kerala conditions. Purchase of Parental lines of Watermelon ( Shonima )from Kerala Agriculture University and Arka nikitha ( Bhindi) from IIHR( Indian Institute of Agricultural Research) and its multiplication in farmers field is in progress. In the financial year under review hybrid seeds were multiplied in 3.3 acres by 11 farmers.

## FINANCIAL OUTLAYS AND QUANTIFIABLE DELIVERABLES

### Government of Kerala Schemes 2023-24

#### I. Vegetable Development Support to VFPCCK

##### 1. Support for promoting Export oriented cultivation of vegetables and enhancing production and productivity:

- **Area expansion:** The Council farmers could cultivate vegetables in 16198 ha, banana in 20366 ha and other crops including tubers in 4312 ha in the Financial Year 2023-24. The production statistics for vegetable was 69266 MT, banana 108593 MT and others 16533 MT.
- **SHG formation and farmer induction:** In the FY 2023-24, VFPCCK could induct 2853 new farmers forming 74 self help groups and thereby the total farmer strength is 214192 in 10384 SHGs
- **Credit Repayment Subsidy:** VFPCCK could facilitate agricultural loan of Rs.152.9 crores in 2023-24 and an interest subsidy of 2% could be provided to the participating farmers.
- **Social security schemes:** Health insurance and accidental insurance package for farmers are being implemented by VFPCCK.11170 farmers are included in the personal accident insurance
- **Awards:** The performance of Swasraya Karshaka Samithis was also evaluated and honoured by giving best 3 SKS awards at state level workshop.
- **Green coconut & copra procurement:** VFPCCK is appointed the state level agency to procure green coconut and supply copra to NAFED under the PSS scheme of central Government. In the reported financial year, council has supplied 796.4 MT copra to NAFED through 69 centres by collecting 2949.77 MT green coconuts from farmers.

## **2. Awareness creation - Seminar and interactions**

- Technology transfer to farmers and public was addressed with seminars, exhibitions and melas co-ordinated and participated throughout the state.
- Capacity building: Trainings and study tours to equip farmers and VFPCCK officials on various aspects of fruit and vegetable production, marketing and human resource were conducted. 99 farmer trainings and 14 seminars were conducted in the reported year benefitting 2260 farmers.
- **Technology Development and dissemination of latest production technologies in vegetable**
- 25 automatic weather stations were installed throughout the State for Weather data collection of which 09 have been upgraded to latest version to improve data streaming. Weekly advisory bulletins are disseminated through whats app groups and emails to farmers through VFPCCK officials.
- Export oriented cultivation to equip farmers to produce appealing produce for domestic and international market was facilitated in 2023-24 in 80 ha area.
- Traceability studies and Sea shipment protocol for vazhakulam Pineapple was initiated and static trial for the same was completed.
- **Export:** VFPCCK being the state nodal agency for export took initiative for export promotion. A trial on development of sea shipment protocol of Nendran Banana to Europe was undertaken by VFPCCK in collaboration with NRCB Trichy an exporter. The success of the shipment paved new boost to exports. Looking on the costs of exporting the fruit by air shipment, it is found to be much higher and choosing the sea shipment, it was much cheaper and will reduce the cost by 1/7th vis-a-vis flights. Hence the demand received was overwhelming and VFPCCK ventured to export with the lessons learnt from the trial shipment. Export oriented cultivation practices are being advocated to farmers by VFPCCK and farmers are trained on it. VFPCCK

could cater 10 export consignments to various countries like Kuwait, Dubai, Singapore, etc. The products include Nendran Banana, Njalipoovan, vegetables like snakegourd, Ivy Gourd, cucumber, ashgourd, pumpkin etc and banana leaves too was sent for Onam special consignment. The same was sourced from farmers of Thrissur, Kozhikode, Ernakulam, Kollam and Palakkad districts. Now VFPCCK have exported around 43 MT fruits and vegetables and is thus supporting farmers with a better price and at the same time promoting Kerala ethnic fruits and vegetables in foreign countries. VFPCCK have associated with 5 export firms in this ventures

- Further to it VFPCCK have taken lead in cluster formation for promoting banana export in districts of Thiruvananthapuram, Wayanad and Thrissur under the guidance of APEDA and cluster facilitation committees were formed in these districts with all stakeholders. A study on current technical and infrastructural gaps in export was conducted for identifying gaps and the report was recommended to government for necessary action.

## **II. Quality Planting Material – Production and Supply**

- Seedling production was undertaken at SPP, KBK, Harithanagari unit and Hitech seedling production unit at Nadukkara in various vegetable crops. 81.35 lakh seedlings were produced and distributed with an aim to promote vegetable production from the said units.
- Seed Processing Plant, Alathur could produce 52.5 MT seeds in the FY 2023-24 through 166 seed growers associated with them. VFPCCK could also participate in various programs under which 62 lakh seed kits @ Rs. 10/ kit were distributed.
- TC lab at SPP, Alathur and KBK could supply 1.83 lakh TC banana plantlets in the FY 2023-24
- Through KBK, SPP and HVSPC, 5 lakh fruit grafts were also distributed



- Krishi Business Kendras are functioning at Ernakulam, Kasaragod and Thiruvananthapuram. New KBK at pathanamthitta and Kozhikode is initiated this financial year.
- 4557 packets of 250 gm of quality spawn for promotion of mushroom cultivation.

### **III Market Development of VFPCCK**

- In the FY 2023-24, Bulking points were initiated making the total statistics to 295 SKS. Two new collection centres were initiated. Trading of 96385 MT fruits and vegetables to the tune of Rs.309.5 crore were traded through these SKSs.
- Sales promotion incentive was distributed for 4000 MT Vegetables produce sold through farmer markets.
- 160 Onasamrudhi Retail outlets were organised by VFPCCK.
- 5000 farmers were registered under minimum base price support scheme of Government
- Statutory Auditing and accounting compliances of 192 SKS was supported.
- As a part of RKI scheme to strengthen the supply chain of fruits and vegetables, nine primary processing centres, are functioning to promote 'Thalir' branded products. Post-harvest losses in our state are estimated around 30-40%. To minimize these losses including post-harvest handling losses, the post-harvest activities need to be streamlined. The major activities includes receiving the farm produce in the mandated location in the PPC in a systemic manner, its cleaning, sorting, washing, grading, finally packing and branding for exports and domestic market.
- The Nine primary processing centres are at Chengal (Trivandrum), Edakattuvayal (Ernakulam), Mankada (Malappuram), Perumatty (Thrissur), Marottichal (Thrissur), Elanad (Kollam), Kuriem (Kottayam) and new ones under GOK MDV at Alappuzha (Thazhakara), Pathanamthitta (Pramadom), through which VFPCCK Thalir branded produce are delivered in supermarkets. These PPC's

are also instrumental in managing glut situation by transferring Thalir branded products from one district to another.

- A chain of Thalir Green 63 ecoshop outlets initiated throughout the state as a part of promotion of organic products and Safe to Eat produce under RKI. The eco-shops were initiated as listed:
  - Trivandrum - 6, Kollam-7, Pathanamthitta - 5, Alappuzha - 4, Kottayam-4, Idukki -4, Ernakulam-8, Thrissur- 5, Palakkad- 6, Malappuram-3, Kozhikode-3, Wayanad - 2, Kannur - 4, Kasargode -2.
- VFPCCK is the state level agency designated to procure Green coconut from farmers under the central Government PSS scheme under which 796.46MT copra was delivered to NAFED. 2949.77 MT green coconuts were procured from 5854 farmers of Palakkad, Thrissur, Malappuram, Kannur, Kozhikode, and Kasargode districts and made copra in 69 centres for supply to NAFED.

- **Farmer Producer Organizations formation**

The primary producers have skill and expertise in producing. However, they generally need support for marketing of what they produce. The FPO will basically bridge this gap. The FPO will take over the responsibility of any one or more activities in the value chain of the produce right from procurement of raw material to delivery of the final product at the ultimate consumers' doorstep. Through the formation of FPOs, farmers will have better collective strength for better access to quality input and technology.

- Farmer Producer Companies are formed under VFPCCK to encourage the cluster-based approach and 41 companies have been formed under the Council.
- Among the 19 FPO formed for the primary processing, organic cultivation and exports, 13 FPOs are for the value addition of Fruits & Vegetables, 2 FPOs for spices, 4 FPOs for tubers, one each for Jackfruit, Mango, and Honey.
- VFPCCK has formed 5 FPOs as CBBO under central SFAC in five blocks of the state. The activities of FPO are in progress.

- The basic data have been collected, farmers identified and business plan prepared and it covers crops including banana, pineapple, spices, jack and mangosteen vegetables etc.

Five Promoters and five Director board members of each FPO have been selected and their documents for registration promptly collected. This will significantly give a boost to export, value addition and supply chain development of perishables.

In the year 2023-24, Farmer Producer Companies were facilitated for statutory compliances and other related expenses only with the funds received as e-Lams. No separate funds were received under the scheme for the year 2023-24

#### **IV. Development of Fruits – Jackfruit**

Jackfruit as a crop was promoted and assistance was provided for the procured Jack fruit. Jack fruit processing centres were initiated at Kalayanthani in idukki district and Muttill in Waynad district. During 2023-24 the scheme was envisaged to be implemented in all the districts of the state. 17536 kg of Jack fruits were procured from 23 farmers in the state at an assistance of Rs 5/kg of produce.

# KERALA LAND DEVELOPMENT CORPORATION LIMITED

## INTRODUCTION

The Kerala Land Development Corporation (KLDC) was incorporated under the companies Act 1956 in 1972 with Reg. No. 2469 under the administrative control of the Agriculture department with a view to promote, undertake and execute land development and allied schemes in Kerala for the integral development of agriculture sector. As per the amendment made in the Memorandum of Association on 11/07/07, it is envisaged to undertake consultancy, project preparation, design & execution of projects / schemes of any type including construction activities.

Since the incorporation, the K.L.D.C is working as an agency for the effective implementation of various projects to alleviate the grievances of the farmers, especially in the low lying and water logged areas of the State in Thrissur, Malappuram, Alappuzha, Kottayam, Kozhikkode, Kannur and Kollam districts. The Corporation has undertaken various projects throughout the State coming under the purview of various Vikasana Agencies, utilizing RIDF fund aided by NABARD, RKVY, PMKSY Scheme, Food Security Mission projects, NRHM Scheme, Works of LSGD/ MLA schemes and works of Government Departments like SC/ST Development, Social Justice, Tourism, Soil Conservation, Public Work etc.

The Corporation has a fully-fledged engineering wing to take up constructional activities on large scale. With qualified and experienced engineers and supporting staff, the Corporation is able to carry out the entire project starting from planning to implementation in a smooth and timely manner.

Nowadays, the Corporation is engaged in implementing schemes under state plan scheme, RIDF, RKVY and PMKSY scheme, Deposit works under Agriculture Department ,projects under Re-Build Kerala Initiative (RKI) scheme, Subhiksha Keralam Scheme and other Govt. Departmental works etc. The KLDC is now involved in the implementation of land development and allied activities and other construction activities costing around Rs. 450.00 Crore. Also projects amounting to Rs. 415.00 crore of 8 proposals have been submitted to Government for consideration under RIDF XXX tranche during 2024-25

## **ORGANIZATIONAL SET UP**

### **Organizational Structure**

The Management of the Company is vested with a Board of Directors comprising 9 Directors including a Full-time Chairman. While one member is nominated by the Central Government, the remaining 3 members represent the State Government. The Managing Director is the Chief Executive of the Corporation. He is assisted by the Secretary and Senior Administrative Officer from Government. The Administrative office is functioning at Thiruvananthapuram. The corporation has 4 regional offices which are stationed at Kayamkulam, Alappuzha, Thrissur and Vadakara. In addition to these, three sub units are functioning at Vaikom, North Paravoor and Pathanapuram under the control of the regional office of Alappuzha. The Corporation has 120 employees in its pay roll as on 01.07.2024 for the time bound completion of the projects. The Corporation has engaged provisional hands also, in the absence of PSC hands for the speedy execution of projects.

## **MAJOR SCHEMES COMPLETED DURING 2023-2024**

### **COMPLETED SCHEME:-**

- 1 RIDF XXI- Infrastructural development padasekharam and Renovation of Ponds (Sahasrasarowar scheme) works under RIDF XXI scheme:-** The Administrative Sanction amount of this scheme is Rs.87.33 core and total number of projects sanctioned under this scheme is 46. Now all works are completed and final claim submitted. This scheme proposed to provide infrastructural developments of padashekarams, renovation of ponds, improvements of thodu, canals, construction of VCB, sluice, enginthara etc to enable efficient water management system in the agriculture field, for increasing irrigation facilities, enhancing crop productivity, to enhance ground water table, to re-store the run-off water for agriculture and drinking purpose under various districts throughout Kerala.
- 2 Integrated Kole land development project in Thrissur and Ponnani Kole area- Phase III- under RIDF XXII-Scheme-** The Administrative sanction amount of this scheme is Rs.2600 lakh. Now the project has achieved 100 % physical progress during this year. The project aims to establish efficient water management system in the entire Kole area protecting paddy field from submergence of flood water in the Kole area and enhance the productivity of paddy from present 4 tonnes/hectre to 6 tonnes/ hectre. This scheme proposed to provide infrastructural development of padashekarams, improvements of thodu, canals, construction of VCB sluice, engine thara etc to enable efficient facilities, enhancing crop productivity and to enhance ground water table and to re-store the run-off water for agriculture and drinking purpose in Thrissur and Ponnani kole areas.
- 3 RIDF XXII- - Infrastructural development padasekharam and Renovation of Ponds (Sahasrasarowar scheme) works under RIDF XXII scheme:** The Administrative sanction amount of this scheme is Rs.6196.00 lakh. The total number of projects sanctioned is 25. All

works are infrastructural development of padasekharam related works and renovation of ponds. Now the project achieve 100 % physical progress achieved and on during this year. The project aims to establish efficient water management system in the entire area, protecting paddy field from submergence of flood water in the Kole area and enhance the productivity of paddy cultivation and vegetable cultivation. This scheme proposed to provide infrastructural development of padashekarams, improvements of thodu, canals, construction of VCB sluice, engine thara etc to enable efficient facilities, enhancing crop productivity and to enhance ground water table and to re-store the run-off water for agriculture and drinking purpose throughout Kerala.

#### ONGOING SCHEMES UNDER RIDF & STATE PLAN SCHEME

Sl. No	Scheme	Name Of Projects	Project Cost ( Rs.in lakh)	Present Status
1.	RIDF XXIV	Renovation of Arattupuzha Durgadevi Temple pond at Nedupuzha and allied works at Moopadam Nellupadasekhara Samithi in Ollur constituency and Sreenarayanapuram in Kaipamangalam constituency in Thrissur.	464	Work physically completed
2.	RIDF XXIV	Renovation of six ponds in Thrissur District	464.08	Work in progress
3.	RIDF XXIV	Infrastructural Development works of ValakomChira in Valakom Panchayat in Ernakulam	463.83	Work physically completed.
4.	RIDF XXIV	Development works in various panchayats in Kannur District	461.66	work in progress
5.	RIDF XXIV	Infrastructural Development works of Chemmanakkaray, Arikupuram and Kothady and Kizhakethayankerypadasekharams in Udayapuram, Chempu and Thiruvarpur GramaPanchayats of Kottayam Dist.	514	Work in progress
6.	RIDF XXV	Infrastructural Development Works in Oliapuram South & North in	635.63	Work physically

Sl. No	Scheme	Name Of Projects	Project Cost ( Rs.in lakh)	Present Status
		Thirumaradi, Thirunilam & Mannathur East Padasekharam in Thirumaradi Panchayat.		completed
7.	RIDF XXV	Infrastructural Development Works of Thathapally Padam and Karumaloor Padam in Anchal thodu in Kottuvalli Panchayat.	614.03	Work completed
8.	RIDF XXV	Infrastructural Development Works of Intensive Cultivation in Wet Lands in Alappuzha District	808	Work in progress
9.	RIDF XXV	Infrastructural Development Works of Intensive Cultivation in Wet Lands in Pathanamthitta District	150	Work in progress
10.	RIDF XXV	Infrastructural Development Works of Apathikari padasekharam in Purakkad Panchayat in Alappuzha District	92.65	Work completed
11.	RIDF XXV	Renovation of four ponds in Palakkad district	533.32	Work in progress
12.	RIDF XXV	Improvements of Chathanchira in Kadukutty Panchayat in Thrissur District	727	Work in progress
13.	RIDF XXV	Infrastructural development works in Elamad and Ettiva Panchayat in Kollam District.	500	Work in progress
14.	RIDF XXVI	Construction of bund along left of Pullazhi thodu	1457.09	Work in good progress
15.	RIDF XXVI	Effective water management schemes in Thalassery Taluk	723.78	Work in progress
16.	RIDF XXVI	Infrastructural works for irrigation in Adichanalloor, Yeroor, Kalluvathukkal, Melila, Panchayats in Kollam & Palamel GP in Alappuzha	482.65	Work in progress
17.	RIDF XXVI	Infrastructural works for irrigation in Karakulam. Vembayam, Vilappil, Karode, Mangalapuram and Kollayil GPs	484.11	Work in progress
18.	RIDF XXVI	Infrastructural works in various padasekharams located in Okkal, Ayavana and Mazhuvanoor Panchayats in Ernakulam district	545.59	Work completed



Sl. No	Scheme	Name Of Projects	Project Cost ( Rs.in lakh)	Present Status
19.	RIDF XXVI	Construction of new Tissue Culture lab at Agriculture Extension centre, Cheengeri, Wyanad	719.38	Work in progress
20.	RIDF XXVI	Construction of new Tissue culture lab at District Agricultural farm(DAF) , Munderi, Malappuram	716.84	Work in progress
21.	RIDF XXVI	Construction of new Tissue culture lab at District Agricultural farm(DAF) , Neryamangalam, Ernakulam	739.84	Work in progress
22.	RIDF XXVIII	Infrastructural development works of Nedumpuram Shanmugha Kshethrakulam in Maratikulam North Panchayat	126.94	Work in progress
23.	RIDF XXVIII	Infrastructural development works of Thayyil Sakthipuram Devi Temple pond in Kanjikuzhi Panchayat	23.15	Work completed
24.	RIDF XXVIII	Infrastructural development works of Kattukada Sree Khandakarna Swami Temple pond in Muhamma Panchayat	98.64	Work in progress
25.	RIDF XXVIII	Infrastructural development works of Kandamkulam in Thanneermukkam Grama Panchayat	138.73	Work in progress
26.	RIDF XXVIII	Side Protection Work in Kaliyathchira Thodu in Chembilode Panchayat	73.5	completed
27.	RIDF XXVIII	Side Protection Work in Mavilayi Valiya Thodu in Peralassery Panchayat	78.92	Work in progress
28.	RIDF XXVIII	Side Protection Work in Chirammal Muringery Thodu in Anjarakandi Panchayah	96.24	completed
29.	RIDF XXVIII	Side Protection Work in Poyanad Valiya Thodu in Vengad Panchayat	96.15	Work in progress
30.	RIDF XXVIII	Side Protection Work In Kozhoor Vayal Thodu in Pinarayi Panchayat	124.36	Work in progress
31.	RIDF XXVIII	Infrastructural development works of Payattukulam in Mararikulam south Panchayat	111.47	Work in progress

## **FINANCIAL OUTLAYS AND QUANTIFIABLE DELIVERABLES.**

An amount of Rs. 39.30 crore has been provided in the budget for the financial year 2023-24 for the implementation of projects under Plan Schemes. In addition to this, an amount Rs. 29.542 crore has been allotted through Additional Authorization.

The total amount sanctioned and released to KLDC under Plan schemes for the financial year 2023-24 is Rs. 56.49 crore.

Major interventions are Land Development activities and other construction activities.

### **1) Land development activities:**

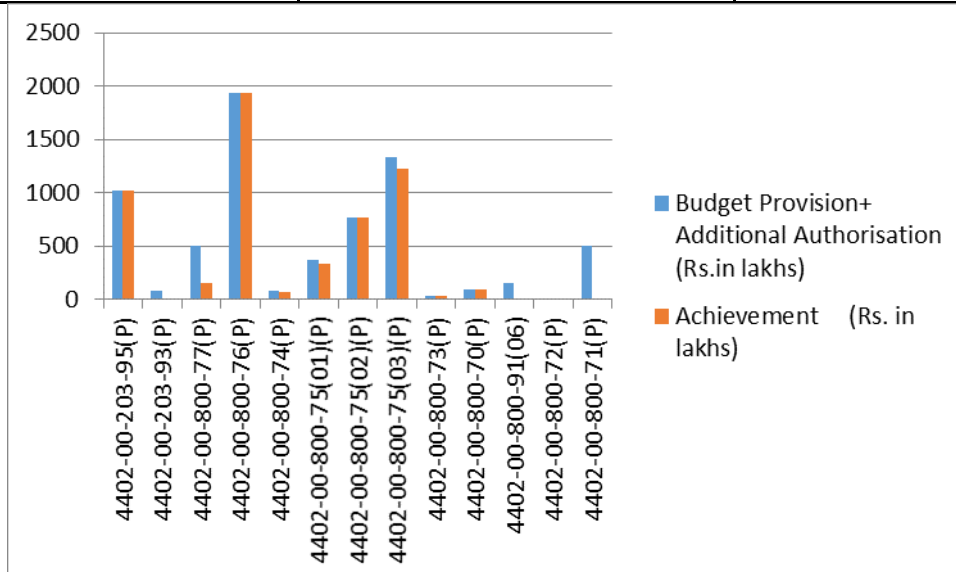
- Deepening of thodu
- Formation of outerbund
- Construction of Retaining wall/Side protection work of thodu
- Construction of enginethara
- Construction of engine shed
- Construction of sluice
- Construction of vented cross bar (VCB)
- Construction of side drain
- Construction of leading channel
- Construction of regulator-cum-bridge
- Construction of canal bridge
- Construction of check dams
- Construction of Ramp
- Construction of Footslab
- Construction of pipe sluice
- Renovation of ponds/chiras
- Construction of Bridges
- Construction of Culverts

As per G.O (P) no.77/2019/Fin dated 04/07/19, accreditation was sanctioned to the Corporation with the scope of work as General Civil Construction works and land development works as PMC.

**2) Other Construction Activities:**

- Construction of Hospitals
- Construction of Schools
- Construction of Farms Tourism works
- Construction of Integrated Agriculture Complex at Chembukkavu , Thrissur.
- Construction of Tourism development works, Beautification works of Kanakakunnu Palace.
- Construction of Design works
- Development works at Coconut Bio-park at Chelekara in Thrissur District.
- Enhancement of existing State Bio Control Laboratory at Mannuthy Thrissur.
- Integrated Farm Management for Holistic development of District Agricultural Farm at Neriya Mangalam. Construction of Tissue Culture Lab.

The budget performance in each head of account during FY 2023-24. H/A	Budget Provision+ Additional Authorisation (Rs.in lakh)	Achievement (Rs. in lakh)
4402-00-203-95(P)	1025	1024.95246
4402-00-203-93(P)	80	0
4402-00-800-77(P)	500	148.65
4402-00-800-76(P)	1940.69	1940.67235
4402-00-800-74(P)	77.18	66.1024
4402-00-800-75(01)(P)	370.86	338.7299
4402-00-800-75(02)(P)	771.46	771.45363
4402-00-800-75(03)(P)	1331.22	1220.20241
4402-00-800-73(P)	38.48	38.47478
4402-00-800-70(P)	99.36	99.35542
4402-00-800-91(06)	150	
4402-00-800-72(P)	0	0
4402-00-800-71(P)	500	0
	<b>6884.25</b>	<b>5648.59335</b>



## **REFORM MEASURES AND PERFORMANCES**

Kerala Land Development Corporation is acting as the catalyst in making agricultural land more productive to the farmers, thereby increasing the crop production. It works as a media for potential generation of employment in terms of man days in agricultural sector and thereby reducing the poverty level of rural area. The other beneficial areas are the farm sector in which transportation is provided by creating farm road, foot path, bridges etc. In short, it coordinates all the agricultural and allied activities under one umbrella. The Corporation also works in the field of construction of social amenities like school buildings, market places, hospital buildings, landscaping and beautification works etc.

Even though the Corporation was incorporated to undertake development activities in agricultural and allied fields in the states of Kerala, by capitalizing the full- fledged Engineering wings, it is capable of undertaking any construction activities. By virtue of the amendment made in the Articles of Association, the Corporation is able to undertake consultancy and project preparation, so as to diversify its activities and also actively participate in the infrastructural development of the state of Kerala.

As per Government order GO(P) no.77/2019/Fin dated 04.07.2019, the Corporation has been awarded with the accreditation to take up General Civil construction works along with the land development works as PMC.

## HORTICORP

Kerala State Horticultural Products Development Corporation (Horticorp), founded in 1989, is a Public Sector Undertaking under Department of Agriculture Development and Farmers Welfare, Government of Kerala. Horticorp has been entrusted by the State Government with the role of procurement, processing, storage and marketing of Horticultural products throughout the State, thus encouraging indigenous farmers to produce more vegetables and prevent unreasonable price hikes.

Horticorp's active presence in the fruit and vegetable market in Kerala for the last two decades is remarkable. The main objective of Horticorp is to procure fruits and vegetables at better prices and deliver them to consumers at reasonable process, avoiding the exploitation of middlemen. Horticorp has 13 District Procurement Centers, 3 Sub Centers and one Regional Procurement Center through which fresh, non-toxic vegetables & fruits are procured from farmers, farmer associations/ clusters, Agro Wholesale Markets, VFPC's Self Help Farmers Markets etc.

Horticorp has 94 own stalls and 183 franchisee stalls throughout the State for ensuring the supply of fruits & vegetables at reasonable prices compared to market rate. Besides these, Horticorp supplies fruits and vegetables to 550 institutions throughout the State on a daily basis. Horticorp also supplies fruits and vegetables to the Flood Relief Camps & Orphanages too. When the procurement of fruits and vegetables from the state is not sufficient to cater the needs of the consumers, Horticorp procure the same from farmers producers organization at Thenkashi and other farmer group outside State. The fruits and vegetables are sold through HortiCorp outlets at prices 10-20% lower than the prevailing market prices and during festival season at 30% below the market price

Horticorp is also the State Designated Agency for implementation of Beekeeping Projects. In order to coordinate and organize the entire beekeeping activities of the State, a Beekeeping Training Center has been established in Mavelikkara, (Alappuzha) for organizing beekeeping training,

Beekeeping Promotional programmes, distribution of bee colonies etc. The Corporation is marketing honey and other honey-based value –added products under the brand name “AMRUTH”. An ultramodern Honey Processing Plant of capacity 300 kg per shift and a Bee Park has been established in the beekeeping Center, Mavelikkara. For the promotion of bee keeping activities, a Training Hostel at Mavelikkara is under construction and the same will be completed in the current financial year 2024-25.

Thus, Horticorp triumphs in serving the public& farming community by intervening in the market, ensuring the supply of fruits & vegetables at reasonable prices much below the market rate and reducing the exploitation of farmers by middle men.

# **THE KERALA AGRO INDUSTRIES CORPORATION LIMITED**

## **INTRODUCTION**

The Kerala Agro Industries Corporation Ltd (KAIC), a premier organization in the agricultural sector, was incorporated in the year 1968 jointly by the Government of India and Government of Kerala, with the objective of promoting agro based industries in the State of Kerala, for the production of farm implements, for the supply of machinery and equipments required for the development of agriculture and to cater to the needs of the farming community. The Corporation is functioning under the control of Department of Agriculture, Co-operation & Farmers Welfare, Government of India and Department of Agriculture Development and Farmers' Welfare, Government of Kerala.

From the very inception, the Corporation very proudly introduced Tractors and Power Tillers for ploughing operations in the fields, overcoming stiff resistance from the general public. The introduction of these machineries in the agriculture sector has paved the way for the green revolution in agriculture, for which the credit goes to the Kerala Agro Industries Corporation Limited. In addition, the Corporation is developing new and innovative methods in the field of agriculture with the introduction of Threshers, Winnowers, Cultivators, Cage wheels, Ridgers and Rotavators, besides trading of Tractors, Power Tillers, Pump sets and undertaking after sales service.

The following are the major objectives for which the Corporation was established:

- Trading in agricultural implements including tractors, tillers, pump sets, plant protection equipments, poultry equipments, incubators, brooders, fisheries equipments, cold storage equipments, etc.
- Organize, conduct and manage engineering or repair workshop of all or any of the above.



- Hire all or any of the above equipments.
- Promote agricultural production and engage in distribution of agricultural produce and inputs required for the above.
- Assist or finance all or any of the above objectives.

The Corporation started its operations in 1968 in a modest way with its Head Office at Trivandrum. The Corporation developed infrastructure facilities at all the Revenue Districts of the State in a phased manner. During the course of its operations, the Corporation has promoted two subsidiary Companies, M/s. Kerala Agro Machinery Corporation Ltd. (KAMCO) in 1972, engaged in production and marketing of agricultural machinery, especially Power Tillers, Reapers etc. and M/s. Meat Products of India Limited (MPI) in 1973 engaged in production and marketing of meat and meat products. Subsequently, during 1987 as per the decision of the Government of Kerala, the subsidiary status of these two Companies had been withdrawn and made independent Companies.

The Corporation is having 14 Districts Offices, one each in all the Revenue Districts of the State and is carrying out its activities through these District Offices. The activities are concentrated mainly in rural areas with need based operation in urban areas too.

The Corporation won the First Award of the National Productivity Council during 2006-07 among State Agro Industries Corporations. The Corporation is at present moving on a positive trend, in spite of all odds faced during the yesteryears.

As part of promotion of mechanization in the agricultural sector of the State, Corporation has successfully implemented Government's various prestigious projects like Farm Mechanization under Kuttanad Package, State Food Security Programme, etc. and is the implementing agency for Farm Mechanization Programme under Integrated Kule land development project.

The State is dependent mainly on conventional energy sources and though the State gets very good exposure to solar radiation, solar energy utilization is not up to the mark. Solar energy harvesting could lead to the solution of energy deficit crisis of the State. In view of this the Corporation is promoting various solar energy harvesting equipments such as solar street lights, solar water heaters, solar water pumps, solar panels etc. The Corporation has successfully implemented supply and installation of solar PV units at various ITI's and hostels under Government projects.

The Corporation has made significant contribution to the farming community by setting up Custom Hiring centers for Combine Harvesters at Thiruvalla, Vaikom, Thrissur, Palakkad and Ambalapuzha. The Corporation is having a fleet strength of 205 Combine Harvesters. These machines were deployed during the harvesting seasons in Kuttanad, Kole land and other areas of Kerala. The Corporation's intervention has helped in assuring the required number of machines and has helped in curtailing the hiring charges to some extent and thus solved the shortage of farm labourers.

The Corporation has diversified its activities towards development of value added products. The Kerala Agro Fruit Products (KAFFP), a unit of the Kerala Agro Industries Corporation Ltd (KAIC Ltd.) at Punalur, Kollam, is producing value added products like ready to serve juices, jams, pickles, syrup, honey based products, etc. It also has an automatic pet bottling plant having a production capacity of 1500 Tons of Ready to Serve Juice/Year. These products have already captured a major market share in the brand name of "Jyothi". The Corporation has established a jackfruit processing unit at Mala, Thrissur for producing value added products from jackfruit. Commercial production has started. Steps are in the final stages for setting up of a modern rice mill at SulthanBathery, Wayanad for processing ethnic varieties of rice like Jeerakasala and Gandhakasala. The Corporation is now aiming to establish a horticulture processing unit at the Jackfruit processing plant, Mala and to modernize the Kerala Agro Fruit Products by setting up a pulp processing unit and an automated packing facility.

The Corporation has started the prestigious ventures “Agro Super Bazaar” at Thiruvananthapuram and Agro Hyper Bazaar at Thrissur. The concept of “Agro Bazaars” is to provide the farmers “**All agricultural needs under one roof**”. The Agro Bazaars showcases all types of agricultural implements, machineries, value added products, inputs and seedlings etc and disseminate various technologies in the agricultural sector. The Agro Bazaars have been a great success, among the farming community and general public. The Corporation has expanded the chain of Bazaars by setting up a few at Kottarakara, Paravoor, Punalur, Thiruvalla, Arimpur, Athani, Panoor and Kozhikode.

As part of diversifying the activities, the Corporation has entered into several new profitable ventures such as fabrication of agricultural implements, supply, installation and commissioning of suitable systems for disposal of Municipal Solid Waste through latest practices, infrastructural development activities, etc. The Corporation is an accredited service provider of Suchitwa Mission – Kerala, implementing agency for infrastructure development work under SC- ST Development Department and Total Solution Provider for promotion of Hi-Tech cultivation in the State. Moreover, Finance (Industries and Public Works-B) Department, Government of Kerala, has awarded KAIC as an accredited Agency (general category) for execution of Public Works in various Government Public Sector undertakings and LSGs.

## ANNEXURE - I

## FORMAT OF THE TABLES IN CHAPTER III OF PERFORMANCE BUDGET 2023-24

Sl No	Name of scheme	Objective/Outcome	Outlay 2023-24		Revised budget (l)	Target fixed		Financial		Target achieved		(Rs. in lakh)		Period of implementation	Remarks/ Risk factors
			NP	Plan Budget		Quantifiable/ Deliverable/ Physical output	Physical	Financial	Physical	Financial	Physical	Projected outcome	7	8	
1	Rice Development	Promotion of scientific rice farming to enhance production and productivity and to sustain rice cultivation by increasing the average productivity to around 3 tonnes per hectare		4	6233.65	5	91781.82	5048.00	82480.90	3777.77	6	7	8	9	
1				9510.00		Sustainable Rice Development						Drone spraying of micronutrients was done in 4242.214 ha under paddy scheme. 678.93ha fallow cultivation of paddy done.	2023-24		
						Support to Paddy development agencies		30.00			1.31				
						Operational support to padasekharasamithies for group farming	66666.67	240.00	52322.50	134.78					
						Support for soil and root health management through lime application	53333.33	2890.00	49706.80	1390.67					
						Promotion of fallow land cultivation	712.50	285.00	678.93	206.12					
						Promotion of specialty rice	200.00	20.00	157.12	15.71					
						Registered Seed Growers Programme/Seed village programme	2000.00	100.00	941.48	43.34					
						Foliar application of micronutrients	9750.00	195.00	4242.21	84.84					
						Operation kole double		50.00		33.99					
						Royalty	20000 ha	600.00	19806.09	5.82					
						Project based assistance to pasadekharana samithi for immediate infrastructure facilities		45.69	45.69	0.00					
						Treasury Queue Bill		6.31		6.31					
				9510.00	6233.65			9510.00		5700.66					
2	Coconut Development	Integrated development of holdings aimed at maximising income from unit area through better agro management practices and promotion of multi species cropping		6895.00	5261.86	Comprehensive coconut rejuvenation (kera gramam, kera reksha varam, coconut council)		5383.00		2799.20		Kerakshavaaram conducted benefited 1500000 coconut palms	2023-24		45.00
						coconut seedlings distribution including seed nut procurement		1412.00		1171.54					



6	Crop Health Management	To bring together management towards sustainable ecosystems and peoples health through good plant protection practices	1300.00	1161.61	Development of pests and disease surveillance system ICT Enabled		10.00		0.00	0.00	Established 17 nos of new plant health clinics supported KCPM for pest surveillance activities in Kuttanad Fenching to prevent wild animal attack in an area	2023-24	
					ICT	0.00	0.00	0.00	0.00	0.00			
					Roaming survey	278.00	11.74	278.00	11.27				
					Assistance for new plant health clinic	20.00	84.36	17.00	82.53				
					Travelling expenses		0.00		0.00				
					Printing of crop health advisories and bulletins	278.00	12.54	278.00	12.36				
					Rodent control	0.00	0.00	0.00	0.00				
					Strengthening of existing plant health clinic	278.00	13.23	133.00	13.21				
					Development of parasite breeding stations	9.00	5.63		4.60				
					KCPM - Operational support	1.00	5.00	1.00	5.00				
					Honorarium to Field Assistants ( Fas) & District Plant Health Managers (DPHM)		615.78		524.78				
					Management of wild animal attack in cropped areas through technology support	278.00	156.00		53.00				
					CPCSS website		0.00		0.00				
					Miscellaneous		35.03		35.03				
					<b>Total</b>	<b>1161.61</b>	<b>949.30</b>		<b>741.78</b>				
7	Development of Spices	Revival of production of spices to improve the livelihood of people as well as to improve foreign exchange earnings	460.00	374.50	Area expansion of pepper	1500.00	132.00	1191.80	104.27			2023-24	
					Area expansion of ginger / turmeric	518.00	77.79	449.30	55.44				
					Area expansion of nut megiclove	125.00	50.00	88.38	21.07				
					Establishment of decentralised Pepper nursery	30.00	9.00	12.00	1.20				
					Area Expansion of clove	250.00	34.38	77.17	5.78				
					executing charges		1.13		0.09				
					Integrated practices	1000 ha	50.00	404.68	10.61				
					elams	250 ha	105.71	250 ha	100.48				
					<b>Total</b>	<b>374.50</b>	<b>460.00</b>		<b>298.94</b>				

8	Farm Information and Communication	Scheme aims at the development of information dissemination through the use of mass and electronic media including web based services	600.00	463.58	Published Kerala Karshakan. English e-journal available. Noorumeni video broadcasted through Doordarshan. Kuttanaadbooklets Exhibitions conducted in Ernie Kerala	600.00		378.85	90000 e-journal subscribers, regular telecast of agriculture programmes 52 episodes of Noorumeni and 126 short videos through various mass media, Farmers and agri-entrepreneurs were updated with latest developments in agriculture through official website of FIB, Youtube twitter, facebook, whatsapp groups. 959512 nos of various publications	2023-24
9	Strengthening of Agricultural Extension	<b>Total</b>	600.00	463.58		600.00		378.85		
		To have a convergence of organizations/ departments, research institutions and universities for extension service delivery on the adoption of scientific technology by farmers.	3028.00	2143.00	The main objective of the schemes is to improve income of the farmers by developing field visit oriented extension system. Strengthening of RATTIC and FTC KISSAN SAMEITI Strengthening Project Directorate of ATMA. Support to Extension Work Plan based on revised SREP-ATMA Plus HR support to project directorate and Extension wing Training to FAs and BTMs on regular basis MTA preparation and dissemination Conducting Karshaka Sabha and Njattuvela Chanda. Conducting VAIGA. Operational support to mobile agroclinics Award to extension personnel Support to Leads Integration of social media for agriculture development	3028.00	Karshakadhinam in 1076 K.B.s. District Karshikavikasa na samithy meeling panchayat level karshika vikasanasamithy meeling. 19498 karshakasabhas and Njattuvelachandras	1566.97	Adoption of technology by farmers and peoples participation in Implementation of schemes.	2023-24
10	Human Resources Development	Capacity building of officials on the latest updates in agriculture Strengthening of SAMEITI	3028.00	2143.00	Human Resource	3028.00		1566.97		
			335.00	249.16	Farmers training	97.28	143.00	89.43		2023-24
					Training to officials	108.68	62.00	28.60		
					PGDPHM Course fee	20.00		16.00		
					Course fee for higher studies	2.00	1.00	0.53		
					Specialised training programme	2.00	10.00	3.10		
					Tour TA	15.00		9.27		
					Strengthening SAMEITI	82.04		69.20		
		<b>Total</b>	335.00	249.16		335.00		216.12		
11	Crop Diversification, Intensification and Introduction		300.00	237.84	Area expansion of pulses	97.50		84.10	MOU has been placed between Government	
					Area Expansion of oil seeds			33.32		
					Area Expansion of millets		850 ha	68.89		
		<b>Total</b>	300.00	237.84		97.50	0.00	186.30		
12	Restructured Crop Insurance Scheme	To cater to risk coverage of small and marginal farmers based on actuarial and insurance principles to make itself self sustaining one	3000.00	3000.00	Provided insurance coverage to 27 crops of Kerala.	3000.00	7206.00	1943.04		2023-24
		<b>Total</b>	3000.00	3000.00		3000.00		1943.04		

13	Support to farm mechanisation(Agro-service centres)	To facilitate integration of services like mechanization, ATMA based extension, credit support, weather advisory services, soil testing support and other technology based services to the farmers at a single point.  To providing labour and machinery to farmers, to support agricultural activities in the farmers field. Hiring machinery and equipments to karsika karmasena, and to facilitate the functioning of karmasena. Production and distribution of seeds and planting materials, fertilizer and micronutrients, Setting up of Bio-pharmacy for the supply	1181.00	1124.07			1181.00		753.64	Effective Extension delivery. Creation of Farmer Database, Timely release of subsidy to farmers through DBT system. Overcome labour shortage in agriculture by the establishment of agro service centres.	2023-24	
14	support to farm mechanization (formation of new kishisree centres)	Total	1181.00	1124.07			1181.00	22.00	753.64	Establishment of 22 new kishisree centres	2023-24	
15	Vegetable Development through VFPCK	Promotion of vegetable cultivation and increasing production and productivity and to provide soil test based recommendation and micro nutrient application. To continue the vegetable programme implemented in the state and to initiate new programmes	800.00 2300.00	185.06 1790.00	Total	PCS vegetable cultivation -1000 ha. Insured vegetable crops. Conducted Farmer trainings and Participatory Technology development activities.	800.00 2300.00		129.99 1495.00	Self-sufficiency in vegetable cultivation	2023-24	Physical outcome with VFPCK
16	Vegetable Development	Total	2300.00 7045.00	1790.00 4919.40		Vegetable seed kit and seedling distribution  Promotion of open field precision farming  support to homestead vegetable cultivation  Project based intensive vegetable cultivation in Institutions Commercial cultivation of vegetables  Construction of rain shelters for vegetable cultivation Technical Support and Contractual Apportionments pesticide residue analysis in vegetables ELAMS	2300.00 750.00 100.00 1450.00 100.00 1941.58 200.00 314.00 20.00		1495.00 703.42 3.22 1246.76 6.18 227.51 39.33 286.55 20.00 1968.28 4501.25	Free distribution of 13.78lakh vegetable hybrid seed packets and 116.66 lakh hybrid vegetable seedlings done under VDP. 50 lakh assorted seed packets and 108.6 lakh vegetable seedlings were also distributed	2023-24	
17	Contingency Programme to Meet Natural Calamities	For creating a buffer stock of seeds of paddy and other annual crops for distribution to affected farmers in the event of natural calamities and resultant crop damages and for strengthening of bunds to prevent breaches during floods and for removal of debris will be provided in a need based manner.	7045.00 750.00	4919.40 750.00		Assistance for crop loss due to natural calamity Buffer stock on seed creation. Breach bund repair. Management of pest and disease Crop loss	4125.58 750.00		394.30 394.30	394.30 MT seed, distributed as assistance for crop loss due to natural calamity	2023-24	
	Total	Total	750.00	750.00			750.00		394.30			



18	Soil and Root Health Management and Productivity Improvement	Aims at improvement of soil health for augmenting crop productivity considering the depleted nutrient status of the soil resource status of the State.		550.00	379.96	VAM	Support to secondary micronutrients	100.00	550.00	97.00	348.71	97 onfarm production unit of VAM was started	2023-24	
							Support to secondary micronutrients	16107.56 ha		15997.56				
							Soil testing campaign	1076.00		1047.00				
19	Share Capital contribution to HortiCorp	<b>Total</b>		550.00	379.96				550.00		348.71			
		To provide share participation to match the flow of funds from Central Warehousing Corporation.		100.00	65.00		Funds to HortiCorp		100.00		65.00		2023-24	
20	Rural Infrastructure Development Fund Projects	<b>Total</b>		100.00	65.00				100.00		65.00			
		Development of infrastructure under the funding support from RIDF of NABARD		1000.00	3526.48		Infrastructure development works undertaken for development of padasekharams		1000.00		3402.09		2023-24	28 works completed
21	Agriculture Marketing & Post Harvest Management	<b>Total</b>		1000.00	3526.48				1000.00		3402.09			
		The objective of the programme is to address the issues related to price fluctuation, lack of efficient marketing system and post-harvest losses. Strengthening of existing market infrastructure, coordinating the functioning of markets at various levels in collection, transportation, storage and processing, strengthening of market intelligence and adoption of innovative technologies in agricultural marketing are the major focus areas		1290.00	878.42		<b>1. Market Development</b>						2020-21	
							Strengthening of agricultural wholesale markets and district procurement		92.00		50.88			
							Agmarknet & Market Intelligence		40.00		36.98			
							State Agricultural Prices Board		100.00		100.00			
							WTO Cell- Operational expenses		5.00		0.00			
							Strengthening of agriculture wholesale market- transportation subsidy		50.00		50.00			
							Assistance to ecoshops		10.00		10.00			
							Engaging Karshaka mitras in potential panchayats		60.00		13.19			
							Keralagro brand		40.00		8.99			
							Keralagro brandshop		140.00		44.67			
							Supply Chain Management including cold chain segment		72.50		35.83			
							Market development activities of VFPC		500.00		154.50			
							E-LAMS & Queue bill				183.69			
							<b>Sub Total (Market Development)</b>		1109.50		688.73			
				1290.00	878.42		<b>2. Market intervention support for price stabilization including support for base price fixed to fruits and vegetables</b>							
				2825.00	2755.38									
							Onam Market (Agri Dpt)		699.40		494.41			
							Onam Market-HortiCorp		227.50		170.30			
							Onam Market-VFPC		97.50		57.68			
							Market intervention support-HortiCorp		935.00		935.00			
							Green Coconut Procurement		300.00		300.00			
							Copra procurement through Marketfed		50.60		50.60			
							Baseprice		500.00		94.04			
							Paddy Procurement		15.00		4.34			
							CACP Workshop		0.00		1.97			
				2825.00	2755.38						2108.34			
		<b>Total</b>		4115.00	3633.80				3934.50		2797.07			



25	Kerala State Warehousing Corporation	assistance to Kerala State Warehousing Corporation for the construction of Godown cum Agriculture Complex. For computerization, an amount of ₹ 10.00 lakh is set apart.		100.00	53.00	Assistance to Kerala State Warehousing Corporation for construction of Godown cum Agriculture Complex		100.00		53.00		2023-24
		<b>Total</b>		<b>100.00</b>	<b>53.00</b>			<b>100.00</b>		<b>53.00</b>		
26	Kerala State Warehousing Corporation – Computerization			10.00	10.00			10.00		5.30		
		<b>Total</b>		<b>10.00</b>	<b>10.00</b>			<b>10.00</b>		<b>5.30</b>		
27	International Research and Training Centre for Below Sea level Farming, Kuttanad	Popularizing innovative activities, data base generation on pollution and for the capacity building.		25.00	61.00			61.00		61.00	Supported the activities of RTGBSF Kuttanad popularised the integrated farming for increased income ,floating raft agriculture,vegetable amranthus cultivation on water hyacinth floats,e-waste to fish programme through Farm clubs,open water cage farming, integrated with floating agriculture and for aquatic weed utilization etc	2023-24
	<b>Total</b>			<b>25.00</b>	<b>61.00</b>			<b>61.00</b>		<b>61.00</b>		
28	Development of Agriculture sector in Kuttanad	Infrastructure development works in Kuttanad region		1700.00	1697.91		59.00	1700.00	41.00	1001.63	The amount was set apart for infrastructure development works of various padasekharans of Kuttanad region and supply and installation of vertical axial flow pumps.	2023-24
	<b>Total</b>			<b>1700.00</b>	<b>1697.91</b>			<b>1700.00</b>		<b>1001.63</b>		
29	Development of fruits, flowers and medicinal plants	Development of fruits, flowers and medicinal plants		1892.00	1848.89		3636700 nos	1467.00	2172133 nos	842.33		2023-24
							1125 ha	200.00	1035.87572 ha	191.47		
										25.00		
										56.65		
										86.20		
	<b>Total</b>			<b>1892.00</b>	<b>1848.89</b>		<b>Total</b>	<b>1892.00</b>		<b>1201.65</b>		
30	Office automation and IT infrastructure	To implement e-office in Agriculture department, to develop IT and communication infrastructure, To strengthen IT and e-governance initiatives .		575.00	531.31		Strengthening of e-office of Directorate, Cyber extension, Connectivity and development of MIS and DBT	575.00		321.33		2023-24
	<b>Total</b>			<b>575.00</b>	<b>531.31</b>			<b>575.00</b>		<b>321.33</b>		
31	Farmers welfare fund board			100.00	100.00		Initial operational expenses for Farmers welfare fund board	100.00		100.00		2023-24
	<b>Total</b>			<b>100.00</b>	<b>100.00</b>			<b>100.00</b>		<b>100.00</b>		

32	Scheme on Development of Production Organisations and Technology Support				1200.00	780.00	Support for critical components in selected farm plan - 1 <sup>st</sup> year	9760.00	458.40	9760.00	447.40		
							Support for critical components in selected farm plan - 2 <sup>nd</sup> year	1224.00	71.60	1224.00	70.47		
							Establishment of model IFS plot	1000.00	250.00	1000.00	246.00		
	<b>Total</b>					<b>780.00</b>			<b>780.00</b>		<b>763.87</b>		
33	Scheme on Supply Chain/Value chain Development and Integration under FPD programme				500.00	302.26			500.00		176.65		
	<b>Total</b>					<b>302.26</b>			<b>500.00</b>		<b>176.65</b>		
34	Development & technical support to FPOs				650.00	549.22			650.00		351.06		
	<b>Total</b>					<b>549.22</b>			<b>650.00</b>		<b>351.06</b>		
35	Karshika vivara sanketham				0.00	74.25		1.00	74.25	1.00	48.26		
	<b>Total</b>				<b>0.00</b>	<b>74.25</b>			<b>74.25</b>		<b>48.26</b>		
36	RAD – NMSA				0.00	21.60			21.60		14.01		
	<b>Total</b>				<b>0.00</b>	<b>21.60</b>			<b>21.60</b>		<b>14.01</b>		
	<b>Total State Schemes</b>				<b>54746.00</b>	<b>45771.94</b>					<b>35581.26</b>		
II	Centrally Sponsored Schemes- Umbrella Scheme on Krishi Umathi Yojana & other CSS (State and Central Share)												
1	Biogas Development				150.00	150.00			150.00		0.00		
2	Other CSS				25800.00	28987.69			28987.69		15392.74		
	<b>Total CSS</b>				<b>25950.00</b>	<b>29137.69</b>			<b>29137.69</b>		<b>15392.74</b>		
	<b>Total State (including state share of CSS)</b>				<b>80696.00</b>	<b>74909.63</b>					<b>50974.00</b>		
<b>NON PLAN</b>													
1	Free Supply of Electricity to Small and marginal Farmers			3692.00		3692.00	To provide free electricity or power tariff exemption to paddy farmers irrespective of area of cultivation and to others up to 2 ha.				2328.53	Provided irrigation facility to farmers	2023-24
2	Paddy Production Bonus			0.01		0.01	To sustain paddy cultivation and to retain paddy farmers in the rice sector		0.01		0.00	Prevented the shift in cropping from paddy to other crops. to some extend by supporting paddy farmers.	2023-24
3	Rubber Production Incentive Scheme			50150.84		50000.00	To support rubber growers		50000.00		18000.00	Support to rubber farmers. Difference in support price of rubber and price of rubber on date is credited to farmers account	2023-24
4	Other Non Plan recurring & non recurring administrative purpose			66876.93		67209.92			67209.92		65381.11		
	<b>Total</b>			<b>120719.78</b>		<b>120901.93</b>			<b>120901.93</b>		<b>85709.64</b>		

**ANNEXURE - II**  
**TRENDS IN EXPENDITURE VIZ-A-VIZ BUDGET ESTIMATES/REVISED ESTIMATES IN RECENT YEARS**  
**PLAN/NON PLAN**

Sl. No.	Name of the Scheme/Programme	Major head	Budget Estimate				Revised Budget				Actual Expenditure		
			2021-22	2022-23	2023-24	2024-25	2021-22	2022-23	2023-24	2024-25	2021-22	2022-23	2023-24
<b>A)</b>	<b>AGRICULTURE-STATE PLAN SCHEMES</b>												
1	Farm Plan Based Production Programme including pre-production support	2401-00-104-67	Scheme not launched	1200.00	1200.00	1000.00	Not Applicable	1200.00	780.00	400.00	Not Applicable	663.1196	763.8749
2	Scheme on Development of Production Organisations and Technology Support	2401-00-109-56	Scheme not launched	900.00	650.00	500.00	Not Applicable	900.00	549.22	200.00	Not Applicable	252.2802	351.06221
3	Scheme on Supply Chain/Value chain Development and Integration under FPD programme	2401-00-111-97	Scheme not launched	800.00	500.00	500.00	Not Applicable	800.00	302.26	200.00	Not Applicable	244.6908	176.65204
4	Development of crops through Integrated Farming System Approach	2401-00-102-73	Scheme not launched	250.00	Scheme discontinued	Scheme discontinued	Not Applicable	250.00	Not Applicable	Not applicable	Not Applicable	150.50	
5	Integrated Agriculture Complex	2401-00-109-69					52.17			Not applicable	52.17		
6	Rice Development	2401-00-102-90	11614.00	7600.00	9510.00	9360.00	10884.50	6547.05	6233.65	4680.00	10710.26	4891.813	5700.66251
7	Coconut Development	2401-00-103-87	7547.00	7390.00	6895.00	6500.00	6916.43	6390.00	5261.86	3250.00	6532.41	4795.48	3974.16312
8	Crop diversification, Intensification and Introduction	2401-00-103-75	Scheme discontinued	Scheme discontinued	300.00	300.00	Not Applicable	Not Applicable	237.84	120.00			
9	Production & Distribution of Quality Planting materials	2401-00-104-91	1095.00	1425.00	1425.00	1275.00	1005.00	1404.82	1330.15	1275.00	966.14	840.6871	763.6842
	Modernization of Departmental laboratories	4401-00-104-98	200.00	300.00	300.00	150.00	200.00	300.00	200.00	150.00	199.34	177.1755	113.46958
10		2401-00-105-86	420.00	400.00	400.00	400.00	420.00	400.00	372.63	200.00	301.26	268.1942	231.92497
11	Organic farming & Good Agricultural Practices	2401-00-105-85	240.00	600.00	600.00	600.00	280.57	600.01	390.00	300.00	274.35	380.00	344.5812
12	Crop health management	2401-00-107-78	770.00	900.00	1300.00	1300.00	770.00	900.00	1161.61	1300.00	743.81	816.6518	741.77557
13	Development of Spices	2401-00-108-59	1010.00	360.00	460.00	460.00	1010.00	360.00	374.50	230.00	1009.999	233.9439	298.93888

14	Farm Information and Communication	2401-00-109-84	300.00	600.00	600.00	600.00	400.00	300.00	600.00	463.58	200.00	286.87	389.1322	378.84803
15	Strengthening of Agricultural Extension	2401-00-109-80	1170.00	2828.00	3028.00	2503.00	1170.00	2361.34	2143.00	931.21	1560.899	1566.97466		
16	Farmers welfare fund board	2401-00-109-76	200.00	100.00	100.00	200.00	100.00	100.00	100.00	110.00	100.00	100.00	100.00	100
17	ATMA call centre (One time ACA)	2401-00-109-73			0.00			74.25	144.30					48.2625
18	Re structured State Crop Insurance	2401-00-110-82	2000.00	3000.00	3000.00	3314.00	3200.00	4000.00	3000.00	3179.95	3999.626	1943.03825		
19	Development of pulses and Tubers	2401-00-112-96	243.00				243.00	Not applicable	242.71					
20	Agro Service Centres	2401-00-113-83	650.00	1181.00	1181.00	895.00	860.00	1165.66	1124.07	821.20	820.3024	753.63981		
21	Hi-tech Agriculture	4401-00-113-98	250.00	800.00	800.00	800.00	250.00	800.01	185.06	99.86	284.7584	129.98841		
22	Vegetable Development	2401-00-113-82	200.00	6220.00	7045.00	6045.00	6920.00	4919.40	3023.00	6815.71	4037.113	4501.24818		
23	Contingency Programme to meet Natural Calamities and Pest & Disease Endemic	2401-00-119-81	725.00	1500.00	2300.00	1800.00	725.01	975.00	1790.00	725.00	975.00	1495		
24	Rashtriya Krishi Vikas Yojana [RKVY]	2401-00-800-37	Defunct Head of Account	750.00	750.00	750.00	6743.86	750.00	525.00	6729.31	690.6166	394.3003		
25	13 <sup>th</sup> Finance Commission Award (New Scheme)	2401-00-800-32	Defunct Head of Account	Defunct Head of Account	Defunct Head of Account	Defunct Head of Account	Defunct Head of Account	Defunct Head of Account	Defunct Head of Account					
26	Soil Health management and Productivity Improvement	2401-00-800-28	3050.00	2210.00	550.00	550.00	3050.00	1878.39	379.96	2988.81	1858.665	348.71067		
27	Wayanad Package	2401-00-800-27	1335.00	Scheme discontinued	Scheme discontinued	Scheme discontinued	1109.01	Not applicable	881.16					
28	Kerala State Horticultural Products Development Corporation Ltd.(Investments)	4401-00-190-97	20.00	100.00	100.00	Scheme discontinued	20.00	100.00	65.00	20.00	65.00	65		
29	Human Resource Development	2415-01-277-98	242.00	335.00	335.00	335.00	142.00	335.00	249.16	93.41	203.7845	216.12423		

30	SUPPORT FOR MARKETING OF AGRICULTURAL PRODUCE												
i.	Market Intervention Support for Price Stabilization	2435-01-101-85	2000.00	2200.00	2825.00	2150.00	2800.00	2614.96	2755.38	2150.00	2730.06	2614.952	2108.34383
ii.	Market Development	2435-01-800-99	970.00	1520.00	1290.00	1190.00	885.00	1520.01	878.42	595.00	833.57	791.5086	688.72682
31	Post harvest management & Value addition	2435-01-800-94	1210.00	2020.00	2000.00		1295.00	2020.01	1851.23	400.00	1162.21	972.0272	1131.05429
32	Kerala State Warehousing Corporation – share participation	4408-02-190-99	25.00	25.00	0.00		25.00	25.00	29.90	Not applicable	25.00	15.75	4.9
33	ASSISTANCE TO KERALA STATE WAREHOUSING CORPORATION												
i.	Kerala State Warehousing Corporation – construction of godown	4408-02-101-98	30.00	100.00	100.00	1.00	30.00	100.00	53.00	10.89	30.00	49.15	53
ii.	Kerala State Warehousing Corporation – Computerization	2408-02-190-98	10.00	10.00	10.00	10.00	10.00	10.00	10.00	5.00	10.00	6.80	5.3
34	Rural Infrastructure Development Fund Projects (RIDF)	4435-01-101-97	750.00	1000.00	1000.00	300.00	1866.53	5762.95	3526.48		1601.97	4482.501	3402.08795
35	NABARD RIDF-SHM	6401-00-119-95	0.00	0.00	0.00	Nil	0.00	121.01			0.00	121.01	
36	International Research & Training Centre for Below Sea level farming (IRTCBSF), Kuttanad	2415-01-004-88	20.00	25.00	25.00	30.00	66.58	75.00	61.00	70.00	66.58	75.00	61
37	Kerala Climate Resilient Agri Value chain Modernization Project-2401-00-111-95-01 KERA ( <b>New Project</b> )		EAP not started	EAP not started	EAP not started	10000.00				10000.00			
38	Development & Promotion of Location specific Crops	2401-00-103-75	323.00	Scheme discontinued	Scheme discontinued	Scheme discontinued	323.00			Not applicable	246.10		186.30404
39	Development of fruits, flowers & medicinal plants	2401-00-119-79	2515.00	1892.00	1892.00	1892.00	2505.00	1892.00	1848.89	946.00	2202.26	1486.446	1201.65443

40	Bio diversity and local germ plasm conservation and promotion	2401-00-103-77	25.00	Scheme discontinued	Scheme discontinued	Scheme discontinued	25.00	Scheme discontinued	Not applicable	25.00		
41	Special Agriculture Zones	2401-00-102-79	Scheme discontinued	Scheme discontinued	Scheme discontinued	Scheme discontinued		Scheme discontinued				
42	Rebuild Kerala Initiative	2401-800-21	Scheme discontinued	Scheme discontinued	Scheme discontinued	Scheme discontinued		Scheme discontinued				
43	Support for innovative projects of farmers collectives	2435-01-101-75	Scheme discontinued	Scheme discontinued	Scheme discontinued	Scheme discontinued		Scheme discontinued				
44	Additional assistance for construction of biogas plants	2810-00-105-97	50.00	Additional assistance stopped								
45	Loans to Kerala State Warehousing Corporation for the construction of godowns under RIDF	6408-02-190-98	Nil	Nil	Nil	Nil	175.20	925.52		175.20	712.5105	
46	Coconut palm insurance under CDB	2401-00-110-81		Scheme discontinued	Scheme discontinued	Scheme discontinued						
47	NMSA- SHM	2401-104-79(01)	No Central release	No Central release	No Central release	No Central release						
48	RAD	2401-00-104-79(03)	New H/Ac created	New H/Ac created	New H/Ac created	New H/Ac created		21.60				14.01
49	Development of Agriculture sector in Kuttanad	2401-00-119-78	1350.00	1700.00	1700.00	2900.00	1350.00	1700.01	1697.91	1057.77	822.2552	1001.62956
50	Development of Agriculture sector in Kuttanad (RIDF)	2401-00-119-76	Scheme not launched	Scheme not launched	Scheme not launched	700.00				Not applicable		
51	Areacan Package	2401-00-108-56	100.00	Scheme discontinued	Scheme discontinued	Scheme discontinued	100.00			99.75		
52	Office Automation and IT infrastructure	2401-00-001-86	250.00	815.00	575.00	661.00	250.00	815.00	531.31	229.89	339.3441	321.32836
53	Krishi padasala – Approach to AEU based cultivation	2401-00-109-60	50.00	100.00	Scheme discontinued	Scheme discontinued	50.00	100.00	Not applicable	49.99997	61.00815	



54	Punarijani – Restoration of agricultural sector in post flood scenario	4401-00-800-94	185.00	185.00	800.00	Scheme discontinued	185.00	185.00	185.00	Not applicable	152.15	120.20	
55	Kerala Farm Fresh Pazham Pachakkari Base Price (New)	2401-00-119-77	1000.00	1405.00	50.00	Scheme discontinued	1000.00	983.96	69.62	20.00	793.85	145.1572	0
56	Green Coconut Procurement through VFPC	2435-01-101-73	Scheme not launched	Scheme not launched	1000.00	Scheme not launched	Nil	Nil	Nil	0.00			
57	Vazhakulam Agro & Fruit processing Company – Loan	6401-00-190-86	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil			
58	Assistance to Brahmagiri society for the expansion of Brahmagiri coffee plant	2401-00-108-29	Nil	Nil	Nil	Nil	478.00	Nil	Nil	Nil	478.00		
59	Soil and Plan Health scheme under CSS macro management(Funds to RAIDCO)	2401-800-61	No Central release	No Central release	No Central release	No Central release	0.30	Nil	Nil	Nil	0.30		
60	Assistance to KAMCO	6401-00-190-92	Nil	Nil	Nil	Nil	500.00	Nil	Nil	Nil	500.00		
61	Modification of Agriculture Development and Farmers Welfare Department using advanced digital technologies	2401-113-77	Nil	Nil	Nil	Nil	0.01	Nil	Nil	Nil		500.01	
62	Information Technology Service Network for Marketing Agricultural Products	2435-01-101-74	Nil	Nil	Nil	Nil	0.01	Nil	Nil	Nil			
	<b>Total (State )</b>		<b>51614.00</b>	<b>54746.00</b>	<b>61621.00</b>		<b>60591.18</b>	<b>58737.46</b>	<b>45771.94</b>	<b>38860.19</b>	<b>57280.79</b>	<b>42062.34</b>	<b>35581.26</b>
	<b>Central Sector (State + Central share)</b>												
<b>B)</b>	<b>CENTRALLY SPONSORED SCHEMES</b>												
1	National Project on Biogas Development (100% Central Sector Scheme)	2810-00-105-99	200.00	150.00	150.00	Scheme switched to CNA	4.048	150.00	150.00	Nil	4.048		0

2	Umbrella Scheme on Krishi Unnathi Yojana & other CSS	Various Head of Accounts	25828.00	25800.00	25800.00	25800.00	19250.00	40979.370	35248.23	28987.69	Nil	34200.954	30274.02	15392.74
	<b>Total (Central)</b>		<b>26028.00</b>	<b>25950.00</b>	<b>25950.00</b>	<b>25950.00</b>	<b>19250.00</b>	<b>40983.42</b>	<b>35398.23</b>	<b>29137.69</b>	<b>0.00</b>	<b>34205.00</b>	<b>30274.02</b>	<b>15392.74</b>
	<b>TOTAL (State and Central )</b>		<b>77642.00</b>	<b>80696.00</b>	<b>80696.00</b>	<b>80696.00</b>	<b>80871.00</b>	<b>101574.60</b>	<b>94135.69</b>	<b>74909.63</b>	<b>38860.19</b>	<b>91485.79</b>	<b>72336.36</b>	<b>50974.00</b>
C)	<b>NON-PLAN SCHEMES</b>													
1	Free Electricity	2401-00-115-99	Nil	3692.00	3692.00	3692.00	3692.00	Nil	Nil	Nil	Nil			
	Free Supply of Electricity to Small and marginal Farmers	2401-00-115-99	3550.00	3692.00	3692.00			3550.00	3692.00	3692.00	Nil	2875.47	2366.3	2328.53
2	Karshaka Pension	2401-00-115-98		0.01	0.01	0.01	0.01		0.01	0.01	Nil			0
3	Paddy Production Bonus	2401-00-191-50 2401-00-192-50 2401-00-198-50	1368.50	1368.50	1368.50	1368.50	1368.50	1368.50	1368.50	0.01	Nil	752.44	907.11	0
4	Rubber Production Incentive scheme	2435-01-101-80	50000.00	50000.00	50150.84	50000.00	50000.00		50000.00	50000.00	Nil	50000.00	4000	18000
5	Other Non Plan recurring & non recurring administrative purpose	Various Head of Accounts	45386.51	63594.08				45386.51	66409.49	67209.91	Nil	27068.84	67126.56	65381.11
	<b>Total (Non-Plan )</b>		<b>100305.01</b>	<b>55060.51</b>	<b>118805.43</b>	<b>55060.51</b>	<b>55060.51</b>	<b>50305.01</b>	<b>121470.00</b>	<b>120901.93</b>	<b>0.00</b>	<b>80696.75</b>	<b>74399.97</b>	<b>85709.64</b>

# ANNEXURE - I

## FORMAT OF TABLES OF PERFORMANCE BUDGET 2023-24

### VFPCK

Sl. No.	Name of Scheme	Objectives	Outlay 2023-24				Quantifiable Deliverables/Physical Outputs	Target fixed		Target Achieved		Projected outcomes	Period of implementation	Remarks/ Risk factors
			Non Plan Budget	Plan Budget	Complementary Extra Budgetary Resources	Central Assistance if any		Physical	Financial	Physical	Financial			
1	2	3	4(i)	4(ii)	4(iii)	4(iv)	5	6	7	8	9	10		
1	Vegetable Development Support to VFPCK	Give support for vegetable cultivation under Export oriented cultivation, increase the vegetable area and production, sustain cultivation of vegetables in existing areas,Support for infrastructure support like permanent pandal, semipermanent pandal and solar fencing , farm mechanization support through SMAM top up subsidy, extension services& create awareness through trainings and study visits, credit interest subvention support, Hybridization trials Export promotion support , Traceability in Banana Nendran, etc		2300 lakhs			Promoting cultivation of vegetables underExport oriented cultivation, infrastructure support like permanent pandal, semipermanent pandal and solar fencing , Awareness creation on vegetable production, Technology development and dissemination through trainings. Development and stabilization of farmer markets, Hybridization trials Export oriented cultivation, traceability studies	Farmers-3000 SHGs-132 Cultivation of 18467 ha. of vegetables and 19889 ha.of banana, Credit- 130.92 crores trainings- 100 trained farmers- 2000	1495 lakh including elams & Resumed -	2853 new farmers enrolled as members,74 SHGs formed, 16198 ha of vegetables and 20366 ha.of banana cultivated by VFPCK Farmers. 5550 soil health cards.Rs.152.9 crore distributed as loan to farmerswith 2% interest subvention Organised 10 credit campaigns. 99 farmer trainings conducted and trained 2260 farmers.Development and stabilization of farmer markets upto 3% of turnover.Hybridization trials, Export oriented cultivationin 80 ha. Traceability studies	1424.04 lakh	Strengthening of SHGs, encouraging farmers and providing support for crop production, Credit and insurance support, Awareness creation for better understanding of latest technical advances, Marketing support and base work like traceability to produce export oriented produce for domestic and international market. Successful hybridization trials to produce hybrid seeds of vegetables	2023-24	

**VFPCK**

Sl. No.	Name of Scheme	Objectives	Outlay 2023-24				Quantifiable Deliverables/Physical Outputs	Target fixed		Target Achieved		Projected outcomes	Period of implementation	Remarks/ Risk factors
			Non Plan Budget	Plan Budget	Complementary Extra Budgetary Resources	Central Assistance if any		Physical	Financial	Physical	Financial			
1	2	3	4(i)	4(ii)	4(iii)	4(iv)	5	6	7	8	9	10		
2	Production and distribution of Good Quality Planting Materials	Supply good quality parent seed materials to seed growers, strengthening and up-gradation of seed sub centres for processing of seeds, packaging and distribution of seeds, production and distribution of Tissue Culture banana plantlets, production of fruit plant grafts etc.		100.00 lakh			Support for planting material production and distribution through Seed Processing Plant, Support for planting material supply from other units of VFPC, Support for planting material production and distribution units in at Ernakulam, kasargode and Trivandrum	Production and distribution of 120 mt. of vegetable seeds, 5 lakh TC Banana, 55 lakh vegetable seedlings and 8 lakh fruit grafts, 1000kkg mushroom spawn packets production and distribution	Resumed -50 lakh	Produced and distributed 52.5 MT of vegetable seeds ,distributed 1.83 Lakh TC Banana,81.35 lakh vegetable seedlings and 5.7 lakh fruit grafts. 4557 mushroom spawn packets produced and distributed ,hybridization trials for hybrid seed production under guidance of KAU	44.91 lakh	Able to make available quality seeds and planting materials at the appropriate time in adequate amount at the needed location.	2023-24	

**VFPCK**

Sl. No.	Name of Scheme	Objectives	Outlay 2023-24				Quantifiable Deliverables/Physical Outputs	Target fixed		Target Achieved		Projected outcomes	Period of implementation	Remarks/ Risk factors
			Non Plan Budget	Plan Budget	Complementary Extra Budgetary Resources	Central Assistance if any		Physical	Financial	Physical	Financial			
1	2	3	4(i)	4(ii)	4(iii)	4(iv)	5	6	7	8	9	10		
3	Market Development of VFPCK	Enhance trading of fruits and vegetables, better price for farmer produce., strengthen the activities of existing 295 markets, initiate new markets in production sites, initiate new collection centres, provide intervention supports at the time of price fall, establish retail chain of fresh fruits and vegetables, strengthen input centres.		500 lakhs			Facilitating Trading of fruits and vegetables.96385mt fruits & vegetables worth 309.5 crores were traded through these SKSs. Onasamrudhi and vishu Retail outlets were organised by VFPCK.	Marketing sales promotion incentive to 15000MT .	335 lakh including elams & Resumed	Facilitating Trading of fruits and vegetables.96385mt fruits & vegetables worth 309.5 crores were traded through these SKSs. Onasamrudhi and vishu Retail outlets were organised by VFPCK. 160 Onasamrudhi Retail outlets were organised by VFPCK.	Ensured reasonable price for the farmers produce.Could intervene at the time of price rise during festival season. Marketed the produce of farmers during the period of market glut thus assuring premium price.3% Development and stabilization support to vipanis.Green coconut procurement under PSS scheme for NAFED	2023-24		

**VFPCK**

Sl. No.	Name of Scheme	Objectives	Outlay 2023-24				Quantifiable Deliverables/Physical Outputs	Target fixed		Target Achieved		Projected outcomes	Period of implementation	Remarks/ Risk factors
			Non Plan Budget	Plan Budget	Complementary Extra Budgetary Resources	Central Assistance if any		Physical	Financial	Physical	Financial			
1	2	3	4(i)	4(ii)	4(iii)	4(iv)	5	6	7	8	9	10		
4	Organic Farming and Good agricultural practices	Promotion of GAP and Organic produce, Promotion and popularization of indigenous seeds, Marketing support for organic produce through ecoshops. Promoting Bee keeping to increase pollination and productivity		75.00 lakh			Promotion of GAP and Organic produce, Promotion and popularization of indigenous seeds, Marketing support for organic produce through ecoshops. Promoting Bee keeping to increase pollination and productivity		Promotion of GAP and Organic produce, Promotion and popularization of indigenous seeds, Marketing support for organic produce through ecoshops. Promoting Bee keeping to increase pollination and productivity	16.73lakh	Promotion of GAP and Organic produce, Promotion and popularization of indigenous seeds, Marketing support for organic produce through ecoshops. Promoting Bee keeping to increase pollination and productivity	2023-24		
5	Development of fruits -Jackfruit	Establishment of jackfruit trading center, value addition and processing units, marketing of raw and processed jackfruit		25lakhs			Promotion and procurement of jackfruit in all districts and its value addition	25 lakhs including elams & Resumed	Promotion and procurement of jackfruit in all districts and its value addition	3.66 lakh	Promotion and procurement of jackfruit in all districts and its value addition	2023-24		

**VFPCK**

Sl. No.	Name of Scheme	Objectives	Outlay 2023-24				Quantifiable Deliverables/Physical Outputs		Target fixed		Target Achieved		Projected outcomes	Period of implementation	Remarks/ Risk factors
			Non Plan Budget	Plan Budget	Complementary Extra Budgetary Resources	Central Assistance if any			Physical	Financial	Physical	Financial			
1	2	3	4(i)	4(ii)	4(iii)	4(iv)	5	6	7		8		9	10	
6	Market intervention support	Market intervention to regulate retail prices during glut & festive seasons .		100 lakhs			Market intervention to regulate retail prices during glut & festive seasons .	160 Onam outlet conducted	50 lakhs		160 Onam outlet conducted	100 lakhs	Market intervention to regulate retail prices during glut & festive seasons .	2023-24	
7	Assistance to VFPCK for supporting FPO	Formation of FPO and facilitation for entrepreneurial development and statutory compliances					Facilitation of 41 FPO and statutory compliances	Facilitation of 41 FPO and statutory compliances	123.27 lakhs including elams & Resumed		Facilitation of 41 FPO	81.678 lakhs	Facilitation of 41 FPO	2023-24	
8	NonPlan Budget		41.85 lakhs									31.385 lakhs			

## Annexure II

### Trends in Expenditure vis-a-vis Budget Estimates/ Revised Estimate/ Actual Expenditure in recent years of PLAN Schemes

VFPCK												(Rs. In lakh)
No.	Scheme/ programme	Major Head	Budget Estimates				Revised Estimates			Actual Expenditure		
			2021-22	2022-23	2023-24	2024-25	2021-22	2022-23	2023-24	2021-22	2022-23	2023-24
1	2	3	4		6	7	8	9	10	11	12	13
1	Vegetable Deveploment Support to VFPCK	2401-00-119-81(P)	725	1500	2300	1800				725	824.1561	1424.04
2	Market Development of VFPCK	2435--01-800-99(P)	350.00	500	500.00	500.00				350	310.001	238.04
3	Production and supply of quality planting materials	2401-00-104-91 (P)	100	100	100	100				100	50	44.91
4	Development of fruits - Jackfruit	2401-00-119-79 (P)	75	25	25	25				75	6.34	3.66
6	Organic Farming and Good agricultural practices	2401-00-105-85 (P)	75	75	75	75				75	55.5	16.73
7	Market intervention support for Price stabilization	2435-01-101-85 (Plan)	148	100	104					148	100	
8	Assistance to VFPCK for Supporting FPOs (New)	2435-01-800-94(Plan)	Nil	300						Nil	21.72	81.678
9	Green coconut procurement through VFPCK	2435-01-101-73 (P)				1000						
	Total		1473	2600	3104	3500				1473	1367.7171	1809.058



# ANNEXURE- I

## FORMAT OF TABLES OF PERFORMANCE BUDGET 2023-24

KLDC

Rs. in Lakh

SL.No	Name of Scheme/Programme	Objective /Outcome	Outlay, 2023-24				Quantifiable Deliverable/ Physical outputs during the year	Target fixed		Target achieved		Projected Outcome	Period of implementation	Remarks/ Risk factor
			Non-Plan (Budget)	Plan (Budget)	Complementary Extra Budgetary Resources	Central Assistance if any		Physical	Financial	Physical	financial			
1	2	3	4(i)	4(ii)	4(iii)	4(iv)	5	6	7	8	9	10		
1	RIDF XIX & XX- Integrated Kole Development Project - Infrastructure development of Kole wetlands in Thrissur and Malappuram district	Infrastructural Development Activities of padasekharam in kole areas.		1000	Nil	Nil		Infrastructural developments of Phase I- completed, Phase II-completed and Phase III-75%	1024.95246	Infrastructural developments of kolepadasekharam Phase I-100% completed &Phase II-100% and phase III-10% completed.	1024.952	By the implementation of the project the paddy production will be raised existing 3 to 4 tonne/ ha to 7 to 8 tonne/ ha and it is benefitted to 14170 ha paddy field and 25000 farmers.		completed
	4402-203-95(P)-Phase I, II& III													
2	Drainage & Flood protection works under RIDF XVIII 4402-00-203-93	Infrastructural Development activities		80			100%		80	100%	0.000	By the implementation of this scheme paddy production can be raised, and ground water table will be raised in near by area. .		completed
3	Drainage and Flood Protection Project in	Infrastructural development activities and Renovation of ponds.		700	Nil	Nil	100%	Infrastructural development works of padasekharam-10No Renovation of ponds-5No construction of canal bridge-1No.	1940.67235	completed	1940.672	After completing the projects 7605ha of paddy field will be benefitted for cultivation.		completed
	RIDF XXII 4402-800-76(P)													

Sl.No	Name of Scheme/Programme	Objective /Outcome	Outlay 2023-24				Quantifiable/ Deliverable/ Physical outputs during the year	Target fixed		Target achieved		Projected Outcome	Period of implementation	Remarks/ Risk factor
			Non-Plan (Budget)	Plan (Budget)	Complementary Extra Budgetary Resources	Central Assistance if any		Physical	Financial	Physical	financial			
1	2	3	4(i)	4(ii)	4(iii)	4(iv)	5	6	7	8	9	10		
4	Drainage and Flood Protection Project in RIDF XXI	Infrastructure development activities & Renovation of ponds.		500	Nil	Nil	90%	Infrastructural developments of padasekharam&R enovation of ponds-20No	148.65	completed	148.650	By the implementation of this scheme paddy production can be raised, and ground water table will be raised in near by area. .	completed	
	4402-800-77(P)													
5	SahasraSarover& Infrastructural Development of padasekharams - RIDF XXIV-	Infrastructure development activities & Renovation of ponds		200	Nil	Nil	80%	Infrastructural developments of padasekharam&R enovation of ponds	338.7299	95%	338.730	Paddy production increased,water table raised near by area by renovating of ponds.	Out of 5 works 3 works completed and two works are in progressing	
	4402-800-75(01) (P)													
6	SahasraSarover& Infrastructural Development of padasekharams - RIDF XXV-	Infrastructure development activities & Renovation of ponds		500	Nil	Nil	70%	Infrastructural developments of padasekharam&R enovation of ponds	771.45363	70%	771.454		Out of 9 works, 4 works completed and balance works are in progressing	
	4402-800-75(02) (P)													
7	SahasraSarover& Infrastructural Development of padasekharams - RIDF XXVI-	Infrastructure development activities & Renovation of ponds		200			60%	Infrastructural developments of padasekharam&R enovation of ponds and Construction of Tissue culture lab works 3 Nos.	1220.20241	60%	1220.202		Out of 8 works, 1 work completed and balance works are in progress	
	4402-800-75(03) (P)													

Sl.No	Name of Scheme/Programme	Objective /Outcome	Outlay 2023-24				Quantifiable Deliverable/ Physical outputs during the year	Target fixed		Target achieved		Projected Outcome	Period of implementation	Remarks/ Risk factor
			Non-Plan (Budget)	Plan (Budget)	Complementary Extra Budgetary Resources	Central Assistance if any		Physical	Financial	Physical	financial			
1	2	3	4(i)	4(ii)	4(iii)	4(iv)	5	6		7		8	9	10
8	Renovation of Ponds in Thiruvananthapuram, Trissur and kollam District	Renovation of ponds		75		Nil		Renovation of ponds-7Nos	66.1024	4No (100%)	66.102	After renovating ponds water table will be raised near by area and well recharged.		Out of 7 works 4 works completed
9	One time assistance for renovatin of thdou & padasekharams in various panchayats 4402-00-800-73	Infrastructural development of padasekharams		25				Infrastructure works of padasekharam-2Nos	38.47478	1-(100%)	38.475	Paddy and vegetable production increased		Out of 2 padasekharam related works, one work completed
10	Drainage & Flood protection project & sahasarasarover in RIDF XXVII 4402-00-800-72			0					0		0.000			AS not received
11	RIDF - Infrastructural development works of various padasekharams in Kainakary in Alappuzha 4402-00-800-71			500					0		0.000			
12	Infrastructural Development works of Kuttanad Padasekharam(State Scheme) 4402-00-203-91 (06)	Infrastructural development of padasekharams		150				Infrastructural development of padasekharam in kuttanad area 1No		60% completed		Paddy and vegetable production increased		work in progress

Sl.No	Name of Scheme/Programme	Objective /Outcome	Outlay 2023-24				Quantifiable Deliverable/ Physical outputs during the year	Target fixed		Target achieved		Projected Outcome	Period of implementation	Remarks/ Risk factor
			Non-Plan (Budget)	Plan (Budget)	Complementary Extra Budgetary Resources	Central Assistance if any		Physical	Financial	Physical	financial			
1	2	3	4(i)	4(ii)	4(iii)	4(iv)	5	6	7	8	9	10		
13	Renovation works of Kadukuzhychira in Moodadi Grama Panchayath in the Koyilandi Constituency 4402-00-800-70	Renovation of ponds		0				Renovation of Pond-1No	99.35542	50% completed	99.355	After renovating ponds water table will be raised near by area and well recharged.	work in progress	
	<b>Total</b>			3930					5728.59335		5648.5934			

Annexure - II

Trends in Expenditure viz-a-viz Budget Estimates/ Revised Estimates in recent years – PLAN SCHEME

KLDC											
Sl.No	Scheme/Programme	Major Head of Account	Budget estimates				Revised Budget Outlay + SDG + additional authorization/re-appropriation			Actual Release	
			2021-22	2022-23	2023-24	2024-25	2021-22	2022-23	2023-24	2021-22	2022-23
(₹ in lakh)											
1	Improvements to Nooradithodu from Vethikadavu to Naranipuzha (Ponnanikole)	4402-203-94(P)	15	0	0	0	48.19	0		48.19	0
2	Infrastructural Development of Kole wetlands in Thrissur&Malappuram District -RIDF XIX& XX	4402-203-95(P)	1000	1000	1000	700	1000	1000	1025	899.03	927.14
3	Drainage & Flood control project under RIDF XVIII	4402-203-93(P)	100	100	80	0	100	100	80	0	40.63388
4	Drainage & Flood protection project &sahasrasarover in RIDF XIX-	4402-800-79(P)	100	20	0	0	100	20	0	18.03	0
5	Renovation of Ponds in Palakkadu District. RIDF XX	4402-203-91(04)(P)	50	15	0	0	50	15	0	36.43	3.97
6	SahasraSarover and Infrastructure Development project	4402-800-78(P)	1000	200	0	100	1000	202.6	0	291.48	202.6

Sl.No	Scheme/Programme	Major Head of Account	Budget estimates					Revised Budget Outlay + SDG + additional authorization/re-appropriation			Actual Release		
			2021-22	2022-23	2023-24	2024-25		2021-22	2022-23	2023-24	2021-22	2022-23	2023-24
7	Improvements of padasekharams deepening of inner chals of ponnankole area	4402-203-92(P)	0	0	0	0		8.99	64.05	0	8.99	64.05	0
8	Drainage & Flood protection project & sahasarasarover in RIDF XXI	4402-00-800-77(P)	1000	500	500	100		1163.03	675.41	500	1163.03	667.65	148.65
9	Drainage & Flood protection project & sahasarasarover in RIDF XXII	4402-00-800-76(P)	1000	1200	700	1000		1000	1200	1940.69	679.77	552.51	1940.67235
10	Drainage & Flood protection project & sahasarasarover in RIDF XXIV	4402-800-75(01)	500	500	200	100		835.03	500	370.86	835.03	271.01	338.7299
11	Drainage & Flood protection project & sahasarasarover in RIDF XXV	4402-800-75(02)	200	500	500	500		968.67	1358.71	771.46	968.67	1166.31	771.45363
12	Renovation of ponds in Thiruvananthapuram, Kollam & Trissur districts.	4402-800-74	100	200	75	75		100	200	77.18	78.54646	81.16449	66.1024
13	Drainage & Flood protection project & sahasarasarover in RIDF XXVI	4402-800-75(03)	50	200	200	500		172.63	1452.65	1331.22	172.63	818.08	1220.20241

Sl.No	Scheme/Programme	Major Head of Account	Budget estimates				Revised Budget Outlay + SDG + additional authorization/re-appropriation			Actual Release		
			2021-22	2022-23	2023-24	2024-25	2021-22	2022-23	2023-24	2021-22	2022-23	2023-24
14	Development of Kuttanad Sector under RIDF	4402-203-91(05)	400	0	0	0	400	0	0	0	0	
15	RIDF – Infrastructural development works of various padashekarams in Kainakary in Alappuzha	4402-00-800-71	0	2000	500	0	0	2000	500	0	0	
16	One time assistance for renovatin of thdou & padashekarams in various panchayats	4402-00-800-73	0	50	25	25	0	50	38.48	0	0	38.47478
17	Drainage & Flood protection project &sahasrasarover in RIDF XXVII	4402-00-800-72	0	50	0	0	0	50	0	0	0	
18	Infrastructural Development works of Kuttanad Padasekharam - (STATE SCHEME	4402-203-91(06)			150	130		0	150			
19	Renovation works of Kadukuzhychira in Moodadi Grama Panchayath in the Koyilandi Constituency	4402-00-800-70							99.36			99.35542
	<b>TOTAL</b>		5515.00	6535.00	3930.00	3230.00	6946.54	8888.42	6884.25	5199.83	4795.12	5648.59

## Annexure-1

## FORMAT OF TABLES OF PERFORMANCE BUDGET 2023-24

## HORTICORPS

Sl No	Name of Scheme	Objectives	Outlay 2023-24				Quantifiable Deliverables/Physical Outputs		Target Fixed		Target Achieved		Projected outcomes	Period of Implementation	Remarks/Risk Factors
			Non Pan Budget	Plan Budget	Complementary Extra Budgetary Resources	Central Assistances if any			Physical	Financial	Physical	Financial			
1	2	3	4(i)	4 (ii)	4(iii)	4 (iv)	5	6	7	8	9	10			
1	Market Intervention	To promote farmers HortiCorp procures fruits and vegetables from them at 10% above market rate and sell at subsidised rates to the public so as to control market prices during festival seasons.		1374.40 lakhs			Fully utilised for market intervention purpose	1374.40 lakhs		1374.40 lakhs		1374.40 lakhs		2023-24	HortiCorp incurs huge loss since Corporation procures fruits and vegetables from farmers at higher rate and sell these items at subsidised rates..Moreover, to protect farmers, Corporation procures vegetables and fruits much more than its actual requirements , this also results loss to the corporation.
2	Share Capital-100 Lakhs	Implementation of capital nature activities		100 lakhs			Nil	100 lakhs	Nil	Nil		Nil		2023-24	An amount of rs.65 lakhs has been released from the budget outlay, the same has been resumed by the Government at the lag end of the financial year
3	Promotion of Apiculture	Construction of trainees hostel at BTC mavelkara, Distribution bee colonies, registration of bee farmers at Madhukranthi portal						23.17 lakhs		23.17 lakhs		23.17 lakhs		2023-24	The amount resumed in financial year 2022-23 has been reallocated in 2023-24 ( of which Rs.23.17 has been expended)

Note:

1 Items in column2 shall be as per Detailed Budget Estimates. Major programmes listed in the Detailed Budget Estimates and Plan write up may be shown separately, will smaller items may be conveniently clubbed

2 In column 5 activities performed to achieve the objectives within the financial outlay me be furnished



Annexure -II  
Trends in expenditure vis-à-vis Budget Estimates/Revised Estimate/Actual Expenditure in recent years of PLAN Schemes

HORTICORPS													(₹ in Lakh )
Sl No	Scheme/ Programme	Major Head	Budget Estimates				Revised Estimates			Actual Expenditure			Remarks
			2021-22	2022-23	2023-24	2024-25	2021-22	2022-23	2023-24	2021-22	2022-23	2023-24	
1	2	3	4	5	6	7	8	9	10	11	12	13	
1	Market intervention	2435-01-101-85 Plan	1625	1500	1374.40	1296.60	1625	1500	1374.4	1625	1500	1374.40	
2	Share Capital	4401-00-190-97 Plan	20	100	100	65	20	20	100	20	20	0	An amount of rs.65 lakhs has been released from the budget outlay for the FY 2023-24, but the same has been resumed by the Government at the end of the financial year
3	Apiculture	2435-01-800-94 Plan	25	80	-	-	25	25	80	25	32.79	23.17	The amount resumed in financial year 2022-23 has been reallocated in 2023-24 (of which Rs.23.17 has been expended)
4	Cold Chain	2435-01-800-99 Plan		185	-	100		185	0	-	-	0	
5	Hightech Organic Super Market	2401-00-105-85 Plan		25	-	-		25	0	0	0	0	

Annexure - I  
**FORMAT OF TABLES OF PERFORMANCE BUDGET 2023-24**

Agro Industries Corporation

(₹ in Lakh)

Sl. No.	Name of Scheme	Objectives	Outlay 2023-24				Quantifiable Deliverables/ Physical outputs	Target fixed		Target Achieved		Projected outcomes	Period of implementation	Remarks/Risk factor
			Non Plan Budget	Plan Budget	Complementary Extra Budgetary Resources if any	Central Assistance if any		physical	Financial	physical	Financial			
1	2	3	4 (i)	4 (ii)	4 (iii)	4 (iv)	5	6	7	8	9	10		
_____ NIL _____														

NIL

## Annexure-II

### Trends in Expenditure vis-a-vis Budget Estimates /Revised Estimate/Actual Expenditure in recent years of PLAN Schemes

Kerala Agro Industries Corporation

No.	Scheme/ programme	Major Head	Budget Estimates					Revised Estimates			Actual Expenditure		
			2021-22	2022-23	2023-24	2024-25	2021-22	2022-23	2023-24	2021-22	2022-23	2023-24	
1	2	3	4	5	6	7	8	9	10	11	12	13	
	"Post Harvest Management and Value Addition" Agriculture Department - Project for renovation of Jack Fruit Factory at Mala through the Kerala Agro Industries Corporation	2435-01-800-94-34 OC Plan	_____NIL_____				Diversification and augmentation of existing Jackfruit processing plant at Mala.			_____NIL_____			