



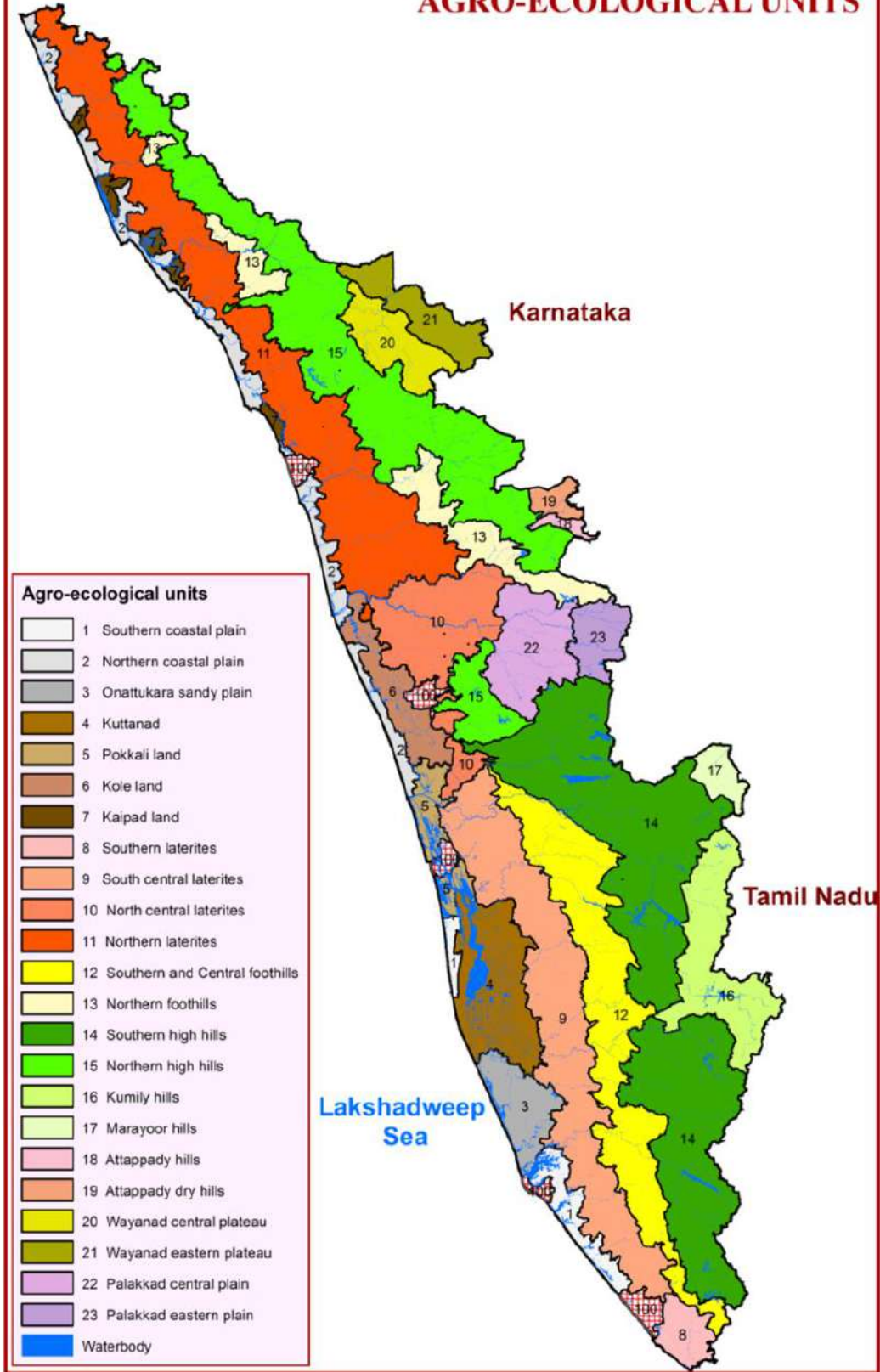
Government of Kerala
Agriculture Development and
Farmers' Welfare Department

സുദീക്ഷ കേരളം



ANNUAL PLAN 2020-21

AGRO-ECOLOGICAL UNITS





PREFACE

The occurrence of devastating floods during the past two years, and the present corona virus pandemic are the major threats, facing Agricultural sector. The current year is very critical as far as developmental departments are concerned. The world is facing a widespread famine of biblical proportions. With the Covid – 19 pandemic threatening the availability of agricultural supplies in the long term, Kerala Government is pushing for modern farming techniques and practices to maximise production, as it is currently dependent on other states. Large scale interventions are needed to increase the output of food grains, fruits and vegetables. The state needs to be self-sufficient in production of food grains and in the cultivation of fruits and vegetables so as to be prepared for any eventuality in the future.

In this context, Agricultural and Farmers Welfare Department has a major role, to overcome this situation. The Department is adopting a sustainable, eco-friendly approach in the agricultural development activities. Focused efforts are made to achieve maximum results from Production to Marketing of crops on a farm to fork approach.

The allocation for the year 2020-21 focus on food crop production for attaining self-sufficiency in rice, vegetables, pulses, tubers and location specific crops like millets, sugarcane and sesamum. Programmes for development of other major crops viz. Coconut, spices, flowers, fruits and medicinal plants and interventions to revive the soil and crop health, production and distribution of good quality planting materials, promotion of good agricultural practices for safe to eat food, Hi-tech agriculture, agricultural marketing, storage and warehousing are the other major thrust areas for crop development during the year. During 2020-21 an amount of **Rs.169082.36 lakhs** have been allotted for implementation of various agricultural development activities which include **Rs.75764 lakhs** under plan schemes and **Rs.93318.36 lakhs** under Non plan schemes. This includes **Rs.14650 lakhs** under centrally sponsored schemes.

As a part of Coconut Mission **Rs.2000 lakhs** is provided for Rehabilitation and Rejuvenation of Coconut crop in Kerala and **Rs.2900 lakhs** is allotted for Development of Fruits. The new schemes to be implemented during 2020-21 include Krishi Padasala – approach to AEU [Agro Ecological Unit] based cultivation and Punarjani - restoration of agricultural sector in post flood scenario.

Agro Ecological Unit based farming will be given more importance during 2020-21. The schemes in the agricultural sector will be allocated, planned and implemented based on the concept of 5 Agro-ecological zones and 23 Agro ecological units across the state. Major focus will be given to the corresponding AEUs while implementing the various schemes.

It is expected that agricultural sector can regenerate after the devastating floods and Corona virus pandemic and a considerable boost in farming sector of the state can be achieved through increased food production, to face the predicament, our country is facing. This could be materialised through effective utilization of budget allocation as envisaged in the Annual Plan 2020-21. Let us work in hand to achieve these goals.



Dr.K.Vasuki IAS

Director of Agricultural Development &
Farmers Welfare Department

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c	Mission on Integrated Development of Horticulture (MIDH)	2401-00-789-89 – SCP	263.00		
		2401-00-796-90 – TSP	30.00		
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		2401-789-84(01) – SCP	599.00		
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		2401-00-796-87 – TSP	59.00		
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		2401-00-796-90 – TSP	40.00		
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ANNUAL PLAN – 2020-21

WRITE UP OF PLAN PROGRAMME

SECTORAL PROGRAMME - DETAILS OF SCHEMES AGRICULTURE AND ALLIED SECTORS

A) STATE PLAN SCHEME

Crop Development

The allocation for the year 2020-21 focuses on food crop production for attaining self-sufficiency in vegetable production including development of rice, pulses, tubers and location specific crops like millets, sugarcane and sesamum. The outlay provided under Crop Husbandry sector is Rs.545.94 crore for the schemes suggested for implementation during 2020-21. Programmes for development of other major crops viz. coconut, spices, flowers, fruits and medicinal plants and interventions to revive the soil and crop health, production and distribution of good quality planting materials, promotion of good agricultural practices for Safe to eat food and Hi-tech agriculture are the other major thrust areas for crop development during the year.

“*Krishi Padasala*” approach to AEU based cultivation” for creating awareness among the farmers on AEU based cultivation and establishment of AEU based demonstration units and “*Punarjani*” for revival of agricultural sector in the post flood scenario are two new schemes for the year 2020-21.

It has been the state’s experience that there are a number of agencies in the government and cooperative sector and also registered farmers collective which provides services and take up activities with a view to enhancing the effectiveness of scheme implementation and also augment the resources available for plan schemes. During times of resource crunch, bundling the services and resources of Primary Agricultural Cooperative Societies (PACS) which are in profit for the last three years and having adequate experience in implementing primary sector schemes including processing, Farmers’ Cooperative Societies and Farmer Producer Organizations (FPO) set up by NABARD and CDB which are graded in A and B category (as per NABARD’s grading chart) will help in enhancing the productivity and profitability of farms and farmer households. From the year 2020-2021 the schemes of the department will be opened to these agencies which submit quality projects. The projects of the FPOs and good working PACS will be submitted to the Directorate directly (and will be placed in the working group). Such projects will be closely monitored by a team consisting of Planning Board and Department and the results will be documented. An amount of Rs. 20.00 lakh is set apart for monitoring and documentation, which will be met from the component ‘public participation’, under ‘Strengthening of Agricultural Extension’. A suitable rating chart preferably NABARD rating of FPOs may be

adopted. Only good performing PACS which are in profit for the last three years will be identified for implementation. The technical expertise to PACS/FPOs will be provided by the Krishi Bhavan.

The schemes in the agriculture sector will be further allocated, planned and implemented based on the concept of 5 Agroecological zones and 23 Agroecological units across the state. More focus will be given to the corresponding AEU's while implementing the various schemes. The specific allocation under each scheme to the AEU's will be prepared by the Departmental and approved by working group.

SCHEME FOR 2020-21

Crop Development

Food Crop Production

(Outlay: Rs.19123.00 lakh)

The food crop production project includes four schemes, viz, Rice Development, Development and promotion of Location specific crops, Vegetable Development and Development of Pulses and Tubers. In order to provide greater reach and resources to the programmes/projects, the scheme will be implemented in coordination with LSGD/good working PACS with experience and FPOs. As far as possible integration with KCC scheme of NABARD implemented through PACS/RRBs may be ensured.

An amount of Rs.19123.00 lakh is provided for the food crop production schemes during 2020-21. It is envisaged that at least 33 percent of beneficiaries of the project will be women.

1)	Rice Development	H/A: 2401-00-102-90	Rs. 11824.00 lakh
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The scheme on rice development thrusts upon promotion of paddy cultivation in the state through group farming and area expansion programmes like fallow land cultivation, single crop to double crop and upland rice cultivation concentrating on the rice growing agro ecological units with natural endowments for augmenting rice productivity. Revitalization of paddy cultivation in areas affected by flood will be the focused.

The ultimate objective would be to increase the area under rice to 3.00 lakh hectare by the end of 13th five year plan. An outlay of Rs. 11824.00 lakh is provided during 2020-21.

Under group farming an amount of Rs.6473.00 lakh is provided. An amount of Rs.6073.00.lakh is set apart for input assistance under sustainable rice development component@ Rs.5500/ha. The support for input assistance will be in the form of

quality seeds, inputs (based on AEU based recommendations from Krishi Bhavan), and certification and bio control agents only.

An amount of Rs.300.00 lakh is set apart for promoting group farming activities of the active *padasekhara samithies*. The amount will be released to *padasekhara samithies* based on a transparent criterion for promoting group farming and facilitating e-payment system. Considering the need of reviving paddy cultivation in the post flood scenario, an amount of Rs. 70.00 lakh is set apart for project based support for infrastructure development in *padasekharams* including block level convergence and establishment of rice mills and parboiling units. The projects prepared should be identified and approved by the Director of Agriculture. Convergence with activities under RKVY, RIDF, Other CSS and LSGD schemes should be ensured in undertaking infrastructural development. The scheme will be implemented in integration with good working PACS in the area.

An amount of Rs.30.00 lakh is set apart to provide operational support to paddy development agencies in a project based manner.

For bringing additional area under paddy cultivation, promotion of fallow land cultivation, raising double crop in single cropped areas, upland paddy and specialty rice cultivation will be supported with an allocation of Rs. 840.00 lakh. Rice fallows will be brought under sustainable cultivation in a phased manner in project mode with the active involvement and convergence of Mahatma Gandhi National Rural Employment Guarantee Scheme (MNREGS), Kudumbasree, PACS, FPOs and the LSGD institutions. An amount of Rs.600.00 lakh is set apart for promotion of fallow land cultivation. The assistance to farmers will be based on a panchayat level list of beneficiaries prepared under the supervision of a team headed by Agricultural Officers, in consultation with LSGD institutions, PACS and FPOs wherever necessary.

Upland cultivation will be expanded in locations based on suitability as per the report of AEUs, for which an amount of Rs.100.00 lakh is set apart. Here also for necessary infrastructure creation, handholding of LSGD institutions, PACS and MNREGS will be ensured. An year wise database of fallow land cultivated including area under cultivation, management practices followed, yield per hectare, will be maintained at each *Krishibhavan* and Panchayat.

An amount of Rs. 70.00 lakh for raising double crop in single cropped paddy land and Rs. 70.00 lakh for promotion of specialty rice is provided. Out of this Rs.20.00 lakh is for promotion of specialty rice in Wayanad district.

In order to ensure the availability of certified seeds suitable to the locality Registered Seed Growers' Programme (RSGP)/ Seed Village Programme (SVP) will be continued. An amount of Rs. 125.00 lakh is provided for this purpose. A list of RSGs will be maintained as a database.

Considering the pivotal role of paddy land conservation in environment protection, an amount of Rs. 4000.00 lakh is set apart for Royalty to the owners of cultivable paddy land @ Rs.2000/ ha for conserving the cultivable paddy lands.

An amount of Rs. 200.00 lakh is earmarked for 'Operation Double Kole' a component to encourage double cropping in Kole areas. The assistance will be provided for inputs and infrastructure development based on the project proposal from the special officer of the programme. The convergence of schemes RKVY, RIDF and Kerala Agricultural University will be ensured.

Special Assistance for Rs.136.00 lakh is provided for Pokkali cultivation, a traditional rice growing tract. The assistance will be provided based on separate project proposal covering production and field level infrastructure component and for development of customized harvesting machines. An amount of Rs.50.00 lakh is set apart for operationalization of paddy and wetland act 2008.

The component wise breakup of the scheme is shown below:

Sl. No.	Components	Amount (Rs. in lakh)
1	Group farming	6473.00
2	Area expansion	840.00
3	Registered Seed Growers Programme/Seed village	125.00
4	Royalty to owners of cultivable paddy land (New)	4000.00
5	Operation Double Kole	200.00
6	Special assistance for Pokkali cultivation	136.00
7	Operationalisation of paddy and Wet land Act 2008	50.00
	Total	11824.00

2)	Development and Promotion of Location Specific Crops	H/A: 2401-00-103-75	Rs. 202.00 lakh
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In order to promote the cultivation of minor millets, oil seed crops like ground nut and sesamum and sugarcane in specific AEUs, assistance is provided for procurement of quality seeds, land preparation, irrigation and other cultivation requirements. Promotion of crop production activities in tribal lands so as to ensure food and nutritional security to tribal population focusing on activities including conservation of traditional varieties and traditional practices with proven scientific basis is also included. Activities will be taken up on a project mode in coordination with ST department.

An amount of Rs.1.00 lakh is earmarked for Attappady Tribal Village programme to support traditional crops from production to marketing. For cultivation

of traditional millets in Thayannamkudi in Idukki district an amount of Rs. 6.00 lakh is provided. Promotion of the traditional practice of simultaneous raising of millets and pulses is also included. An amount of Rs.1.00 lakh is set apart as project based assistance for continuing Athirappally Tribal Valley Agricultural Project.

An amount of Rs.187.00 lakh is set apart for area expansion of sugarcane, sesamum and groundnut. A special programme for Marayur sugarcane on farm processing and value addition with special emphasis to GI product 'Marayursarkara' for an amount of Rs.7.00 lakh is also included.

An amount of Rs.202.00 lakh is set apart for the scheme.

Attappady Tribal Village Programme and Athirapally Tribal Valley Agricultural Project has been sanctioned vide G.O(MS) No 34/2019/ PLGEA dated 12.12.2019 under Rebuild Kerala Initiative. These components will be implemented using the funds under RKI.

The component wise breakup of the scheme is shown below:

Sl. No.	Components	Amount (Rs. in lakh)
1	Attappady Tribal Village Programme	1.00
2	Assistance for cultivation of traditional millets in Thayannamkudi	6.00
3	Athirappally Tribal Valley Agriculture Project	1.00
4	Area expansion of sugarcane	100.00
5	Area expansion of seasmum and groundnut	87.00
6	Special programme for Marayoor sugarcane-onfarm processing and value addition with special emphasis to GI products	7.00
	Total	202.00

3)	Vegetable Development	H/A: 2401-00-119-85	Rs. 6222.00 lakh
		H/A: 2401-00-119-81	Rs. 725.00 lakh

The Vegetable Development Programme implemented in the state aims to promote vegetable production in the state in a safe-to-eat manner and to attain self-sufficiency in the sector. During 2020-21, it will be implemented in a Mission Mode involving all the stake holders in this sector such as Agriculture Development & Farmers' Welfare Department, PACS, FPOs, Kerala Agricultural University, LSGDs, VFPCCK, HortiCorp and SHM. Co-ordination of all PSUs, ATMA, Organic Farming (GAP, PGS System), Marketing, infrastructure programmes shall be ensured for the

success of the programme. Homestead cultivation will be promoted in all the households in the State for producing Safe to Eat vegetables throughout the state.

The Vegetable Mission activities concentrate on following aspects

- Production, procurement and marketing. Vegetable produced under commercial cultivation and homesteads of Kerala will be collected from the surplus areas and supplied to deficit areas thereby fetching premium price to the farmers as well as reasonable price for good quality produce.
- Promoting homestead cultivation for producing Safe to Eat vegetables throughout the state which includes *Onathinu Oru Muram Pachakkari* and cultivation of vegetables giving thrust to cool season vegetables.
- Integrating various components of Vegetable Development Programme (VDP) of the Department and VFPCCK such as Vegetable cultivation through institutions, Development of district clusters, Establishment of nurseries, Promotion of Rainshelters, Promotion of zero energy cool chamber, Community Drip Irrigation and Promotion of Urban Clusters for promoting commercial cultivation of vegetables.
- Co-ordination of all PSUs, and ATMA, Organic Farming (GAP, PGS System) and Marketing programmes in activities related to vegetable development. Online marketing shall be promoted in coordination with Cooperative system and Farmer Producer Companies. The model of eNAM portal shall be introduced.
- Massive publicity and campaign at Panchayat, block and district level with the participation of LSGDs, PACS and FPOs.

The vegetable production scheme will be implemented in close coordination with Haritha Kerala Mission and clearly defined physical targets at AEU, Panchayat level and other deliverables will be included in the project. Department of Agriculture will organize campaigns for Vegetable Development Programmes at block level and at panchayat level with the support of PACS, FPOs and other farmer groups and panchayats.

There will be convergence of vegetable development activities carried out by LSGD, VFPCCK, SHM, KAU and HortiCorp under the mission. The Director of Agriculture shall draft terms of reference with the agencies specifying the roles and responsibilities of each agency. The targets to be achieved with respect to each activity right from production to marketing, processing, risk management, price stabilization shall be specified and monitored. There will not be duplication of beneficiaries among the various agencies. A database of the beneficiaries of various agencies receiving benefits for vegetable development will be prepared and maintained. The details of beneficiaries with respect to nature of cultivation as to homestead/ commercial/ urban/ rural/ terrace/ protected/open, seasons cultivated, type of vegetables cultivated, nature of ownership as to own land/leased land, private/ government institutions, harvested

yield, marketed yield, marketable surplus will be documented which will be periodically updated and maintained. The marketing mechanism adopted by beneficiary/cluster will also be recorded.

Duplication of activities by these agencies in an area will be avoided. The activities will be carried out integrating the funds allocated to the agencies for vegetable development. Insurance, credit facilities and risk fund to vegetable growers shall be coordinated by a single agency. The SHG's, SKS under VFPC, clusters, BLFO's under VDP, will function in an integrated manner under the coordination of VFPC. The period of assistance to the same beneficiary will be fixed unless there is crop loss due to unforeseen catastrophe like flood/drought and the like. A mechanism to maintain reserve fund to sustain the cultivation will be worked out. Department of Agriculture will be the Nodal agency for Vegetable Mission.

The components include promotion of homestead vegetable cultivation and cultivation through institutions through supply of grow bags, vegetable seed production & distribution, supply of vegetable seedlings, development of clusters, support to block level federated organizations and A graded clusters, establishment of nurseries, rain shelter cultivation promotion of urban clusters, development support to graded clusters and community drip irrigation. Out of the total outlay of Rs. 6947.00 lakh, an amount of Rs. 6222.00 lakh is set apart for vegetable development programme during 2020-21 through Agriculture Department.

An amount of Rs.725.00 lakh is set apart for the promotion of vegetable cultivation through VFPC. VFPC in addition to carrying out the general functions of the Mission programme will carry out specific roles on project basis for which funds are allocated. The activities include support to vegetable cultivation including export quality vegetable cultivation under GAP/PGS, production protocol development for cold chain in Vattavada and Kanthalloor and other vegetable production activities including cool season vegetables. Out of this an amount of Rs. 25.00 lakh is set apart to soil fertility improvement through VFPC. Duplication of same activities in various schemes implemented by VFPC will be avoided. A comprehensive proposal for vegetable and fruit development covering production, processing and marketing within the fund allocated under various schemes to VFPC shall be prepared and submitted for approval.

The amount of Rs. 725.00 lakh is set apart for VFPC includes, Rs.50.00 lakh earmarked for production protocol development for cold chain in Vattavada and Kanthalloor in Idukki District.

Out of Rs.1807.00 lakh earmarked for homestead cultivation Rs.1000.00 lakh is for "*Onathinu oru muram pachakkari*" programme towards supply of seedkits and production and supply of seedlings to homesteads and farmers. The seedling will be produced and supplied by the panchayat level nurseries/block level nurseries under

Vegetable development programme/ Department farms/VFPCK/Agro Service Centres and approved agencies and certified by district level VDP implementing Committee based on Seed Act to ensure quality of seeds and seedlings. To promote homestead vegetable cultivation using GAP an amount of Rs. 807.00 lakh is set apart for homestead cultivation for 2nd crop through providing vegetable input kits. Cool season vegetables will be given thrust.

Out of Rs. 200.00 lakh set apart for vegetable cultivation through institutions, an amount of Rs. 100.000 lakh is for vegetable cultivation in schools and other educational institutions. For project based cultivation including innovative technologies in institutions like PACS and government premises an amount of Rs.100.00lakh is set apart.

The cluster based development is the key component in the vegetable development initiative of the state. An amount of Rs.2619.00 lakh is set apart for cluster development in districts out of which Rs.900.00 lakh is as assistance to existing clusters and Rs.1026.00 lakh is for assistance to staggered clusters. An amount of Rs.200.00 lakh is for pumpsets and Rs.30.00 lakh for plant protection equipments. Amount of Rs.50.00 lakh each is earmarked for Wayanad and Idukki districts for development of cool season vegetables. Out of the amount earmarked for cluster development in districts Rs.363.00 lakh will be utilized for production and distribution of seeds of traditional varieties and for promotion of nutritional garden for the supply of perennial vegetable seedling kits (bread fruit, muringa, curry leaves, agathy etc.). Specialized clusters will be entrusted for production and distribution of traditional varieties and nutritional garden. Services of agro service centres and *karshika karma senas* will be utilised for the establishment of nurseries and nutritional garden. Fallow land cultivation will be supported at cluster level.

The vegetable clusters established will be further graded based on the performance covering group activities, increase in production and productivity, innovative activities, technology application and cluster dynamics. The best clusters will be graded as A grade clusters and special development support will be for those clusters covering support for establishing nurseries, collection centres, pre cooling centres, input centres and other need based project based support. An amount of Rs. 94.25 lakh is earmarked for the support of graded clusters. Poor performing clusters will be delinked from support and new clusters will be formed. Transparent criteria will be developed for evaluating performance of clusters. Clusters of women, youth and students will be promoted giving priority. A portion of outlay under cluster development will be utilized for project based assistance of each cluster in potential areas.

Best performing A grade cluster with two years' experience, good volume of business, nurseries, markets etc and with a minimum turnover of Rs. 5.00 lakh will be selected as super clusters and assistance will be provided on project mode. An amount

of Rs. 5.00 lakh is earmarked for such clusters. A separate performance criterion for best performing A grade clusters will be developed.

Out of total subsidy per hectare 25 percent is earmarked for the promotion of inputs for safe food production and for promoting good agricultural practices. Biocontrol agents, pheromone traps, area wide IPM and bio fertilizers will be included in the 25 percent earmarked amount of the subsidy component. Another minimum 15 percent will be insisted for lime application.

An amount of Rs. 850.00 lakh is earmarked for promotion of urban clusters towards assistance for vegetable cultivation in urban areas including wick irrigation. Grow bags produced through agro service centres and kudumbasree will also be supported. Urban vegetable cultivation will be institutionalized by the formation of *Haritha* groups. Under this an amount of Rs. 25.00 lakh is set apart for institutionalization of urban vegetable growers into registered '*Haritha Groups*'. The local government will be actively brought into this activity.

Need based support for good and well performing Block Level Federated Organizations (BLFO) for specific infrastructure support viz. biopharmacy, ecoshop, onfarm production of pseudomonas, trichoderma etc limited to maximum of Rs.10.00lakh/BLFO as one time assistance will be provided on project mode. An amount of Rs. 20.00lakh is set apart for this during 2020-21. There should not be any duplication of Block level federated organizations of the department and markets established by VFPCCK at ward level in panchayats.

Nurseries will be established in identified blocks through clusters. An amount of Rs.10.00 lakh is set apart for establishing small nurseries in gramapanchayats/corporation / selected municipalities for the production of sufficient quality seedlings.

Community drip irrigation system will be promoted through Agro Service Centres and *karshika karma senas* of urban areas for effective utilization of irrigation water. An amount of Rs. 18.75 lakh is earmarked for this.

Rain shelters for year-round cultivation will be supported for which Rs. 500.00 lakh is set apart for setting up of rain shelter of 100 sq.m.

An amount of Rs. 25.00 lakh is allocated for the conduct of pesticide residue analysis in vegetables provided by the Department of Agriculture through Kerala Agricultural University, Vellayani. The projects for which funds have not been provided under the allocation for the University (Research and Extension) only will qualify for this.

Vegetable cultivation will be extended to fallow lands available under the ownership of department farms and PSUs also by involving farmer clusters and women groups.

The activities related to planting material production, organic farming, soil health management and marketing under the Vegetable Mission will be undertaken under the respective schemes. The component wise breakup of the scheme is shown below:

Sl. No.	Components	Amount (Rs. in lakh)
2401-00-119-85		
1	Homestead vegetable cultivation including Onam vegetable cultivation (<i>Onathinu oru muram Pachakkari</i>)	1807.00
2	Vegetable cultivation through institutions	200.00
3	Development of District Clusters	2619.00
4	Block level federated organizations (Block <i>Sangamaithries</i>)	20.00
5	Additional Support to best performing 'A' Graded Clusters	5.00
6	Development support to graded clusters	94.25
7	Technical support and contractual appointments	50.00
8	Establishment of nurseries	10.00
9	Rain shelter cultivation	500.00
10	Promotion of zero energy cool chamber	3.00
11	Community drip irrigation	18.75
12	Promotion of urban clusters, marketing and input centres	850.00
13	Digital documentation	10.00
14	Operational support	10.00
15	Pesticide Residue Analysis in Vegetables	25.00
	Sub Total	6222
2401-00-119-81		
16.	Support to VFPCCK	725.00
	Grand Total	6947.00

4)	Promotion of Pulses & Tubers	H/A: 2401-00-112-96	Rs. 150.00 lakh
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In order to augment the area and production under various pulse crops viz. cowpea, green gram, black gram, red gram, soya bean and others in the garden lands as well as in 3rd crop rice *padasekharams* an amount of Rs. 50.00 lakh is provided. Focus will be given to *Onattukara* region. An amount of Rs. 100.00 lakh is set apart for development of tuber crops, which includes production and supply of source planting materials and seed multiplication through seed villages. Out of this Rs. 10.00 lakh is for seed multiplication in tribal areas. Promotion of tubers will be in association with Central Tuber Crops Research Institute. An amount of Rs.150.00 lakh

is earmarked for this scheme. The component wise breakup of the scheme is shown below:

Sl. No.	Components	Amount (Rs. in lakh)
1	Promotion of tubers / pulses	150.00
	Total	150.00

5)	Coconut Development	H/A: 2401-00-103-87	Rs. 7421.00 lakh
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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, there is an 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.

The coconut development programme will be implemented in contiguous areas called *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. During 2020-21, an amount of Rs. 5121.00 lakh is provided for undertaking activities like cultural operations including Integrated Nutrient Management & Integrated Pest Management (INM & IPM), application of organic manure, distribution of climbing device, establishment of coconut nurseries and irrigation units. New Keragramams (60nos.) will be selected. Assistance per keragramam will be continued for three years for sustaining activities initiated during 1st year. The rate of assistance will be reduced to selected components during 2nd and 3rd year. The scheme will be implemented in selected panchayats. The institutional development at Panchayat level for convergence of various scheme implemented by Coconut Development Board (CDB), Local Self Government Institutions (LSGI), and the Department of Agriculture will be supported. Model farm plans will be prepared and additional assistance will be ensured from the plan of LSGIs.

It is proposed to promote scientific cultivation of high yielding dwarf and semi-tall varieties suited for tender coconut, culinary coconut and copra, replacing unproductive, senile and diseased palms in contiguous areas. The provision under the component will be utilized for establishing model farms of high yielding dwarf as well as hybrid coconut varieties. A model farm should have a minimum size of 0.20 ha. An amount of Rs. 100.00 lakh is set apart for this component.

Integrated pest and disease management in coconut palms on project mode to control pest and diseases including rhinoceros beetle, red palm weevil, bud rot etc. will be carried out on a campaign basis for which an amount of Rs. 200.00lakh is earmarked.

In order to continue with the activities of Coconut Mission, for Rehabilitation and rejuvenation of coconut palms in Kerala an amount of Rs. 2000.00 lakh is provided. The main objectives of the Mission are to revive the coconut wealth of Kerala through a campaign of replanting and maintenance; to enhance productivity of coconut; and to ensure forward linkages with agro-industry. It is targeted to bring additional 1.44 lakh ha. under coconut cultivation and 3 lakh ha. under replanting.

There is a need for replanting at least 75 coconut seedlings per ward every year in the state with the support of KAU, CDB, CPCRI, Farmer Producer Organisations, PACS and local governments.

The main components of the rejuvenation programme include:

1. Cut and removal of old, senile, unproductive and disease advanced palms.
2. Replanting with high yielding semi tall and dwarf varieties
3. Rejuvenation of existing gardens by adopting integrated management practices.
4. Assistance for replanting
5. Underplanting in old plantations with good quality planting materials.
6. Development of existing coconut farms for effective supply of seeds nuts

The activities envisaged by the coconut mission will be carried out.

We need to develop good seed coconut farms in the State to cater to the needs of the rejuvenation programme. Aralam Farm has immense potential for being developed as a seed garden for collecting seeds nuts of released tall varieties (West Coast Tall and Laccadive Ordinary) of coconut. As per the recommendation of the expert team to develop the area to meet the future needs of the state, out of the total outlay of Rs. 2000.00 lakh, an amount of Rs.200.00 lakh is earmarked for Rehabilitation and Rejuvenation of Coconut palms in the Aralam Farm and converting it into a coconut seed farm. This also includes an amount of Rs. 300.00 lakh, which is provided for seed nut procurement and seedling production through reputed PACS and FPOs as per the proposals of these entities for the Coconut Mission programme.

The component wise break up is given below

Sl. No.	Components	Amount (Rs. in lakh)
1	<i>Keragramam</i>	5121.00
2	Development of Model HYV Dwarf/ Semi-Tall Coconut Farms	100.00

3	Pest & disease management in coconut gardens on a campaign basis	200.00
4	Rehabilitation and rejuvenation of coconut palms in Kerala as part of Coconut Mission- Coconut Council (2 nd year activities)	2000.00
	Total	7421.00

6)	Development of Spices	H/A: 2401-00-108-59	Rs. 1010.00 lakh
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A pepper rehabilitation programme including the components, viz. Decentralised pepper nurseries, establishment of new pepper gardens, and revitalization of existing gardens, assistance for area expansion, promotion of Vesicular Arbuscular Mycorrhiza(VAM), farmers varieties, grafts, soil less nursery, support to secondary and micro nutrients, soil ameliorants, prophylactic spraying through Agro Service Centres and revitalization of pepper samithies are envisaged.

A new component viz. Rehabilitation of nutmeg in flood affected areas, for an amount of Rs.100.00 lakh is included for providing assistance for land preparation, planting materials, other inputs and irrigation. Out of this an amount of Rs. 25.00 lakh is allocated for rehabilitation and development of nutmeg in Idukki district. Area expansion of ginger, turmeric, pure/ inter cropping of nutmeg and clove is also included under the programme for which an amount of Rs. 54.00lakh is set apart. Out of this an amount of Rs. 10.00 lakh will be for area expansion of ginger, turmeric, nutmeg and clove in Idukki district.

Project based support for establishment of nurseries through FPOs and other stakeholders is also included for an amount of Rs. 50.00 lakh. The establishment of nurseries by selected FPOs will be through the KVKs of the area.

A separate component for Integrated pepper development in Idukki is included for popularization of farmer developed varieties, soil less nursery, support to secondary and micro nutrients, soil ameliorants, prophylactic spraying through agro service centres, promotion of Vesicular Arbuscular Mycorrhiza (VAM) and revitalization of pepper samithies, for which an amount of Rs. 500.00 lakh is set apart.

The component wise break up is given below.

Sl. No.	Components	Amount (Rs. in lakh)
1	Area expansion of pepper	100.00
2	Area expansion of other spices (ginger, turmeric, nutmeg, clove)	54.00
3	Establishment of decentralized nurseries	6.00

4	Revitalization of pepper gardens	200.00
5	Rehabilitation programme of nutmeg in flood affected areas (New)	100.00
6	Project based support for establishment of nurseries through FPOs	50.00
7	Integrated pepper development in Idukki	500.00
	Total	1010.00

7)	Hi - Tech Agriculture	H/A: 2401-00-113-82	Rs. 260.00 lakh
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During the year 2020-21, an amount of Rs. 250.00 lakh is earmarked as support for establishment of Micro Irrigation/ Fertigation/ Open precision Farming as additional subsidy to top up Centrally Sponsored scheme of PMKSY. 25 percent assistance will be provided from state plan fund.

In order to support the entrepreneurs, it is proposed to develop a network of experts and support groups at state and district level in association with an institution. The support group covering VHSE people, retired or other professionals could be trained for the purpose. The support for human resource development is for promoting Hi-tech agriculture through State Agricultural Management and Extension Training Institute (SAMETI). An amount of Rs.10.00 lakh is set apart for the component. A portion of the outlay will be utilized for the development of demonstration unit at SAMETI.

The components of the scheme are shown below:

Sl. No.	Component	Amount (Rs. in lakh)
1	Micro Irrigation/Fertigation/Open Precision Farming- Additional Subsidy (New)	250.00
2	Human resource group for technology support and capacity building through SAMETI	10.00
	Total	260.00

8)	Development of Fruits, Flowers and Medicinal plants	H/A: 2401-00-119-79	Rs. 3125.00 lakh
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For the development of fruits, flowers and medicinal plants, an amount of Rs.3125.00 lakh is set apart during 2020-21. It is envisaged that 25 percent of beneficiaries of the project will be women.

A comprehensive scheme for fruit development will be implemented in the state with the objective of popularizing cultivation of fruit crops. Production and supply of

planting material, area expansion programmes, management, harvesting, cold storage, processing, value addition and marketing, supply chain development and all programmes for holistic fruit promotion and enhancement of farmers income will be supported through this scheme. Thrust will be given for promotion of exotic fruits like litchi, rambutan, avocado, mangosteen etc in addition to indigenous fruits. Homestead and commercial cultivation of fruits will be promoted. The project will be implemented by the Department of Agricultural Development and Farmers welfare with the support of Kerala Agricultural University, VFPCCK and HortiCorp. The fruit development programme will be phased out for a period of 10 years.

During 2020-21 an amount of Rs. 2900.00 lakh is earmarked for fruit development in the state for progeny orchards, propagation, and production enhancement through area expansion, irrigation support, hardening units, popularizing fruit plants for homesteads as well as commercial cultivation, training and documentation giving thrust to exotic fruits. Development of Indigenous fruits like banana, pineapple etc are also included in the programme. The facilities available with the Departmental Farms /nurseries shall also be utilized for development of orchards. The implementation shall be based on the Detailed Project Report for comprehensive development of fruits submitted by the Department of Agricultural Development and Farmers welfare. VFPCCK, KAU, KVKs, PACS, FPOs shall be integrated into the programme specifying the roles and targets. No separate manpower and vehicle will be provided under the programme. An amount of Rs. 500.00 lakh is set apart for cold chain development in banana and other tropical fruits. An amount of Rs. 2.00 lakh is set apart for DPR preparation by an approved agency. The implementation of the project will commence in the coming planting season.

The project will be implemented in all districts by the department of Agriculture in coordination with VFPCCK, FPOs and good working PACS. Fruit village in Wayanad and Muthalamada in Palakkad district will form part of this programme. The MIDH and PMKSY schemes (CSS) will be integrated with the fruit development programme to provide maximum assistance to the farmers to take up cultivation of exotic fruits.

Registration of beneficiary farmers and geotagging of demonstration plots shall be ensured. Markets for selling the produce shall be identified in advance to assure reasonable price to farmers. Value addition and establishment of supply chain will also be promoted.

An amount of Rs. 500.00 lakh each is allocated for fruit development in Idukki and Wayanad districts giving thrust to development of exotic fruits.

Assistance will be provided for the establishment of floriculture units, establishment of new floriculture nurseries including tissue culture units, establishment of grading, packing centres and market intelligence support. Flori villages will be

established and suitable markets identified for marketing of flowers. Flowering plants will be selected based on the site suitability and marketing potential. An amount of Rs.100.00 lakh is earmarked for this programme. The funds from RKVY and SHM will be integrated with the project.

Project for Centre of Excellence at Wayanad for Horticulture and Floriculture has been sanctioned vide G.O (MS) No 34/2019/ PLGEA dated 12.12.2019 under Rebuild Kerala Initiative. The amount sanctioned under RKI shall be utilized for development of flowers in Wayanad.

The project for promotion of medicinal plants is proposed to be implemented in the state. An amount of Rs.50.00 lakh is earmarked for area expansion through clusters, setting up of collection centres, Plant Health Management units and for transportation and marketing facilities. The scheme will be implemented in selected districts through the Department of Agriculture and arrangements for market tie up will be made with Ayurvedic pharmaceuticals in the government/private sector. The scheme implemented with the support of Medicinal Plants Board will be integrated with the project.

A new component for procurement trading and processing of jackfruit through VFPCCK is included for which an amount of Rs. 75.00lakh is set apart. Out of this an amount of Rs. 25.00 lakh each is allocated to Idukki and Wayanad districts for procurement, trading and processing of jackfruit.

The breakup of the scheme is shown below:

Sl. No.	Scheme	Amount (Rs. in lakh)
1	Development of Fruits	2900.00
2	Development of Flowers	100.00
3	Development of Medicinal plants	50.00
4	Procurement , trading and processing of jackfruit through VFPCCK (New)	75.00
	Total	3125.00

9)	Soil and Root Health Management & Productivity Improvement	H/A: 2401-00-800-28	Rs. 2462.00 lakh
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The improvement of soil health is essential for augmenting crop productivity considering the depleted nutrient status of the soil resource of the state. Based on soil testing, service would be rendered with more focus on application of soil test results for improving the productivity of crops.

Quality inputs for correcting the soil pH and also for providing secondary and micro nutrients to supplement crop production will be provided based on soil analysis. The input supply will be soil test based and the quantity of input requirement will be as per the KAU recommendation. A major intervention in management of soil acidity is required to improve crop productivity. An amount of Rs.2387.00 lakh is set apart for supply of soil ameliorants to all districts. Supply of secondary and micro nutrient based on soil test data and green manure application will be supported for which Rs.50.00 lakh is set apart.

Cultural practices to support root development and growth like seed treatment using bio fertilizers and bio-pesticides, application of trichoderma, use of Vesicular Arbuscular Mycorrhiza (VAM), application of Phosphate Solubilizing Bacteria (PSB), Organic manure application, Plant Growth-Promoting Rhizobacteria (PGPR) etc will be promoted. Support for on farm production and application of VAM in selected *Krishibhavans* will also be provided. An amount of Rs.25.00 lakh is earmarked for this purpose.

The components of the scheme are shown below:

Sl. No.	Component	Amount (Rs. in lakh)
1	Soil ameliorants in selected districts	2387.00
2.	Support for secondary and micro nutrients and green manure	50.00
3	Root health management	25.00
	Total	2462.00

10)	Crop Health Management	H/A: 2401-00-107-78	Rs. 781.00 lakh
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Pest management strategies need to recognize that crop health is an essential element of sustainable agriculture. 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 (GPPP).

Systematic surveillance and advisories will be provided to the farmers through advisories. The number of surveillance plot will be decided based on cropping pattern of the selected panchayats.

An amount of Rs.150.00 lakh is earmarked for Pest forecasting & advisory services. This includes Pest Surveillance systems and advisories in potential blocks for which an amount of Rs.100.00 lakh is provided. Establishment of 5 new plant health Clinics with an outlay of Rs.25.00 lakh and strengthening of existing Plant Health

Clinics for Rs.25.00 lakh are other activities included. The fixed plot and rowing survey component is proposed to be restructured linked to the clinics alone, with reduced number of fixed plots with flexibility at block level. The surveillance and rowing survey will be analysed and monthly report at district level will be published. The data will be shared with other government departments. The block level plant clinics will be designated as the plant clinic of the block where support of other Agriculture officers will be ensured by the Assistant Director of Agriculture.

An amount of Rs.25.00 lakh is set apart for rodent control and Rs.50.00 lakh for management of wild life attack through technology support. Other successful local systems and practices prevalent for protection against wild animals and birds would also be assisted.

Bio control agents are not available in adequate quantities in all the districts. It is proposed to develop all the 9 parasite breeding stations as stocking centres for bio control agents as well as to promote parasite breeding. An amount of Rs. 25.00 lakh is set apart for development of these nine stations.

An amount of Rs.1.00 lakh is set apart for operational expenses of KCPM. This includes amount for training in existing and new plant health clinics. The database of KCPM shall be linked with the farmer registration portal.

Project for Sustainable Development of Kuttanad Rice Ecosystem has been sanctioned vide G.O (MS)No 34/2019/ PLGEA dated 12.12.2019 under Rebuild Kerala Initiative. The amount sanctioned under RKI shall be utilized for operational expenses of KCPM.

ICT based pests surveillance system through IIITMK will be carried out in coordination with KCPM for which Rs.30.00 lakh is set apart. The pest surveillance report and action taken for effective pest control will be recorded and updated by KCPM.

The components of the scheme are shown below.

Sl. No.	Component	Amount (Rs. in lakh)
1	Pest forecasting and advisory services	150.00
2	Rodent control and management of wild animal attack	75.00
3	Operational expenses of KCPM and parasite breeding station	1.00
4	Development of nine parasite breeding stations	25.00
5	ICT based pest surveillance system through IIITMK	30.00
6	Honorarium to Field Assistants (FAs and DPHMs)	500.00
	Total	781.00

11)	Organic Farming and Good Agricultural Practices	H/A: 2401-00-105-85	Rs. 162.00 lakh
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During 2020-21 it is proposed to assist organic farming and the components of the scheme include assistance for certification, empowerment of GAP clusters, promotional assistance for GAP clusters, green manuring, model units for organic manure preparation and Safe to Eat food production including Participatory Guarantee System (PGS) certification through VFPCCK, Krishibhavans and other stake holders like FPOs.

Organic farming of fruits and vegetables through VFPCCK and Krishibhavans will be promoted. The assistance from centrally sponsored scheme Paramparagat Krishi Vikas Yojana (PKVY) will also be utilized for supporting organic farming for developing organic farming clusters and providing financial assistance.

For marketing of organic farming products produced in clusters and GAP certified produce an amount of Rs. 47.00 lakh is set apart as assistance for ecoshops for marketing which include establishment of new ecoshops including grading, packing and labeling of organic and safe to eat products and strengthening of existing ecoshops started in 2019-20 .Barcoding of safe to eat products produced through these clusters will be taken up to ensure traceability of the products.

Mechanism for certification of GAP vegetables and fruit products and its branding will be established. Direct marketing and market network of GAP products will be developed by VFPCCK.

An amount of Rs.75.00 lakh is set apart for organic farming of fruits and vegetables through SHGs and certification through VFPCCK. It is envisaged that 10 percent of beneficiaries of the project will be women. The organic farming activity for vegetables will be part of the Vegetable Mission 2020-2021.Out of this an amount of Rs. 10.00 lakh each is set apart for organic farming of fruits and vegetables and certification in Idukki and Wayanad district.

An amount of Rs.40.00 lakh is earmarked for undertaking activities supporting organic farming for safe to eat food production in the state. The components of the scheme are shown below.

Sl. No.	Items	Amount (Rs. in lakh)
1	Assistance for ecoshops for marketing	47.00
2	Support for implementation	40.00
3	Organic farming of fruits and vegetables through SHGs and certification – VFPCCK	75.00
	Total	162.00

12)	Production and Distribution of Quality Planting Materials	H/A: 2401-00-104-91	Rs. 1870.00 lakh
		H/A: 4401-00-104-98	Rs. 51.00 lakh

Planting material is a basic and critical input for agricultural production. In the aftermath of the heavy floods and other natural calamities that hit the state recently, the demand for seeds and seedlings has increased. Inadequate availability of quality seeds, planting materials and germ plasm are major constraints limiting productivity. The supply of adequate quality seeds is absolutely essential for increasing productivity of crops and total agricultural production.

The Departmental Farms are to be modernised to function not only as production centres of quality planting materials but also as centres of demonstration of advanced agricultural technology for Hi-Tech farming. The farms have to be with basic as well as sophisticated infrastructural facilities like green houses, irrigation support, tissue culture and hardening facilities, seed processing and storage facilities. Heavy floods and landslips have resulted in damage to farm lands, infrastructure and machinery of farms. Restoration of these farms is highly essential to meet the requirements of planting materials. In the case of District farms and Seed farms, the departmental programmes will be restricted to filling the gaps. But in the case of thirteen specialised farms, the Department will cater to all the requirements and make them commercially viable. Cheengeri extension scheme of Wayanad also included for implementing activities.

The outlay of Rs. 1921.00 lakh will be utilized for the purchase of newly evolved nucleus planting materials, maintenance of existing and establishment of new progeny orchards, production of planting materials and infrastructure works.

An amount of Rs. 1480.00 lakh is set apart for production of planting materials, out of which Rs. 650.00 lakh is for routine planting material production including rooted pepper cutting. An amount of Rs. 200.00 lakh is set apart for seed production programme in department farms and Rs. 80.00 lakh for purchase of newly evolved nucleus planting materials and maintenance of existing and establishment of new progeny orchards.

An amount of Rs. 450.00 lakh is set apart for *Kerasamrudhi* project for the production and distribution of quality coconut seedlings. The outlay will also be utilized for the production of hybrid and dwarf seedlings. There will be convergence with the production of coconut seedlings under the Coconut Mission. The scheme will be implemented with the support of FPOs and experienced PACS, KAU, CPCRI and CDB.

An amount of Rs. 100.00 lakh is set apart for the production of fruits and vegetables grafts and seedlings through VFPCCK. The Director of Agriculture will sign

an MOU with VFPCCK with respect to the quantity and quality of planting material to be produced by VFPCCK specifying the timeline of implementation of activities before release of funds. This will form the activity of Vegetable Mission 2020.

The departmental farms will develop a business plan for production of planting materials and develop barcoding of planting materials for traceability. Branding of farm products will also be undertaken. This will be followed by VFPCCK also.

Model demonstration farms will be developed in departmental farms to function as farm schools for farmers and general public. Establishment of demonstration units for HTF and Integrated farming system models are envisaged. Technical integration through Integrated Farming System Research Station, Kerala Agricultural University, Karamana for which an amount of Rs. 25.00 lakh is set apart as operational cost. An amount of Rs. 50.00 lakh is set apart for the establishment of demonstration units/models including integrated farming system models. The models developed will be documented.

An amount of Rs. 1.00 lakh is earmarked for restoration of Seed Garden Complex, Munderi and other department farms washed out by heavy floods and landslips. Additional amount of Rs. 50.00 lakh is included for mechanization and the infrastructure development of departmental farms including repair of damages and additional facilities for improvement of farms.

The projects, Restoration of Seed Garden complex, Munderi and other Krishi Bhavans and Integrated farm Management for holistic Development of DAF Neriyanamalam has been sanctioned vide G.O(MS) No 34/2019/ PLGEA dated 12.12.2019 under Rebuild Kerala Initiative. These components will be implemented using the funds under RKI.

The activities proposed for components Restoration of SGC Munderi and other department farms and Mechanisation and Infrastructure development will be met from the funds allocated under RKI.

Separate outlay is earmarked for taking infrastructure projects of the farms under RIDF.

An amount of Rs. 15.00 lakh is earmarked towards temporary man power support to Biotechnology and Model Floriculture Centre and tissue culture laboratories established at other two farms, for the production of quality tissue culture plants.

An amount of Rs. 300.00 lakh is earmarked for propagation and management of coffee including drip irrigation in nurseries.

The component wise breakup of the scheme is shown below.

Sl. No.	Components	Amount (Rs. in lakh)
2401-00-104-91		
1	Routine Planting material production including rooted pepper cuttings	650.00
2	Kerasamrudhi	450.00
3	Maintenance of progeny orchards & establishing new progeny orchards	80.00
4	Production of planting material of fruits and vegetables through VFPCCK	100.00
5	Seed production programme in Department Farms	200.00
6	Operation and technology support to demonstration units for HTF units and Integrated Farming System in Department farms	75.00
7	Manpower support to the TC labs	15.00
8	Propagation and management of coffee including drip irrigation in nurseries. (New)	300.00
	Total	1870.00
4401-00-104-98		
9	Mechanisation & infrastructure development	50.00
10	Restoration of SGC, Munderi and other departmental farms	1.00
	Total	51.00
	Grand Total	1921.00

13)	Modernisation of Departmental Laboratories	H/A: 2401-00-105-86	Rs. 370.00 lakh
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The major services offered by the Department of Agriculture to farming community include Soil Testing for soil fertility assessment and analysis of major inputs like fertilizers including organic, inorganic and biofertilizers, pesticides and seeds for quality control of these inputs. These are critical production components which significantly affect the production and productivity of crops.

The existing laboratories of the departments which analyze samples of soil, fertilizers, pesticides, seeds etc. were established years back. Most of the equipments available in these labs purchased are old and obsolete and are not suited to provide quick and accurate results of data analysis.

The soil testing service would be made accessible to farmers in every panchayat with the support of local governments. The implementation of the programme would be integrated with the soil health management and soil health initiative. The mobile soil testing and stationary soil testing labs, those under agro service centres will be converged in the project implementation.

In the aftermath of the floods and landslides that occurred in the state, soil analysis will be done on a campaign mode across the State especially in flood hit districts, with the support of local governments, progressive farmers, FPOs and Farmer's clubs promoted by NABARD. Soil Health Cards will be distributed to farmers under the scheme. The existing soil fertility portal shall be updated and maintained by the department and the benefits of the portal shall be made available to the farmers. Convergence of soil testing activities by the Department of Soil Survey & Soil Conservation, VFPCCK and Kerala Agricultural University will be ensured.

The input supply to farmers will be based on the analytical results of soil samples collected from farmers field.

The outlay of Rs. 370.00 lakh will be utilized for strengthening of laboratories, functioning of Quality Control Enforcement Wing and Accreditation of laboratories.

An amount of Rs. 270.00 lakh is earmarked for strengthening of laboratories. This includes Rs. 100.00 lakh set apart for soil analysis, purchase of chemicals, glasswares and equipments and infrastructure development of the laboratories. For strengthening of Biotechnology and Model Floriculture Centre (BMFC) an amount of Rs. 75.00 lakh is set apart. The BMFC will be strengthened for the production of 15lakh tissue culture plants and the scope for further expansion will be explored in a phased manner. The revolving fund will be made operational. An amount of Rs. 75.00 lakh is set apart for strengthening State Bio Control Laboratory, Mannuthy, Thrissur. An amount of Rs. 20.00 lakh is set apart for operational expenses. Hiring of vehicles wherever necessary will be provided. However no purchase of vehicle will be allowed.

An amount of Rs. 75.00 lakh will be set apart for the functioning of Quality Control Enforcement Wing of the department.

For obtaining NABL accreditation to the quality control laboratories functioning under the department an amount of Rs. 25.00 lakh is earmarked.

The component wise breakup of the scheme is as follows.

Sl. No.	Component	Amount (Rs. in lakh)
1	Strengthening of laboratories	270.00
2	Quality Control Enforcement Wing	75.00
3	Accreditation of labs	25.00
	Total	370.00

14)	Strengthening Agricultural Extension	H/A: 2401-00-109-80	Rs. 1555.00 lakh
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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. The ATMA model of Agricultural extension with suitable modification integrated as ATMA plus could be popularized with appropriate convergence at the higher level with co-ordination at the lower level among the departments in the productive sector.

The outlay earmarked for the scheme for 2020-21 is Rs.1555.00 lakh. An amount of Rs. 135.00 lakh is set apart for strengthening of institutions involved in agricultural extension activities. It is proposed to complete the work of upgradation of the Regional Agricultural Technology Training Centres (RATTCs) and Farmer Training Centres (FTCs) as satellite centres of SAMETI. An amount of Rs.100.00 lakh is set apart for this. An amount of Rs. 35.00 lakh is set apart for strengthening of Project directorate of ATMA with additional infrastructure including provision for rent.

An amount of Rs. 150.00 lakh is earmarked for awards for best performers consisting of farmers and extension officials.

Under the component, “Activities under ATMA” an amount of Rs. 730.00 lakh is set apart. The subcomponents under this include HR support to Project Directorate, ATMA and Extension Wing for which Rs. 180.00 lakh is set apart. The District Technology Managers engaged in Animal Husbandry, Agriculture and Fisheries at the Project Directorate and one contract Agricultural Officer each at Farmer Training Centre Kozhikode and Pandalam will be supported. The state share of ATMA programmes is included under the umbrella scheme Krishi Unnathi Yojana.

The various components earlier considered under various extension schemes including ATMA, ATMA PLUS, LEADS etc. have been brought under the Umbrella scheme of Kerala Agricultural Innovation Extension Project.

Kerala Agricultural Innovation Extension Project (KAIEP) will be implemented by integrating ATMA, elements of similar projects like ATMA Plus, possibilities in social media, practical experiences and findings of farmers for which an amount of Rs. 300.00 lakh is set apart. LEADS project will be continued for which Rs. 200.00 lakh is earmarked. The scheme is proposed to be implemented through Technology and Market Unit to be constituted in the panchayats. Two professional District Farmers Producer and Marketing Organisation (DFPMO) will be established at the district level in Idukki and Wayanad on pilot basis for facilitating marketing of produce through sharing of market information, professional support, and tie-up with other organisations. Additional one Assistant Technology Managers (like Field Assistant of the present LEADS Panchayat) for every block will be provided to streamline the activities and to expand the LEADS activities to the whole of the state

apart from the four LEADS districts viz. Wayanad, Kannur, Palakkad and Kollam. Components like LEADS, ATMA plus, MTA preparation, Panchayat Resource Group and Panchayat Farm Plan, establishment of farm models at block level, visit of experts/officials progressive farmers to research institute, model farms are included in the project. An amount of Rs. 50.00 lakh is earmarked for providing operational support and hiring of vehicles for all project directorates for effective extension delivery.

Under the project, LEADS programme will be extended to all panchayats. Third Party Monitoring will be carried out through an agency selected by competitive open bidding.

Under the component “Public Participation” out of the total outlay of Rs. 300.00 lakh an amount of Rs. 230.00 lakh is set apart for conduct of *Karshika vikasana samithies*, seminars, farmers day, review meetings. Assistance for farm melas, farmer meets and agro festivals including those organized by FPOs/PACS will be provided. Exposure visits to award winning farmers to state level and national level institutes are also included. For *karshaka sabha* and *njattuvela chanthas* an amount of Rs. 50.00 lakh is provided. An amount of Rs. 20.00 lakh is set apart for monitoring and documentation of the project implementation through PACS and FPO’s.

An amount of Rs. 30.00 lakh is set apart for meeting the operational expenses for the implementation of social audit in the department.

The ‘Karshaka Information Systems Services and Network (KISSAN) Kerala’ project initiated by Department of Agriculture in association with IIITMK will be continued. An amount of Rs. 60.00 lakh is earmarked for providing project based assistance for KISSAN Project. The programme shall focus on Vegetable Mission 2020-Harithamuttam- Surakshitha Pachakkari to be undertaken in 2020-21. The contents of the programme will be decided by the technical committee consisting of KAU extension, department officials (FIB), VFPCCK and IIITMK.

An amount of Rs. 150.00 lakh is earmarked for conduct of VAIGA 2020-21. The component wise breakup of the scheme is shown below.

Sl. No.	Component	Amount (Rs.in lakh)
1	Strengthening institutions	135.00
2	Award for best performers	150.00
3	Activities under ATMA state supporting scheme	730.00
4	Public participation	300.00
5	Social audit	30.00
6	KISSAN Project	60.00
7	VAIGA 2020-21	150.00
	Total	1555.00

15)	Farm Information and Communication	H/A: 2401-00-109-84	Rs. 383.00 lakh
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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. At present the Farm Information Bureau (FIB) has its state unit at Thiruvananthapuram and regional units at Ernakulam and Kozhikode. 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 components are:

Sl. No.	Component	Amount (in lakh)
1	Kerala Karshakan and Other activities	280.00
2	Publications	30.00
3	Media Liaison	63.00
4	Other communication initiatives	10.00
	Total	383.00

16)	Human Resource Development	H/A: 2415-01-277-98	250.00 lakh
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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. The scheme will continue during 2020-21 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. KAU will reserve separate seats for the deputed candidates for the 6 courses. The outlay is for these purposes. The HRD scheme also will be coordinated by the Project Director, ATMA for convergence at district level. An amount of 200.00 lakhs is set apart for this component.

Capacity building programme on crop health management will be continued for the technical officers in association with NIPHM. The PG diploma course in Plant Health Management launched for the officers of the department of Agriculture at SAMETI in collaboration with NIPHM, Hyderabad, will be supported additionally to develop specialist team of officers on plant health management. The amount of Rs. 50.00 lakh set apart for capacity building will also be utilised for projects taken up by the officers enrolled for the PGDPHM course.

The component wise breakup of the scheme is shown below:

Sl. No.	Component	Amount (Rs. in lakh)
1	HRD initiatives	200.00
2	Capacity building in association with NIPHM including PG Diploma in Plant Health management	50.00
	Total	250.00

17)	Agro Service Centres and Service Delivery	H/A: 2401-00-113-83	Rs. 412.00 lakh
		H/A: 4401-00-113-98	Rs.160.00 lakhs

Agro Service Centres (ASC) are established at block level to facilitate integration of services like mechanisation, ATMA based extension, credit support, weather advisory services, soil testing support and other technology based services. In order to provide full-fledged service to the farmers at a single point, it is necessary that the various requirements of farmers such as agricultural inputs, farms related information like credit, marketing etc. are brought under a common service centre. With this objective, agro service centres are established. The Agro Service Centres established at the block level in the first phase is to support transfer of technology and service delivery. The Panchayat Raj institutions are expected to provide additional infrastructure support to the Agro Service Centres. These centres act as technology and information disseminating centres with facilitating role in field visits. A mobile farm clinic is also established at the block level to provide solution to the field problems equipped with audiovisual and online support. The Agro Service Centres work to support the ATMA activities as well as mechanization. The farmers service centers proposed at the block level under the Cooperation Department will be linked with the Agro Service Centres for input delivery.

Agro Service Centres and *karshika karma senas* constitute skilled labour force at block and panchayat level respectively providing required farm operations at the doorstep of farmers at affordable rates. Custom Hiring Centres functioning under the department also support these activities through repair and maintenance of equipments and machinery. In order to facilitate a single window service delivery to farmers, convergence of these three institutions as sustainable Self Help Groups in the farm sector viz. "*Krishisree*" will be worked out.

It is proposed to establish new *Krishisree* centres during 2020-21 including Corporation and Municipality areas for which an amount of Rs. 160.00 lakh is set apart.

A business plan will be developed for each Agro Service Centre, *karshika karma sena*, Custom Hiring Centre and *Krishisree* as the case may be for its efficient and

profitable functioning and self-sustainability in the coming years. A single unit shall have a business plan earning an income of Rs. 5.00 lakh/unit.

The Kerala State Agricultural Mechanisation Mission (KSAMM), the apex body for the guidance of Agro Service Centres and *karshika karma sena* will develop an organizational structure for linking *karshika karma sena*, Agro Service Centres and Custom Hiring Centres and coordinate the functioning of these three agencies as a single unit based on the business plan. An amount of Rs. 225.00 lakh is set apart for functional expenses of KSAMM out of which an amount of Rs. 50.00 lakh is for repair and maintenance of farm machinery. The activities include organizing panchayat level and block level awareness programmes, repair and maintenance of farm machinery on campaign basis, data collection, consolidation and reporting and collection of required spare parts.

In order to strengthen the activities of the existing Agro Service Centres, an amount of Rs. 1.00 lakh is set apart. The operational support will be for one more year to make the centres self-sustainable. The centres will set up biopharmacy, nurseries and other services in all the centres. The services will be linked to *karshika karma sena* wherever possible.

An amount of Rs. 1.00 lakh is set apart for the support of selected *karshika karma senas*. Agro Service Centres and *karshika karma senas* will develop a business plan and the amount earmarked will be utilized accordingly. A performance analysis of all Agro Service Centres and *karshika karma sena* will be undertaken before providing assistance.

Agro machinery service Centres /Regional Farm Facilitation Centres established at Alappuzha, Thrissur and Kozhikode will be coordinated by the apex body with the support of engineering wing of the department. The ITI trained people engaged at Agro Service Centres if available will also be used for the repair services. It is envisaged that 15 percent of beneficiaries of the project will be women.

The project Support to zone wise Service Delivery by strengthening Agro Service Centres and karshika karma sena Units has been sanctioned vide G.O(MS) No 34/2019/ PLGEA dated 12.12.2019 under Rebuild Kerala Initiative. The components of Agro Service Centres and Karshika Karma Senas will be implemented using the funds under RKI .

In order to provide accident insurance to members of *karshika karma sena* and Agro Service Centres and the newly proposed *Krishisree* units, it is proposed to institute a group insurance programme in association with insurance companies with beneficiary contribution. An amount of Rs. 20.00 lakh is earmarked for remitting insurance premium.

For meeting the operational expenses including wages of mobile clinics and repair of vehicles in Krishibhavans damaged by floods, an amount of Rs. 165.00 lakh is set apart. The component wise breakup of the outlay is shown below.

Sl. No.	Components	Amount (Rs. in lakh)
2401-00-113-83		
1	Strengthening of existing Karshika Karma Sena	1.00
2	Strengthening existing Agro-Service Centres based on business plan	1.00
3	Group insurance scheme to members of <i>karshikakarma sena</i> and Agro service centres and newly formed <i>Krishisree</i> centres	20.00
4	Operational expense including wages to mobile clinics	165.00
5	Functional expenses of KSAMM	225.00
	Sub Total	412.00
4401-00-113-98		
6	Establishment of new Krishisree centres	160.00
	Total	572.00

18)	Office Automation and IT Infrastructure	H/A: 2401-00-001-86	Rs. 250.00 lakh
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This scheme aims to implement ‘e-Office’ in Agriculture Department. e-Office is an integrated solution for the organizational effectiveness by improving productivity, quality, resource management, turn-around time and increase transparency by replacing the old manual process with an electronic file system.

This scheme also envisions to develop IT and communication infrastructure like Virtual Classroom Facility in various locations/offices and Mini Computer Labs at Directorate, SAMETI, Office of the Agricultural Production Commissioner, 14 Principal Agricultural Offices, SFAC Call Center, RATTCs, FTCs and other training centres.

To strengthen the IT and e-Governance initiatives, procurement of latest hardware, computing and networking devices, software, procurement for development of other IT and e-Governance infrastructure and their maintenance and high speed connectivity are essential and to be met from this scheme.

Local Self-government support shall be integrated into this programme. The components for the scheme are:

Sl. No.	Components	Amount (Rs. in lakh)
1	e-office	70.00
2	Establishment of Virtual Classroom and computer training and Facilitation Centres	30.00
3	Cyber Extension	30.00
4	Connectivity to various offices	50.00
5	Procurement of computers, accessories, networking and site preparation	20.00
6	Development of Management Information system and Direct Benefit Transfer	50.00
	Total	250.00

19)	Development of Agriculture Sector in Kuttanad	H/A: 2401-00-119-78	Rs. 2000.00 lakh
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An amount of Rs.2000.00 lakh is earmarked for the development of agricultural sector in Kuttanad as part of *Kuttanad Package*. The amount is set apart for infrastructure development works of various *padasekharams* of Kuttanad region and supply and installation of vertical axial flow pumps.

Out of the total outlay, an amount of Rs.1700.00 lakh is earmarked for infrastructure development of various *padasekharams* in Kuttanad region. An amount of Rs. 300.00 lakh is earmarked for establishment of Vertical axial flow pump/submersible pumpsets 10-50 HP replacing the conventional Petti & Para, including construction of raised platforms for installation.

Convergence of infrastructure development works of various *padasekharams* undertaken by under RKVY, RIDF, Punarjani will be ensured. The infrastructure works carried out by KLDC shall also be integrated into this. The components are :

Sl. No.	Components	Amount (Rs. in lakhs)
1	Infrastructure development works of various <i>padasekharams</i> of Kuttanad region	1700.00
2	Supply and installation of vertical axial flow pumps	300.00
	Total	2000.00

20)	Arecanut Package	H/A: 2401-00-108-56	Rs. 100.00 lakh
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Arecanut is one of the major plantation crops of Kerala, especially in northern districts. Arecanut sector is showing a declining trend, both in terms of area and production. This is mainly due to incidence of diseases like Mahali (fruit rot) which needs high cost for plant protection measures, non availability of good quality planting materials and also lack of institutional support which has led to disinterest among arecanut farmers in adopting scientific cultivation practices. Hence it is proposed to provide assistance for area expansion, plant protection and other management practices. Marketing network for arecanut and value added products will be established. An amount of Rs. 100.00 lakhs is provided for this purpose for the northern districts of the state. Funds for Kasargod district can be located from Kasargod Package implemented through the District Collector.

Out of this an amount of Rs. 5.00 lakh and Rs. 20.00 lakh respectively are earmarked for development of arecanut in Idukki and Wayanad districts.

21)	State Crop Insurance scheme	H/A: 2401-00-110-82	Rs. 2000.00 lakh
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The crop insurance scheme was 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. The Crop Insurance Fund is operated with contributions from the participating farmers by way of registration fee and premium and Government contribution. In addition to the existing crops, minor fruits and apiculture will also be included under the scheme. An amount of Rs. 2000.00 lakh is earmarked for the scheme during 2020-21.

22)	Contingency Programme to meet Natural Calamities and Pests & Disease Endemic	H/A: 2401-00-800-91	Rs. 750.00 lakh
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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. Assistance for strengthening of bunds to prevent breaches during floods and for removal of debris will be in a need-based manner. An amount of Rs.750.00 lakh is provided for the scheme during 2020-21.

23)	Bio Diversity and local Germ Plasm Conservation and Promotion	H/A: 2401-00-103-77	Rs. 25.00 lakh
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It is proposed to conserve the traditional and indigenous varieties available in different crops, including paddy and millets, especially in tribal habitats by providing assistance for cultivation and multiplication of seeds of these varieties by tribals, local

farmer clusters, and other organizations. Provision under the scheme would be utilized for procurement and distribution of seeds of these traditional varieties for promotion of cultivation in other areas and districts. The organic farming cell at the Directorate of Agriculture will maintain a registry of the indigenous varieties of all crops. An amount of Rs. 25.00 lakh is earmarked for the scheme.

MARKETING, STORAGE & WAREHOUSING

The total outlay provided during 2020-21 under Marketing, Storage & Warehousing including other Agricultural Programmes is Rs. 51.85crore.

AGRICULTURE MARKETING AND POST HARVEST MANAGEMENT

An amount of Rs. 50.40 crore is set apart for implementing schemes under this.

24)	Market Development	2435-01-800-99	890.00
25)	Market Intervention Support for Price Stabilization	2435-01-101-85	2000.00
26)	Share Capital to HORTICORP	4401-00-190-97	20.00
27)	Assistance to Kerala State Warehousing Corporation for Construction of Godown cum Agriculture Complex	4408-02-101-98	30.00
28)	Assistance to Kerala State Warehousing corporation for Computerization	2408-02-190-98	25.00
	Total		2965.00

Appropriate and effective linkages between the producers and sellers continue to be weak in the state. Market infrastructure, market intelligence and institutional support are to be improved.

The total amount of Rs. 2965.00 lakh earmarked during 2020-21 is for marketing activities, market intervention support, support to WTO Cell, and assistance to Kerala State Warehousing Corporation and share capital contribution to Horticorp. This also include Rs. 500.00 lakh set apart for marketing development activities of VFPC which forms part of Vegetable Mission 2020.

Market development activities by VFPCCK will be in convergence with the similar activities carried out by the Department of Agriculture. Technology dissemination, trainings and campaigns shall be organised jointly with the Department of Agriculture. Mechanism for PGS Certification and traceability of products should be implemented jointly by the Department of Agriculture and VFPCCK.

The objective of the component on market intervention support for price stabilisation is to launch procurement operations through designated agencies on selected agricultural commodities during harvesting season with a view to guarantee remunerative prices to the growers. The outlay is meant for providing incentives to the procuring agencies based on the terms and conditions prescribed by Government as part of each operation and expenses connected with vegetable procurement during festival season and also as incentive to societies for procurement of green coconut and further processing. Out of the amount of Rs.2965.00 lakh, an amount of Rs. 2000.00 lakh is earmarked for market intervention support. An amount of Rs. 80.00 lakh is set apart for the functioning of Agricultural Prices Board and conducting market study by Board.

Existing Grama panchayat level weekly markets will be supported and new weekly markets will be established in association with LSGIs for which an amount of Rs. 20.00 lakh is set apart. Support will be provided only to selected existing markets having high turn over (Rs.2.00 lakh/market) within A grade markets. An amount of Rs.150.00 lakh is earmarked for operational expenses of urban and rural wholesale markets and district procurement centres and Rs. 40.00 lakh for Agmarknet and market intelligence. The establishment and functioning of these markets will be in accordance with the e-NAM guidelines so as to facilitate unified market for agricultural commodities. *The project, Strengthening market network in Kerala has been sanctioned vide G.O (M.S) No 34/2019/ PLGEA dated 12.12.2019 under Rebuild Kerala Initiative. These components will be implemented using the funds under RKI.*

Karshaka mitras will be engaged for effective coordination of marketing of surplus farm produce including the use of social media for marketing. Graded incentive structure to *karshakamitras* based on quantity procured by each *karshaka mitra* will be followed. New *karshakamitras* will be engaged in districts other than Alappuzha and Thrissur during 2020-21 based on the marketable surplus available in an area. For this an amount of Rs. 75.00 lakh is earmarked. Participation in interstate and national level agri fairs helps to gain more exposure to farmers and entrepreneurs for which Rs. 20.00 lakh is set apart. An amount of Rs. 5.00lakh is set apart for operational expenses of WTO cell. An amount of Rs. 20.00 lakh is set apart as share capital to horticroop.

The e-vipani portal functioning in the call centre at Small Farmers Agribusiness Consortium (SFAC) will continue with the activities of tapping the market

opportunities for ensuring maximum price for the farmers produce and linking farmer collectives with states following GAP through software development & networking will be encouraged.

An amount of Rs. 30.00 lakh is set apart for Kerala State Ware Housing Corporation for the construction of Godown cum Agriculture Complex and an amount of Rs. 25.00 lakh for computerization of Kerala State Ware Housing Corporation for connecting the sub offices through a web based software.

The component wise breakup of the scheme is shown below.

Sl. No.	Component	Amount (Rs. lakh)
1	Operational expense of wholesale markets and district procurement centres	150.00
2	Agmarknet& Market Intelligence	40.00
3	Additional support to Weekly Markets	20.00
4	Market development activities of VFPCCK	500.00
5	Prices Board	80.00
6	Engaging <i>Karshaka mitras</i> and training and portal based service	75.00
7	Participation in Agri fair	20.00
8	WTO Cell - Operational expenses	5.00
9	Share capital to HortiCorp	20.00
10	Market intervention support for price stabilisation	2000.00
11	Assistance to Kerala State Ware Housing corporation for Computerization	25.00
12	Assistance to Kerala State Ware housing Corporation for construction of Godown cum Agriculture complex	30.00
	Total	2965.00

29)	Post-harvest Management & Value Addition	H/A: 2435-01-800-94	Rs. 1275.00 lakh
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Post-harvest management and value addition/agro processing have a very crucial role in improving the Kerala economy and the income of the farmer from agriculture sector.

The SFAC will provide support to small and medium enterprises, for which an amount of Rs. 700.00 lakh is set apart. The SFAC will provide support to small and medium agro processing units and to individual or SHG based micro level value addition units. The maximum support for an individual unit will be limited to Rs. 50.00 lakh after approving the credit by the financial institution. Separate norms

will be developed for giving assistance to SHG based/ individual based micro level units. Employment generation and livelihood security will be given emphasis in micro level enterprises. Assistance will be provided for establishing copra dryer units for societies under Kerafed implementing green coconut procurement programme. This amount will also be utilized for providing technology support to entrepreneurs through SFAC.

An amount of Rs. 200.00 lakh will be provided for supporting value addition units and marketing under Govt. sector/ PSUs/Co-operatives/ Kudumbasree units in a project based manner. Out of this an amount of Rs. 50.00 lakh is earmarked for promotion of value addition in rice and marketing to Mayyil Rice Producer Company through KVK, Kannur.

An amount of Rs. 50.00 lakh is set apart for operational expenses of SFAC.

Apiculture and production of honey and its value added products have immense potential in Kerala State. The support for apiculture and honey production will be continued for the benefit of honey growers and promotion of value added honey products through State Horticulture Mission. An amount of Rs. 25.00 lakh is set apart for this component.

An amount of Rs. 100.00 lakh is earmarked as support to Kerala State Coconut Development Corporation for value addition promotion.

For encouraging Agri startups and technology-based innovations in agriculture sector an amount of Rs. 200.00 lakh is earmarked. The envisioned Kerala Agritech Innovation Zone (KAIZ), will be the key partner for enhancement and development of technology capabilities in the field of Agriculture value chain especially focusing on harvesting, storage, value addition, marketing, logistics by adopting emerging technologies to enhance the income of farmer. The innovation zone will bring together the experts from various technology domains from a wide range of startups, research and corporates. The programme plan for KAIZ will be developed, owned and executed by Kerala Startup Mission. This will be carried out by the Kerala Startup Mission through the Department of Agriculture. Scaling up and commercialization of innovative products for agriculture sector and development of innovative technology products for agri value chain will be the major thrust areas.

The component wise breakup of the scheme is shown below.

Sl No	Component	Amount (Rs. in lakh)
1	Support to value addition through SFAC	
a	Assistance to small and medium agro processing units	400.00
b	Assistance to individual or SHG based value addition units at micro level	300.00

2	Support for value addition units and marketing in Govt.sector/ PSUs/ Co-operatives/ Kudumbasree units/ FPOs	200.00
3	Promotion of apiculture and production of honey and its value added products	25.00
4	Operational support to SFAC	50.00
5	Assistance to Kerala State Coconut Development Corporation for value added products	100.00
6	Support to Agristart up and agri business incubators	200.00
	Total	1275.00

30)	Additional assistance for construction of Biogas Plants	H/A: 2810-00-105-97	Rs. 50.00 lakh
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Under the CSS, New National Biogas Development Project, assistance @ Rs.12000/plant is provided for general category and Rs.13000/plant for SC/ST category/or as per the guidelines of the scheme. The cost of construction of biogas plants in the State varies from Rs.30,000/- to Rs.1,00,000/- per plant. In order to make the scheme attractive to the farming community it is proposed to provide additional amount from state plan funds as additional assistance for the construction of biogas plant @Rs. 8000/plant and Rs. 9000/plant for General and SC/ST categories respectively over and above the central assistance. An amount of Rs.50.00 lakh is earmarked for the purpose during 2020-21.

31)	Rural Infrastructure Development Fund (RIDF))	H/A: 4435-01-101-97	Rs. 750.00 lakh
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The outlay is for the implementation of projects approved under RIDF. The new and ongoing projects under tranche XX-XXVI will be taken up during 2020-21. It is for the development of infrastructure works in agriculture sector under the funding support from RIDF of NABARD during 2020-21.

The support to Kerala State Warehousing Corporation for the implementation of RIDF projects will also be provided from the outlay.

OTHER PROGRAMMES

During the year 2020-21, following schemes are included under other programmes.

32)	Farmer Welfare Fund Board	H/A: 2401-00-109-76	Rs. 100.00 lakh
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The pension schemes and welfare programmes implemented at present through Agriculture Development & Farmers Welfare Department will be taken up through the Board. An amount of Rs. 100.00 lakh is earmarked under this programme.

33)	International Research and Training Centre for Below Sea level Farming, Kuttanad	H/A: 2415-01-004-88	Rs. 20.00 lakh
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The outlay is provided for popularizing innovative activities, resolving field problems of Kuttanad region and for operational expenses.

34)	Kerala State Warehousing Corporation – Share participation	H/A: 4408-02-190-99	Rs. 25.00 lakh
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State Government has to provide share participation to the Kerala State Warehousing Corporation to match the flow of funds from the Central Warehousing Corporation. An amount of Rs. 25.00 lakh is provided for this purpose during 2020-21.

35)	Revitalisation of Agriculture Sector in Wayanad	H/A: 2401-00-800-27	Rs. 1335.00 lakh
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The agrarian economy of Wayanad district has been under distress in recent years. Wide fluctuation in prices has brought in high degree of instability in farm incomes. The State and Central Government have come out with intervention packages for the revival of the livelihood of the affected population. In addition, natural calamity during south west monsoon period of 2018 and 2019 has caused huge crop loss and destruction of land. In order to revive the agrarian economy of the district, it is proposed to implement a cafeteria of focused intervention, with appropriate backward and forward integration.

Pepper cultivation in the district is already in the declining phase due to the incidence of pests and diseases, loss of erythrina standards due to insect attack as well as declining productivity. Integrated Pepper Development Programme will be promoted for which an amount of Rs. 1000.00 lakh is set apart. Assistance for planting new standards, area expansion of pepper, whole farm development, integrated management of quick wilt, pepper rehabilitation programme, establishment of nurseries, area wide integrated pest management, grafting, production of planting materials from orthotropic shoots, setting up of nurseries, micronutrient application, dolomite application to correct acidity, root development activities and other need based support are the activities supported under this component.

A comprehensive planting material production strategy will be evolved with the support of nurseries supported in previous years.

Tree spices especially nutmeg, has been severely damaged in the consecutive floods and landslides of 2018 and 2019. To revive the crop in the district an amount of Rs.50.00 lakh is set apart under the component area expansion of nutmeg. Cultivation of other spice crops like ginger and turmeric will also be rejuvenated. This include Rs. 20.00 lakh set apart for rejuvenation of other spice crops like ginger and turmeric.

The project implementation will carried out in integration with the LEADS. Wayanad is the worst affected district in the floods and landslides of 2018 and 2019. Heavy damage has been caused to the farmer fields due to landslides. An amount of Rs.285. 00lakh is set apart for restoration and flood mitigation programmes in Wayanad district through the Department of Soil Survey & Soil Conservation.

The component wise break up is shown below:

Sl. No.	Component	Amount (Rs. lakh)
1	Integrated Pepper Development	1000.00
2	Area expansion of nutmeg	50.00
3	Restoration and flood mitigation	285.00
	Total	1335.00

NEW SCHEMES

36)	Krishi Padasala - Approach to AEU based Cultivation	H/A: 2401-00-109-60	Rs. 350.00 lakh
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Agro Ecological Unit (AEU) based farming will be given importance during 2020-21. The farmers have to be made aware of the concept of AEU based cultivation as well as updated on scientific and technological aspects at field level for profitable cultivation.

In line with the National guidelines on skill development, a skill development programme involving 200 hours of skill training will be imparted to one lakh farmers and youth through Krishi Bhavan with support of Directorate of Extension, Kerala Agricultural University, KVKs, ATMA and LSGDs. These skilled farmers will be issued completion certificates as recognition. Support through integration with National level skill development agencies will also be done.

The training and awareness programmes proposed under various schemes will be coordinated and conducted by SAMETI. A comprehensive training module and training calendar for the year 2020-21 will be prepared and programmes scheduled accordingly with the approval of Director of Agriculture.

An amount of Rs. 350.00 lakh is allocated for the scheme.

37)	Punarjani- Restoration of Agricultural Sector in Post Flood Scenario	H/A: 4401-00-800-94	Rs. 224.00 lakh
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Heavy flood and other natural calamities which occurred during 2018 & 2019 has caused heavy loss to standing crops as well as stored products, machinery, storage structures, infrastructure facilities etc. in farmers' fields as well as in department farms, office buildings etc. Moreover loss to agricultural land needs to be compensated. The scheme envisages to revive the damages caused in floods and landslides of 2018 and 2019. Employment and income generation activities will be given more thrust.

Rejuvenation and area expansion of major crops, infrastructure development of padasekharams and gardenlands, mechanization, development of markets, nurseries, office buildings and farms under department of agriculture, rejuvenation of agricultural land damaged completely by landslide/landslip will be undertaken. This also includes drought mitigation activities like water harvesting and soil and water conservation.

Infrastructure support to block level ADA offices, Krishibhavans and plant health clinics will be supported. This provision can also be utilised for repair of Krishibhavan and ADA office buildings damaged in the natural calamity during south-west monsoon 2018 and 2019. The heavy floods of 2018 has severely damaged the office building of Krishibhavan, Peringara in Pathanamthitta district. Funds are required for construction of a new building for this Krishibhavan. The amount may be sanctioned based on the detailed project proposal received from Principal Agricultural Officer, Pathanamthitta.

The fund under the scheme will be utilized filling critical gaps for ensuring successful completion of revival package.

CORE SECTOR SCHEME - 40% STATE SHARE

38)	Umbrella Scheme on Krishi Unnathi Yojana and other CSS (40% State Share)		
a	Sub Mission on Agriculture Extension (SMAE)	2401-00-109-64 – General	890.00
		2401-00-789-97 (01) – SCP	100.00
		2401-00-796-96 (01) – TSP	10.00

b	Other CSS (40% CSS) – State Share	2401-00-109-65 – General	3490.00
		2401-00-789-86 – SCP	392.00
		2401-00-796-87 – TSP	39.00
c	Mission on Integrated Development of Horticulture (MIDH)	2401-00-789-89 - SCP	263.00
		2401-00-796-90 - TSP	30.00
d	Rashtriya Krishi Vikas Yojana (RKVY)	2401-109-61-01 - General	3582.00
		2401-789-84-01 - SCP	599.00
		2401-796-85-01 - TSP	105.00
	Total		9500.00

As part of rationalisation of CSS, the number of schemes was reduced and a new concept of umbrella schemes was introduced incorporating the schemes suitable to the state and having the flexibility to implement and design sub-schemes. The central budget will provide allocation under each umbrella scheme based on a transparent criterion. In order to facilitate scheme implementation, all the other CSS on Agriculture are also included in the umbrella scheme.

Krishi Unnathi Yojana is the umbrella scheme under Agriculture with 60% central share and 40% state share. The state share of ongoing centrally sponsored schemes viz. National Food Security Mission(NFSM), Mission on Integrated Development of Horticulture(MIDH), National Mission for Sustainable Agriculture (NMSA), National Mission on Oil seeds and Oil palm (NMOOP), National Mission on Agriculture Extension and Technology Management (NMAET), Rashtriya Krishi VikasYojana (RKVY), Paramparagath Krishi Vikas Yojana (PKVY), Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), National project on Agro Forestry, Sub Mission on Plant Protection and Plant Quarantine, Information Technology, Integrated scheme on Agriculture Marketing and GOI supported Crop Insurance scheme are included under the scheme. An amount of Rs. 9500.00 lakh is provided as state share of the scheme of which an amount of Rs.1000.00 lakh is provided as state share of the scheme-Sub Mission on Agriculture Extension (SMAE) under National Mission on Agriculture Extension and Technology Management (NMAET).An amount of Rs.4286.00lakh as state share of Rashtriya Krishi Vikas Yojana (RKVY), Rs.293.00 lakh as state share of Mission on Integrated Development of Horticulture(MIDH) and Rs. 3921.00 lakh is provided as state share under any other new centrally sponsored schemes approved during 2020-21. Administrative sanction will be issued for all schemes after getting sanction from GOI except NMAET. The outlay under RKVY will be used for infrastructure development activities for rice development, vegetable development, promotion of organic farming, strengthening of market infrastructure in wholesale markets, district procurement centres, support to neera processing projects etc.

B) CENTRALLY SPONSORED SCHEME

1)	Umbrella Scheme on Krishi Unnathi Yojana and other CSS (60% State Share)		
a	Sub Mission on Agriculture Extension (SMAE)	2401-00-109-64 – General	1335.00
		2401-00-789-97 (01) – SCP	150.00
		2401-00-796-96 (01) – TSP	15.00
b	Other CSS (40% CSS) – State Share	2401-00-109-65 – General	5235.00
		2401-00-789-86 – SCP	588.00
		2401-00-796-87 – TSP	59.00
c	Mission on Integrated Development of Horticulture (MIDH)	2401-00-789-89 - SCP	400.00
		2401-00-796-90 - TSP	40.00
d	Rashtriya Krishi Vikas Yojana (RKVY)	2401-109-61-01 - General	5372.00
		2401-789-84-01 - SCP	898.00
		2401-796-85-01 - TSP	158.00
	Total		14250.00

As part of rationalisation of CSS, the number of schemes were reduced and a new concept of umbrella schemes were introduced during 2016-17 incorporating the schemes suitable to the state and having the flexibility to implement and design sub-schemes. The central budget will provide allocation under each umbrella scheme based on transparent criteria. In order to facilitate scheme implementation, all the other CSS on Agriculture are also included in the umbrella scheme.

Krishi Unnathi Yojana is the umbrella scheme under Agriculture with 60% central share and 40% state share. The central share of ongoing centrally sponsored schemes viz. National Food Security Mission (NFSM), Mission on Integrated Development of Horticulture (MIDH), National Mission for Sustainable Agriculture (NMSA), National Mission on Oil seeds and Oil palm (NMOOP), National Mission on Agriculture Extension and Technology Management (NMAET), Rashtriya Krishi Vikas Yojana (RKVY), Paramparagath Krishi Vikas Yojana (PKVY), Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), National project on Agro Forestry, Sub Mission on Plant Protection and Plant Quarantine, Information Technology, Integrated scheme on Agriculture Marketing and GOI supported Crop Insurance scheme are included under the scheme. An amount of Rs.14250.00 lakh is provided as anticipated central share of the scheme of which an amount of Rs.1500.00 lakh is provided as central share of the scheme - Sub Mission on Agriculture Extension (SMAE) under National Mission on Agriculture Extension and Technology Management (NMAET), Rs.6428.00 lakh as

central share of RKVY, Rs.440.00 lakh as central share for Mission on Integrated Development of Horticulture and Rs.5882.00 lakh as central share for other CSS. The central share for any other new centrally sponsored schemes approved during 2020-21 will also be met from the outlay. The outlay under RKVY will be utilised for infrastructure development activities for rice development, vegetable development, promotion of organic farming, strengthening of market infrastructure in wholesale markets, district procurement centres, support to neera processing projects etc. The state share of the scheme is included in the state plan under the subsector Crop Husbandry.

2)	National Biogas Development Project – 100% CSS	2810-00-105-99	Rs. 400.00 lakhs
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Under the scheme, assistance will be provided for setting up of biogas plants of the normal type as well as sanitary toilet linked plants and for conduct of various training courses for masons, beneficiaries and other turnkey agents. The subsidy rate is Rs.12000/plant for general category and Rs.13000/plant for SC/ST category. The outlay is for construction of biogas plants, cost of training and for other operational costs. The required amount will be provided based on the approval of the project by Government of India. An amount of Rs.400.00 lakh is provided as token provision for the anticipated central assistance during 2020-21.