ANNEX-A

**SECTORAL PROGRAMME- DETAILS OF SCHEMES (STATE PLAN)**

1. **AGRICULTURE AND ALLIED SECTORS**
   1. **AGRICULTURE**

**A. Agriculture Research and Education**

The support to Kerala Agricultural University under Agricultural Research and Education includes support to colleges, research stations, extension and farms attached to the institutions.

**Kerala Agricultural University**

**(Outlay: ₹7114.00 lakh)**

Kerala Agricultural University is the major institution in Kerala providing human resource, skills and technology required for the development of agriculture and its allied sectors by integrating education, research and extension. The research, extension and education in Agriculture, Forestry and Agricultural engineering are carried out through a network of 7 colleges, 6 Regional Agricultural Stations, 18 Research stations, One Central Training Institute, 7 Krishi Vigyan Kendras and a Communication Centre.

During 2021-22, an amount of ₹7114.00 lakh is provided to KAU.

The component wise outlay for 2021-22 is shown below.

|  |  |  |
| --- | --- | --- |
| **Sl.No** | **Components** | **Amount**  **(₹ in lakh)** |
| 1 | Academics | 950.00 |
| 2 | Research | 4000.00 |
| 3 | Infrastructure | 1000.00 |
| 4 | Extension | 980.00 |
| 5 | E-governance &Administration | 140.00 |
| 6 | Students welfare | 44.00 |
|  | **Total** | **7114.00** |

The Outlay is for strengthening the existing activities such as improving educational facilities in the colleges for U.G and P.G programmes, student’s welfare, development of library, supporting research projects in the campuses and regional stations, infrastructure development and extension activities in the university.

Component wise details are given below.

**1) Academics**

Kerala Agricultural University is the only institution rendering agricultural education and thus contributing to the major work force of the agriculture in the state. There are three faculties viz. Agriculture, Forestry and Agricultural Engineering.

Under academics, an amount of ₹950.00 lakh is set apart for assistance to Rural Agricultural Work Experience (RAWE) programme of final year graduate students, Experiential Learning Programme & Strengthening of UG and PG programme, financial support & research grant for M.Sc & Ph.D students, strengthening Academic Directorate & Examination Wing, strengthening library and Information system and support for conduct of external examinations.

**2) Research**

An amount of ₹4000.00 lakh is provided under the Research component of KAU for the year 2021-22 for undertaking research projects. While the University has suggested certain topics as broad priority areas, the research projects to be taken up by scientists or as network projects will be decided through a field interface mechanism. In view of the observations of Finance Department during the Special Working Group Meeting, project selection and evaluation based on the recommendations of the Project Selection Committee (PSC) comprising of representatives of Department of Agriculture, Kerala State Planning Board and KAU introduced in 2020-21 will be continued in 2021-22 also. The constitution of the PSC will be done by the Vice Chancellor, KAU in consultation with the Agricultural Production Commissioner, Government of Kerala and will include experts from relevant fields. A suitable monitoring system to monitor and report the progress of plan schemes may be developed by the Directorate of Research.

1. **Continuing Projects**

The ongoing projects included under the State Plan projects will be strictly evaluated by the Project Selection Committee (PSC) as mentioned above. The Principal Investigators of the projects shall present the progress of the ongoing projects before the PSC. The PSC shall evaluate the performance of the projects and recommend for continuation and modification. The PSC will be convened during May 2021 and list of projects to be continued will be finalized. The funds for continuation of the projects shall be met from the amount of ₹2250.00 lakh earmarked for continuing the research projects. The amount to be earmarked for individual projects during 2021-22 will be allocated after the performance evaluation based on the evaluation criteria.

**b) New Projects**

An amount of ₹1000.00 lakh is earmarked for undertaking new research projects. The new projects to be funded under the State Plan projects within the broad areas indicated will be presented before the Project Selection Committee (PSC) as mentioned earlier. Within the total corpus, projects will compete among themselves for funding. The Committee will evaluate and recommend the new projects with allocation to be considered for sanction during the year 2021-22. PSC will be convened during May 2021 and list of projects will be finalized. The project period will not be more than 2-3 years starting 2021-22. The University will issue fresh notification calling for research proposals after the Project Selection Committee is constituted.

The funds for the selected new projects will be met from the amount of ₹1000.00 lakh set apart for undertaking new research projects in the following areas during 2021-22.

|  |  |
| --- | --- |
| **Sl.No** | **Thrust Areas** |
| 1 | Crop management under climate change situations: Climate smart agricultural practices for various crops of Kerala and vulnerability mapping of state, Development of Breeding Techniques: Drought and Stress Tolerance, Biotic and Abiotic Stress |
| 2 | Monitoring the flora/fauna in the crop land system of the state and developing managing protocol |
| 3 | Network Project on Fruit Development including Development of Tropical fruit Planting material propagation protocols |
| 4 | Bio-formulations and microbes for plant protection, Bio Molecules, Microbial Studies |
| 5 | Protected cultivation, precision farming, Hydroponics, Establishment of High tech demonstration units |
| 6 | Augmenting small farm mechanization in Kerala along with IoT interventions |
| 7 | Application of modern tools for promotion of agriculture |
| 8 | Productivity enhancement ,processing & value addition |
| 9 | Integrated Farming Systems Development |
| 10 | Development of Cold Chains/Value Chains in Fruits |
| 12 | Developing traceability system in planting material supply, Research in Pesticide Residue Analysis |
| 12 | Evaluation of agro techniques for field adaptation |
| 13 | Development of High Yielding short duration rice variety through marker assisted breeding |

**c) AICRP Projects (25% State Share)**

An amount of ₹584.00 lakh is set apart as 25% State share of the AICRP and AINP projects for 2021-22. A separate proposal for support of state share to be prepared. An amount of ₹166 lakh is earmarked for the Project “Centre of Advanced Agricultural Science and Technology-Knowledge and Skill Development in Coconut based secondary Agriculture” as state share.

**3) Infrastructure Development**

During 2021-22, an amount of ₹1000.00 lakh is set apart for the Infrastructure Development of the University. The assistance is for maintenance of existing building, electrical work, irrigation and drinking water facility, compound wall and improvements of farm roads.

Out of the total outlay, ₹690.00 lakh is for undertaking new works in the different institutions as given below.

**A.NEW PROJECTS**

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **Components** | **Amount**  (₹**in lakh)** |
| **I** | **RARS, Ambalavayal** |  |
|  | Construction of Academic Block | 600.00 |
| **II** | **College of Agriculture, Padannakkad** |  |
|  | Construction of Ladies Hostel Annex | 80.00 |
| **III** | **KCAET, Tavanur** |  |
|  | Renovation of Kelappaji House | 10.00 |
|  | **Total** | **690.00** |

An amount of ₹310.00 lakh is set apart for continuing projects as listed below.

**B. CONTINUING PROJECTS**

|  |  |  |
| --- | --- | --- |
| **Sl.no.** | **Components** | **Amount**  (**₹in lakh)** |
| **I** | **KAU Head Quarters, Vellanikkara** |  |
| 1 | Additional work in C. Achutha Menon Memorial Research Management Administrative Block at M.C. Vellanikkara | 50.00 |
| 2 | Construction of Compound wall at KAU Head Quarters Vellanikkara | 25.00 |
| 3 | Electrical maintenance & re-wiring at Ground Floor of Pampa Hostel, M.C, Vellanikkara | 10.00 |
| **II** | **College of Agriculture, Vellayani** |  |
| 4 | Construction of Men’s Hostel(Balance work) at CoA,Vellayani | 50.00 |
| 5 | Providing fencing to the Lake side at CoA, Vellayani | 15.00 |
| 6 | Maintenance of Old Academic Block | 20.00 |
| **III** | **KCAET, Tavanur** |  |
| 7 | Construction of compound wall/fencing river side | 10.00 |
| **IV** | **RARS, Pattambi** |  |
| 8 | Construction of Ladies Hostel | 40.00 |
| **V** | **RARS, Nileswaram** |  |
| 9 | Repair and renovation of office (Phase II) at RARS, Nileswaram | 10.00 |
| **VI** | **RARS, Ambalavayal** |  |
| 10 | Construction of Boys Hostel | 80.00 |
|  | **Total** | **310.00** |

**4) Extension**

In order to strengthen the Extension activities, an amount of ₹980.00 lakh is provided during 2021-22 for the following activities. An amount of ₹456.00 lakh is set apart for the ongoing projects and ₹ 524.00 lakh for new projects in respective areas as given below.

1. **NEW PROJECTS**

|  |  |  |
| --- | --- | --- |
| **Sl.No** | **Sub components** | **Amount**  **(₹ in lakh)** |
| **1** | Special drive for supporting Subhiksha Keralam Programme | 111.00 |
| **2** | Extension interventions to mainstream climate resilience in Agricultural Development | 25.00 |
| **3** | Capacity building of farmers, farm women and rural youth for sustainable and profitable agricultural production during the pandemic | 40.68 |
| **4** | Promoting eco- friendly agricultural practices for improving food and nutritional security (organic and GAP) | 37.20 |
| **5** | Promoting customised crop production practices for agro- ecological units in Agro- Ecological Zones | 16.00 |
| **6** | Providing diagnostic services and advisories on soil nutrition and plant protection | 75.68 |
| **7** | Extension support for value chain management through common facility centres (value chain and extension support together) | 82.20 |
| **8** | Development of ICT based solutions for field problems of farmers | 36.28 |
| **9** | Facilitating and enhancing production of quality bio inputs in KAU centres | 22.79 |
| **10** | Extension interventions to promote Integrated Farming Systems approach in homesteads | 9.40 |
| **11** | Dissemination and promotion of KAU technologies | 30.17 |
| **12** | Extension support to empower women farmers of Kerala | 37.60 |
|  | **Total** | **524.00** |

**b) CONTINUING PROJECTS**

|  |  |  |
| --- | --- | --- |
| **Sl.No** | **Scheme/Component** | **Amount**  **₹ in lakh** |
| 1 | Strengthening the extension interface of Kerala Agricultural University through different transfer of technology initiatives and advisory services | 146.00 |
| 2 | Human Resource Development in Agriculture | 38.00 |
| 3 | Participatory development initiatives – support to  LSGI &Government Missions | 41.00 |
| 4 | Entrepreneurship development programme | 26.00 |
| 5 | Input supply & services for revival of Kerala’s agriculture | 41.00 |
| 6 | Enhancement of livelihood options for women and other vulnerable sections of society | 29.00 |
| 7 | Developing content and applications for cyber-extension | 24.00 |
| 8 | Extension support for reviving agriculture in different agro climatic zones | 59.00 |
| 9 | Establishment of Farm Business School, Entrepreneurship Facilitation Programme and Technology Business incubators | 18.00 |
| 10 | Capacity building for extension personnel of development agencies | 34.00 |
|  | **Total** | **456.00** |

**5**. **E-Governance**

An amount of ₹140.00 lakh is provided for the implementation of total e-governance solution in KAU during 2021-22. The University will develop a comprehensive e-governance Plan approved by the University, under the supervision of a state level technical agency for obtaining necessary sanction for this project in the Working Group, without which the administrative sanction will not be given. The amount is provided for strengthening e-governance and ICT facilities and strengthening of planning activities of KAU.

**6. Students welfare**

An amount of ₹44.00 lakh is provided for the implementation of students welfare programmes in KAU. The amount is provided for strengthening of the Directorate of students welfare, skill development, arts and sports competitions and other students welfare activities. All salary expenses of permanent staffs should be met from Non Plan and EAP’s of the University and no post creation is allowed under plan fund. Institutional overheads are not included in State Plan provision of KAU in the budget. Electricity, water charges etc. which are non-plan items are not included under the plan provision. The plan fund will be released as per the administrative sanction issued from Government similar to the system followed for other Universities.

**B. CROP HUSBANDRY**

The allocation for the year 2021-22 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 implementation strategy of agricultural projects seeks the active involvement of cooperative structure especially PACS. The outlay provided under Crop Husbandry sector is ₹553.25 crore for the schemes suggested for implementation during 2021-22. 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.

Subhiksha Keralam Programme (SKP) launched in 2020-21 following the COVID-19 pandemic for attaining self sufficiency in food production, especially rice, vegetables, banana, tubers and pulses has been able to generate gainful employment opportunities and also helped in enhancing area, production and productivity on a sustainable basis. This will be continued in integration with the stakeholder departments and co-operative structure. Fallow land cultivation, cropping system management in the homestead for better income generation and promotion of Integrated Farming System are the components included under the programme. The Farmer Producer Companies will be actively involved in the SKP.

Kerala Farm- Fresh Base price for fruits and vegetables (Kerala Farm - Fresh Pazham-Pachakkari Base price), a new scheme to provide financial support to farmers for 16 items of vegetables and fruits in the event of decline in prices will be introduced in the year 2021-22. In the event of fall in market price below the benchmark price fixed for each item, the difference in price will be compensated as agriculture incentive price to the farmers.

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. During the year 2021-22 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 ₹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 AEUs will be prepared by the Department and approved by working group.

**Crop Development**

1. **Food Crop Production**

**(Outlay:**₹**19625.00 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 Subhiksha Keralam Project and KCC scheme implemented through PACS/RRBs may be ensured.

An amount of ₹19625.00 lakh is provided for the food crop production schemes during 2021-22. It is envisaged that at least 33 percent of beneficiaries of the project will be women.

Considering the relevance of food security and the need to attain self-sufficiency in food production especially during the lockdown consequent to Covid-19 pandemic an integrated project of Subhiksha Keralam was launched in the state facilitating farming of food crops like rice, vegetables, tubers and banana in 2020-21. This programme will be continued in 2021-22 in integration with stakeholder departments. Fallow land cultivation will be promoted for paddy, vegetables, banana, pulses and tuber crops. Establishment of Integrated Farming System Units will also be supported.

1. **Rice Development**

**(Outlay: ₹11614.00 lakh)**

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 seven rice growing agro ecological units with natural endowments for augmenting rice productivity.

An outlay of ₹11614.00 lakh is provided for rice development during 2021-22.

An amount of ₹300.00 lakh is earmarked for cultivation of paddy in the fallow lands under Subhiksha Keralam. Rice fallows will be brought under sustainable cultivation with the active involvement and convergence of Mahatma Gandhi National Rural Employment Guarantee Scheme (MNREGS), Kudumbasree, PACS, FPOs and the LSGD institutions. The implementation will be as per the guidelines issued as part of the Subhiksha Keralam programme.

Under group farming an amount of ₹6473.00 lakh is provided. An amount of ₹6073.00 lakh is set apart for input assistance under sustainable rice development component @ ₹5500/- ha for covering 110418 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 ₹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. An amount of ₹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 ₹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, raising double crop in single cropped areas, upland paddy and specialty rice cultivation will be supported with an allocation of ₹155.00 lakh. 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 ₹55.00 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 ₹50.00 lakh for raising double crop in single cropped paddy land and ₹50.00 lakh for promotion of specialty rice is provided. Out of this ₹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 ₹250.00 lakh is provided for this purpose. This includes assistance to RSGP farmers for certified seed production and state seed farms for multiplication of foundation seeds, and grant for KSSDA (Kerala State Seed Development Authority) @ ₹2000 per tonne of certified seeds procured. The assistance will be available only for transplanted crop. A list of RSGs along with the output will be maintained as a database by the department. Inorder to ensure timely supply of quality certified seeds, the options for online certification mechanism for seeds shall be explored.

Considering the pivotal role of paddy land conservation in environment protection, an amount of ₹4000.00 lakh is set apart for Royalty to the owners of cultivable paddy land @ ₹2000/ ha for conserving the cultivable paddy lands. An owner will be eligible to avail this incentive only once and no repeated distribution of incentive is allowed.

An amount of ₹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 ₹136.00 lakh is provided for traditional rice growing tracts of Pokkali, Kari lands and Kaippad. 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 ₹50.00 lakh is set apart for operationalization of paddy and wetland Act 2008.

An amount of ₹50.00 lakh is set apart for carrying out immediate works, repair of machinery and such other requirements in the context of a natural calamity.

1. **Development and promotion of Location specific crops**

**(Outlay: ₹ 323.00 lakh)**

In order to promote the cultivation of minor millets, oil seed crops like groundnut 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 ₹25.00 lakh is earmarked for Attappady Tribal Village programme to support traditional crops from production to marketing. For cultivation of traditional millets in Idukki district an amount of ₹ 6.00 lakh is provided. Promotion of the traditional practice of simultaneous raising of millets and pulses is also included. To support cultivation of vegetables, tubers etc. carried out by tribal population of Athirappally, an amount of ₹ 25.00 lakh is set apart as project based assistance for Athirappally Tribal Valley Agriculture Project.

An amount of ₹170.00 lakh is set apart for area expansion of sugarcane, sesamum and groundnut. A new component for area expansion of Tirur betel-vine, vettiver and garlic is included for which an amount of ₹40.00 lakh is set apart. A special programme for Marayur sugarcane on-farm processing and value addition with special emphasis to GI product ‘Marayursarkara’ for an amount of ₹7.00 lakh is also included.

An amount of ₹50.00 lakh is earmarked for Subhiksha Keralam programme for area expansion of millets through fallow land cultivation.

An amount of ₹323.00 lakh is set apart for the scheme.

1. **Vegetable Development**

**(Outlay: ₹ 7445.00 lakh)**

During 2021-22, the Vegetable Development Programme will be implemented in the state as part of Subhiksha Keralam Programme, with the objective to promote vegetable production in the state in a safe-to-eat manner and to attain self-sufficiency in the sector. The scheme 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, VFPCK, 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 under the scheme will be streamlined in the following lines as to improve efficiency at various levels.

* 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 VFPCK 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 PSU’s, 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 e-NAM 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 Keralam 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, VFPCK, 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 VFPCK, clusters, BLFO’s under VDP, will function in an integrated manner under the coordination of VFPCK. 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 co-ordinating the vegetable development activities in respective areas.

The components include promotion of homestead vegetable cultivation and cultivation through institutions, 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.

During 2021-22, an amount of ₹ 7445.00 lakh is set apart for vegetable development. Out of this an amount of ₹500.00 lakh is earmarked for implementation of cold chain supported vegetable development programmes under Subhiksha Keralam as per the existing guidelines with the convergence of all stake holder departments and agencies.

An amount of ₹725.00 lakh will be for the promotion of vegetable cultivation through VFPCK excluding crop insurance, natural calamity and infrastructural components. VFPCK in addition to carrying out the general functions 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 through farmer Interest Groups, Farmer Producer Organisations and Clusters under GAP/PGS and other vegetable production activities including cool season vegetables. Out of this an amount of ₹15.00 lakh is set apart to soil fertility improvement through VFPCK. Duplication of same activities in various schemes implemented by VFPCK will be avoided. A comprehensive proposal for vegetable and fruit development covering production, processing and marketing within the fund allocated under various schemes to VFPCK shall be prepared and submitted for approval.

Out of ₹1800.00 lakh earmarked for homestead cultivation ₹1100.00 lakh is for “Onathinu oru muram pachakkari*”* programme towards supply of seedkits and ₹700.00 lakh for 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. Cool season vegetables will be given thrust.

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

The cluster based development is the key component in the vegetable development initiative of the state. An amount of ₹2725.00 lakh is set apart for cluster development in districts out of which ₹1350.00 lakh is as assistance to existing clusters and ₹1100.00 lakh is for assistance to staggered clusters. An amount of ₹100.00 lakh is for pumpsets and ₹30.00 lakh for plant protection equipments. Amount of ₹100.00 lakh is earmarked as special assistance for cool season vegetable cultivation in Idukki district. Out of the amount earmarked for cluster development in districts ₹45.00 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 ₹20.00 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 ₹5.00 lakh will be selected as super clusters and assistance will be provided on project mode. An amount of ₹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 ₹850.00 lakh is earmarked for promotion of urban clusters. This includes assistance for vegetable cultivation in urban areas in terraces as well as homesteads 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 ₹5.00 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. ecoshop, on-farm production of pseudomonas, trichoderma etc limited to maximum of ₹10.00lakh/BLFO as one time assistance will be provided on project mode. Expenses towards honorarium/remuneration/wages other than field labour charges will not be met from this. An amount of ₹10.00 lakh is set apart for this during 2021-22. There should not be any duplication of Block level federated organizations of the department and markets established by VFPCK at ward level in panchayats.

Nurseries will be established in identified blocks through clusters. An amount of ₹5.00 lakh is set apart for establishing small nurseries in gramapanchayats/ corporation/ selected municipalities for the production of sufficient quality seedlings. Certification of these nurseries by an approved agency should be assured to ensure quality of seeds and seedlings produced.

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 ₹19.00 lakh is earmarked for this.

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

An amount of ₹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.

An amount of ₹50.00 lakh is set apart for technical and contractual appointments.

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

1. **Promotion of pulses & tubers**

**(Outlay: ₹243.00 lakh)**

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 ₹60.00 lakh is provided. Focus will be given to Onattukara region. An amount of ₹90.00 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 ₹10.00 lakh is for seed multiplication in tribal areas. Promotion of tubers will be with technical collaboration of Central Tuber Crops Research Institute and KAU. An amount of ₹243.00 lakh is earmarked for this scheme. Out of this ₹93.00 lakh is set apart for promotion of tubers and pulses under Subhikisha Keralam programme.

The component wise breakup of the scheme is shown below:

|  |  |  |
| --- | --- | --- |
| **Sl.**  **No** | **Components** | **Amount**  **(₹in lakh)** |
| **I** | **Rice Development** |  |
| 1 | Group farming | 6473.00 |
| 2 | Area expansion | 155.00 |
| 3 | Registered Seed Growers Programme/Seed village | 250.00 |
| 4 | Royalty to owners of cultivable paddy land | 4000.00 |
| 5 | Operation Double Kole | 200.00 |
| 6 | Special assistance for Pokkali, Kari, Kaippad cultivation | 136.00 |
| 7 | Operationalisation of Paddy and Wetland Act 2008 | 50.00 |
| 8 | Assistance for immediate repair and maintenance of damaged bunds – de-silting, repair of machineries etc during contingencies | 50.00 |
| 9 | Subhiksha Keralam- Additional allocation | 300.00 |
|  | **Sub total** | **11614.00** |
| **II** | **Development of Location specific crops** |  |
| 1 | Attappady Tribal Village Programme | 25.00 |
| 2 | Assistance for cultivation of traditional millets in Idukki | 6.00 |
| 3 | Athirappally Tribal Valley Agriculture Project | 25.00 |
| 4 | Area expansion |  |
| a | Sugarcane | 70.00 |
| b | Sesamum | 60.00 |
| c | Groundnut | 40.00 |
| d | Tirur betel-vine, Vettiver in Malappuram district and garlic in Kanthalloor and Vattavada of Idukki district | 40.00 |
| 5 | Special programme for Marayoor sugarcane-on farm processing and value addition with special emphasis to GI products | 7.00 |
|  | Subhiksha Keralam- Additional Allocation | 50.00 |
|  | **Sub total** | **323.00** |
| **III** | **Vegetable Development** |  |
| 1 | Homestead vegetable cultivation including Onam vegetable cultivation (Onathinu oru muram Pachakkari) | 1800.00 |
| 2 | Vegetable cultivation through institutions | 200.00 |
| 3 | Development of District Clusters | 2725.00 |
| 4 | Block level federated organizations (Block Sangamaithries) | 10.00 |
| 5 | Additional Support to best performing ‘A’ Graded Clusters | 5.00 |
| 6 | Development support to graded clusters | 20.00 |
| 7 | Technical support and contractual appointments | 50.00 |
| 8 | Establishment of nurseries | 5.00 |
| 9 | Rain shelter cultivation | 500.00 |
| 10 | Promotion of zero energy cool chamber | 0.90 |
| 11 | Community drip irrigation | 19.00 |
| 12 | Promotion of urban clusters, marketing and input centres | 850.00 |
| 13 | Digital documentation | 9.0 |
| 14 | Operational support | 1.10 |
| 15 | Pesticide Residue Analysis in Vegetables | 25.00 |
| 16. | Support to VFPCK | 725.00 |
| 17 | Subhiksha Keralam- Additional Allocation | 500.00 |
|  | **Sub Total** | **7445.00** |
| IV | Promotion of tubers / pulses | **243.00** |
|  | **GRAND TOTAL** | **19625.00** |

1. **Coconut Development**

**(Outlay: ₹7547.00 lakh)**

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 2021-22, an amount of ₹4856.00 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 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 ₹50.00 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 ₹50.00 lakh is earmarked.

In order to continue with the activities of Coconut Mission, for Rehabilitation and rejuvenation of coconut palms in Kerala an amount of ₹2591.00 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 including seed nut procurement, nursery charges and production of coconut seedlings will be carried out.

The Kerasamrudhi project for the production and distribution of quality coconut seedlings will be converged with the production of coconut seedlings under the Coconut Mission. This will be implemented with the support of FPOs and experienced PACS, KAU, CPCRI and CDB.

The second year grant for Rehabilitation and Rejuvenation of Coconut palms in the Aralam Farm and converting it into a coconut seed farm is also included under Coconut Mission.

The component wise break up is given below

|  |  |  |
| --- | --- | --- |
| **Sl.**  **No.** | **Components** | **Amount**  **(₹in lakh)** |
| 1 | Keragramam | 4856.00 |
| 2 | Development of Model HYV Dwarf/ Semi-Tall Coconut Farms | 50.00 |
| 3 | Pest & disease management in coconut gardens on a campaign basis | 50.00 |
| 4 | Rehabilitation and rejuvenation of coconut palms in Kerala as part of Coconut Mission- Coconut Council (3rd year activities) | 2591.00 |
|  | **Total** | **7547.00** |

1. **Development of Spices**

**(Outlay: ₹1010.00 lakh)**

The major components included under the scheme are establishment of decentralised pepper nurseries, revitalization of existing pepper gardens, assistance for area expansion of ginger, turmeric, nutmeg and clove and integrated pepper development in Idukki.

The component for Rehabilitation of nutmeg in flood affected areas will be continued for which an amount of ₹100.00 lakh is set apart for providing assistance for land preparation, planting materials, other inputs and irrigation. Out of this an amount of ₹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 included under the programme for which an amount of ₹54.00 lakh is set apart. Out of this an amount of ₹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 ₹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 ₹500.00 lakh is set apart.

The component wise break up is given below

|  |  |  |
| --- | --- | --- |
| **Sl.**  **No.** | **Components** | **Amount**  **(₹ 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 | 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** |

1. **Hi - Tech Agriculture**

**(Outlay: ₹200.00 lakh)**

During the year 2021-22, an amount of ₹190.00 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 on the concept of Per Drop More Crop. 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 ₹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**  **(₹ in lakh)** |
| 1 | Micro Irrigation/Fertigation/Open Precision Farming- Additional Subsidy | 190.00 |
| 2 | Human resource group for technology support and capacity building through SAMETI | 10.00 |
|  | **Total** | **200.00** |

1. **Development of Fruits, Flowers and Medicinal plants**

**(Outlay: ₹2515.00 lakh)**

For the development of fruits, flowers and medicinal plants, an amount of ₹2515.00 lakh is set apart during 2021-22. It is envisaged that 25 percent of beneficiaries of the project will be women.

A massive programme for fruit development introduced in 2020-21 in the state with the objective of popularizing cultivation of fruit crops will be continued. 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 Agriculture Development and Farmers Welfare with the support of Kerala Agricultural University, VFPCK and Horticorp. The fruit development programme will be phased out for a period of 10 years.

During 2021-22 an amount of ₹2190.00 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 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 Agriculture Development and Farmers Welfare. VFPCK, KAU, KVKs, PACS, FPOs shall be integrated into the programme specifying the roles and targets. 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. No separate manpower and vehicle will be provided under the programme. An amount of ₹ 500.00 lakh is set apart for cold chain development in banana and other tropical fruits. An amount of ₹2.00 lakh is set apart for DPR preparation by an approved agency.

The project will be implemented in all districts by the department of Agriculture in coordination with VFPCK, FPOs, LSGDs and good working PACS. Fruit village in Wayanad and Muthalamada in Palakkad district will form part of this programme.

An amount of ₹200.00 lakh is earmarked for area expansion of indigenous and exotic fruits through accredited and experienced Farmer Producer Companies.

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

An amount of ₹100.00 lakh is set apart for fallow land cultivation of banana under Subhiksha Keralam programme.

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 ₹100.00 lakh is earmarked for this programme, out of which ₹10.00 lakh is for floriculture development in Idukki District. The funds from RKVY and SHM will be integrated with the project.

The project for promotion of medicinal plants will be implemented in the state. An amount of ₹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.

Procurement, trading and processing of jackfruit through VFPCK is included for which an amount of ₹75.00 lakh is set apart. Out of this an amount of ₹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**  **(₹ in lakh)** |
| 1 | Development of Fruits | 2190.00 |
| 2 | Development of Flowers | 100.00 |
| 3 | Development of Medicinal plants | 50.00 |
| 4 | Procurement , trading and processing of jackfruit through VFPCK | 75.00 |
| 5 | Subhiksha Keralam | 100.00 |
|  | **Total** | **2515.00** |

**6.Arecanut Package**

**(Outlay: ₹100.00 lakh)**

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 ₹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 ₹5.00 lakh and ₹20.00 lakh respectively are earmarked for development of arecanut in Idukki and Wayanad districts.

**SOIL AND PLANT HEALTH MANAGEMENT**

**7.Soil and Root Health Management & Productivity Improvement**

**(Outlay: ₹3050.00 lakh)**

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 ₹3000.00 lakh is set apart for supply of soil ameliorants to all districts. Supply of secondary and micro nutrient based on soil test data and inputs for green manure application will be supported for which ₹25.00 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)](http://link.springer.com/chapter/10.1007%2F978-94-011-3176-6_8), application of Phosphate Solubilizing Bacteria (PSB), Organic manure application, [Plant Growth-Promoting Rhizobacteria (PGPR)](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1415-47572012000600020) etc. will be promoted. Support for on farm production and application of VAM in selected Krishibhavans will also be provided. An amount of ₹25.00 lakh is earmarked for this purpose.

The components of the scheme are shown below:

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **Component** | **Amount**  **(₹in lakh)** |
| 1 | Soil ameliorants in selected districts | 3000.00 |
| 2. | Support for secondary and micro nutrients and green manure | 25.00 |
| 3 | Root health management | 25.00 |
|  | **Total** | **3050.00** |

**8.Crop Health Management**

**(Outlay: ₹770.00 lakh)**

Crop health is an important element of sustainable agriculture and hence strategies for pest management has to be identified scientifically. 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 ₹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 ₹100.00 lakh is provided. Establishment of 5 new Plant Health Clinics with an outlay of ₹25.00 lakh and strengthening of existing Plant Health Clinics for ₹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. The officers enrolled for Post Graduate Diploma in Plant health Management course will take a lead role in pest surveillance project and monthly technology advice preparation with the ATMA team.

An amount of ₹25.00 lakh is set apart for rodent control and ₹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 ₹25.00 lakh is set apart for development of these nine stations and setting up of new biocontrol labs.

An amount of ₹5.00 lakh is set apart for operational expenses of KCPM. This includes amount for training in existing and new plant health clinics. The database on clinics as well as surveillance data of KCPM will be linked with the farmer registration portal.

ICT based pest surveillance system through IIITMK will be carried out in coordination with KCPM for which ₹15.00 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**  **(₹ 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 | 5.00 |
| 4 | Development of nine parasite breeding stations and new bio control labs | 25.00 |
| 5 | ICT based pest surveillance system through IIITMK | 15.00 |
| 6 | Honorarium to Field Assistants (FAs and DPHMs) | 500.00 |
|  | **Total** | **770.00** |

**9.Organic Farming and Good Agricultural Practices**

**(Outlay: ₹240.00 lakh)**

During 2021-22, 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 VFPCK, Krishibhavans and other stake holders like FPOs.

Organic farming of fruits and vegetables through VFPCK 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.

An amount of ₹50.00 lakh is set apart for assistance to formation of organic clusters under proper registration and certification.

Project based assistance will be provided for on farm production of bioinputs for which an amount of ₹50.00 lakh is set apart. Certification of the bioinputs produced will be ensured for quality control.

For marketing of organic farming products produced in clusters and GAP certified produce an amount of ₹25.00 lakh is set apart as assistance for ecoshops for marketing which include establishment of 15 new ecoshops including grading, packing and labeling of organic and safe to eat products and strengthening of existing ecoshops. 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 VFPCK. An amount of ₹75.00 lakh is set apart for organic farming of fruits and vegetables through SHGs and certification through VFPCK. From this, an amount of ₹10.00 lakh will be utilized for organic farming promotion in Idukki District. It is envisaged that 10 percent of beneficiaries of the project will be women.

An amount of ₹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**  **(₹ in lakh)** |
| 1 | Formation of New organic farming clusters | 50.00 |
| 2 | On farm production of bio-inputs | 50.00 |
| 3 | Assistance for ecoshops for marketing | 25.00 |
| 4 | Organic farming of fruits and vegetables through SHGs and certification – VFPCK | 75.00 |
| 5 | Support for implementation | 40.00 |
|  | **Total** | **240.00** |

**INPUT AND SERVICE DELIVERY**

**10.Production and Distribution of Quality Planting Materials**

**(Outlay: ₹ 1295.00 lakh)**

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

The 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. 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 ₹1295.00 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 ₹1030.00 lakh is set apart for production of planting materials, out of which ₹650.00 lakh is for routine planting material production including rooted pepper cutting. Out of this ₹100.00 lakh each will be utilized for planting material production in Idukki & Wayanad District. An amount of ₹200.00 lakh is set apart for seed production programme in department farms and ₹80.00 lakh for purchase of newly evolved nucleus planting materials and maintenance of existing and establishment of new progeny orchards. Department farm will develop a business plan and also barcoding of planting material for traceability. Branding of farm products will also be undertaken. This will be followed by VFPCK also. Seed production of indigenous varieties of different crops will be undertaken in the farms. The Kerasamrudhi activities will be integrated with the Coconut Mission activities.

An amount of ₹100.00 lakh is set apart for the production of fruits and vegetables grafts and seedlings through VFPCK. The Director of Agriculture will sign an MOU with VFPCK with respect to the quantity and quality of planting material to be produced by VFPCK specifying the timeline of implementation of activities before release of funds. There will be State Level Co-ordinating Committee at the level of Krishi Director & District Level Co-ordinating Committee at the level of Principal Agriculture Officer for Co-ordinating the activities & monitoring the scheme

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. An amount of ₹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 ₹200.00 lakh is set apart for mechanization and infrastructure development in farms.

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

An amount of ₹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.

The component wise breakup of the scheme is shown below.

|  |  |  |
| --- | --- | --- |
| **Sl.**  **No.** | **Components** | **Amount**  **(₹ in lakh)** |
| 1 | Routine Planting material production including rooted pepper cuttings | 650.00 |
| 2 | Maintenance of progeny orchards & establishing new progeny orchards | 80.00 |
| 3 | Production of planting material of fruits and vegetables through VFPCK | 100.00 |
| 4 | Seed production programme in Department Farms | 200.00 |
| 5 | Operation and technology support to demonstration units for HTF units and Integrated Farming System in Department farms | 50.00 |
| 6 | Manpower support to the TC labs | 15.00 |
| 7 | Mechanisation & infrastructure development of farms | 200.00 |
|  | **TOTAL** | **1295.00** |

**11. Modernisation of Departmental Laboratories**

**(Outlay: ₹ 420.00 lakh)**

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.

Soil analysis will be done and 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, VFPCK 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 ₹420.00 lakh will be utilized for strengthening of laboratories, functioning of Quality Control Enforcement Wing and Accreditation of laboratories and CIB and RC registration of biocontrol agents produced at SBCL Mannuthy.

An amount of ₹270.00 lakh is earmarked for strengthening of laboratories. This includes ₹100.00 lakh set apart for soil analysis, purchase of chemicals, glasswares and equipments and maintenance of the laboratories. For strengthening of Biotechnology and Model Floriculture Centre (BMFC) an amount of ₹75.00 lakh is set apart. The BMFC will be strengthened for the production of 15 lakh 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 ₹75.00 lakh is set apart for strengthening State Bio Control Laboratory, Mannuthy, Thrissur. Out of this ₹10.00 lakh is for functioning of Biofertiliser and Organic Manure Quality Control Lab at Pattambi. An amount of ₹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 ₹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 ₹25.00 lakh is earmarked.

For meeting expenses connected with CIB and RC registration of biocontrol agents produced at SBCL Mannuthy, an amount of ₹50.00 lakh is set apart.

The component wise breakup of the scheme is as follows

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **Component** | **Amount**  **(₹in lakh)** |
| 1 | Strengthening of laboratories | 270.00 |
| 2 | Quality Control Enforcement Wing | 75.00 |
| 3 | Accreditation of labs | 25.00 |
| 4 | CIB and RC registration - NEW | 50.00 |
|  | **Total** | **420.00** |

1. **Punarjani- Restoration of agricultural sector in post flood scenario**

**(Outlay:** ₹**185.00lakh)**

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, rejuvenation of 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. An amount of ₹185.00 lakh is set apart under the scheme. Out of this ₹20.00 lakh will be utilized for rejuvenation works in Idukki District.

**Modernising Agricultural Extension and Human Resource Development**

1. **Strengthening Agricultural Extension**

**(Outlay: ₹1170.00 lakh)**

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 2021-22 is ₹1170.00 lakh. An amount of ₹130.00 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 ₹100.00 lakh is set apart for this. An amount of ₹30.00 lakh is set apart for strengthening of Project directorate of ATMA with additional infrastructure including provision for rent.

An amount of ₹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 ₹430.00 lakh is set apart. The subcomponents under this include HR support to Project Directorate, ATMA and Extension Wing for which ₹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.

LEADS project will be continued for which ₹150.00 lakh is earmarked. The scheme is proposed to be implemented through Technology and Market Unit to be constituted in the panchayats. 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, visit of experts/officials progressive farmers to research institute, model farms are included in the project. An amount of ₹50 lakh is provided for establishment of Integrated Farming System farm models at block level. An amount of ₹50.00 lakh is earmarked for providing operational support and hiring of vehicles for all project directorates for effective extension delivery**.**

Under the component “Public Participation” out of the total outlay of ₹300.00 lakh an amount of ₹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. For Karshaka Sabha and njattuvela chanthas an amount of ₹50.00 lakh is provided. An amount of ₹20.00 lakh is set apart for monitoring and documentation of the project implementation through PACS and FPO’s.

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 ₹60.00 lakh is earmarked for providing project based assistance for KISSAN Project. The contents of the programme will be decided by the technical committee consisting of KAU extension, department officials (FIB), VFPCK and IIITMK.

An amount of ₹100.00 lakh is earmarked for conduct of VAIGA 2021-22

The component wise breakup of the scheme is shown below.

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **Component** | **Amount**  **(₹in lakh)** |
| 1 | Strengthening institutions | 130.00 |
| 2 | Award for best performers | 150.00 |
| 3 | Activities under ATMA state supporting scheme | 430.00 |
| 4 | Public participation | 300.00 |
| 5 | KISSAN Project | 60.00 |
| 6 | VAIGA 2021-22 | 100.00 |
|  | **Total** | **1170.00** |

1. **Farm information and communication**

**(Outlay: ₹300.00 lakh)**

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

The components are:

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **Component** | **Amount**  **(₹ in lakh)** |
| 1 | Kerala Karshakan and Other activities | 250.00 |
| 2 | Publications | 30.00 |
| 3 | Media Liaison & Other communication initiatives | 20.00 |
|  | **Total** | **300.00** |

1. **Human Resource Development**

**(Outlay: ₹ 242.00 lakh)**

During the year 2012-13, it was initiated to depute senior technical officers for post graduate courses in Agricultural Extension, Agricultural Economics, Entomology, Plant Pathology, Agronomy and Soil Science in KAU for facilitating the implementation of extension schemes. KAU will reserve separate seats for the deputed candidates for the 6 courses. The scheme will continue during 2021-22 also. It is necessary to depute the senior officers to attend workshops, seminars and conferences at state and national level. Another important purpose of the outlay is to depute technical officers of the Department to short term training in eminent institutions of the country and other institutions to upgrade the technical and managerial competence. The HRD scheme also will be coordinated by the Project Director, ATMA for convergence at district level. An amount of ₹150.00 lakh 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 a specialist team of officers on plant health management. The amount of ₹20.00 lakh set apart for capacity building will also be utilised for projects taken up by the officers enrolled for the PGDPHM course.

With the twin objective of providing opportunity for educated youth as well as availing service at the grassroot level for better execution of government programmes a new component offering internship at Krishi bhavans is included for the year 2021-22. Final year VHSE students and VHSE certificate holders in agriculture/organic farming will be engaged for a period of six months with an incentive of ₹1000.00 per month.

The component wise breakup of the scheme is shown below:

|  |  |  |
| --- | --- | --- |
| **Sl.**  **No.** | **Component** | **Amount**  **(₹in lakh)** |
| 1 | HRD initiatives | 150.00 |
| 2 | Capacity building in association with NIPHM including PG Diploma in Plant Health management | 20.00 |
| 3 | Internship at Krishi Bhavans (New) | 72.00 |
|  | **Total** | **242.00** |

1. **Agro Service Centres and Service Delivery**

**(Outlay: ₹900.00 lakh)**

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. The Agro Service Centres 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 equipment 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 2021-22 including Corporation and Municipality areas for which an amount of ₹250.00 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 ₹5.00 lakh/unit. The centres will set up nurseries and other services in all the centres. The services will be linked to Karshika Karma Sena wherever possible.

In order to strengthen the activities of the existing Agro Service Centres/Krishisree Centres based on a business plan an amount of ₹50.00 lakh is set apart. The operational support will be for one more year to make the centres self-sustainable.

An amount of ₹60.00 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.

In order to provide accident insurance to members of Karshika Karma Sena and Agro Service Centres and the newly proposed Krishisree units, a group insurance programme in association with insurance companies with beneficiary contribution will be constituted. An amount of ₹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, an amount of ₹110.00 lakh is set apart.

An amount of ₹210.00 lakh is set apart towards honorarium to data entry operators engaged as part of National e-Governance Programme (NeGP).

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 ₹200.00 lakh is set apart for functional expenses of KSAMM out which an amount of ₹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.

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 component wise breakup of the outlay is shown below.

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **Components** | **Amount**  **(₹ in lakh)** |
| 1 | Establishment of new Krishisree centres | 250.00 |
| 2 | Strengthening of existing Karshika Karma Sena | 60.00 |
| 3 | Strengthening existing Agro-Service Centres/ Krishisree Centres based on business plan | 50.00 |
| 4 | Group insurance scheme to members of karshika karma sena and Agro service centres and newly formed Krishisree centres | 20.00 |
| 5 | Operational expense including wages to mobile clinics | 110.00 |
| 6 | Functional expenses of KSAMM | 200.00 |
| 7 | Honorarium to data entry operators of NeGP | 210.00 |
|  | **Total** | **900.00** |

1. **Office Automation and IT Infrastructure**

**(Outlay: ₹250.00 lakh)**

This scheme aims to implement ‘e-Office’ in Agriculture Department. It 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**  **(₹in lakh)** |
| 1 | e-office | 80.00 |
| 2 | Establishment of Virtual Classroom and computer training and Facilitation Centres | 30.00 |
| 3 | Cyber Extension | 10.00 |
| 4 | Connectivity to various offices | 100.00 |
| 5 | Procurement of computers, accessories, networking and site preparation | 10.00 |
| 6 | Development of Management Information system and Direct Benefit Transfer | 20.00 |
|  | **Total** | **250.00** |

1. **KrishiPadasala- approach to AEU based cultivation**

**(Outlay: ₹50.00 lakh)**

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. With the objective of imparting knowledge to farmers on these aspects, an amount of ₹50.00 lakh is earmarked.

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 2021-22 will be prepared and programmes scheduled accordingly with the approval of Director of Agriculture.

Block Level Agriculture Knowledge Centers functioning in Blocks, with scientist of Kerala Agriculture University as a nodal officer will serve as an advisory body in providing technical guidance to field level offices and farmers in the successful implementation of programmes implemented through Krishi Bhavans. Expenses towards remuneration/honorarium is not included.

1. **Development of Agriculture Sector in Kuttanad**

**(Outlay: ₹1350.00 lakh)**

An amount of ₹1350.00 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 ₹1150.00 lakh is earmarked for infrastructure development of various padasekharams in Kuttanad region. An amount of ₹200.00 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 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**  **(₹in lakh)** |
| 1 | Infrastructure development works of various padasekharams of Kuttanad region | 1150.00 |
| 2 | Supply and installation of vertical axial flow pumps | 200.00 |
|  | **Total** | **1350.00** |

**RISK MANAGEMENT**

1. **State Crop Insurance scheme**

**(Outlay: ₹ 2000.00 lakh)**

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 apiculture and floriculture will also be included under the scheme. An amount of ₹2000.00 lakh is earmarked for the scheme during 2021-22.

1. **Contingency Programme to meet Natural Calamities and Pests and Disease**

**Endemic**

**(Outlay: ₹750.00 lakh)**

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 ₹750.00 lakh is provided for the scheme during 2021-22.

**BIO DIVERSITY CONSERVATION AND FARM DIVERSIFICATION**

1. **Bio diversity and local germ plasm conservation and promotion**

**(Outlay: ₹25.00 lakh)**

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 ₹25.00 lakh is earmarked for the scheme. Out of this ₹5.00 lakh will be for conservation of traditional varieties of different crops in Wayanad District.

**NEW SCHEME**

1. **Kerala Farm- Fresh Pazham Pachakkari base price**

**(Outlay:** ₹**1000.00 lakh)**

The scheme aims to provide financial support to farmers for 16 items of vegetables and fruits in the event of decline in prices. The difference in price from the bench mark price fixed for each item will be provided as agriculture incentive price to farmers. An amount of ₹1000.00 lakh is set apart for this scheme.

**CORE SECTOR SCHEME- STATE SHARE**

**Umbrella Scheme on Krishi Unnathi Yojana and other CSS (40%State Share)**

**(Outlay: ₹10331.00 lakh)**

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 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 ₹10331.00 lakh is provided as state share of the scheme of which an amount of ₹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 ₹3552.00 lakh as state share of Rashtriya Krishi Vikas Yojana (RKVY), ₹1000.00 lakh as state share of Mission on Integrated Development of Horticulture (MIDH), ₹858.00 lakh as state share of Sub Mission on Agricultural Mechanisation and ₹3921.00 lakh is provided as state share under any other new centrally sponsored schemes approved during 2021-22. 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.

* 1. **SOIL AND WATER CONSERVATION**

The outlay provided during 2021-22 for the schemes under the sector Soil and Water Conservation is shown in the table below. Out of the total outlay of ₹10300.00 lakh, an amount of ₹8400.00 lakh is provided under RIDF of NABARD, for the implementation of infrastructure works in watersheds and padasekharams and flood protection and soil conservation projects.

**Outlay for 2021-22**

|  |  |
| --- | --- |
| **Unit/Organization** | **Amount**  **(₹in lakh)** |
| State Land Use Board | 330.00 |
| KSREC | 250.00 |
| Soil Survey | 245.00 |
| Soil Conservation | 9475.00 |
| **Total** | **10300.00** |

**Schemes of State Land Use Board**

An amount of ₹330.00 lakh is earmarked for the implementation of the following schemes under State Land Use Board.

1. **Strengthening State Land Use Board**

**(Outlay: ₹128.00 lakh)**

The State Land Use Board is actively involved in conducting studies on the judicious use of land, collection of micro level data on the existing land use, land resources, land degradation, undertaking inventories and studies on natural resources. KSLUB offers technology solutions in areas like resource based Thematic Mapping, Spatial Database Development and Spatial Decision Support System. The Department also conducts awareness programmes for the public on land and water related issues. It also offers consultancy services for land use and spatial planning among line departments and LSGIs.

During 2021-22, the activities related to strengthening the Geo-informatics laboratory as a state level digital data repository on natural resources and to bring out maximum utility of Geo Informatics Lab will be continued. It aims at bringing the information available in different resource themes of various line departments and other sources into digital format and making the data more user friendly for the planners, administrators, LSGIs and other users in managing and updating the data. GIS support will be provided for the Haritha Kerala Mission & MGNREGA by providing thematic data on natural resources. Geo – informatics lab will be strengthened to meet the challenges of implementing the new IT paradigm in all aspects of land resource planning. A spatial database on wasteland of Kollam and Wayanad district will also be prepared. Documentation of Jalasmrudhi Project and dissemination of information on the importance of natural resources conservation is also included during 2021-22.

An amount of ₹128.00 lakh is provided during 2021-22 for the following purposes:

|  |  |  |
| --- | --- | --- |
| **Sl.**  **No.** | **Components** | **Outlay**  **2021-22**  **(₹ in Lakh)** |
| a | Upgradation of the Geo informatics lab | 19.00 |
| b | Development of Land Use Decision Model | 59.00 |
| c | Regular activities and up gradation of infrastructure facilities of KSLUB | 8.50 |
| d | In service training for department staff | 0.50 |
| e | Short term courses/Training on GIS & Watershed Planning | 1.00 |
| f | Publication of Panchayat level Natural Resources Data Bank | 23.00 |
| g | Awareness programmes | 5.00 |
| h | Documentation of Jalasamrudhi project | 12.00 |
|  | **Total** | **128.00** |

The staff salary is not included under plan for which other sources have to be identified.

**2. Resource Survey at Panchayat and Block Level**

**(Outlay: ₹ 152.00 lakh)**

The objective of the scheme is to generate database as well as to prepare watershed projects at panchayat and block level. The outlay of ₹152.00 lakh is provided for (1) Preparation of NRM Plan for 13 micro watersheds draining directly into Thutha river of Malappuram district, 5 micro watersheds directly draining into Kannadi river of Palakkad from south and 15 micro watersheds of Keecheri river constituting the catchment of Vadakkancherry river in Thrissur in collaboration with District panchayath of Malappuram Palakkad and Thrissur respectively. (2) Completion of Eco Restoration Plan through Land Cover Information Management System at Agro Ecological Unit Level for 17 micro watersheds of Mangalampuzha, a tributary of Gayatri river. (3) Terrain analysis for land evaluation for 23 micro watersheds in the initial catchment area of Bhavani river basin comprising an area of 133.45 sq.km(4) Development of Desired Land Use Plan for Cochin Corporation.

The staff salary is not included under plan for which other sources have to be identified.

**3. Land Resource Information System (LRIS)**

**(Outlay: ₹ 50.00 lakh)**

The Land Resource Information System generated to demonstrate and promote the use of spatial data technologies for local level planning and to provide software support for data management modelling and operation research will be updated in 2021-22.

During 2021-22, an amount of ₹50.00 lakh is provided to update the land use/land cover map of four districts viz, Idukki, Kollam, Kozhikode and Kottayam and upload the same in LRIS. In addition to this, the web GIS based Wetland information system for Kannur will be completed and deployed and the existing resource base will be restructured and provided on need basis to the different users.

**4. Kerala State Remote Sensing and Environment Centre (KSREC*)***

**(Outlay: ₹ 250.00 lakh)**

Kerala State Remote Sensing and Environment Centre is the state centre for implementing projects utilizing the Remote Sensing, GIS and other Geomatic tools for planning and development of Kerala. An amount of ₹250.00 lakh is earmarked to KSREC during the year 2021-22. The amount will be utilized for the implementation of ongoing projects and the new project on ‘Decision Support system for spatial Planning and Governance at Local Level’.

The outlay is provided as detailed below.

|  |  |  |
| --- | --- | --- |
| **Sl.**  **No.** | **Components** | **Outlay**  **( ₹ in lakh)** |
| 1 | Maintenance / Upgradation of Server Infrastructure for Necessary Data Repository Infrastructure | 50.00 |
| 2 | Cadastral level data support to local bodies and report generation of wetland and paddy conservation act | 100.00 |
| 3 | Decision Support system for spatial Planning and Governance at Local Level (NEW) | 100.00 |
|  | **Total** | **250.00** |

**SOIL SURVEY AND SOIL CONSERVATION DEPARTMENT**

**Soil Survey**

An outlay of ₹245.00 lakh is provided to Soil Survey department for implementing the following schemes.

**5. Training to Soil Survey Officers**

**(Outlay: ₹11.00 lakh)**

Regular training of Soil Survey Officers in various areas like modern Soil Survey techniques, Remote Sensing and GIS application is essential for application of modern technologies in Soil Survey. During 2021-22 the outlay will be used for the following purposes.

1. Deputation of officers for training in state level/national level training institutes related to Soil Survey.
2. Deputation of officers for training in state level/national level institutions in Remote Sensing and GIS.
3. Conduct of trainings, seminars, workshops and technical sessions related to soil.
4. Deputation of one officer for pursuing post graduate studies in Kerala Agricultural University (KAU) in the subjects pertaining to areas of function of the Department of Soil Survey and Soil Conservation. The allocation will cover only the tuition fees and no other item like hostel fee and salary. The application along with the proposal will be placed before the Working Group by the department.

**6. Laboratories   
(Outlay:₹120.00 lakh)**

The physical and chemical analysis of soil samples forms an essential component of soil survey as it supplements the field observations and enhances the quality of the soil survey reports. Presently, various analyses of all physical and chemical parameters of soil and water are being carried out at the seven laboratories under Soil Survey. In addition, pesticide residue analysis is being undertaken at Central Soil Analytical Laboratory, Thiruvananthapuram, Regional Soil Analytical Laboratory, Thrissur and Hi-tech Soil Analytical Laboratory, Kalpetta. In addition, the Central Soil Analytical Laboratory, Thiruvananthapuram is equipped with facilities for soil microbiological studies**.** The department is also continuing the Soil Health Management Support Service to Farmers of the State by providing them with Soil Health Cards for individual farmer’s plots. The database generated by the Department of Agriculture and the Department of Soil Survey and Soil Conservation will be integrated into a common soil fertility portal by modifying the existing portal. The Director of Agriculture and Director of Soil Survey and Soil Conservation will act together to achieve the objective of developing and maintaining a comprehensive soil fertility portal for the entire state.

During 2021-22, the outlay is provided for strengthening of analytical facilities of the labs under Soil Survey, purchase of glass wares, chemicals and laboratory equipments for analysis in these labs, AMC for mobile soil testing lab (equipments only) and major equipments, up gradation of present pesticide testing and microbial analysis facilities in the labs and preparation of soil health cards. The outlay is not for establishing mobile soil test labs. No hiring or purchase of vehicle will be allowed.

**7. Soil Informatics and Publishing Cell**

**(Outlay: ₹105.00 lakh*)***

The Soil Informatics and Publishing Cell functions as a consultancy cell in various aspects of integrated management of soil and land resources, providing information support to the local bodies for the preparation of soil survey maps and for the formulation of programmes for the optimum use of land resources.

The outlay is provided for meeting the expenditure towards detailed soil survey, purchase of cadastral maps, fuel expenses, travelling expenses, hiring charges of vehicles for field activities. Purchase of machinery and equipments, cartographic materials, other software and hardware, engaging contract staff and other related expenditure for publication of reports and maps and generation of digital soil information. Strengthening of the Geomatics lab and the general functioning of the Cell will also be met from this.

An amount of ₹15.00 lakh is set apart for upgradation of soil museum with additional exhibits, improving reference facilities in the library attached to the museum, maintenance of existing facilities including fire extinguisher and fuel expense for generator.

**8. Creation of data bank for classification of land**

**(Outlay: ₹9.00 lakh)**

Creation of databank for classification of land envisages categorization of land based on 22 fold classification of land use evolved by the National Remote Sensing Agency (NRSA). The scheme includes remote sensing technology to improve the efficacy of the soil survey by reducing the time lag in field survey based thematic map preparation and thereby making available the results of the survey, timely to the end user.

During 2021-22 an amount of ₹9.00 lakh is provided for meeting the expenditure related to interpretation of satellite imagery and field level ground truth check based on imagery interpretation. No additional staff will be provided under the scheme during 2021-22 and staff provision in Soil Informatics and Publishing Cell scheme will be utilized here.

**Soil Conservation**

During 2021-22, following schemes will be implemented by Soil Conservation Unit. The total outlay provided for Soil Conservation is ₹9475.00 lakh of which an amount of ₹5515.00 lakh is provided to KLDC. Out of the total outlay, an amount of ₹8400.00 lakh is provided under RIDF.

Individual beneficiary oriented schemes are not included for implementation through soil conservation unit of the Department of Soil Survey and Soil Conservation. Area based projects alone will be implemented for addressing larger issues on natural resource management.

**9. Soil and Water Conservation on Watershed Basis (NABARD – RIDF and NIDA Assisted)**

**(Outlay: ₹ 3000.00 lakh)**

Soil Conservation schemes on Watershed basis are implemented in selected districts under RIDF. During 2021-22, the outlay will be utilised for completing ongoing NABARD assisted projects implemented by Soil Conservation department and for taking up new projects approved under RIDF. An amount of ₹2800.00 lakh has been earmarked for 2021-22. The proposed amount includes allocation for the ongoing projects under various tranche of RIDF XXI-XXVI and new projects sanctioned in the forthcoming tranches. The Department aims to create adequate infrastructure facilities with regard to conservation and management of basic land resources viz. soil and water with a view to conserve fertile top soil, augment ground water recharge and enhance the agricultural production in the State. Under the scheme, emphasis will be given for execution of low cost ecofriendly agronomic conservation practices.

An amount of ₹200.00 lakh towards availing support as NIDA assistance from NABARD is set apart for undertaking soil and water conservation activities in Thaliparamba constituency in an area of 1000 ha.

**10*.* Protection of catchment of reservoir of water supply schemes**

**(Outlay: ₹65.00 lakh)**

The Project aims to check siltation in the reservoirs of the water supply projects. During 2021-22 the scheme is being implemented in the catchments of the reservoirs of Water Supply Schemes at Aruvikkara in Thiruvananthapuram District, Sasthamcotta in Kollam District and Peruvannamoozhi in Kozhikode District. Along with structural measures of conservation, vegetative measures like planting of grasses, wild vettiver, pandanus or other suitable species will also be adopted. An amount of ₹ 65.00 lakh is set apart for the scheme.

**11**. **Stabilization of landslide areas**

**(Outlay: ₹285.00 lakh*)***

The Scheme envisages scientific Soil and Water Conservation /management for the stabilisation/reclamation of the land slide prone/affected ecosystems in the hilly terrains of the State. The projects help to stabilize/restore natural ecosystems prone to /affected by phenomena like landslide, landslip etc. The scheme activities are progressing in various land slide affected areas in Palakkad, Kozhikode, Wayanad, Malappuram and Idukki Districts.

During 2021-22, an amount of ₹285.00 lakh is provided for spill over schemes and to take up new projects in areas affected by land slides and related natural calamities. An amount of ₹75.00 lakh each is set apart for Idukki and Wayanad districts.

**12. Training programme for departmental staff and others** **(Outlay: ₹200.00 lakh)**

The outlay of ₹100.00 lakh is provided for organizing training programmes on soil conservation and related areas for the officers of soil conservation and other line departments/LSGIs involved in soil conservation activities, public awareness campaigns at schools/colleges on the need to conserve natural resources and for participating and conducting exhibitions, expenses for the deputation of officers for mandatory training programme at IISWC, Dehradun. The amount required for training KLDC officials may also be met from this scheme. An amount of ₹15.00 lakh is provided for this.

An amount of ₹100.00 lakh is set apart for the completion of construction works in IWDMK.No new construction of buildings or purchase of vehicles will be considered under the scheme during 2021-22. Amount required for ongoing projects may be sanctioned only after careful and stringent scrutiny of physical progress of work.

**13. Application of Information Technology & Monitoring and Evaluation**

***(*Outlay: ₹15.00 lakh)**

During 2021-22, an amount of ₹15.00 lakh is provided for monitoring and evaluation cell, which will be functioning at Thrissur. The cell will undertake the regular monitoring of the schemes and works carried out throughout the state. The outlay is also provided to introduce e-office system in the Directorate and for the evaluation of soil and water conservation schemes implemented by the department by a third party agency selected by the government through a committee chaired by APC and having highest credentials. No hiring or purchase of vehicle will be provided under the scheme.

**14. Revival of Water Bodies**

**(Outlay: ₹95.00 lakh*)***

The scheme is proposed for the revival and development of the traditional water bodies, springs and various drainage courses for augmentation of ground water potential and mitigating the severity of drought faced by the agricultural sector. Under this, project activities for revival of traditional water bodies, thalakulams, springs etc. with the objective of harvesting maximum rain water for agricultural purposes will be taken up. The treatment of various drainage courses, tributaries/rivulets of major rivers, will also be carried out by adopting scientific water conservation methods. During 2021-22 an amount of ₹95.00 lakh is set apart for the revival of waterbodies.

**15. Development of Micro Watersheds**

**(Outlay: ₹ 300.00 lakh)**

The state needs to work towards mitigating and containing the ill-effects of soil erosion and work in a coordinated manner towards conservation of soil moisture. At the same time we need to work towards building productive and sustainable enterprises through micro watershed development. An amount of ₹300.00 lakh is provided for development of Micro Watersheds.

There are two continuing special area programmes started during the present five year plan in Kattakada and Taliparamba. In order to bring them to a successful completion an amount of ₹200.00 lakh is provided for micro watershed development in Taliparamba Assembly Constituency and an amount of ₹100.00 lakh is provided for Kattatakada Constituency within the over all allocation.

**Assistance to KLDC for implementing Projects**

Kerala Land Development Corporation is implementing projects under RIDF of NABARD. During 2021-22 an amount of ₹5515.00 lakh is provided to KLDC of which ₹5400.00 is for NABARD assisted RIDF projects & ₹115.00 lakh for state plan schemes as given below.

1. **Improvement to Nooradithodu for Vettikkadavu to Naranipuzha (Ponnani Kole) (STATE SCHEME)**

**(Outlay: ₹ 15.00 lakh)**

Total outlay of the project is ₹2758.00 lakh. An amount of ₹15.00 lakh is set apart for completing the works under the scheme.

**(ii) Sahasra Sarovar Scheme Phase II– Renovation of ponds in all districts of Kerala– (STATE SCHEME)**

***(*Outlay: ₹100.00 lakh)**

The project aims for the development of water bodies such as large ponds/chiras. The activities include renovation of ponds in Thiruvanathapuram, Kollam and Thrissur districts. An amount of ₹100.00 lakh is provided during 2021-22.

**(iii)Drainage and flood Protection Project (RIDF XVIII)**

**(Outlay: ₹100.00 lakh)**

Total outlay of the project is ₹2416.65 lakh.  Administrative Sanction was accorded for 4 works under RIDF XVIII. Out of these all the works are completed. The up to date claim amount is ₹2178.582 lakh. An amount of ₹100.00 lakh is provided for meeting centage charge of corporation.

**(iv)Comprehensive Kole Development Project: Infrastructure Development works for the Integrated Development of Kole wet lands Phase I,II & III (RIDF XIX XX& XXII)**

**(Outlay: ₹1000.00 lakh)**

Administrative Sanction was accorded for the project for ₹22086 lakh (Phase I, II&III). The project aims to establish efficient water management system in the entire Kole area, protecting paddy field from submergence of flood water in the Kole area and enhance the productivity of paddy. An amount of ₹1000.00 lakh is provided during 2021-22.

**(v) Drainage and Flood Protection Project RIDF XIX**

**(Outlay: ₹100.00 lakh*)***

Total outlay of the project is ₹8882.55 lakh. The scheme proposes to create infrastructure facilities in the padasekharams and renovation of ponds to enable efficient water management system in the agriculture land for enhancing productivity and to enhance ground water table and to restore the runoff water for agriculture and drinking purpose. Out of 58 projects, 50 projects are completed. Five works were dropped and others are nearing completion. An amount of ₹100.00 lakh is provided during 2021-22.

**(vi) Mitigation of drought in Palakkad district through renovation of Ponds (RIDF XX)**

**(Outlay: ₹50.00 lakh*)***

The project aimed at harvesting and conserving more rainfall by renovating the existing ponds with the active participation of people’s representatives. As a first phase of the comprehensive Drought Mitigation Programme a drought mitigation plan through the renovation of ponds in Palakkad district was initiated during 2016-17. An amount of ₹50.00 lakh is provided during 2021-22 for the meeting centage charge of the corporation.

**(vii) Drainage and Flood Protection Project- Infrastructure Development & Sahasra Sarovar Project (RIDF XX)**

**(Outlay: ₹1000.00 lakh)**

Administrative sanction was accorded for 54 projects. The total outlay of the above projects is ₹11021.30 lakh. Out of 54 projects 39 projects are completed and others are ongoing. An amount of ₹ 1000.00 lakh is provided for meeting the expenditure for balance works during 2021-22.

**(viii) Drainage and Flood Protection Project- Infrastructure Development and Sahasra**

**Sarovar Project (RIDF XXI)**

**(Outlay: ₹ 1000.00 lakh)**

Administrative sanction was accorded for 46 projects under RIDF XXI for ₹ 87.32 crore. Out of 46 projects 20 projects are completed, and others are going on. The scheme is proposed to provide infrastructural facilities in the padasekharams. An amount of ₹1000.00 lakh is provided during 2021-22.

**(ix) Infrastructure Development Projects and Sahasra Sarovar Projects (RIDF XXII)**

**(Outlay: ₹ 1000.00 lakh)**

Administrative sanction was accorded for 26 projects. The total outlay of the project is ₹67.98 crore. An amount of ₹1000.00 lakh is provided during 2021-22 for the balance works.

**(x) Drainage and Flood protection Project - Infrastructure Development and Sahasra Sarovar Projects (RIDF XXIV)**

***(*Outlay: ₹500.00 lakh)**

Administrative sanction was accorded for 5 projects. The total outlay of the above projects is ₹23.16 crore. The scheme proposes to create infrastructure facilities in the padasekharams and renovation of ponds to enable efficient water management system in the agriculture land for enhancing productivity in various districts, through out Kerala. An amount of ₹500.00 lakh is provided for meeting the expenditure for balance works during 2021-22.

**(xi) Drainage and Flood protection Project - Infrastructure Development and Sahasra Sarovar Projects (RIDF XXV)**

***(*Outlay: ₹200.00 lakh)**

Administrative sanction was accorded for 9 projects. The total outlay of the above projects is ₹56.18 crore. The scheme proposed to provide infrastructure developments of padasekharams, renovation of ponds, improvements of thodu, canals, construction of VCB, sluice, engine thara etc. to enable efficient water management system in the agriculture field.

An amount of ₹200.00 lakh is provided for meeting the expenditure for balance works during 2021-22.

***New Schemes (RIDF)***

**(xii)Drainage and Flood Protection and Sahasra Sarovar under (RIDF XXVI)**

**(Outlay: ₹50.00 lakh)**

The project aims at infrastructural developments of padesekharams, renovation of ponds, improvement of thodus, canals, construction of VCB, sluice and engine thara to enable efficient water management system. An amount of ₹ 50.00 lakh is set apart during the year 2021-22 for the scheme.

**(xiii)Development of Flood Management Infrastructures in lower Kuttanad padasekharams (RIDF XXVII)**

**(Outlay: ₹400.00 lakh)**

The project aims to undertake infrastructure development activities in various padasekharams in lower Kuttanad. During 2021-22 an amount of ₹400.00 lakh is set apart for undertaking infrastructure development works in Cherikkalakam padasekharam in Muttar panchayath, Kayalpuram powathkad padam in Pulinkunnu panchayat and Naduvil varmbinakam padam in Edathuva panchayat falling in the lower Kuttanad region.

**1.3 ANIMAL HUSBANDRY AND DAIRY DEVELOPMENT**

Animal Husbandry and dairying plays a pivotal role in the economy and socio economic development of the State. The total outlay provided for the sector in the Budget 2021-22 is as follows.

|  |  |  |
| --- | --- | --- |
| **Sl. No** | **Department/Agency** | **Amount**  **(₹ lakh)** |
| 1 | Animal Husbandry Department | 15750.00 |
| 2 | Dairy Development Department | 9621.00 |
| 3 | Kerala Livestock Development Board (KLDB) | 2150.00 |
| 4 | Kerala State Poultry Development Corporation (KSPDC) | 750.00 |
| 5 | Meat Products of India (MPI) | 1563.00 |
| 6 | Kerala Feeds Limited | 500.00 |
| 7 | Kerala Co-operative Milk Marketing Federation (KCMMF) | 750.00 |
| 8 | Kerala Veterinary and Animal Science University | 7437.00 |
|  | **Total** | **38521.00** |

The total outlay provided for Animal Husbandry and Dairy development sub sector for 2021-22 are ₹289.00 crore and ₹96.21 crore respectively. Of this outlay, ₹40.30 crore is the support under RIDF of NABARD and the amount provided as state share for centrally sponsored schemes is ₹8.7 crore. An amount of ₹57.13 crore is provided for Public Sector Undertakings and ₹74.37 crore is for Kerala Veterinary and Animal Science University.

1. **Veterinary Extension**

**(Outlay: ₹ 725.00 lakh)**

The scheme envisaged a field visit oriented veterinary extension in the State so as to make the sector viable and profitable. Modern and scientific technologies are to be provided both to technicians and to farmers. With this aim the department has eight Livestock Management Training Centres and one Poultry Training Institute to cater the needs of the farmers and to update knowledge of staff working under the department.

The main components included under the scheme are establishment/strengthening of infrastructure for training, conduct of awareness camps, exhibitions, seminars and workshops, school animal husbandry clubs, strengthening of extension services and training centres of Animal Husbandry department, assistance to research studies regarding field related issues and intervention methods, entrepreneur development programme, Strategic Research and Extension Plan (SREP), farmers registration etc. are envisaged under the scheme.

Strengthening research extension interface is also included as a component under the scheme. The objective of the component is to find solution to field oriented problems faced by farmers with the help of University and other reputed research institutions. Molecular studies on level of exotic blood in our cross bred cattle, innovative ideas for helping farmers such as early pregnancy diagnosis in cattle etc. will be taken up.

Veterinary extension needs to be further strengthened considering the growth of the sector as well as due to expansion in adoption of new technologies in the field. Development of LMTC Wagamon to an international training centre, providing infrastructure facilities to LMTC Kudappanakkunnu as Centre of Excellence etc. are included under the scheme.

The department will undertake a Training Need Assessment and deputation to training programmes to be based on the TNA.

The component wise details of the scheme is as follows.

|  |  |  |
| --- | --- | --- |
| **Sl.No** | **Component** | **Amount**  **(₹** **in lakh)** |
| 1 | Strengthening infrastructure for training | 50.00 |
| 2 | Awareness camps, training programmes, exhibitions, seminars, study tours, calf rallies, awards, booklets, workshop etc. | 150.00 |
| 3 | SREP work plan and scaling up of success models | 70.00 |
| 4 | Strengthening Research extension interface | 40.00 |
| 5 | Operational cost | 50.00 |
| 6 | HRD - training to technical officers of the Department | 50.00 |
| 7 | Entrepreneurship Development Programmes (EDP) | 30.00 |
| 8 | Strengthening of extension services and training centres of the Animal Husbandry Department including RAHCs | 230.00 |
| 9 | Farmers registration | 25.00 |
| 10 | Media Division of Animal Husbandry Department | 30.00 |
|  | **Total** | **₹725.00** |

An amount of ₹725.00 lakh provided for the scheme in the Budget 2021-22.

1. **Strengthening of Veterinary Services**

**(Outlay: ₹ 3300.00 lakh)**

The objective of the scheme is to tone up veterinary services and institutions by providing with essential items of medicines, standardization of institutions to render quality services, professional upliftment and improvement of diagnostic techniques which are essential for the improvement of the health care system. It is envisaged to have three tier health care services, the District Veterinary Centres and Multi-speciality Veterinary Hospital at Kudappanakkunnu, Thiruvananthapuram will act as the district level referral unit, the veterinary polyclinic at Taluk and the veterinary hospital/veterinary dispensaries at the Panchayat level.

The outlay is for up gradation of labs, procurement of essential medicines, biologicals etc., animal welfare programmes, compensation to farmers, support to Animal Disease Control Project, intensive mastitis control programme, disease mapping through GIS etc. The vehicles purchased under the component up gradation of labs will be allocated to the specific lab as per the plan write up submitted.

The outlay will also be utilized for strengthening of border check posts for effective monitoring and disease surveillance, strengthening of veterinary poly clinics/veterinary hospitals/ veterinary dispensaries etc.

The disease eradication programme was started with the support of National Dairy Development Board (NDDB) in 2003-04. Since the assistance from NDDB has ceased from 2008-09 onwards the entire cost of execution of the scheme will be met by the State Plan support and interest from corpus fund available with Government. Under this programme provision is included for mobility expenses for vaccination squads, cost of logistics, travelling allowance, ear tags etc.

The components of the scheme is shown below.

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **Component** | **Amount**  **(₹in lakh)** |
| 1 | Infrastructure development for veterinary services | 500.00 |
| 2 | Procurement of medicines | 1400.00 |
| 3 | Mastitis control programme | 40.00 |
| 4 | Animal welfare programmes | 15.00 |
| 5 | Compensation to farmers | 150.00 |
| 6 | Conduct of camps, vaccination and squads | 40.00 |
| 7 | Operational costs | 100.00 |
| 8 | Need based veterinary support | 182.00 |
| 9 | Strengthening of veterinary poly clinics/VH/VD/DVCs | 200.00 |
| 10 | Up gradation of labs | 340.00 |
| 11 | AMC and Insurance of equipment, repair and maintenance | 20.00 |
| 12 | Strengthening of border check post for effective monitoring and disease surveillance | 25.00 |
| 13 | Disease mapping through GIS | 25.00 |
| 14 | Animal disease control project | 200.00 |
| 15 | Documentation & Digitization | 3.00 |
| 16 | Man power on contract basis | 60.00 |
|  | **Total** | **₹3300.00** |

Out of ₹3300.00 lakh provided for the scheme, ₹100.00 lakh is support under RIDF for the infrastructure development of veterinary services.

An amount of ₹3300.00 lakh provided for the scheme in the Budget 2021-22.

1. **Biological Production Complex**

**(Outlay:** ₹**300.00 lakh)**

Institute of Animal Health and Veterinary Biologicals (IAH&VB) was established at Palode in 1979. Apart from manufacture of vaccines, immuno-biologicals and diagnostic reagents other activities include research and training to professionals. The scheme envisages strengthening of the institute with modern equipments and other support facilities to augment production.

The outlay provided is for laboratory animal unit, medical check-up and health insurance, production of vaccines and other biologicals, infrastructure development, research and development, construction of laboratory storage facility, development of new vaccine, insurance, repair and maintenance and AMC of equipments, operational cost etc.

An amount of ₹300.00 lakh provided for the scheme in the Budget 2021-22.

1. **Animal Husbandry statistics and sample survey (50% state share)**

**(Outlay:** ₹**150.00 lakh)**

The scheme is for continuing the Integrated Sample Survey for the estimation of production of various livestock products and for taking up new service, initiating new studies, improving the methodology for collection and analysis of data making use of computer facilities available. The outlay is to meet the staff cost and other expenses connected with survey. Training to staff will also be undertaken.

An amount of ₹150.00 lakh provided for the scheme in the Budget 2021-22.

1. **Modernization & e - Governance**

**(Outlay:** ₹**300.00 lakh)**

The outlay to be utilized for the Geospatial database, up gradation of existing old computers and accessories, purchase of new computers for Directorate and sub-offices including hospitals/dispensaries/sub centres, AMC/repair charges, mobile governance, software development charges, setting up a video conference system, implementation of e-office, electronic herd register programme, modernisation of District Animal Husbandry Offices/Sub Offices.

An electronic herd register will be established for the State which will form the basis of Animal Health and productivity planning in the State. An amount of ₹100.00 lakh is provided for the implementation of digital herd book programme as a decision support system.

An amount of ₹300.00 lakh provided for the scheme in the Budget 2021-22.

1. **Expansion of Cross Breeding Facilities**

**(Outlay:** ₹**900.00 lakh)**

The objective of the scheme is systematic up gradation of the cross bred stock through cross breeding services. Priority will be for extending the AI facilities to remote areas where the facilities are not available for the dairy farmers, reducing the incidence of infertility due to nutritional causes by supplementing mineral mixture at subsidised cost and promotion of AI in goats and propagate Malabari breed.

The outlay is for purchase of equipments, assistance to LSG for construction/repair of building to veterinary sub centres, infertility management programme, deworming and mineral supplement programme, replacement of vehicles against condemned ones, documentation and digitization of the scheme etc.

The component wise breakup of the scheme is shown below.

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **Components** | **Amount**  **(₹ in lakh)** |
| 1 | Cost of semen | 500.00 |
| 2 | Infrastructure development | 20.00 |
| 3 | Mineral mixture supplement programme and deworming of milch cows | 200.00 |
| 4 | Purchase of equipments | 50.00 |
| 5 | Operational costs | 50.00 |
| 6 | Assistance to LSGIs for construction / repair of buildings to veterinary sub centres. | 12.00 |
| 7 | Infertility management Programme | 35.00 |
| 8 | Replacement of vehicles against condemned ones | 30.00 |
| 9 | Documentation and digitization of the scheme | 3.00 |
|  | **Total** | **₹900.00** |

An amount of **₹** 900.00 lakh provided for the scheme in the Budget 2021-22.

1. **Assistance to Kerala State Poultry Development Corporation (KSPDC)**

**(Outlay: ₹750.00 lakh)**

The objective of Kerala State Poultry Development Corporation (KSPDC) is to attain self-sufficiency in the production and consumption of egg and meat production in the State. It is envisaged that 75% of beneficiaries of the project will be women. The components of the scheme is as follows.

* Backyard poultry production through Kudumbasree (Vanithamithram) – ₹ 250.00
* Poultry production in cages – ₹ 200.00
* Infrastructure development of farms – ₹ 100.00
* Hi tech commercial layer farms – ₹ 200.00

An amount of ₹750.00 lakh provided for the scheme in the Budget 2021-22.

1. **Special Livestock Breeding Programme**

**(Outlay: ₹ 5000.00 lakh)**

The objective of the scheme is to reduce the age of maturity and inter calving period for attaining higher productivity. From 2001-02 onwards the programme is being operated as state sponsored and implemented through the local governments as per the revised guidelines of the department of Animal Husbandry**.**

The outlay provided is for support to new calves enrolled and spill over cost, implementation cost, computerization of field level offices, monitoring and evaluation, other expenses including publicity and veterinary aid etc.

The details of components of the scheme is as follows.

* Support for the calves enrolled and spill over cost
* Monitoring, evaluation and documentation
* Other expenses including publicity and veterinary aid
* Computerisation of field level offices
* Operational cost
* Scientific rearing of calves through subsidised feeding (Govardhini)

An amount of ₹5000.00 lakh provided for the scheme in the Budget 2021-22.

1. **Assistance to Kerala Co-operative Milk Marketing Federation (KCMMF)**

**(Outlay: ₹750.00 lakh)**

Kerala Co-operative Milk Marketing Federation (KCMMF), the apex body of the three tier dairy co-operatives is to implement the Operation Flood Programme in the State. The KCMMF focussed on strengthening the marketing infrastructure and quality milk production and maintain cold chain from the farmer to the consumer maintaining the quality of milk as per standards.

An amount of ₹750.00 lakh is provided during 2021-22 for establishment of the Milk Powder Factory of 10 MT per day at Malappuram at a project cost of **₹53.93 crore** considering the lockdown due to Covid -19 epidemic in the State caused problems regarding the procurement and handling of milk.

**Component wise details are the following**

* Civil works: Evaporation Plant ₹ 150.00
* Process/storage equipment (including automation: pouch packing machines

with conveyors and material handling equipment) ₹ 200.00

* Steam generating system consists of fire wood boiler 19.00 Kg, chimney,

steam pipes, valves, and fittings, feed water tank, water softening plant etc. ₹ 200.00

* Water supply system : Water Treatment Plant 40 LPH, water source &

pumping line, online UV sterilization system & RO filter plant ₹ 200.00

**Total ₹750.00**

An amount of ₹750.00 lakh provided for the scheme in the Budget 2021-22.

1. **Comprehensive Livestock Insurance Programme - Gosamrudhi**

**(Outlay: ₹ 500.00 lakh)**

The scheme aim towards management of risk and uncertainties by providing protection mechanism to the farmers against any eventual loss of their animals due to death or permanent total disability resulting in total loss of production or infertility through insurance coverage. This project is implemented by the department through a General Insurance Company under public sector undertaking. The maximum insured value for animal is ₹50,000 and the premium rate is around 3 per cent of the cost of the animal and subsidy rate towards premium is 50 % for general category and 70 per cent for SC/ST category.

An amount of ₹ 500.00 lakh provided for the scheme in the Budget 2021-22.

1. **Assistance to Kerala Livestock Development Board (KLDB)**

**(Outlay: ₹ 2150.00 lakh)**

The objective of Kerala Livestock Development Board (KLDB) is to develop a breed of dairy cattle suitable for the prevailing dairy environment of the State. The main functions of the Board are production of breeding inputs, research and development and training. The component wise details are as follows.

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **Name of components** | **Amount**  **(₹in lakh)** |
| 1 | Extension activities of KLD Board (Herd Book Scheme) | 60.00 |
| 2 | Conservation and improvement of Malabari Goats through field performance recording and Buck Distribution Programme | 19.00 |
| 3 | Assistance for conducting R & D on fodder and fodder seed production | 33.00 |
| 4 | Support to conduct training in AH activities | 22.00 |
| 5 | Infrastructure Development for strengthening cattle breeding | 333.00 |
| 6 | Artificial Insemination in Goats | 39.00 |
| 7 | Pig Development | 180.00 |
| 8 | Kudumbasree linked Forage programme and establishment of Fodder Demonstration units | 280.00 |
| 9 | Support for Modern Bull Mother Farms at Kulathupuzha, Mattupatti and Kolahalamedu | 450.00 |
| 10 | Genetic up gradation of cattle through Field Performance Recording Programme | 250.00 |
| 11 | Conservation and dissemination of Germplasm from Vechur Kasaragod dwarf cattle and ND cattle | 130.00 |
| 12 | Assisting selection of bulls through genomic selection | 200.00 |
| 13 | Fodder seed production and distribution | 64.00 |
| 14 | Production of High Genetic Merit Crossbred bulls through progeny testing in the northern districts of Kerala | 90.00 |
|  | **Total** | **₹2150.00** |

An amount of ₹2150.00 lakh provided for the scheme in the Budget 2021-22.

1. **Assistance to Kerala Feeds Ltd**

**(Outlay: ₹500.00 lakh)**

The objective Kerala Feeds Limited is to supply quality cattle feed to dairy farmers of Kerala in line with the State policy of controlling the feed price. The amount provided is for the following components of the scheme.

* Cattle Feed Market Intervention Fund
* Up gradation and revamping of the production facilities at various units of Kerala Feeds
* Assistance towards strengthening the testing facilities in Quality Control Lab at various units of KFL
* IT infrastructure development and up gradation of ERP package at various at various

units of KFL

An amount of ₹500.00 lakh provided for the schemein the Budget 2021-22.

1. **Assistance to Kerala Veterinary and Animal Science University**

**(Outlay: ₹7437.00 lakh)**

The Kerala Veterinary and Animal Science University has been established in the State with headquarters at Pookode, Wayanad for the development of education, research and extension in the Animal husbandry and Dairy development sectors. The Veterinary and Animal Science faculty has been delinked from the Kerala Agricultural University for the establishment of the new University. The college of Veterinary and Animal Sciences at Mannuthy and Pookode in Wayanad, and College of Dairy Science and Technology at Mannuthy are the educational institutions of the University. The research stations and farms involved in animal husbandry research and support would be part of the university. The major objective of the institution is to promote livestock economy of the State by fostering quality professionals in the areas of veterinary, animal husbandry and dairy and assist in the implementation of research outcomes in field conditions. An outlay of ₹4820.00 lakh is provided for the University during 2021-22 for research, education, infrastructure development, farm/station development, administration, extension and entrepreneurship development. The component wise detailed project has to be approved before release of funds. Projects with long term perspective will be given priority.

The outlay provided for 2021-22 for different components is shown below.

|  |  |  |
| --- | --- | --- |
| **Sl. No** | **Name of component** | **Amount**  **(₹ lakh)** |
|  | **i. State Plan** |  |
| 1 | Research Projects | 1225.00 |
| 2 | Education | 1100.00 |
| 3 | Extension and entrepreneurship development | 225.00 |
| 4 | Administration | 200.00 |
| 5 | Infrastructure | 1000.00 |
| 6 | Farms | 880.00 |
| 7 | Special Package | 190.00 |
|  | **Sub Total (i)** | **4820.00** |
|  | **ii.RIDF** |  |
| 1 | Infrastructure development for the college of Veterinary and Animal Science, Mannuthy | 1000.00 |
| 2 | Establishment of a University Center for the surveillance and monitoring of pesticides and antibiotic residues and screening of ITS impact on animal and human health (New Component) | 1167.00 |
| 3 | Establishment of an advanced animal health care centre by equipping teaching veterinary clinical complex with state–of-the- art diagnostic and therapeutic facilities to support livestock and poultry farmers of Wayanad and northern districts of Kerala (New component) | 450.00 |
|  | **Sub Total (ii)** | **2617.00** |
|  | **Total (i+ii)** | **₹7437.00** |

1. **Door step and Domiciliary Veterinary service**

**(Outlay: ₹980.00 lakh)**

In the present condition, farmers find difficulty in bringing their animals to the clinics and is not getting service in the odd hours of the day from 6 PM to 6 AM. The present need of the farmer is to get service at his farm premise. In order to tackle the problem, it is proposed to provide emergency veterinary care service during odd hours in all the blocks of the State and ambulatory vehicles with basic facilities for rendering health care service at the door step of the farmers. The component wise break up is as follows.

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **Component** | **Amount**  **(₹ in lakh)** |
| 1 | Strengthening ambulatory vehicles for rendering health care service at the doorstep of farmers | 35.00 |
| 2 | Emergency veterinary care service during odd hours in high yielding dairy blocks | 921.00 |
| 3 | Providing manpower for operating service of Mobile Multi Speciality Clinics | 24.00 |
|  | **Total** | **₹ 980.00** |

A regular scheduled visit at fixed locations to be organized in association with dairy co-operative societies. Part of the operational cost to be proposed to the societies for organizing the visit of the team. It will be linked with SLBP. Apart from field visit organized through co-operatives and SLBP, a monthly visit of the mobile clinic in selected panchayats to be introduced.

An amount of ₹980.00 lakh provided for the scheme in the Budget 2021-22.

1. **Strengthening of Department Farms and Conservation**

**(Outlay: ₹1950.00 lakh)**

The Animal Husbandry department has a network of cattle, goat, pig, rabbit, poultry and duck farms under its control. The departmental farms are to be modernized and strengthened to function not only as production units and breeding units to supply quality young ones but also as centres of demonstration of technologies and training. Infrastructure development, supply of inputs, feed, medicines, production oriented programmes, purchase of parent stock, mechanisation support to farmers, expansion of existing farms, establishing marketing networks etc. are the activities proposed under the scheme. Provision is also included for implementing production oriented programmes under the leadership of farms in satellite clusters to increase production of young ones alone. The outlay is to be used for the development of farms and satellite units alone. The component wise details of the farms in 2021-22 is as follows

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **Name of Scheme/ Component** | **Outlay**  **(₹ in lakh)** |
| 1 | Infrastructure for brooder, hatchery and Duck Training Institute at Manjady | 50.00 |
| 2 | Manpower on contract basis for farm services | 20.00 |
| 3 | Production oriented programme | 200.00 |
| 4 | Purchase of parent stock, feed, feed ingredients, medicines etc. | 1000.00 |
| 5 | Fodder development | 25.00 |
| 6 | Operational cost | 55.00 |
| 7 | Supply of inputs through satellite breeding units | 200.00 |
| 8 | Up gradation of Departmental farms | 100.00 |
|  | **Total** | **₹1650.00** |

An amount of ₹300.00 lakh included for construction activities of the department farms including livestock, goat, pig, poultry, rabbit and duck.

An amount of ₹1950.00 lakh provided for the scheme in the Budget 2021-22.

1. **Backyard Poultry Development Project**

**(Outlay: ₹300.00 lakh)**

Backyard Poultry production is having good potential in the State. Government interventions by ways of various support mechanism is essential for the production of poultry in rural areas. Indigenous poultry breeds including the improved strains like Gramalekshmi that can survive with low quality raw feed can be popularized for the development of backyard poultry. This project is implemented by the department through students of upper primary/high school classes of selected government/aided schools in the State.

An amount of **₹**300.00 lakh is provided for the scheme in the Budget 2021-22.

1. **Meat Products of India Limited**

**(Outlay: ₹1563.00 lakh)**

The objective of Meat Products of India is to produce, process and marketing of hygienic meat and meat products observing food safety rules and animal welfare regulations. An amount of ₹1563.00 lakh is provided in the Budget 2021-22 for the following components of the scheme, of which ₹1313.00 lakh is under RIDF for infrastructure development.

* Hi- tech slaughter house – service tax due
* Value added processed meat production facility plant Eroor, Kollam
* Cattle Buffalo calves rearing Centre, Chalakkudy
* Awareness programme about Food safety
* Modern Meat shops cum Restaurants by conversion of old buses of

KSRTC at popular Centres

An amount of ₹1563.00 lakh provided for the scheme in the Budget 2021-22.

1. **Livestock Health and Disease Control (40% State Share)**

**(Outlay: ₹320.00 lakh)**

The scheme was introduced in the State with an aim to tackle the issue of livestock health in a better way. The funding pattern of the scheme to be shared in the ratio 60:40 between the Central and the State. An amount of ₹320.00 lakh provided to meet 40% state share of the Centrally Sponsored Scheme.

The outlay provided is for the assistance to state for control of animal diseases, national project on Rinderpest Surveillance and monitoring, Professional efficiency development, Foot and Mouth disease (FMD) control programme, Peste des Petits Ruminants (PPR) Control programme, Hemorrhagic Septicemia (HS), Brucellosis control programme, Anthrax, Classical Swine Fever control programme (CSF), Establishment and strengthening of existing Veterinary Hospitals and Dispensaries etc.

An amount of ₹320.00 lakh provided for the scheme in the Budget 2021-22.

1. **National Livestock Mission (40% State Share)**

**(Outlay: ₹ 400.00 lakh)**

The scheme was introduced in the State with an aim to build up infrastructure of farms with focus on biosecurity, infusion of high end technology and automation, for demonstration of technology and skill development, to strengthen the rural backyard poultry and to promote fodder production etc. The funding pattern of the scheme to be shared in the ratio 60:40 between the Central and the State. An amount of ₹400.00 lakh is provided to meet 40% state share of the CSS.

The outlay provided is for modernization and development of breeding infrastructure, interventions towards productivity enhancement, risk management and insurance, conservation of livestock breeds, skill development, technology transfer and extension, utilization of fallen animals and establishment of rural slaughter houses, fodder and feed development etc.

An amount of ₹400.00 lakh provided for the scheme in the Budget 2021-22.

1. **Animal Resource Development**

**(Outlay: ₹625.00 lakh)**

The objective of the scheme is in tune with Government policy to attain self-sufficiency in milk, egg and meat production. It is proposed to provide assistance to farmers for ventures in animal husbandry sector especially in the areas such as commercial goatery unit, male calf fattening units, interest subvention for loans of animal husbandry ventures etc., so that more farmers will be attracted and also existing farmers will remain in the sector. It is envisaged that 50 per cent of beneficiaries of the project will be women.

The component wise breakup of the scheme is shown below

|  |  |  |
| --- | --- | --- |
| **Sl.No.** | **Component** | **Amount**  **(₹ in lakh)** |
| 1 | Commercial Goatery unit | 250.00 |
| 2 | Male calf fattening unit | 250.00 |
| 3 | Interest subvention scheme for loans taken for animal husbandry ventures | 125.00 |
|  | **Total** | **₹625.00** |

An amount of ₹625.00 lakh provided for the scheme in the Budget 2021-22.

* 1. **DAIRY DEVELOPMENT**

The outlay provided for the Dairy Development sector for the year 2021-22 is ₹ 96.21 crore. Dairy co-operatives in the State, are provided with an outlay of ₹18.00 crore to expand their infrastructure base for milk procurement by creating better cold chain. An amount of ₹40.28 crore for Milk shed and fodder development and ₹14.33 crore for cattle feed subsidy are also provided with a view to increase production and productivity.

1. **Rural Dairy extension and Farm Advisory Services**

**(Outlay: ₹1050.00 lakh)**

The Dairy Development Department takes up rural dairy extension and advisory services through its block level dairy extension service units, district level quality control units and five Dairy training centers, office of the Deputy Directorates, Satellite training centres and Fodder farm, Valiyathura. Transfer of technology directly to the farmers through personal contacts and assistance to farmers in case of contingencies and natural calamities are the main objectives of the scheme. The outlay is for the implementation of rural dairy extension services, for conducting seminars/workshops/exhibitions/ training programmes, comprehensive insurance programme covering cattle and cattle owners, farmers contact programs, quality awareness programme,state dairy expo, extension activities through print and electronic media, comprehensive insurance programme covering cattle and cattle owners, implementation of SREP projects, establishing dairy extension service units at selected potential panchayats, implementation of e-office activity in the department, modernisation of infrastructure for imparting training and skill development programmes and other department offices, best farmers award, new students dairy clubs at schools, consumer interface programmes, technical training programme for department staff, exposure visit for farmers within state, strengthening ICT activities in the existing information centres etc. A portion of the outlay to be utilized for up gradation of infrastructure facilities of dairy training centers/offices. The component wise details are the following.

* Farmers contact programme – Karshaka Maithri
* Assistance to conduct training programme in Dairy Training Centres
* State/Regional workshop
* State Dairy Expo
* Newsletter – Ksheerapadham
* Observations of World Milk day
* Exposure visit of dairy farmers
* Contingency fund
* Block, District and State Ksheera sangamam
* New students dairy clubs at schools
* Best Farmer Award – Ksheera Sahakari Award
* Provision for conducting exhibitions
* Technical training for departmental technical staff
* Extension activities through print & electronic media and documentations, Media awards
* Assistance for existing information centres for strengthening ICT activities and for meeting other expenses pertaining to automation activities
* Strengthening & modernizing the infrastructure for imparting training and skill development and infrastructure development of department level officers
* Implementation of e- office
* Establishing Dairy Extension Service Units at selected Panchayats
* Comprehensive Dairy Insurance Scheme- Ksheera Sandvanam
* Documentation, Monitoring, Evaluation and implementation charges

An amount of ₹1050.00 lakh provided for the scheme in the Budget 2021-22.

1. **Assistance to Dairy Co-operative Societies**

**(Outlay: ₹1800.00 lakh)**

Dairy Co-operative Societies help the dairy farmers to market their produce and act as village information centres. The objectives of the scheme are to bring more farmers under the dairy co-operative sector enable to comply with FSSA 2006, improve the facilities for testing the chemical and microbial/quality of milk, strengthening and modernization of infrastructure of DCSs to improve procurement and marketing etc. The following are the activities proposed under the scheme during 2021-22.

* Assistance to assess & ensure the FSSA 2006 requirements to meet the documentation, registration etc., including setting up of lab facilities
* Operational assistance to newly registered DCSs/Assistance for revival of defunct societies
* Need based assistance to DCSs
* Assistance for rainwater harvesting and solar energy conservation
* Assistance to district wise consortium to monitor and maintain the automation & networking system
* Assistance for transportation of milk to the milk route of MILMA
* Provision for conducting review meeting for DCS personnels and officials at DESU level, District level and Directorate
* Documentation and data bank creation
* Unified accounting software for DCS
* Geo mapping of Dairy co-operative societies
* Managerial assistance for dairy co-operative societies
* Assistance to DCS for utilization of Non-Conventional Feed Resources (NCFR)
* Dr. Varghese Kurien Award
* Operational cost
* Comprehensive Co-operative Propaganda Programme (CCP)
* Data Bank Creation- Comprehensive survey to study the milk procurement pattern through DCS and other means
* Implementation, monitoring and documentation charges
* Documentation & data bank creation
* Assistance for dairy co-operatives for purchase of own land
* Construction /renovation of hygienic milk collection rooms/storage rooms
* Farmers facilitation cum information centre (FFC)
* Assistance to dairy co-operative societies to start and/or strengthen (existing) milk processing/chilling/packing/cattle feed unit, renovation/construction of cold stores, DCS and ISO certification of units
* Assistance for installation of low cost ETP, solar energy conservation systems and other pollution control/energy conservation measures
* Automatic milk collection units in DCS

An amount of ₹1800.00 lakh provided for the scheme in the Budget 2021-22.

1. **Strengthening Quality Control Labs**

**(Outlay: ₹400.00 lakh)**

Ensuring quality of milk and milk products produced and marketed in the State is the objective of the scheme. The scheme is to strengthen facilities in the quality control laboratories in the State, special quality testing drive, setting up of regional labs, quality and hygiene improvement at farm level, milk testing facility at check post etc. An amount of ₹400.00 lakh provided for strengthening of quality control. Component wise break up is as follows.

|  |  |  |
| --- | --- | --- |
| **Sl.No.** | **Name of component** | **Amount**  **(₹ lakh)** |
| 1 | Special quality testing drives | 83.40 |
| 2 | Assistance for existing Milk checking facility at selected Check post Labs ( Meenakshipuram and Aryankavu check post labs) | 25.00 |
| 3 | Quality control/ food safety training programme for department/DCS officials | 15.00 |
| 4 | Assistance for improving hygienic level at farm level | 82.50 |
| 5 | Infrastructure development and expansion activities of state Dairy lab Thiruvananthapuram, Regional labs, District level labs and mobile QC units, documentation charges, assistance for regional labs at Kottayam, Kasargod and Alathur, setting up of advanced milk testing facility and completion of missing link for DCS, assistance for existing check post labs, need based assistance to DCs for improving the quality control activities. | 194.10 |
|  | **Total** | **₹400.00** |

An amount of ₹ 400.00 lakh provided for the scheme in the Budget 2021-22.

1. **Commercial Dairy and Milk Shed Development Programme**

**(Outlay: ₹4028.00 lakh)**

The Milk Shed Development Programme is aimed at bringing more farmers/ entrepreneurs and self-help groups in to the sector and to maintain the productivity of cross bred cows and to create awareness among farmers in adopting scientific management in cattle farming. A transition from subsistence dairy farming to viable commercial dairy farming with technology support is imperative for enhancing production and productivity. The outlay will be utilized for extending the promotion of commercial dairy units to more selected milk shed and other potential areas, cow and heifer units, purchasing milking machines, assistance for cattle shed, women cattle care programme etc. It is envisaged that 50 per cent of beneficiaries of the project will be women.

The component wise details of the scheme is as follows

* Assistance for cow units
* Heifer units
* Support to women cattle care programme
* Assistance to progressive dairy farmers
* Construction of cattle shed and assistance to purchase milking machines
* Ksheera Gramam programme at selected Panchayats
* Documentation charges
* Establishing Heifer parks – 50 animals per park
* Infrastructure development and automation of commercial dairy farms
* Skill development and self-employment – specialized training of milkers through dairy co-operatives
* Establishing straw collection and bailing units at Palakkad and Alappuzha
* Operational Cost
* Assistance to dairy development in Idukki

Provision set apart for implementing Ksheeragramam programme at selected Grama Panchayats. The scheme components include herd induction units, assistance for construction of cattle shed, elevated model community cattle shed in Kuttanad Taluk, purchase of milking machine, mechanization of farm, assistance for cow comfort factors, vermi compost, special training module etc.

An amount of ₹4028.00 lakh provided for the scheme in the Budget 2021-22.

1. **Cattle Feed Subsidy**

**(Outlay: ₹1433.00 lakh)**

Enhanced milk production and procurement, bring more farmers under the dairy co-operative umbrella, maintain dairying as a sustainable profession and attract more young entrepreneurs into the sector by giving more employment opportunities are the objectives of the scheme. To achieve this, the project aims to subsidize the milk production cost by providing assistance for the cost of cattle feed purchased from dairy co-operative societies based on the quantity of milk poured. The scheme provides feeding subsidy as production incentive to dairy co-operatives. It is envisaged that 50% of beneficiaries of the project will be women.

An amount of ₹1433.00 lakh provided for the scheme in the Budget 2021-22.

1. **Production and conservation of fodder in farmers fields and Dairy Co-operatives**

**(Outlay: ₹760.00 lakh)**

The major limiting factor in the dairy sector is scarcity of fodder and on account of this, cost of production is higher in comparison with the neighbouring States. Suitable fodder production programmes are to be promoted to bring down the cost of production. Cultivate perennial green fodder crops, introduce new scientific low cost feeding culture among dairy farmers, uplift the sustainability and reliability in dairying by reducing the feeding cost, improve the general health of the milch animals and the quality of milk, ensure availability of green fodder and planting materials throughout the year, generate employment and income to the producers by sale of fodder etc. are the main objectives of the scheme. It is envisaged that 50 per cent of beneficiaries of the project will be women.

Outlay is provided for giving assistance to farmers for fodder cultivation, azolla cultivation, maize cultivation, irrigation assistance, assistance to State Fodder Farm, Valiyathura, Thiruvananthapuram, mechanization and modernization of fodder activities, commercial and massive fodder production in barren lands and wastelands etc.

An amount of ₹760.00 lakh provided for the scheme in the Budget 2021-22.

1. **Support to Dairy farmers Welfare fund for Insurance coverage**

**(Outlay: ₹25.00 lakh)**

In order to support the activities of the welfare of dairy farmers, an amount of ₹25.00 lakh is provided in the year 2021-22 and it will be utilized for social welfare scheme for the dairy farmers with coverage for death due to accidents, physical disability from accidents, medical expenses for the treatment of critical illness etc.

An amount of ₹25.00 lakh provided for the scheme in the Budget 2021-22.

1. **Assistance to Brahmagiri Development Society**

**(Outlay: ₹50.00 lakh)**

Brahmagiri Development Society organized and set up in Wayanad is a Non-Governmental Organization started with the initiative of Dairy Development Department during the year 1999. The same has flourished and now it is running as a major institution in Wayanad with its interventions and scope widened to agriculture and agriculture related activities. An amount of **₹**50.00 lakh provided for infrastructure development and socio-economic welfare activities of Brahmagiri Development Society.

1. **Assistance to Dairy Development in Wayanad**

**(Outlay: ₹25.00 lakh)**

Assistance will be provided for the construction/renovation of cattle shed, distributing mineral mixture, construction of biogas plant, awareness cum training programme and documentation of monitoring charges.

An amount of ₹25.00 lakh is provided as special package for dairy development in Wayanad.

**New Scheme**

1. **Establishing Kerala State Dairy Management Information Centre (KSDMIC) at State Fodder Farm, Valiyathura**

**(Outlay: ₹50.00 lakh)**

Kerala State Dairy Management Information Centre (KSDMIC) intends to integrate the departmental activities pertaining to co-operation, fodder development, nutrition feeds and fodder, utilization of non-conventional feed stuffs for dairy and animal feeding, indigenous dairy products. The Institute carry out data collection and processing activities, engaged in R&D activities pertaining to the areas viz, suitability of fodder varieties, R&D in indigenous dairy products, adaptability of milch animals to various types of housing systems etc.

An amount of ₹50.00 lakh provided for establishing the Kerala State Dairy Management Information Centre in the Budget 2021-22.

**1.5 FISHERIES**

The outlay provided for the fisheries sector in Budget 2021-22 is ₹20364.00 lakh. The total budget allocation includes an outlay of ₹9212.00 lakh for Inland Fisheries, ₹2000.00 lakh for Marine Fisheries, ₹1000.00 lakh under NABARD assisted RIDF schemes, ₹1212.00 lakh for Fishing Harbours and Management and ₹3350.00 lakh for Kerala University of Fisheries and Ocean Studies.

The details of budget outlay for fisheries sector during 2021-22 is given below –

**1. Inland fisheries**

**(Outlay ₹9212.00 lakh)**

The outlay earmarked for the umbrella scheme ‘Inland Fisheries’ during 2021-22 is ₹9212.00 lakh. The scheme includes 8 components as given below.

|  |  |  |
| --- | --- | --- |
| **Item** | **Components** | **Amount**  **(₹** **in lakh)** |
| a | Conservation and Management of Inland Fish resource | 500.00 |
| b | Fish seed farm, hatchery, nursery and aquariums | 1600.00 |
| c | Development of aquaculture | 6262.00 |
| d | Support service for Aquaculture | 400.00 |
| e | Establishment of Matsyabhavans in inland areas | 100.00 |
| f | Aquatic animal health surveillance and management | 100.00 |
| g | Reservoir fisheries development | 150.00 |
| h | Cleaning of brackish water lakes | 100.00 |
|  | **Total** | **9212.00** |

**a) Conservation and Management of inland fish resource**

The scheme is proposed to increase the fish landings in the state through inland capture fisheries by protecting the natural stock through Fisheries Management Councils (FMCs), by conducting patrolling to prevent illegal fishing, by enhancing the fish production through ranching, establishment of protected area, restoration of damaged aquatic ecosystems, and mangrove afforestation. The scheme also includes fisheries resource mapping by the application of remote sensing and geographical information system, assessment of fish catch, buy-back of licensed stake net and Chinese net. An amount of ₹500.00 lakh is provided as budgetary support during 2021-22 for implementation of the scheme.

**b) Fish farms, Nurseries and Hatcheries**

The constraint for fish farming in Kerala is the lack of good quality fish seed in adequate quantity. Through this scheme production capacity of existing farms, nurseries and hatcheries will be enhanced by providing more infrastructure facilities; and new hatcheries will be established. An amount of ₹900.00 lakh is provided for these activities. Out of the total outlay, an amount of ₹30.00 lakh is earmarked for the facilities and activities for fish seed certification and quality inspection so that quality fish seeds are available to fish farmers. Additionally, an amount of ₹700.00 lakh is earmarked for the operation and maintenance of existing Govt. farms, hatcheries, nurseries and aquariums.

**c) Aquaculture development**

One of the targets of 13th FYP is to double the aquaculture production by expanding aquaculture into new areas and also by enhancing productivity from the existing area by optimum utilization of water bodies, use of good quality seed and nutritionally balanced feed, implementation of disease prevention measures and adoption of innovative technologies. A budgetary provision of ₹6262.00 lakh is earmarked for aquaculture development of which, an amount of ₹350.00 lakh is provided for meeting the administrative cost of 14 Fish Farmers Development Agencies. Of the total outlay, an amount of ₹2000.00 is earmarked for aquaculture activities under Subhiksha Keralam and the scheme is expected to largely benefit women.

The aquaculture activities include -

* Intensive fish farming viz, biofloc, aquaponics, cage and RAS;
* Farming of Carp, Pangassius and indigenous air breathing fish in pond;
* One paddy - one fish farming;
* Farming of brackish water fish in cage and ponds.
* Farming of shrimp, crab and mussel.

It also include provisions for aquaculture support activities such as IEC activities, Capacity building programme, aquaculture award, risk mitigation, engagement of aquaculture promoters & project Co-ordinators, Matsya Karshaka Club, Matsyakrishi Sevana Kendram, Matsya Karshaka Mitram, and adoption of new technology and research. Out of the total outlay ₹200.00 lakh each is earmarked for acquaculture development in Idukki & Wayanad Districts.

**d) Support services for Aquaculture**

An amount of ₹400.00 lakh is provided for ensuring support services for aquaculture such as development of feed mill and demonstration farms and aquaculture implement shops.

**e) Establishment of Matsyabhavans in inland areas**

The shortage of technical support, guidance and monitoring is a factor inhibiting the expansion in inland fisheries especially aquaculture. Establishment of Inland Matsyabhavans at strategic locations can solve the problem to a great extent. An amount of ₹100.00 lakh is provided for establishment of Matsyabhavans in inland area for the promotion of aquaculture activity. The provision is for engaging adequate number of Fisheries Extension Officers and Sub-inspectors of Fisheries.

**f) Aquatic Animal Health surveillance and management**

As the outbreak of diseases poses a severe threat to aquaculture, Aquatic Animal Health Surveillance and Management system is very essential for timely identification of disease in the early stage itself, which may reduce the mortality rate and further spread. It is proposed to establish a network of 10 Aquatic Animal Health Centre (AAHC) and 20 Mobile Aqua Laboratories for timely investigation, diagnosis and adopting therapeutic measures. The Mobile Aqua Laboratories will have the facilities for conducting clinical examination of live/dead aquatic animal, sample fixing, water and soil quality analysis. Besides this, the AAHC will have additional facilities for microbiology, histology and molecular diagnosis. It also includes charges for operation of AAHC and Mobile Aqua Laboratories, various tests for ensuring water quality, aquatic animal health AMR and antibiotic residue as a part of passive surveillance programme and charges for diseases diagnosis, seed quality assurance, medicine and disinfection of diseased sites as part of active surveillance programme. An amount of ₹100.00 lakh is provided for the scheme during 2021-22.

**g) Reservoir Fisheries Development**

Reservoirs have great potential for augmenting inland fish production. Serious steps will be taken to utilize the reservoirs of the State for fisheries development programme. In the case of smaller reservoir, fish stock enhancement programme would be sufficient, while medium and large reservoirs will be used for stock enhancement and cage farming of fish. Fish stock enhancement programme will be limited with the seeds of endemic carps, endemic catfishes, Pearl spot and Mahaseer in the case of reservoirs within wild life sanctuaries. An amount of ₹150.00 lakh is provided for implementation of the scheme.

**h) Cleaning of brackish water lakes**

The major brackish water lakes in Kerala are facing the threat of habitat deterioration with pollution, exotic weeds and siltation. Considering as a fragile ecosystem, deterioration of water quality and consequent damage to aquatic organisms it is the time to protect and conserve the brackish water lakes of Kerala. As a pioneer effort, Government of Kerala initiated a drive to clean Vembanad and Ashatamudi lakes with the participation of stakeholders of the lakes and LSGs. In order to keep the lake system clean and thus provide conducive condition for propagation of fish population and cleaning activities in a systematic manner, an amount of ₹100.00 lakh is provided for the purpose.

**2. Marine fisheries**

**(Outlay ₹2000.00 lakh)**

The outlay earmarked for the umbrella scheme ‘Marine Fisheries’ in 2021-22 is ₹ 2000.00 lakh. The scheme includes 6 components as shown below-

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **Components** | **Amount**  **(₹** **in lakh)** |
|
| a | Conservation and management for marine fish resources | 800.00 |
| b | Sea safety & Sea rescue operations | 500.00 |
| c | Fishing implements for traditional fishermen | 150.00 |
| d | Insurance coverage for marine fishing implements | 200.00 |
| e | Mariculture activities | 100.00 |
| f | Marine ambulance -Operation and maintenance | 250.00 |
|  | **Total** | **2000.00** |

**a) Conservation and Management of marine fish resource**

A steady declining trend of marine fish landing is recorded during 12th plan period. As per the reports of Central Institutes, the decline is due to over fishing, indiscriminate juvenile fishery and capture of brood fish. In order to sustain marine fisheries for nutritional food security, economic growth and ensuring the sole livelihood of fishermen; effective surveillance and management principles in natural marine fisheries has to be effectively implemented. The components include strict surveillance of KMFR Act, online registration and licensing of fishing vessels, co-management of marine fishery resources & functioning of Fisheries Management Councils (FMCs), fitting of holographic registration plate and vessel tracking device in mechanized fishing vessels, establishment of new fisheries stations, establishment of effective communication network, camera surveillance in the fishing harbours and fish landing centers, establishment of artificial reefs/marine protected areas, adoption of new technologies, ranching of fish seed for stock enhancement, marine catch data collection, hiring of 20 patrol boats for sea patrolling and engagement of 80 fisheries guards on contract basis, modernization of existing fisheries stations with new building, control room and sophisticated equipment. An amount of ₹ 800.00 lakh is provided for implementation of the above activities.

**b) Sea safety & Sea rescue operations**

Marine fishing is one of the most hazardous occupations in Kerala and it is reported that about 150 fishermen lose their lives every year while fishing at sea. About 4000 fishermen are rescued through Fisheries Stations using the existing rented boats and facilities. A full-fledged system is hence essential for sea safety and sea rescue operations.

As a part of sea safety measures, it is envisaged to provide 75% grant to the fishermen for the procurement of sea safety equipment such as Marine communication equipment, Global Positioning System, Life jacket, Life buoy, Automatic Identification System (AIS), Vessel tracking devices.

As a part of maintaining a fully-fledged sea rescue operation mechanism based on each fisheries station, it is envisaged (i) to engage trained traditional fishermen for sea rescue operations as per need, (ii) to provide training to fisherman as Deckhands/Engine Driver/Syrang (iii) to ensure the online recording of entry and exit of fishing vessel for fishing through Sagaraapp and weather forecast data dissemination. Setting up of master control room and regional control rooms are also envisaged. An amount of ₹500.00 lakh is provided for the implementation of the above activities.

**c) Fishing implements for traditional fishermen**

Under the scheme, an amount of ₹40.00 lakh is earmarked for providing assistance to the traditional fishermen for procuring large meshed gill net and sophisticated equipment for line fishing. An amount of ₹60.00 lakh is also earmarked for providing assistance to the traditional fishermen for procuring new outboard motor of less than 10 hp capacity. As a measure of wastage reduction and quality enhancement traditional crafts are to be provided with insulated boxes. A total budget outlay of ₹150.00 lakh is provided for implementation of the above activities during 2021-22.

**d) Insurance coverage for marine fishing implements**

Frequent damage to the fishing implements exacerbates the condition of already deprived fishermen. Hence, it is envisaged to provide Insurance coverage for marine fishing implements in traditional sector. An amount of ₹200.00 lakh is provided for meeting 90% premium as Government share.

**e) Mariculture activities**

It is proposed to utilize the potential of Kerala in mariculture development. CMFRI has already developed suitable technologies for mariculture which includes marine finfish farming in cages, off-bottom molluscan farming and seaweed farming. An amount of ₹100.00 lakh is provided for undertaking various mariculture activities.

f) **Marine ambulance –Operation and maintenance**

After the devastating Ockhi disaster, it had been decided to introduce three Marine ambulances equipped with all modern gadgets, paramedical staff and provisions for onboard medical care, which will serve as a rescue vessel for the fishermen getting into accident at sea. The construction of the three marine ambulances has been completed and launched. An amount of ₹250.00 lakh is provided for the operational expense which includes manning charges, fuel cost, cost of medicines, AMC and insurance charges.

**3. Pradhan Mantri Matsya Sampada Yojana (PMMSY) - Integrated Development and Management of Fisheries**

**(Outlay:** **₹560.00 lakh)**

The CSS Scheme Blue Revolution is replaced by Pradhan Mantri Matsya Sampada Yojana **(**PMMSY) during the year 2020-21 onwards for five years. The scheme is designed to address critical gaps in fish production and productivity, quality, technology, post-harvest infrastructure and management, modernisation and strengthening of value chain, establishing a robust fisheries management framework and fishers welfare.

The centrally sponsored scheme component is further segregated into Non-beneficiary oriented and Beneficiary orientated subcomponents/activities - under the following there categories.

* Enhancement of production and productivity
* Infrastructure and post-harvest activities
* Fisheries management and regulatory framework

The scheme envisages the integrated development and management of fisheries sector. An amount of ₹ 560.00 lakh is provided as state share for undertaking various activities under PMMSY, by channelizing share from Government of India. The components include development of Marine fisheries, replacement of fishing crafts, development of inland fisheries and aquaculture, retail fish market, value addition, post-harvest operation, national scheme for welfare of fishermen, National fisheries development board activities, training programme, strengthening of data base, GIS administrative cost etc.

**4. Modernization of fish markets, value addition and post-harvest activities**

**(Outlay: ₹150.00 lakh)**

It is estimated that 18% of total fish catch is discarded as spoiled fish due to its perishable nature. It can be reduced to a larger extent by establishing a cold chain network from the boat to the consumer which includes insulated box in fishing craft, onshore chilled storage facility, modernization of fish landing centres-harbours-wholesale markets (for hygienic handling and quality assurance), insulated vehicle (for better transport) and hygienic fish sales outlet at the end point. It includes provision for the establishment of fish processing center, fisher women friendly fish market, live and hygienic fish outlet, model fish market, fish super market, mobile fish vending kiosk, fish drying unit, value added fish production units, ice plants, cold storage facilities, auction halls and adaptive research for modern and sophisticated technologies for value addition and marketing. An amount of ₹150.00 lakh is provided for the scheme.

**5. Extension, Training and Service delivery**

**(Outlay:** **₹300.00 lakh)**

An amount of ₹300.00 lakh is provided for the scheme ‘Extension, Training and Service delivery’ which has 4 sub components as shown below.

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **Components** | **Amount**  **(₹ in lakh)** |
| a | Extension activities of the Department | 40.00 |
| b | Capacity building programme for the functionaries | 40.00 |
| c | e-governance, e-pricing and auctioning system | 100.00 |
| d | Modernisation of Training Centres and Matsyabhavans | 120.00 |
|  | **Total** | **300.00** |

1. **Extension activities of the Department**

The extension activities include conduct of awareness campaign, mela, exhibition, seminar, workshop, documentation, publication, public grievance redressal monitoring system (PGRMS), scheme monitoring and evaluation etc. An amount of ₹40.00 lakh is provided for the component.

1. **Capacity building programme for the functionaries**

The capacity building programme includes in-service training, short term refresher training and exposure visit in association with reputed fisheries institutions within and outside India and assistance for the promotion of innovative ideas. It also includes operational cost of NIFAM and other training centres of the department. An amount of ₹40.00 lakh is provided for the component.

1. **e-governance**

The components of e-governance includes hardware procurement, software development, upgradation of website, online communication network, AMC and maintenance of existing hardware and other electronic equipment, cost of KSWAN etc. It is also proposed to develop an e-pricing and auctioning system for fish at landing centers in Kerala.  It will help to get better price to the fishermen for their produce as well as availability of quality fish at a fair price to the consumers. An amount of ₹100.00 lakh is provided for the above components during 2021-22.

1. **Modernisation of Training Centres and Matsyabhavans**

An amount of ₹120.00 lakh is provided for the strengthening and modernization of existing Matsyabhavans and training centres with new facilities and equipment.

**6. Pradhan Mantri Matsya Sampada Yojana (PMMSY)**

PMMSY is a Centrally Sponsored flagship scheme to bring about sustainable and responsible development of Fisheries Sector in India. It has been approved for a period of 5 years from FY 2020-21 to FY 2024-25. The PMMSY is an umbrella scheme with two separate components namely (a) Central Sector Scheme (CS) and (b) Centrally Sponsored Scheme (CSS). The Centrally sponsored scheme (CSS) component is further segregated into Non-beneficiary oriented and beneficiary oriented schemes. The scheme would maintain a final balance between production and productivity activities including technology infusion, post-harvest infrastructure including strengthening and modernization of value chain and a robust management and Regulatory Framework. The following subcomponents/activities and outlays are proposed during 2021-22 annual budget.

1. **Integrated Aqua Park (New)**

**(Outlay: ₹500.00 lakh)**

Government of Kerala envisages establishment of an one-stop hub for showcasing all the developments in fisheries sector with the assistance of Central Government under Pradahan Manthri Matsya Sampada Yojana (PMMSY). The project can be taken up with private participation. The Integrated Aqua park **(**IAP) proposed to be setup at Puthuvypu, Kochi comprises hubs of multifarious fisheries activities/facilities covering production of quality seed, feed, seed rearing, fish culture, pre and post-harvest infrastructures, business model including Start-Ups, logistics, marketing, export promotion, innovations, technology incubation, knowledge dissemination, recreation etc. An amount of ₹500.00 lakh is provided as state share for initiating first phase of this mega ambitious project in fisheries sector under PMMSY.

1. **Integrated fishing harbor - post harvest processing –marketing infrastructure(New)**

**(Outlay: ₹2000.00 lakh)**

The Government of Kerala decided to develop one of its major Fishing harbours based at Kollam into a world class Fisheries Infrastructure Hub.  The hub will be an integrated harbor post-harvest processing-marketing infrastructure conforming to international standards for modern fishing harbor facilities which includes latest facilities for vessel berthing, fish unloading, fish handling, auctioning, storage, cold chain management, fish loading provisions, restrooms, hygienic sanitation, vehicle parking facilities, dry docks for vessels repair and overhauling etc. Digitalized fish auctioning, post-harvest processing, value addition and product marketing facilities, food parks etc. are other important components. The project will be designed, implemented and managed jointly by the Department of Fisheries, Harbour Engineering Department, Matsyafed and Kerala State Coastal Area Development Corporation.

The total project under PMMSY having an outlay of ₹10000.00 lakh will be completed in a phased manner. The central share of ₹3000.00 lakh for Modernization/Upgradation of existing Fishing Harbour and ₹3000.00 lakh for Construction of State of Art of Whole sale Fish market under PMMSY is proposed under the scheme. During the annual budget 2021-22, a provision of ₹2000.00 lakh is provided as state share for the first year of this mega project under PMMSY.

1. **FRP fishing boats with engines and gears to traditional fishermen (New)**

**(Outlay:** ₹**80.00 lakh)**

The recent Rules in 2018, after the amendment in KMFR act, insists that marine plywood boats should be de-fleeted after five years.  Thus department of fisheries has to take up steps towards the replacement of plywood crafts with FRP boats in a phased manner. An amount of ₹500.00 lakh is the total cost for assisting 100 fishermen groups (400 individuals). An amount of ₹200.00 lakh is government subsidy at the rate of 40% of the unit cost. Out of this ₹120.00 lakh (60%) will be sourced from the component Providing boats (replacement) and nets for traditional fishermen Under PMMSY. The state share of ₹80.00 lakh is provided during the year 2021-22 for the project.

**7. Fishing Harbours and Management**

The construction, maintenance and management of Fishing Harbours and Fish Landing Centres are crucial to the growth and development of the fisheries sector and coastal area in Kerala. Accordingly an amount of ₹1212.00 lakh is provided for the umbrella scheme ‘Fishing Harbours and Management. The scheme has two components as detailed below

1. **Development of Marine Fisheries, Infrastructure and post-harvest operations (PMMSY State Share)**

**(Outlay ₹400.00 lakh)**

It is expected that works pertaining to the construction of fishing harbours & Fish Landing Centres will be supported under PMMSY. Works proposed to be taken up during 2021-22 are Arthungal Fishing Harbour, Thanoor Fishing Harbour, Manjeswaram Fishing Harbour, Pozhiyoor Fishing Harbour, and upgradation of Ponnani, Kasaragod, Chellanam harbours.

An amount of ₹400.00 lakh is provided as state share for these items. The establishment charges of all harbours except the above have to be met from non-plan allocation.

1. **State schemes (Outlay ₹** **812.00 Lakh)**

During annual budget 2021-22, the state schemes include the following 8 sub components for which an amount of ₹812.00 lakh is provided.

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **Sub Components** | **Amount (₹** **in lakh)** |
| i | Surveys, Studies and Investigation for Fisheries infrastructure | 100.00 |
| ii | Completion and operationalization of Chettuva Fishing Harbour | 52.00 |
| iii | Completion and operationalization of Cheruvathoor Fishing Harbour | 50.00 |
| iv | Completion and operationalization of Koyilandi Fishing Harbour | 60.00 |
| v | Rectification works to resolve the problem of siltation at Thottappally Fishing Harbour | 200.00 |
| vi | Removal of plastic from water bodies – Sucitwa Sagaram | 49.90 |
| vii | Expansion and major additions to coastal infrastructure (new) | 300.00 |
| viii | Finger Jetty at Chalil Gopalapetta in Thalai Fishing Harbour | 0.10 |
|  | **Total** | **812.00** |

Under the sub component ‘Surveys, Studies and Investigation for Fisheries infrastructure’, it is proposed to take up surveys studies and investigation works of only infrastructure works pertaining to Fisheries and Coastal Area Development. Infrastructure is defined to include not only Fishing Harbours and Fish Landing Centres, but also other structures like roads, bridges, groynes, beach nourishment works, offshore breakwater, detached breakwater etc. The objective of the scheme is to channelise appropriate funding from Government of India and financial institutions for implementation. It also includes techno economic feasibility studies for projects and for establishing a comprehensive databank for morphological and environmental changes in coastal zone. In cases where survey, investigation and design cost are part of project cost, they have to be reclaimed after approval of such projects. Survey, Investigation and related works are to be undertaken only in those cases where there is considerable demand from Fisheries Department / HED for a project. An amount of ₹100.00 lakh is provided for these activities.

Rectification works to resolve the problem of siltation at Thottappally Fishing Harbour include those works selected to be taken up based on the recommendations of Central Water and Power Research Station. An amount of ₹200.00 lakh is provided for these activities.

Waste in seas, especially plastics, pose serious threat to fisheries and to the health of humans who consume fish. The scheme for removal of plastic from seas is proposed to be implemented along the coast of Kerala. A pilot project has been commenced at Neendakara port. An amount of ₹49.90 lakh is provided as viability gap fund for the Shuchitwa Sagaram project to meet expenses related to maintenance of machinery/equipment and payments to women working on the project. A token provision of ₹0.10 lakh is provided for Thalai fishing harbor at Chalil Gopalapetta to complete the infrastructure works.

A new component for the expansion of already commissioned fishing harbours/coastal structures and for non-conventional shore protection measures is provided during 2021-22 and an outlay of ₹300.00 lakh is earmarked as budgetary support.

**8. RIDF**

**(Outlay ₹1000.00 lakh)**

The state has been availing NABARD assisted RIDF for the construction of new fishing harbours, modernization of existing fishing harbours, construction of coastal bridges & roads undertaken by Harbour Engineering Department, on loan basis with repayment condition.

An outlay of ₹1000.00 lakh is provided in 2021-22 for timely completion of ongoing and new projects approved by NABARD under RIDF.

**9. Kerala University of Fisheries & Ocean Studies**

**(Outlay ₹3350.00 lakh)**

The Kerala University of Fisheries and Ocean Studies receives budget support for Infrastructure, Education, Research, Administration and Extension activities. For strengthening and developing the university, an amount of ₹3350.00 lakh is provided during 2021-22. The component wise breakup is as follows:

**a. Infrastructure**.

An amount of ₹1500.00 lakh is provided for infrastructure works during 2021-22. The activities proposed under state plan include -

|  |  |  |
| --- | --- | --- |
| **Sl.**  **No** | **Name of component** | **Amount ₹ (in lakh)** |
| i. | Seminar Complex, International hostel cum guest house and Staff quarters | 1500.00 |
| ii. | Renovation, repairs and maintenance of existing buildings at KUFOS HQ including staff quarters |
| iii | Development of fish farms |
| iv | Academic block at western campus |
| v | Construction of building for SME at KUFOS |
| vi | Construction of ladies UG Hostel |
| vii | Establishment of Fisheries Training, Extension and Research centre at Kollam and Establishment of Aquaculture Training, Extension and Research centre at Kannur |
|  | **Sub Total(infrastructure)** | **1500.00** |

**b. Education**

Strengthening of existing UG, PG and Ph.D programmes are envisaged under the scheme for the 4 schools namely School of Fishery Environment, School of Ocean Studies & Technology, School of Ocean Engineering & Underwater Technology; School of Management & Entrepreneurship and the Faculty of Fisheries. The expenses under strengthening of existing UG, PG, & PhD programmes include honorarium for contractual faculties, teaching materials, Fellowship MFSc & PhD, RAWE Programme and other equipment/machinery for the courses. It is also proposed to strengthen the activities of Internal Quality Assurance Cell (IQAC) and Physical Education Department. All School administration expenses and salary should be met from Non plan. Staff salary is not included in plan. An amount of ₹950.00 lakh is provided for education during 2021-22.

**c. Research**

An amount of ₹ 600.00 lakh is provided for research activities of the University in 2021-22. Item wise break-up is as below -

|  |  |  |
| --- | --- | --- |
| **Sl.No** | **Name of Component** | **Amount**  **(₹ in lakh)** |
| i | Centre of Excellence in Sustainable Aquaculture & Aquatic Animal Health Management (CAAHM), Centre of Excellence in Aquatic Resource Management and Conservation (CARMC), Centre of Excellence in Food Processing & Technology (CEFPT) And Centre of Advanced Studies and Research in Entrepreneurship Development in Fisheries, Agri-Business and Allied Sectors (CASRED) | 450.00 |
| ii | Strengthening of Directorate of Research & Extension | 150.00 |
| iii | Post Doc Programme and KUFOS aided research programme. |
| iv | Water and Soil Lab , Centre for Bioactive compounds |
| v | Faculty and student participation / paper presentation at seminars, conferences and workshops |
| vi | Multi species finfish hatchery, puthuveypu and GIFT hatchery |
| vii | Aquatic animal disease diagnosis and quality control referral laboratory |
|  |  |
|  | **Total ( Research)** | **600.00** |

**d . Administration**

|  |  |  |
| --- | --- | --- |
| **Sl No** | **Component** | **Amount (₹ in lakh)** |
| i | Strengthening of Library by procurement of books and accessories | 45.00 |
| ii | E-Governance activities | 100.00 |
| iii | Contractual services | 5.00 |
|  | **Total ( Administration)** | **150.00** |

**e.Extension**

|  |  |  |
| --- | --- | --- |
| **Sl No** | **Component** | **Amount (₹ in lakh)** |
| i | Village adoption for empowerment and capacity building ensuring livelihood of fisher folk; and Earn while you learn programme | 150.00 |
| ii | Farm radio station |
| iii | Establishment of Audio video recording studio for hastening fisheries development in the State, Establishment of Fisheries Technical Portal and knowledge Centre, Farm Advisory Services, Exhibition outreach activities, and Field consultancy and data analysis/lab to land srrvices/ |
| iv | Inland water cage culture training including hiring of boat |
| v | Fisheries Museum/Aquarium, Modernisation and upgradation of instructional Field Training Facility, Activities of Farmers Training Centre; and Model fish processing plant and training centre |
| vi | Chair for policy studies on livelihood security and sustainable development of fisherfolk; and Centre for indigenous knowledge of traditional fisherfolk and research studies |
| vii | * Business strategies and models for managing fisheries sector and marketing of fish products: a study with special emphasis on Covid 19 outbreak in kerala * Livelihood status of marine fisherfolk in kerala in the post Covid 19 |
| viii | MOOC and strengthening the directorate of extension |
|  | **Total** | **₹150.00** |

Priority should be provided for development of educational infrastructure / assets and; research activities as per the requirements of fisheries sector.

**1.6 FORESTRY AND WILDLIFE**

The outlay provided for Forestry and Wildlife for the year 2021-22 is ₹200.50 crore. This total outlay is inclusive of the NABARD RIDF share of ₹30.00 crore.

The role of forests in reducing ecological and economic vulnerabilities is becoming more critical in the context of the present water scarcity and climate change. The XIII FYP envisions management of the forests primarily for their public goods functions- water security, biodiversity conservation, livelihoods of local communities and other social objectives. During 2021-22, the sector focuses on major themes such as increasing water security, minimizing human animal conflict, securing the lives and livelihoods of forest dependent communities and keeping forests as a safeguard against climate change.

**I. Management of Natural Forests**

Consolidation, enrichment, protection and maintenance of natural forests will be the priority areas for the management of natural forests. The programme envisages survey and demarcation of forests, protection from encroachments and other illegal activities, undertaking forest fire prevention activities, soil and moisture conservation and protection of special habitats, strengthening of Rapid Response Teams and Elephant Driving Teams etc.

1. **Forest Protection (Survey of Forest Boundaries and Forest Protection) (Revenue)**

**(Outlay: ₹ 2500.00 lakh)**

Consolidation of forest area, permanent demarcation of the forest boundaries and forest protection are essential for effective management of forest in the State. The key criteria shall be the protection, maintenance and renovation of existing resources. The activities under this programme include:

* Repair and maintenance of damaged cairns/ kayyalas/ other such forest boundary demarcating structures, maintenance and upkeep of the already acquired equipments
* Protection of forest ecosystems from uncontrolled fire through fire protection measures including formation/maintenance of fire lines, fire tracing. Procurement of fire fighting equipments, engaging fire protection mazdoors, assistance to VSS/EDCs for participatory fire management are also included under the scheme.
* Soil and moisture conservation activities such as construction/ maintenance of check dams, ponds, water storage facilities in forest areas and soil/ water retention structures
* Maintenance/repair of vehicles/motorboats/other means of transport used by forest staff for the protection of forests
* Prevention and handling of forest offences, situations anti ethical to forest and wildlife health
* Eradication of invasive weeds, prevention of ganja cultivation, employment of forest protection watchers, support to VSSs/ EDCs
* Formation/ renovation of damaged forest roads, coupe roads and trek paths, maintenance and upkeep of existing buildings
* Protection of special ecosystems in forests like sandalwood forest, shola forests, mountain ecosystems, grass lands, provision towards legal support, intelligence gathering etc
* Ensure sandal protection by providing mazdoors/ watchers in Marayoor, Attapady, Aryankavu and other important sandal bearing areas.
* Renovation/ maintenance of various human wildlife conflict mitigation structures*.*
* Hiring of vehicles and maintenance on a need based manner

An outlay of ₹2500.00 lakh is provided for implementing these activities during 2021-22. It is envisaged that 10 percent of beneficiaries of the project will be women.

1. **Forest Protection (Survey of Forest Boundaries and Forest Protection)** (**Capital)**

**(Outlay: ₹2700.00 lakh)**

The scheme aims at improving forest protection by demarcating forest boundaries and constructing permanent cairns to prevent encroachments and other threats. Major ongoing activities under this programme include:-

* Survey and demarcation of forest boundaries & enclosures within forests and mechanization of forestry works.
* Construction of boundary walls, retention walls, elephant proof walls, compound walls, construction and repair of cairns. A database on the cairns constructed will be prepared and maintained.
* Establishment of model forest stations and developing additional infrastructural facilities to the existing forest stations. This include computerization, modernization of protection activities by procuring arms and ammunition, introducing GIS enabled tracking systems etc.
* Reviving wireless system and improving other communication facilities.
* Procurement of camera traps, drones*,* night vision binoculars, fire fighting equipments for effective monitoring of interior areas.
* Procurement of gadgets like arms & ammunition, microchip reader, radio collars and equipments for dealing with human- animal conflict
* Procurement of modern electronic devices which helps in forestry perambulation, detection of forest fire, detection of ganja cultivation etc.
* Major repairs to infrastructure damaged due to floods will also be covered under this programme.

An outlay of ₹2700.00 lakh is provided for implementing these activities during 2021-22. It is envisaged that 10 percent of beneficiaries of the project will be women.

1. **Regeneration of Denuded Forests including Promotion of Medicinal plants**

**(a) Regeneration of Denuded Forests**

**(Outlay: ₹ 275.00 lakh)**

Degraded forests and failed plantations need to be restocked with indigenous species. The scheme supports conversion of pulpwood plantations into natural forests through eco restoration, treatment of existing plantations, raising indigenous seedlings etc.

Site specific rehabilitation of degraded forest works will be taken on the strength of a perspective plan prepared through participatory micro planning*.* Special protection of unique eco-systems like shola forests, mangroves and other eco-systems in special areas will also be carried out under this component. An outlay of ₹275.00 lakh is provided for implementing these activities during 2021-22. It is envisaged that 31 percent of beneficiaries of the project will be women.

**(b) Non wood Forest products including promotion of Medicinal Plants**

**(Outlay: ₹190.00 lakh)**

There is an increasing demand for NWFPs including medicinal plants, the main source of livelihood of forest dependent communities .The scheme proposes to raise and manage plantations of native NWFP and medicinal plant. Major activities proposed under the scheme are:

* Fresh planting, maintenance of plantations including fire protection, raising seedlings for plantations
* Preparation of division wise inventory of NWFP, value chain and business plan for value addition and marketing of NWFPs
* To assess the quantity & distribution of NWFPs in the forests, the nature of current collection and use of these NWFPs and to develop sustainable harvesting protocols
* Developing/ upgrading value addition techniques/ facilities
* Developing marketing networks
* Supporting in- situ and ex-situ conservation of medicinal plants
* Setting up of infrastructure for field storage, value addition and marketing, branding of products etc.

An outlay of ₹190.00 lakh is provided for implementing these activities during 2021-22. It is envisaged that 21 percent of beneficiaries of the project will be women.

**II. Improving Productivity of Plantations**

The objective of the scheme is to enhance the productivity of existing plantations, to promote forestry activities and practices by combining with agriculture, so that the pressure on forest eco-system due to the increased social needs is gradually reduced. The productivity of plantations will be improved by adopting modern technologies. Harvesting of plantations will be limited to the extent that could be successfully regenerated with appropriate site- specific species mix. Some of the activities proposed under the scheme are raising and maintenance of teak and other hardwood plantations, special tending operations of older teak plantations, scheme for promotion of valuable hardwood timber species like Vellakil, Kambakom, Irul, Chadachi etc.

1. **Hardwood Plantation**

**(Outlay: ₹500.00 lakh)**

The objective of the scheme is to improve the quality and area of hardwood plantations and eco restoration of failed plantations to natural forests. Under this scheme, plantations of native hardwoods including teak, kambakom, maruthu, thembavu, thanni, irul, chadachi, sandal etc are managed. Plantations which are poorly stocked or degraded will be replanted /restocked with indigenous seedlings for conversion to natural forests*.* The older plantations of hardwood will be fire protected.

An outlay of ₹500.00 lakh is provided for implementing these activities during 2021-22. It is envisaged that 23 percent of beneficiaries of the project will be women.

**(ii) Industrial Raw Material Plantation**

**(Outlay: ₹240.00 lakh)**

This scheme is for the plantations of pulpwood, fast growing species and soft wood which are conducive to the nature. Replanting or converting failed plantations into natural forests with suitable indigenous species and maintenance/ eco restoration of existing plantations are the activities envisaged. An outlay of ₹240.00 lakh is provided for implementing these activities during 2021-22. It is envisaged that 15 percent of beneficiaries of the project will be women.

**III. Infrastructure Development**

**(Outlay: ₹800.00 lakh)**

The activities under infrastructure development comprises of construction and maintenance of forest buildings and forest roads. During 2021-22, an outlay of ₹800.00 lakh is provided for infrastructure development. Out of this, ₹400.00 lakh is provided for the construction and renovation of office buildings, quarters, picket stations, check posts, residential complexes and modernization of the existing buildings.

For the renovation/creation of roads inside forest areas*,* ₹400.00 lakh is provided out of the total outlay. The outlay is provided for improvement of forest roads including re-tarring, concreting, cross- drainage works, works relating to side drain and protective walls, rubble packing, wheel base concreting etc as well as for major repairs ( due to flood damages).

**IV Bio-diversity Conservation and Protected Area Management**

Protection of forests and wild life and conservation of bio-diversity are the core objectives of the scheme. Conservation measures are also extended to the fragile ecosystems like mangroves, wetlands, sacred groves etc. Management of forests and wildlife, control of poaching, illegal trade in wildlife, education interpretation, awareness programmes etc. are the major activities.

1. **Conservation of Bio-diversity**

**(Outlay: ₹1000.00 lakh)**

The main objective of the scheme is conservation of biological resources. Activities include habitat improvement, awareness creation, participatory natural resource management, maintenance of rescue centres, fire protection, conduct of anti-poaching camps, water resource management, eco development activities, Wildlife Week celebrations, prevention of depredation of crops by animals, conducting training and research, removal of obnoxious weeds, awards for nature conservation activities etc. It also aims at conservation of biodiversity rich areas outside forests and protected areas like mangroves and sacred groves. An outlay of ₹1000.00 lakh is provided during 2021-22. It is envisaged that 30 percent of the beneficiaries of the project will be women.

1. **Eco-Development Programme**

**(Outlay: ₹375.00 lakh)**

Eco development involves participatory conservation of natural resources wherein the participation of local communities are ensured in and around Protected Areas and forest areas utilizing their indigenous knowledge and experience and empowering the local committees. Eco development programme addresses the issues of interface with people, particularly planning and implementation support to foster alternative livelihood system and resource management. Eco development programmes in various sanctuaries will be under taken. The major activities include hamlet development programmes, especially flood affected areas in tribal hamlets, alternate livelihood programmes, training in skill up gradation, especially in handicrafts, propagate alternate energy resources and renewable energy devices, solid waste disposal, organic farming, providing drinking water facilities etc*.* An outlay of ₹375.00 lakh is provided during 2021-22. It is envisaged that 30 percent of the beneficiaries of the project will be women.

**(3) Integrated Development of Wild Life Habitats (CSS 60:40)**

In Kerala, there are 16 wildlife sanctuaries, 5 national parks and one community reserve. In addition to the above, two Tiger Reserves and four Elephant Reserves also receive financial assistance under this scheme. Major activities of these schemes include fire protection, construction and maintenance of trek paths, infrastructure facilities including construction and maintenance of offices, quarters, camping sheds, dormitories, provision of communication, equipment like wireless sets, construction of electric fences, rubble walls and elephant proof trenches to reduce man- animal conflict, compensation to victims of wildlife attack, training and research to strengthen bio diversity conservation, digging water holes, construction of check dams, removal of obnoxious weeds, nature camps, exhibition of sign boards, printing & distribution of brochures, maintenance of information centres to provide wildlife education, providing alternate livelihood to the local people by way of supply of better yielding livestock, training, supply of solar lamps etc.

**i. Management of Wild life Sanctuaries -16 nos (40% State Share)**

**(Outlay: ₹470.00 lakh)**

The provision is to meet 40% state share of CSS for the maintenance of the following 16 Wildlife Sanctuaries. Karimpuzha in Malappuram district is declared as a new wildlife sanctuary.

|  |  |  |
| --- | --- | --- |
| **Sl No** | **Name of Sanctuaries** | **Amount**  **(₹in lakh)** |
| 1 | Neyyar WLS | 37.00 |
| 2 | Wayanad WLS | 78.00 |
| 3 | Idukki WLS | 40.00 |
| 4 | PeechiVazhani WLS | 40.00 |
| 5 | Peppara WLS | 32.00 |
| 6 | Shendurney WLS | 40.00 |
| 7 | Chimmony WLS | 35.00 |
| 8 | Aaralam WLS | 35.00 |
| 9 | Chinnar WLS | 26.00 |
| 10 | Thattekkad Birds Sanctuary | 23.00 |
| 11 | Mangalavanam Birds Sanctuary | 5.00 |
| 12 | KurinjimalaSanctuary | 9.00 |
| 13 | Choolannur Peacock Sanctuary | 7.00 |
| 14 | Malabar Sanctuary | 17.00 |
| 15 | Kottiyoor WLS | 19.00 |
| 16 | Karimpuzha Wildlife Sanctuary ( NEW) | 27.00 |
|  | **TOTAL** | **470.00** |

**ii. Management of National Parks - 5 Nos( 40% State Share)**

**(Outlay: ₹220.00 lakh)**

The provision is to meet 40% state share of CSS for the maintenance of the following five National Parks.

|  |  |  |
| --- | --- | --- |
| **Sl.**  **No.** | **Name of National Parks** | **Amount (₹in lakh)** |
| 1. | Eravikulam National Park | 80.00 |
| 2. | Silent Valley National Park | 80.00 |
| 3. | Anamudi National Park | 20.00 |
| 4. | Mathikettanmala National Park | 20.00 |
| 5. | Pampadumshola National Park | 20.00 |
|  | **TOTAL** | **220.00** |

**iii. Management of Community Reserve (40% State Share)**

**(Outlay: ₹10.00 lakh)**

An amount of ₹10.00 lakh is provided for Kadalundi – Vallikkunnu Community Reserve. This is to meet the 40 % state share of CSS.

**iv. Project Tiger - 2 Tiger Reserves (40% State Share)**

**(Outlay: ₹645.00 lakh)**

Two Tiger Reserves receive financial assistance under the scheme. Outlay is provided to meet 40% SS of the CSS.

|  |  |  |
| --- | --- | --- |
| **Sl.**  **No.** | **Name of Tiger Reserves** | **Amount**  **(₹ in lakh)** |
| 1. | Periyar Tiger Reserve | 355.00 |
| 2. | Parambikulam Tiger Reserve | 290.00 |
|  | **TOTAL** | **₹645.00** |

**v. Project Elephant (40% State Share)**

**(Outlay: ₹ 520.00 lakh)**

Elephant habitat of the State falling in the Western Ghats have four elephant reserves namely Periyar, Anamudi, Nilambur and Wayanad*.* Better protection and improvement of the habitat of elephants and protection of people and their crops from elephant attacks are the objectives of the scheme. The major activities are better protection and improvement of habitat of elephant, captive elephant management and welfare, eliciting public cooperation and mitigation of human elephant conflict etc. Outlay is provided as 40% SS of CSS. An amount of ₹520.00 lakh is provided to meet the 40% state share of CSS.

(**4**) **National Afforestation Programme-National Mission for Green India (40% State Share)**

**(Outlay: ₹ 329.00 lakh)**

National Mission for Green India (GIM), one of the eight missions under the National Action Plan on Climate Change (NAPCC), recognizes that climate change phenomena will seriously affect and alter the distribution, type and quality of natural biological resources of the country and the associated livelihood of the people. GIM acknowledges the influences that the forestry sector has on environmental amelioration through climate mitigation, food security, water security, biodiversity conservation and livelihood security of forest dependent communities.

The goals of National Afforestation Programme are (1) Sustainable development and management of forest resources (2) Increase and/or improve Forest and Tree Cover (FTC) (3) Supplementing livelihood improvement processes.

The interventions undertaken under NAP are

* Assisted Natural Regeneration (ANR)
* Artificial Regeneration(AR)
* Restoration of Bamboo
* Restoration of Cane
* Pasture Development (PD)
* Mixed Plantation of trees having MFP and medicinal value
* Regeneration of perennial herbs and shrubs of medicinal plants

Green India Mission aims to address key concerns related to climate change in the forest sector viz adaptation, mitigation, vulnerability and ecosystem services. Major activities proposed under Green India Mission are (1) Enhancing the quality of forest cover and improving ecosystem services (2) Ecosystem restoration and increase in forest cover (3) Enhancing tree cover in urban and peri - urban areas (4) Agro forestry and social forestry (increasing biomass & creating carbon sink) (5) Restoration of wet lands (6) Promoting alternative fuel energy (7) Support activities. An amount of ₹329.00 lakh is provided during 2021-22 to meet 40% State share of CSS.

1. **Integrated Forest Protection Scheme (renamed as Forest Fire Prevention and Management scheme (FPMS) by GoI (40% State Share)**

**(Outlay: ₹160.00 lakh)**

Government of India has renamed the Integrated Forest Protection scheme as Forest Fire Prevention and Management Scheme from 2018-19 onwards. Important activities of the scheme are preparation and approval of Fire Management Plans, creation of firelines, procurement of fire fighting equipments, activities related to forest fire, its control and management as well as the activities ancillary to fire control like water sources development, infrastructure support, awareness programmes etc. The provision is to meet 40% state share of the scheme**.** An amount of ₹160.00 lakh is provided during 2021-22 to meet 40% state share of the CSS.

**(6) Conservation of Natural Resources and Ecosystems (40% State Share)**

Biosphere reserves help to integrate conservation with sustainable use at the landscape level so that the complementarities are fully tapped and conflicts minimized. Kerala has two Biosphere Reserves - Nilgiri Biosphere Reserve and Agasthyamala Biosphere Reserve. Under wetland conservation, mangrove and coral reef conservation and management is envisaged. Biosphere Reserves, Wetland Conservation and Integrated development of wildlife habitats to Wayanad wild life sanctuary for voluntary relocation of settlements from protected areas are included under this scheme*.*

1. **Nilgiri Biosphere Reserve (NBR) – (40% State Share)**

**(Outlay: ₹100.00 lakh)**

Total area of Nilgiri Biosphere Reserve is 5520.40 sq.km. The area of Kerala part of NBR is 1455.40 sq.km. The forest divisions coming under Nilgiri Biosphere Reserve are Wayanad Wildlife Sanctuary, Silent Valley National Park, Nilambur South, Mannarkkad, Palakkad, Nilambur North, Kozhipara, Punchakolly, Ex. Karulai Range, and Kozhikode &Wayanad South. The main activities proposed are value addition activities, setting up of pilot projects, habitat improvement activities, rehabilitation of landscape of threatened species and ecosystem, development of eco tourism, socio economic upliftment of local communities, maintenance of protection corridors etc. During 2021-22, ₹100.00 lakh is provided as 40% SS.

1. **Agasthyamala Biosphere Reserve (ABR) – (40% State Share)**

**(Outlay: ₹120.00 lakh)**

Total area of ABR is 3500.00 sq. km. The area of Kerala part of ABR is 1828.00 sq.km*.* The amount earmarked is for the improvement of the biosphere programme to be implemented over the Agasthyamala Hill Ranges. The area within the ABR includes Neyyar, Peppara, Shendurney Wildlife sanctuaries, Achencoil, Thenmala, Konni, Punalur and Thiruvananthapuram territorial divisions and Agasthyavanam Biological Park Range. The main activities proposed are value addition activities, setting up of pilot projects, habitat improvement activities, rehabilitation of landscape of threatened species and ecosystem, development of eco tourism, socio economic upliftment of local communities, maintenance of protection corridors etc. During 2021-22, ₹120.00 lakh is provided as 40% SS.

1. **Wetland Conservation (40% State Share)**

**(Outlay: ₹170.00 lakh)**

Under this programme, conservation and management of both mangroves and coral reefs are envisaged*.* The activities included under this programme include planting of mangroves, procurement of equipments and accessories required for management purpose, extension and awareness activities, entry point activities like sanitation, waste disposal mechanism and family health care activities, promotion of agro forestry, removal of pollutants, habitat improvement etc. In the case of coral reef, activities include survey of coral reef, creation of artificial reef, awareness programmes, infrastructure support, scientific support, entry point activities and documentation reporting and monitoring*.* During 2021-22, an amount of ₹170.00 lakh is provided as 40% SS.

1. **Integrated Development of Wild Life habitats in Wayanad Wild Life Sanctuaryfor voluntary Re-location of settlements from protected areas (40% State Share)**

**(Outlay: ₹300.00 lakh)**

The programme is for the voluntary re-location of tribal families settled in the Wayanad Wild Life Sanctuary. Government of India has approved funds to the tune of ₹80 crore for voluntary relocation of 14 settlements in Wayanad sanctuary*.* Relocating settlements to the forest fringes helps to reduce human animal conflicts and to improve access to the basic living facilities*.* During 2021-22, an amount of ₹300.00 lakh is provided as 40% SS.

**V. Eco Tourism**

**(Outlay: ₹500.00 lakh)**

At present, there are more than 60 eco-tourism sites in the State. The eco tourism in the State is managed based on the strategy of biodiversity conservation, environmental education and livelihood improvement of forest dependent communities. Major activities include maintenance of the sites, developing eco-tourism products, maintenance of natural history museum, construction and maintenance of amenity centre, construction of micro/pico hydel stations, preservation of forest heritage sites etc.

Other activities include managing tourism in high visitor areas, camping equipments, minimum facilities such as toilets, sitting places, viewing structures, canteen, resting place, capacity building among staff, improvement of approach roads to ecotourism centres etc. Sites that have suffered significant damage to infrastructure due to floods are to be repaired/ renovated. It is also envisaged to assess the carrying capacity potential of various sites as well as to undertake required studies/researches, workshops etc. During 2021-22, an amount of ₹500.00 lakh is provided to implement the scheme. Out of the total outlay, ₹150.00 lakh each is provided for eco tourism activities in Idukki and Wayanad districts. It is envisaged that 16 percent of the beneficiariesof the project will be women.

**VI. Human Resources Development**

**(Outlay: ₹350.00 lakh)**

The existing facilities of training institutes at Walayar, Arippa and at the foresty complex PTP Nagar are proposed to be strengthened. The other activities proposed are organisation of regular training programmes for the SFOs, BFOs, tribal watchers and drivers at the entry level, awareness and capacity building programmes for the various functionaries of Forest Department, NGO’s and other development agencies connected with forestry activities etc. The induction and in-service orientation training programmes to different levels of staff of the Forest department will be undertaken.

The outlay will also be utilised for conducting physical fitness training programmes and organizing workshops and seminars by adhering to necessary protocols in existence. The staff expenses and other establishment charges will be met from non-plan and only the cost of additional facilities and training expenses will be met from this provision. It is also proposed to purchase audio- visual equipments, honorarium to the guest faculty for Management Development Programmes for senior officers and specialized training in the field of biodiversity conservation and NTFPs. Training will also be organized as part of the urban forestry. A portion of the outlay will be utilized for the upgradation of Kerala Forest Schools at Walayar and Arippa. An outlay of ₹350.00 lakh is provided during 2021-22.

**VII. Resource Planning and Research**

**(Outlay: ₹150.00 lakh)**

Working Plans and Management Plans of Kerala Forest Department are the documents prepared on scientific basis for management of the forests for a period of 10 years for each division. The required field inventory has to be made for preparing the working plans. The working plans are prepared after elaborate inventory and data collections on the forest resources.

There are six silvi cultural research units under two Research Divisions in the State. Maintenance of existing research plots and carrying out fresh research activities are envisaged under this scheme. The State has about 1.5 lakh hectares under production forestry. These plantations are being harvested on attaining rotation age and replanted as per the prescriptions in the Working Plans. Supply of genetically superior planting materials are essential for increasing the productivity of plantations as well as reducing the rotation age. The State has also developed Seed Production Areas for important species like teak, sandal etc. The outlay is provided for the preparation of working plans, support for research activities and for genetically superior planting material. During 2021-22, it is proposed to prepare new working plans for 11 divisions for approval from Government of India. An outlay of ₹150.00 lakh is provided during 2021-22. It is envisaged that 33 percent of the beneficiaries of the project will be women.

**VIII. Forest Management Information System and GIS**

**(Outlay: ₹150.00 lakh)**

For undertaking Forest Management Information System and GIS works, an amount of ₹150.00 lakh is provided during 2021-22 for the following activities.

1. Introduction of computers down to forest station level
2. Replacement/ Procurement of personal computers, laptops with internet connectivity, printers, multi functioning photocopiers, Global Positioning systems, Scanners, MM projectors, Online UPS servers, Solar chargers, Binoculars, Cameras, modern forestry equipmentsetc for the Department.
3. Upgradation/ Procurement of various operating softwares, GIS related softwares, IT related soft wares etc.
4. AMC for PC, Laptops, GPS, Server, UPS, Plotters, CCTV’s supplied & installed in various offices of the department.
5. Maintenance of existing PDAs
6. Providing digital signature certificate to officers
7. AMC for FMIS modules, MAS module, Websites and Web portals
8. Wide Area Connectivity for all offices

(9)Training on FMIS, GIS and other IT related activities

(10) Expenses in connection with implementation of various e- governance activities

(11) Implementation of wireless communication systems in the Department

(12) Providing & maintenance of high bandwidth lease line connectivity at Forest HQ

(13) Implementation of e- office at Forest HQ/ Division office/ Circle office

(14) Procuring thematic maps from NRSA.

**IX. Extension, Community Forestry and Agro Forestry**

**(Outlay: ₹1000.00 lakh)**

The scheme aims at enhancing the tree cover outside forests thereby increasing the green cover, creation of renewable biomass resources in the fallow/degraded and wastelands, minimize the harmful effects of climate change, developing urban/ educational forests etc.

Major activities under this include seedling production and distribution for tree planting campaign, developing tree lots in rural and public lands under various brand names, setting up of NakshatraVanam, urban forests, educational forests, eco restoration and river bank stabilization, incentivisation of private forestry, rejuvenation of forestry clubs, maintenance of SanjeevaniVanam and setting up of medicinal gardens, developing agro forestry models including supply of high quality seedlings at reasonable rates, carrying out joint programmes with local self-government institutions etc. The activities in connection with the promotion of tree growth in Non Forest Areas Act and Rules, conservation of water bodies, celebration of World Environment Day, International Day of Forestry, Earth Day etc. are also included under this programme. It is also proposed to set up Vidyavanam and Nagaravanam in all districts and to take measures to improve different types of ecosystem outside forest areas like mangroves and sacred groves.

The extension activities include publication of Aranyam, organizing forestry clubs, film shows in educational institutions, institution of awards in recognition of exemplary works in environmental conservation, arranging exhibitions, making of documentaries and audios and broadcasting the same through radios and television channels, publishing of books for environmental education etc. An outlay of ₹1000.00 lakh is provided during 2021-22 for implementing the schemes under this programme. Tree planting programme would be adopted in Wayanad, for which ₹200.00 lakh is provided out of the total outlay.

**X. Rural Infrastructure Development Fund**

**(Outlay: ₹ 3000.00 lakh)**

An amount of ₹3000.00 lakh is provided for projects under RIDF of NABARD. Major infrastructure works such as setting up of forest station complexes, interior area camps, development of group accommodation, civil works to reduce man- animal conflict, infrastructure for environmental education programmes, establishing conservation parks, up-gradation of existing forest roads, establishing drinking water projects, development of roads and bridges, construction of integrated check post complexes, knowledge centre/ training centre/ ecoshop in check post complex etc will be undertaken. The allocation is to meet the execution costs of works sanctioned/ expected to be sanctioned in various NABARD Tranches. In the case of new projects, detailed project reports have to be recommended by Government to NABARD for sanction. It is envisaged that 10 percent of the beneficiaries of the project will be women.

**XI. Measures to reduce Man - Animal Conflict**

**(Outlay: ₹2200.00 lakh)**

Human-Animal Interface is intensifying at an alarming rate in our State. Crop destruction, killing of human beings and cattles by wild animals in forest fringes is a serious problem in many parts. A number of steps have been taken up to reduce human- animal conflicts. During 13th Five Year Plan, a long term strategy is formulated focusing on the fundamental causes of human- wildlife conflicts. During 2021-22, more focus will be on –

* Improvement of Wildlife Habitats
* Preventive measures including physical barriers
* Strengthening Rapid Response Team ( RRT)
* People’s participation and early warning system
* Publically funded insurance scheme
* Conducting awareness campaigns on suitable cropping/ land use pattern
* Wildlife rescue and release operations
* Relocation of habitations from interior forests
* Vayal maintenance and vista clearance
* Monitoring and evaluation

An amount of ₹2200.00 lakh is provided during 2021-22 for implementing the activities under this programme. It is envisaged that 30 percent of the beneficiaries of the project will be women.

**XII. Zoological Park, Wild life protection and Research Centre, Puthur**

**(Outlay: ₹500.00 lakh)**

The existing Thrissur Zoo is proposed to be shifted to another site where sufficient space is available for rehabilitating the animals. A master plan has been prepared for establishing a Zoological park in 136 hectares of forest land at Puthur, Pattikkad range, Thrissur Division. The work of establishing the Zoological Park is in final phase. It is targeted to relocate the animals to Puthur by May 2021*.*

The revised outlay of the project is ₹360 crore to be implemented in three phases. Phase I is implemented under State Plan*.* The activities envisaged under the state plan assistance include construction of 4 enclosures for animals, zoo administrative office, zoo hospital, food processing facilities, isolation and quarantine facility and autopsy room. An amount of ₹500.00 lakh is provided during 2021-22.

**XIII**. **Eco tourism (Revenue*)***

**(Outlay:₹108.00 lakh)**

The scheme envisages preventing of waste dumping in forest areas and adjoining highways. The objectives include clearing the solid waste from forest areas (by involving VSS/ EDC/Voluntary organisations) , create awareness among the tourists, impose spot fining and other legal measures, adoption of technology to monitor waste dumping and so on. Under the Project Green Grass, 125 major waste dumping points are identified .The activities envisaged are:-

* Strengthen VSS/EDCs in the locality by engaging them in cleaning activities.
* Procurement of cleaning tools and equipments
* Setting up collection centres, recycling units, shredding units and compost making units
* Awareness creation among travellers/visitors

An amount of ₹108.00 lakh is provided during 2021-22.

**XIV**. **Assistance to Kerala Forest Development Corporation**

**(Outlay: ₹200.00 lakh)**

The cardamom plantations in Gavi, Munnar & Thrissur owned by Kerala Forest Development Corporation is provided financial assistance during 2021-22. An amount of ₹200.00 lakh is provided as assistance during 2021-22 to Kerala Forest Development Corporation to restock 75 ha of cardamom plantations in Gavi, Munnar &Thrissur divisions and for the maintenance of plantations restocked during the first year. The replanting would be done with high yielding varieties of cardamom seedlings/ tillers in a phased manner.

**XV. Elephant Rehabilitation Centre at Kappukkad near Kottoor (NEW SCHEME)**

**(Outlay: ₹100.00 lakh)**

The scheme envisages setting up a world class elephant rehabilitation centre at Kottoor in Thiruvananthapuram with facilities such as open area for elephants, open enclosures, museum, training centre for mahouts, veterinary hospital, dung recycling unit etc. Peppara Forest Development Agency is the Special Purpose Vehicle for implementing the project. Setting up of office, preparation of training materials, training to mahouts, training to staff and EDC members at the elephant rehabilitation centre, training of trainers, documentation and preparation of material for research and training centre etc are envisaged for 2021-22. An amount of ₹100.00 lakh is provided during 2021-22.

**XVI. Minimum Support Price for Minor Forest Produce ( 25 % SS) ( NEW SCHEME)**

**(Outlay: ₹168.00 lakh)**

Minimum Support Price for Minor Forest Produce seeks to provide fair return to forest gatherers for their effort in collection and value addition to Minor Forest Produce. Support for NTFP collection by way of enhanced support price, improved facilities like collection centres, storage godowns, value addition units, branding of value added products, marketing support etc are the objectives of the scheme. The project is implemented by State Forest Development Agency. The approved components include – (1) Procurement of wild honey (2) Establishment / Modernisation of collection centres at FDA level (3) Creation of storage facilities at FDA level (4) Centralised collection, value addition and processing unit at State level. An amount of ₹168.00 lakh is provided as 25 % state share during 2021-22.

**1.8 MARKETING, STORAGE & WAREHOUSING**

The total outlay provided during 2021-22 under Marketing, Storage &Warehousing including other Agricultural Programmes is ₹5285.00 lakh.

**AGRICULTURE MARKETING AND POST HARVEST MANAGEMENT**

An amount of ₹ 5040.00 lakh is set apart for implementing schemes under this.

1. **Strengthening Agriculture Marketing**

**(Outlay: ₹ 3030.00 lakh)**

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 ₹3030.00 lakh earmarked during 2021-22 is for marketing activities, market intervention support, assistance to Kerala State Warehousing Corporation and share capital contribution to Horticorp. This also includes ₹500.00 lakh set apart for marketing development activities of VFPCK. Market development activities by VFPCK 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 VFPCK.

Existing Grama panchayat level weekly markets will be supported and new weekly markets will be established with the support of LSGIs for which an amount of ₹50.00 lakh is set apart. Support will be provided only to selected existing markets having high turn over(₹2.00 lakh/market) within A grade markets. An amount of ₹150.00 lakh is earmarked for operational expenses of urban and rural wholesale markets and district procurement centres and ₹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.

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. An amount of ₹75.00 lakh is earmarked for engaging Karshaka mitras. Participation in interstate and national level agri fairs helps to gain more exposure to farmers and entrepreneurs for which ₹20.00 lakh is set apart. An amount of ₹5.00 lakh is set apart for operational expenses of WTO cell. An amount of ₹80.00 lakh is set apart for the functioning of Agricultural Prices Board and conducting market study by Board. An amount of ₹50.00 lakh is earmarked for developing online market platform.

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 ₹3030.00 lakh, an amount of ₹2000.00 lakh is earmarked for market intervention support. An amount of ₹20.00 lakh is set apart as share capital to Horti Corp. Share capital will reflect in the balance sheet of Horticorp.

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 ₹ 30.00 lakh is set apart for Kerala State Ware Housing Corporation for the construction of Godown cum Agriculture Complex and an amount of ₹ 10.00 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**  **(₹ 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 | 50.00 |
| 4 | Market development activities of VFPCK | 500.00 |
| 5 | Prices Board | 80.00 |
| 6 | Engaging Karshaka mitras and training and portal based service | 75.00 |
| 7 | Participation in Agri fair | 20.00 |
| 8 | WTO Cell - Operational expenses | 5.00 |
| 9 | Online market platform (NEW) | 50.00 |
| 10 | Share capital to Horticorp | 20.00 |
| 11 | Market intervention support for price stabilisation | 2000.00 |
| 12 | Assistance to Kerala State Ware Housing corporation for Computerization | 10.00 |
| 13 | Assistance to Kerala State Ware housing Corporation for construction of Godown cum Agriculture complex | 30.00 |
|  | **Total** | **₹3030.00** |

1. **Post-harvest management & Value addition**

**(Outlay: ₹ 1210.00 lakh)**

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 Small Farmers Agri Business Consortium (SFAC) will provide support to small and medium agro processing units, for which an amount of ₹400.00 lakh is set apart. Out of this ₹50.00 lakh each is allocated for assistance to cool season vegetables and fruit processing units in Idukki & Wayanad Districts. An amount of ₹300.00 lakh is earmarked for supporting individual / SHG based micro level value addition units. The maximum support for an individual unit will be limited to ₹50.00 lakh after approving the credit by the financial institution. 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 ₹200.00 lakh will be provided for supporting value addition units and marketing under Govt. sector/ PSUs/Co-operatives/ Kudumbasree units/ FPOs in a project based manner. Out of this an amount of ₹10.00 lakh is provided for creation and nurturing of a honey processing FPO in Kurumathur Panchayat in Kannur District with end to end linkages.

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

An amount of ₹75.00 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 with the involvement of FPOs. An amount of ₹25.00 lakh is set apart for this component.

For encouraging FPOs engaged in innovative activities/Agri startups and technology-based innovations in agriculture sector an amount of ₹100.00 lakh is earmarked.

To coordinate all activities of FPOs in the state an amount of ₹10.00 lakh is earmarked for FPO portal development and maintenance.

The component wise breakup of the scheme is shown below.

|  |  |  |
| --- | --- | --- |
| **Sl**  **No** | **Component** | **Amount**  **(₹ 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 through FPOs | 25.00 |
| 4 | Operational support to SFAC | 75.00 |
| 5 | Assistance to Kerala State Coconut Development Corporation for value added products | 100.00 |
| 6 | Support to Agristart up and agri business incubators | 100.00 |
| 7 | FPO portal development and maintenance- NEW | 10.00 |
|  | **Total** | **₹1210.00** |

**3. Additional assistance for construction of Biogas Plants**

**(Outlay**: ₹**50.00 lakh)**

Under the CSS, New National Biogas Development Project, assistance @ ₹12000/- plant is provided for general category and ₹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 ₹30,000/- to ₹1,00,000/- per plant. In order to make the scheme attractive to the farming community an amount of ₹50.00 lakh is earmarked from state plan funds as additional assistance for the construction of biogas plant @₹8000/plant and ₹9000/- plant for General and SC/ST categories respectively over and above the central assistance.

1. **Rural Infrastructure Development Fund (RIDF)**

**(Outlay: ₹750.00 lakh)**

The outlay is for the implementation of projects approved under RIDF. The new and ongoing projects under tranche XX-XXV will be taken up during 2021-22. It is for the development of infrastructure works in agriculture sector under the funding support from RIDF of NABARD during 2021-22

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 2021-22, following schemes are included under other programmes.

1. **Farmer Welfare Fund Board**

**(Outlay:**₹**200.00lakh)**

The pension schemes and welfare programmes implemented at present through Agriculture Development & Farmers Welfare Department will be taken up through the Farmer Welfare Fund Board. An amount of ₹200.00 lakh is earmarked under this programme for operational expenses of the Board.

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

**(Outlay: ₹ 20.00 lakh)**

The outlay is provided for popularizing innovative activities, resolving field problems of Kuttanad region and for operational expenses.

**1.8.3 STORAGE AND WAREHOUSING**

1. **Kerala State Warehousing Corporation – Share participation**

**(Outlay: ₹ 25.00 lakh)**

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 ₹ 25.00 lakh is provided for this purpose during 2021-22.