



## GOVERNMENT OF KERALA

### Abstract

Agriculture Department - Project Proposal titled "New Agriculture Wealth Opportunities-Driving Horticulture and Agribusiness Networking (NAWO-DHAN) - In-principle Sanction accorded - Orders issued

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### AGRICULTURE (PPM CELL) DEPARTMENT

G.O.(Ms)No.74/2024/AGRI Dated,Thiruvananthapuram, 08-07-2024

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Read 1 Project Proposal titled "New Agriculture Wealth Opportunities-Driving Horticulture and Agribusiness Networking (NAWO-DHAN)

2 Minutes of meeting chaired by the Chief Secretary on the NAWO - DHAN Proposal held on 19/06/2024

### ORDER

Kerala has a total cropped area of 25,23,014.31 hectare of which more than 85% of the area is covered under perennial crops and only 15% of the area is utilised for food crops. It is estimated that 1,03,334 hectares of fallow land is available in the State, of which 53,914 Ha is classified as current fallow and 49,420 Ha as permanent fallow.

2. The Current vegetables' requirement of Kerala is 30 lakh Metric Tonne (MT) per year while the production is 17.24 lakh MT per year indicating a gap of 13.76 lakh MT which is met from the neighbouring States. Similarly the current fruit requirement in the State is 40 lakh MT per year with an annual production of around 26 lakh MT/year. The agro-climatic zone, soil conditions and the latest scientific cultivation practices indicate the possibility of the State to meet its requirements and also emerge as a net exporter of fruits and vegetables.

3. Recurring erratic climate change phenomena and market fluctuations result in scarcity for fruits and vegetables resulting in seasonally soaring

prices. The excessive dependence on wholesale markets outside the State makes intervention and price regulation difficult, pointing to an urgent need to increase domestic production within the State. The present fallow and inter-cropping area could be well utilised in a phased manner to effectively double the farmers' income and alleviate the impending shortage.

4. Many potentially ideal lands is reported fallow or is under-utilised due to resource scarcity, labour shortage, lack of interest in cultivation due to low returns or inability of the land owners to manage the daily activities of their crops, particularly if they are aged, NRIs or employed elsewhere. Agriculture is not the primary income of many landholders leading to sub-optimal or disinterested efforts. Cultivable land is also available with various Government departments and Public Sector Undertakings. On the other hand, there are Farmer Producer Organisations (FPOs), Krishikootams, Kudumbasree units, Self Help Groups (SHGs), Startups, Youth groups etc. seeking land for agricultural activities, especially for hi-tech and scientific cultivation.

5. In view of the above factors, Government are pleased to accord sanction in-principle for the project titled "**New Agriculture Wealth Opportunities-Driving Horticulture and Agribusiness Networking (NAWO-DHAN)**" for leveraging the unutilised /underutilised land resources in Kerala for commercial farming practices that include horticulture, hydroponics, protected cultivation, precision-farming, hi-tech inter-cropping, mushroom cultivation, apiculture, crop husbandry and allied sectors.

6. "NAWO-DHAN" shall function as a facilitator connecting the landholders and the Farmer Producer Organisations, Krishikootams, Kudumbasree units, Self Help Groups, Startups, Youth groups etc, inviting Expression of Interest (EoI) from either parties. In the initial stage the unutilised cultivable land owned by various Government departments and Public Sector Undertakings can be selected for implementing the project.

The availability of fallow land, intercropped area, suitable climate, soil fertility status, electricity, water & resources' availability and logistics will be the different criteria used for prioritising the cultivable land. The land with basic infrastructure shall be apportioned as multiples of blocks of 10 acre each and can be made available to the farmers for commercial cultivation of high value crops, adopting a process similar to resource allocation in an IT Park. The farmer groups, the landholder (including departments/PSUs/Pvt institutions) and the consumer (public) stand to benefit by this matchmaking process with commensurate revenue returns. Efforts to saturate "NAWODHAN" farmers with government schemes, technical support, subsidies, professional guidance, crop insurance etc. shall be made by the department. The salient features of the project are given as **Annexure** to this order.

7. Kerala Agro Business Company (M/s. KABCO) is assigned as the Special Purpose Vehicle for the implementation of NAWO-DHAN project under the supervision of Department of Agriculture Development & Farmers' Welfare. M/s. KABCO shall liaison with various stakeholders to inventorize the cultivable land available with various departments, farms, State and Central PSUs, private individuals and institutions, etc. and act as an aggregator for developing the land to hi-tech agricultural farms of various sizes. Farmer-groups shall be engaged for cultivation through Service Level Agreements (SLA) treating "Farming as a Service" and no transfer of any interest in land concerned is required. M/s. KABCO shall develop forward linkages, including export-market integration etc. on commercial terms such that there is business-intelligence driven cropping, ensuring that production is sufficiently diversified and is in line with the market demand.

(By order of the Governor)  
PRASANTH N I A S  
SPECIAL SECRETARY

To:  
Additional Chief Secretary, SC ST Department

Additional Chief Secretary, Forest & Wildlife Department  
Additional Chief Secretary, Power Department  
Principal Secretary, Revenue Department  
Principal Secretary, Planning & Economic Affairs Department  
Principal Secretary, Fisheries Department  
Principal Secretary, Industries Department  
Principal Secretary, Higher Education Department  
Principal Secretary, Local Self Government Department  
Secretary, Animal Husbandry Department  
Secretary, Devaswom Department  
Secretary, Environment Department  
Secretary, Labour Department  
Secretary, Tourism Department  
Director, Department of Agriculture Development & Farmers Welfare  
Director, Animal Husbandry Department  
Director, Dairy Development Department  
Chief Executive Officer, Kerala Startup Mission  
Managing Director, FACT  
Executive Director, Rubber Board  
President, UPASI  
Chairman, Association of Planters

Forwarded /By order

Signed by

Vidya Aravind  
Section Officer

Date: 10-07-2024 10:48:54

Copy to :

Private Secretary to Minister for Agriculture

CA to Agricultural Production Commissioner & Principal Secretary,

Agriculture Department

CA to Special Secretary, Agriculture Department

## *New Agriculture Wealth Opportunities-Driving Horticulture and Agribusiness Networking (NAWO-DHAN)*

### **1. Introduction**

Kerala state has a total cropped area of 2523014.31ha of which more than 85% of the area is covered under perennial crops and only 15% of the area is utilised for food crops. It is estimated that there is 103334 ha of fallow lands available in the State of which 53914 ha is current fallow and 49420 ha is permanent fallow land use 2021-2022 ecostat).

The State faces food shortage and produces less than 15% of its food requirement especially rice. Current vegetable requirement of Kerala is 30 lakh MT per year and the production is 17.24 lakh MT per year. There is gap of 13.76 lakh MT to be met from the neighbouring states. Similarly the current fruit requirement in the State is 40 lakh MT/year whereas the annual production is only around 26 lakh MT/year. The challenges faced by State in Agriculture are numerous. The labour wages in Kerala is 2.5 times more than the National wage rate.96% of operational holdings are under marginal categories. There is a reduction of gross crop area from 29, 33,000 ha in 1970-71 to 25, 23,000 ha in 2021-22 (14 % reduction). Unplanned crop production ,lack of adequate post harvesting technologies, price instability, climate changes etc. are also add to the challenges faced by State Agriculture.

Food and beverage markets in India is forecasted to grow at a CAGR (Cumulative Agriculture Growth Rate) of 9.94 % from 2022-27 is a positive sign for creating opportunities in agriculture. Kerala also received GI tag for 24 cops as well as top producer of Pepper, Cardamom, Coconut, Tea, Jack fruit, Tapioca, nutmeg, cocoa etc. By 2030 , Indian annual household consumption is expected to triple and making India the fifth largest consumer in world. The potential for food export is also going in an upward trend and logistics advantages can also make Kerala as one of the potential States in export. Convergence with different State and Central scheme for planned agriculture production activities may utilise to achieve the benefits.

Unorganised farmers are to be organised through formation of FPOs, Krishikoottams, SHGs, JLGs etc. as it is the only way of institutionalisation and attaining an organised farming practice. Implementation of innovative farm solutions, R&D on agriculture

activities, efficient logistics, value chain acceleration, food supply chain traceability & solutions, branding & marketing initiatives are the immediate needs of the farming sector.

There is a high need to increase our food crop production area for which the present fallow and intercropping area should be well utilised in a phased manner. Most of the land are kept fallow or unutilised due to the scarcity of resources, labour shortage, less interest in cultivation as it is not remunerative, inability of the land owner to look into the daily activities of his crops as they are aged or NRIs or employed elsewhere. Some good initiatives are already taken in line with the objectives of the proposal in the state owned Aralam Farm at Kannur District where land is made available to the cultivators and service farming is done by the farmer groups successfully in the past 2 years. In order to demonstrate, that this type of farming have prospects throughout the state, the same can be replicated in the unutilised land available in the unutilised /underutilised Government owned lands.

Since the income from agriculture is not taxable is one of the attractions to invite more people/MNCs to invest in Hi-tech value cropping through **NAWO-DHAN** proposal. KABCO (Kerala Agro Business Company) will act as the SPV (Special Purpose Vehicle) for carrying out the **NAWO-DHAN** project. KABCO will identify the fallow land available with all Govt. own land, PSUs, other institutes etc. and act as a land pooling bank for developing land to hi-tech agri. farms through NAWO-DHAN proposal.

**NAWO-DHAN** may be started on a pilot basis inviting EoI from those who are willing to make available their unutilised /underutilised/fallow lands for farming. The availability of fallow land, intercropped area, suitable climate, soil fertility status, water & input availability and logistics are different criteria used for the selecting special farms. The land can be apportioned as blocks of 10 acre and can be made available to the farmers for cultivation for high-tech value cropping. The successful frame work model generated through this high-tech value cropping can be replicated in other Government and private owned lands.

The cost of cultivation is high due to the high labour rate persistent in our State. So the profitability of farmer depend up on the selection of high value crop as well as reduce the cost of production by adopting smart agriculture.

## **2. The main objectives of the programme are :**

*New Agriculture Wealth Opportunities-Driving Horticulture and Agribusiness Networking (NAWO-DHAN)*

- Identification of fallow land in Govt owned land, PSUs etc and pooling the land to inventory bank operated by KABCO.
- To empower the farmer to provide land and input on charges.
- Techno-park model to be adopted by providing land for cultivation as units of 10 acre each.
- Infrastructure like water, electricity to be provided on cost basis.
- Possibility of tying up with other national/International agencies involved in hi-tech farming for exchange of technology can be explored.
- To increase the area of food/vegetable/fruit crops in fallow land /intercropping cultivation available in the identified places.
- The selection of crops for cultivation at the assigned units will decided by the farmer.
- Expecting an increase in the average production of 0.8-1 lakh MT per year quantity of vegetable and fruit crops.
- Increase the productivity of existing sole crops by 40 % by utilising the intercrop area for farming.
- To create a frame work for the high-tech value cropping to generate more income to the farm.
- Demonstrate the new technology and farming technique to farming community.
- Overall development of the assigned area.
- Creation of employment opportunities to the landless unemployed section of the society.
- Attracting youth /new players towards agriculture.
- Economic upliftment of the community nearby.

**3. The main programmes of the project are the following:**

- a. Selection of available cultivable land through EOI procedure by KABCO.
- b. Selection of farmer/farmer group
- c. Handholding for availing credit facilities
- d. Providing the inputs and machineries available at Farm

- e. Providing crop insurance support
- f. Providing technical guidance
- g. Possibility of convergence with Schemes of Department of Agriculture

**a. Selection of available cultivable land.**

It is estimated that 9000 ha of unutilised land is available in the state for intercropping. The available cultivable land has to be brought under high-tech value cropping in a phased manner. The procedure can be a replicate model of Techno Park, by demarking 10 acres as one unit (maximum contiguous area). The available unutilised land can be divided into multiples of 10 acre units. Farmer can be invited to take up the 10 acre as one unit for high-tech value intercropping and the land charges can be fixed for one unit through e tender procedure. Farmer can avail the infrastructure facilities like irrigation water, electricity, machineries, farm roads, store house etc. if available in the location based on prefixed service charges.

**b. Selection of Farmer**

Scarcity of cultivable land is one of the reasons that hinders the farmers/Farmer group to adopt farming in large areas. There are farmers as well as farmer groups like FPCs, Start-ups Krishikootams, Kudumbasree, farmers clubs, etc who are willing to undertake farming if cultivable land is available. Individuals or farmer groups may be selected through e tender (QCBS method) procedure and the identified land may be provided for cultivation for a period of 1 year to under take high-tech value intercropping. The QCBS document will elaborate detailed criteria for technical and financial bid with 60: 40 weightage.

**c. Handholding for availing credit facilities**

In order to initiate cultivation in assigned land more capital investment is required for land preparation, adoption of new technology, cultivation of high value crop etc and hence cost of cultivation of the crops raised will be higher than that of normal crops. The persons or agency proposed to cultivate may not have any resources to mobilize the cost of cultivation. Hence credit facilities can be familiarised to the cultivators to avail better option. The primary co-operative societies and other financial institution can play a major role to extent credit facilities to the cultivators. If any direction is needed on the ownership of land for availing credit facilities, Government may support with suitable mechanism. As the

cultivators are not having the ownership of the land, special attention may be given from the Government to make available the credit facilities to the cultivators.

#### **d. Providing the inputs and machineries available at Farm**

Suitable machineries and implements are required for the preparation of land for cultivation. The input such as seeds and planting materials, manures, bio pesticides, farm machineries etc which are available at farms/ Agro Service centres will be provided as per prevailing rate. Details regarding the services offered by Karshika Karma Senas / Agro Service Centres nearby areas may be provided to the entrepreneur.

#### **e. Providing crop insurance support**

Crop failures due to various reasons such as occurrence of natural calamities, outbreak of pests and diseases etc. are common in agriculture. The cultivators should be properly compensated in case of crop failure and for that crop insurance facilities may be extended to these cultivators also.

#### **f. Providing technical guidance**

By providing proper technical guidance, the farming can be made profitable. The Technical Officers of the Farms/ Krishi Bhavans/KAU will provide timely technical guidance throughout the cropping period. The following are the technical guidance offered

- To ensure supply of quality inputs like seeds, fertilizers and pesticides
- Proper and timely irrigation facilities for carrying out farming operations
- To check the past pest and disease attack and to take remedial action to overcome them
- Agricultural information dissemination
- Farming operations to be calendared so as to ensure maximum and sustainable use of natural resources
- Intervention in Location specific farming techniques
- Mobilising institutional credit for farming activities
- Providing crop insurance coverage
- Promotion of mechanization activities for farming

- Promotion of eco-friendly practices in agriculture

**g. Possibility of convergence with Schemes of Department of Agriculture**

The possibility of integrating with different schemes can be explored for the benefit of farmers who undertake high-tech value intercropping in Farms.

**4. Operational guidelines**

**Frame work for NAWO-DHAN**

**Release of EOI for Identification of Suitable Area for Hitech-Value cropping** (based on land availability, infrastructure and logistics) by KABCO



**Enlisting and Prioritising Suitable land for Hitech-Value cropping** (Land area, intercrop/pure crop/fertility status/Resources availability) –KABCO



**Call for proposal by QCBS tender procedure**

(Preparation of TOR and RFP for identifying suitable entrepreneurs/Farmers/Pvt Players/FPOs/Start ups/Farmer Groups etc and e tendering)-KABCO



**Empanelling the entrepreneurs/farmers/start ups**



**Awarding contract after executing proper agreement**



**Assuring the farming by providing resources like water/electricity/inputs/machinery etc. on rental /cost basis .**



**Monitoring of harvesting to assure proper remittance of charges**

**(A fixed amount may be realised as charges for the land or a percentage of the profit generated from farming may be taken as charges by the land owner)**

*New Agriculture Wealth Opportunities-Driving Horticulture and Agribusiness Networking (NAWO-DHAN)*

## **5. Global Scenario**

Farm on rent is a way in EU countries to enhance the production and productivities of food crops. Sustaining the agriculture is the motive behind the renting out of land to tenants and providing all the support to enhance the production of food crops.

## **6. Implementing Agency**

The project will be implemented by the SPV, KABCO under the direct supervision of the Department of Agriculture.

## **7. Conclusion**

The **NAWO-DHAN** is one of the milestones proposed for utilising the available land and resources at our farms to generate sustainable income by increasing production and proper utilisation of resources. The pilot project proposed can be replicated in other unutilised public lands for the betterment of farming community. The younger generation can be attracted to the field of farming with attractive package framed through rental farming. Start-ups in Agriculture can play a major role for building future Kerala by adopting this type of farming by renting the land.

# **NAWO-DHAN : Project Implementation Plan (PIP)**

**(New Agriculture Wealth Opportunities-Driving Horticulture and Agribusiness Networking)**

## **Overview**

This execution plan outlines the detailed activities, meetings, tender processes, procurement plan, and timelines for the successful implementation of the NAWO-DHAN project by KABCO. It includes provisions for pilot projects, support from NABARD and other banks for financing agricultural operations, onboarding of interns, and prioritised land assignment to willing farming groups.

## **1. Initial Preparation Phase**

### **Month 1**

#### ***1.1 Formation of Project Team***

Objective: Assemble a dedicated project team within KABCO to manage and oversee the NAWO-DHAN project.

Tasks:

- Identify and assign a project manager.
- Allocate team members with expertise in agriculture, procurement, finance, logistics, and IT.
- Set up a project office.

#### ***1.2 Onboarding a Team of Interns***

Objective: Bring on board a team of interns to assist with various project tasks.

Tasks:

- Create internship positions and job descriptions.
- Partner with agricultural universities and institutions to recruit interns.
- Conduct interviews and select interns.
- Provide orientation and training to the interns.

#### ***1.3 Project Kick-off Meeting***

Objective: Officially launch the project and align the team on objectives, deliverables, and timelines.

Tasks:

- Presentation of project objectives and plan.
- Discussion of team roles and responsibilities.
- Establish communication protocols.

## **2. Documentation and Legal Preparations Phase**

### **Month 1-2**

#### ***2.1 Preparation of Procurement Documents***

Objective: Prepare all necessary procurement documents including EOI, consultation meeting agendas, and MoUs.

Tasks:

- Draft and finalize the Expression of Interest (EOI).
- Schedule and plan consultation meetings with stakeholders.
- Prepare Memoranda of Understanding (MoUs) for partnerships with NABARD, APEDA, KSUM and other relevant organisations.
- Ensure all legal documentation is in place for land use agreements, farming contracts, and market linkages.

#### ***2.2 Meetings with Government Departments and Public Sector Companies***

Objective: Conduct meetings with various departments to secure land for the project.

Tasks:

- Identify key departments and public sector companies with potential land availability.
- Schedule and conduct meetings to discuss land use and collaboration.
- Obtain necessary approvals and agreements for land use.

## **3. Land Identification and Onboarding Phase**

### **Month 1-3**

#### ***3.1 Enquiry and Inventory of Available Land***

Objective: Identify and prioritise available land with government departments and public sector companies. 5 locations to be taken up in month 1 itself for the pilot whereas the other parcels are identified in the next 3 months. Efforts shall be made to saturate those 107 Panchayaths that have been identified for intense agricultural interventions.

Tasks:

- Send enquiries to relevant government departments and public sector companies.
- Compile responses and create an inventory of available land.
- Prioritise land parcels based on suitability for high-tech value cropping.

### ***3.2 Assignment of Pilot Project Lands***

Objective: Immediately assign available land for pilot projects to willing FPOs/Startups/Krishikootams for the pilot projects. Do due diligence and planning for land inventorisation for other plots.

Tasks:

- Conduct rapid enquiries through concerned Agriculture Officers.
- Select five pilot project locations based on available land and suitability.
- Assign land parcels to willing farming groups for immediate commencement of pilot projects.

### ***3.3 Release of EOI for Identification of Suitable Land***

Objective: Identify and prioritise suitable land for high-tech value cropping.

Tasks:

- Publicise the EOI through relevant channels.
- Set up a portal for EOI submissions.

### ***3.4 Evaluation of EOI Responses***

Objective: Evaluate responses to identify and prioritise suitable land.

Tasks:

- Review and shortlist EOI submissions.
- Conduct site visits for shortlisted lands.
- Finalise the list of suitable land parcels.

### ***3.5 Onboarding Farming Groups***

Objective: Onboard farming groups interested in high-tech value cropping.

Tasks:

- Identify and reach out to potential farming groups (FPCs, Startups, Krishikootams, Kudumbasree, farmers clubs).
- Facilitate registration and onboarding process.
- Conduct initial orientation and training sessions.

## **4. Technical Solution Development Phase**

### **Month 1-5**

#### ***4.1 Development of Technical Solution***

Objective: Develop an app-based system to match farming groups with landowners and market demands.

Tasks:

- Define technical requirements and specifications.
- Identify and hire a suitable IT development team.
- Design and develop the application.
- Integrate features for land matching, bulk orders, and market connections.

#### ***4.2 Testing and Deployment***

Objective: Test the application and deploy it for use by farming groups and landowners.

Tasks:

- Conduct alpha and beta testing with selected users.
- Gather feedback and make necessary improvements.
- Officially launch the application for wider use.

### **5. Legal and Ecosystem Development Phase**

#### **Month 1-3**

##### ***5.1 Creation of Legal Documentation***

Objective: Develop legal documentation for all processes involved in the NAWO-DHAN project.

Tasks:

- Draft agreements for land use, farming contracts, and market linkages.
- Ensure compliance with legal and regulatory requirements.
- Facilitate signing of agreements between stakeholders.

##### ***5.2 Ecosystem Development***

Objective: Create an ecosystem to support high-tech value cropping.

Tasks:

- Establish partnerships with input suppliers, financial institutions, and insurance providers.
- Develop support networks for technical guidance and logistics.
- Promote the project through workshops and awareness campaigns.

### **6. Implementation Phase**

#### **Month 5-10**

##### ***6.1 Land Preparation and Resource Allocation***

Objective: Prepare the land for cultivation and allocate necessary resources.

Tasks:

- Clear and prepare the land.
- Allocate water, electricity, and other infrastructure.
- Provide necessary inputs and machinery.

### ***6.2 Crop Selection and Planting***

Objective: Select appropriate crops and commence planting.

Tasks:

- Conduct soil tests and select suitable crops.
- Procure and distribute seeds and planting materials.
- Begin planting operations.

### ***6.3 Technical Guidance and Support***

Objective: Provide ongoing technical support to ensure successful crop growth.

Tasks:

- Regular field visits and monitoring.
- Provide guidance on irrigation, pest control, and fertilisation.
- Address any issues promptly.

## **7. Financial Support Phase**

### **Month 5-12**

#### ***7.1 Securing Financial Support from NABARD and Other Banks***

Objective: Obtain financial support for agricultural operations from NABARD, APEDA, and other banks.

Tasks:

- Initiate discussions with NABARD, APEDA, and other banks for financing options.
- Prepare and submit detailed project proposals for funding.
- Facilitate credit facilities for farming groups through NABARD and other financial institutions.
- Ensure timely disbursement of funds to support agricultural operations.

## **8. Monitoring and Evaluation Phase**

### **Month 11-12**

#### ***8.1 Regular Monitoring and Reporting***

Objective: Monitor progress and report on project milestones.

Tasks:

- Conduct regular field inspections.
- Collect and analyse data on crop growth and yield.
- Prepare monthly progress reports.

### ***8.2 Mid-Term Evaluation***

Objective: Evaluate project progress and make necessary adjustments.

Tasks:

- Review progress reports and field data.
- Conduct stakeholder interviews.
- Recommend adjustments and improvements.

### ***8.3 Final Evaluation and Report***

Objective: Assess project outcomes and document lessons learned.

Tasks:

- Compile final project data.
- Conduct a comprehensive evaluation.
- Prepare and submit the final report.

## **9. Scaling and Replication Phase**

### **Month 13+**

#### ***9.1 Review and Planning for Scaling***

Objective: Plan for scaling and replication of the project model.

Tasks:

- Review the final evaluation report.
- Identify potential areas for scaling.
- Develop a detailed scaling plan.

#### ***9.2 Implementation of Scaling Plan***

Objective: Implement the scaling plan to replicate the project model in new areas.

Tasks:

- Engage with new landowners and farmers.
- Repeat the tendering and contracting process.
- Provide resources and support for new project areas.