krishi karna™

for Sustainable living..

STATE AGRI HORTI SOCIETY

SUSTAINABLE FOUNDATION

INTERNATIONAL YEAR OF FRUITS AND VEGETABLES 2021

25000+ Agripreneurs

5% Annual Growth in Vegetable Production

Women Empowerment

Krishi karna

Krishikarna is a project based on regenerative agriculture which aims to achieve sustainability for agri-entrepreneurs, self-sufficiency in food production, and promoting biodiversity and circular knowledge economy in rural India. It is a joint initiative of the State Agri Horti Society (SAHS) and Sustainable Foundation (SF). KrishiKarna covers training, technology implementation with service, operational support, logistics, and marketing of the product. KrishiKarna also acts as an open door for the agri-startups to the potential demographics. Beneficiaries of KrishiKarna may have the privilege of subsidy for the early adoption of technologies.

Agriculture in Climate Change: Even agriculture has an enormous environmental footprint, playing a significant role in causing climate change, water scarcity, land degradation, deforestation, and other processes. It is simultaneously causing environmental changes and being impacted by these changes. Most agricultural professionals agree that there is a "moral obligation to pursue the goal of sustainability". The major debate comes from what system will provide a path to that goal because if an unsustainable method is used on a large scale it will have a massive negative effect on the environment and human population. And one of the best ways to mitigate climate change is to create sustainable food systems based on sustainable agriculture.

Developing sustainable food systems contributes to the sustainability of the human population. Sustainable agriculture provides a potential solution to enable agricultural systems to feed a growing population within the changing environmental conditions. With these principles as the basis, KrishiKarna evolved. KrishiKarna ensures Quality Assured food products, produced using Good Agricultural Practices which are free from pesticides and chemicals, reach the plates of every individual.

for Agri-Entrepreneurs

KrishiKarna creates an environment for entrepreneurs to invest in the agriculture and allied sector. Apart from conventional methods, KrishiKarna offers quality inputs and technology-based services to the farmers to maximize production, quality water, and waste management systems. It is aimed at strengthening infrastructure in agriculture and allied areas to promote entrepreneurship and business by providing consultation and technical support to entrepreneurs.

Agri-Entrepreneurs benefit maximum leverage in risk factors as KrishiKarna covers end-to-end support and services from infra development to harvest and packing to marketing and provides the best value for their produce. This project sets up monitoring systems that enable it to design, plan, and implement effectively. KrishiKarna acts as an initiate for the revival of the rural economy of the State and ensures respectable and stable income for small and medium farmers.

Benefits

- End-to-end service from training to trading
- Guidance and advice from industry leaders and experts
- Value for produce
- Market linkage and logistics
- Digital Empowerment - Training and support for branding and marketing of produce
- Geotagging for eligible products
- Opportunity and incentive for early adoption of new technologies developed by Agri-Startups

Selection of Entrepreneurs

- Workshops will be conducted throughout the state for spreading awareness of the program and mobilizing Agri-preneurs
- Based on the response from the participants, interested candidates will be shortlisted
- Women entrepreneurs will be given preference and special incentives via government programs
- Shortlisted candidates are scrutinized further based on personal interaction and their willingness and a final list are arrived at.

Implementation

- The project is intended to be implemented through various agencies like Local Self Governments, Government Agencies, Co-operative Banks / Societies, NGOs, Agri SHGs, etc
- KrishiKarna Centres will also act as a hub for the collection and distribution of value-added products.

- Action Plan
  - Locally, five units will be set up to form a Krishikarna Group
  - Five such groups are combined to form a KrishiKarna Cluster
  - Each cluster will have a KrishiKarna Centre which acts as a collection point for the farmers' produce and is then sold through various outlets - online and offline.
- Business acceleration programs will be conducted on storing and packaging of produce, logistics management, and value additions on district-wise.

Roles of Agencies

- Raise awareness on KrishiKarna to the public through their channels - online and offline
- Create programs/events/campaigns to promote KrishiKarna and its produce
- Providing potential groups of interested people for KrishiKarna and categorize them based on financial and social status
- Financial assistance for the economically backward classes/women entrepreneurs

for Agri-Startups

KrishiKarna impacts another sector positively through its implementation - Agri-tech Startups. This will be a unique opportunity for Agri-tech start-ups with a commercially viable innovative solution to solve challenges in the sector. The objective is to support the technology base by providing implementation support through KrishiKarna member farms, to the best fundamental concepts while helping talented and creative innovations to pursue promising avenues at the frontier of the technology. It will provide start-ups with access to priority infrastructure, and make Agriculture an attractive sector for the country's best brains.

Focus areas for Agri-Tech Startups

- **BIG DATA :** Data, as we all know, is the new oil, and going forward, the development of farm-specific, data-driven diagnostics to determine soil and crop health will be a big opportunity area. Startups are leveraging drones or tractor-based solutions to get data on the field, of both weather and agricultural data to determine risk. Growing smartphone penetration will enable precision decision-making in farming activity to farmers and help drive increased productivity and revenue while reducing unit costs.
- **MARKET LINKAGE MODELS :** Innovations to help farmers with a timely and accurate estimation of sowing and harvesting in sync with consumer demand patterns.
- **IOT FOR FARMERS :** Smart farming in the agricultural business including concepts like high-precision crop control, data collection, automated farming techniques will remove inefficiencies and bolster productivity. Information on crop yields, rainfall patterns, pest infestation, and soil nutrition can be used to improve farming techniques over time.

for CSR

Even though the CSR Fund is identified as one of the channels for implementation of KrishiKarna, it is treated as a separate division. KrishiKarna project will be made available to corporates and HNIs, to be implemented using their CSR Funds. The overall objective of the project implementation through this channel will focus on the upliftment of the economically weaker segment of society. SF will act as the implementing agency on behalf of the Corporate/HNI if required. Beneficiaries may be suggested by the contributing Corporate/HNI or will be mobilized by the implementing agency if required.

KrishiKarna is a unique opportunity to raise awareness on the important role of fruits and vegetables in human nutrition, food security, and health as well in achieving UN Sustainable Development Goals. Increasing investment in agriculture is one of the most effective ways to reduce hunger and poverty, particularly in rural areas. Yet, poorly conceived or executed investments could have unintended negative impacts in terms of social cohesion and human rights.

Among others, social sustainability can be enhanced if the generation of quality employment and the provision of public goods and services are considered in the investment design. Model villages can be created by adopting good agricultural practices and used for demonstration and replication of such Model villages across the country. Formation and development of Farmer's group/community-based organization/cooperatives for cross-learning. There is a lot of scope for investment on rural youth for promotion of Agri-Entrepreneurship for self-employment as well as enhancing their employable skills for creating an opportunity for better employment through skill-oriented training programs.

For Environment

Today a growing number of agricultural businesses identify climate change as a serious long-term risk for their supply management. Agricultural land-use systems can generate significant green-house gas emissions, through the conversion of forests to croplands and grazing lands as well as through the poor management of crops and livestock. Globally, agriculture and cattle production accounts for 25% of global GHG emissions.

KrishiKarna promotes, contemplates, innovates, and employs alternate methods or smaller initiatives to save our ecology by sustainable farming. It simply means the production of food, plants, and animal products using farming techniques that prove to be beneficial for public health and promote economic profitability. It draws and learns from organic farming.

Sustainable farming or Sustainable agriculture helps the farmers innovate and employ recycling methods, apart from the conventional perks of farming. A very good example of recycling in sustainable farming would be crop waste or animal manure. The same can be transformed into fertilizers that can help enrich the soil. Another method that can be employed is crop rotation. This helps the soil maintain its nutrients and keeps the soil rich and potent. The collection of rainwater via channeling and then its utilization for irrigation is also a good example of sustainable farming practices. KrishiKarna promotes soilless plant cultivation and is widely considered more sustainable than regular farming as it

uses around 90% less water. Secondly, soilless farming yields more vegetables and herbs in a shorter time. Thirdly, its carbon footprint is minimal as the greens are grown locally. Soilless cultivation minimizes the use of harsh chemicals needed to fertilize soil; it does not depend on the climate or season and can be installed indoors. Also, soilless farms physically take less space (and can be even vertical), are fully controlled remotely, and often require less human labor. Soil-less farming will be fully sustainable when it's powered by solar energy.

KrishiKarna in Pollination: KrishiKarna promotes greater biodiversity with pollinators like bees. After crops are harvested the land is left fallow until the next season, enhancing the growth of herbs and shrubs, which provide rich food sources for bees. With improved pollination management by ensuring higher yields and successful agricultural production, pollinators would contribute significantly to world food security and nutrition for a growing global population, along with ending poverty and hunger. So, well-managed farms can provide good habitats for bees, who, in turn, provide pollination services for agricultural production.

Key Facts

- Up to 50 percent of fruits and vegetables produced in developing countries are lost in the supply chain between harvest and consumption.
- Digital innovations make it possible to track and trace fresh produce from production to consumption. This broadens market opportunities, reduces losses and waste, and makes the value chain more transparent.
- The large diversity of fruits and vegetables offers options that are adapted to different production systems and markets.
- It can take up to 50 liters of water to produce orange. Losses in fruits and vegetables represent a waste of increasingly scarce resources such as soil and water.
- Significant quantities of fruits and vegetables that are perfectly fit for consumption are wasted along with the food system because of aesthetic or physical irregularities.
- Production of high-value fruits and vegetables can be profitable, compared to other crops, from small amounts of land, water, and nutrients.
- COVID-19 has demonstrated the importance of short and inclusive value chains - including f ruits and vegetables – as a way to provide better market opportunities for family farmers in urban and peri-urban areas.

Mission

25000+ Entrepreneurs

Entrepreneurship is one of the key drivers for economic development. During an economic crisis, the importance of entrepreneurship development increases. Entrepreneurship has been linked to improved growth, increased wealth, and quality of life. In developing countries like India, planning, and implementation for the development of entrepreneurial programs are essential for raising the living standard of the vast majority of the backward regions because of their over-dependence on agriculture for employment. Thus, entrepreneurship development appears to be the best substitute to find employment opportunities, income generation, poverty reduction, and improvements in nutrition, health, and overall food security in the national economy.

Women Empowerment

Women are valuable resources in the agricultural sector, especially in their contribution to providing additional food, income, and employment through farming and entrepreneurship. With increasing interventions in agricultural development, more women emerge as contributors to agricultural growth.

5% Annual Growth in Vegetable Production

Kerala produces only 40 percent of its requirements and imports the rest from neighboring states. There have been several reports by the media on the indiscriminate use of pesticides in vegetables from neighboring states. Initially, KrishiKarna aims a production of 50,000+ tons of pesticide-free vegetables in a year which is merely a 5 percent addition to the total vegetable production of 9.5 lakhs within Kerala, gradually to a self-sufficient state.


SUSTAINABLE DEVELOPMENT GOALS
1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
13 CLIMATE ACTION
8 DECENT WORK AND ECONOMIC GROWTH
15 LIFE ON LAND
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Projects

Farm Projects

- Hi-Tech Mushroom Farm
- Hi-Tech Protected Cultivation Farm

Tomato	Bitter Gourd	Celery	Swiss Chards
Salad Cucumber	Cherry Tomato	Parsley	Kales
Palak Spinach	Oregano	Coriander Leaves	Zucchini
Rosemary	Thyme	Leek	Lettuce
Long Yard Beans (Cowpea)	Basil (Thai & Green)	Capsicum (green, yellow and red)	Bok Choy / Pak Choi
Mint	Any other item suitable for greenhouse cultivation based on requirement		

- **Intensive Open Farm**
  - Mango
  - Banana
  - Red Lady Papaya
  - Malaysian Dwarf
  - Strawberry
  - Paddy
  - Vegetables etc
- **Honey Bee Farm**
- **Hi-Tech Green Unit**
- **Hydroponics**
  - NFT
  - Deep Water Culture
  - Dutch Bucket System
- **Hi-Tech High-Density Fish Farm**
  - Biofloc
  - Aquaponics
  - Recirculating Aquaculture System (RAS)
- **Hi-Tech Goat Farm**
- **Poultry Farm**
- **Vertical Farm**
- **Wick Irrigation / Terrace Farm**
- **Farm Layouts, Landscaping and Technology Integration**

Other Projects

- Electric Carts - Fruits and Vegetables, Fish, Food, Mobile Steam Units, etc - An Entrepreneurship
- Development Model
- Skill and Entrepreneurship Development Programs in High Tech Agriculture
- Sustainable Village
- Value-Added Projects

STATE AGRI HORTI SOCIETY

State Agri-Horticultural Development Co-Operative Society Ltd.

ACCREDITED BY GOVERNMENT OF KERALA

Karshika bhavan, Vedivachan Kovil, Thiruvananthapuram 695501, Kerala

0471 2408877, +91 7012704289 | agri@stateagrihortisociety.org

www.stateagrihortisociety.org

SUSTAINABLE FOUNDATION

2nd Floor, Sharan Chambers, Vellayambalam,

Thiruvananthapuram - 10 | Call: +91 8590327489

info@sustainable-foundation.org | www.sustainable-foundation.org

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+91 85 90 42 12 24

OrionMedia