

## ISLAND FOR AGRICULTURAL DEVELOPMENT



### **KANDARU (LAAMU ATOLL)**



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## PROJECT CONCEPT

### Organic Vegetable farming in Kandarau (Laamu Atoll)

#### **1- Development Concept**

Our concept is to develop eco friendly organic vegetable and fruit farms in 9 hectares land area of "Kandarau (Laamu Atoll)".

Organic farming will maintain the soil rich in organic matter and beneficial to soil microbes that will provide the crops with sufficient nutrients and a healthy environment. We will not use any commercial synthetic fertilizers or pesticides. By rotating crops, growing many different kinds of crops, and using timely appropriate practices, we will try to minimize insect and disease damage. To manage our soil and cultivate the crops in ways that we believe will allow the land to continue to be productive now and into the future with a process we refer to as "ecoganic farming."

#### **Types of vegetable and fruit in Kandarau Organic Farm**

Cucumber, Garlic, Onion, Lettuce, Egg plant, hot chilly and other tropical vegetables  
Fruits like Papaya and Mango

#### **Major components of the Project**

9 hectare of land area to be developed for Organic Vegetable and Fruit Farming

Mosque

Excavators

Fertilizer storage room

Nursery

Cargo Jetty

EU standard laboratory

Vegetable Packing Factory

Cold Room for Vegetable Storage

Staff complex of 30 bed capacity

Executive Staff complex 10 bed capacity

Kitchen and a mess room for staff

First aid clinic

Staff ferry Boat

Supply boat

100 ton Desalination Water plant

Desalinated Water Storage

100 KV Generator Set

Fuel Storage

#### **2- Productivity in Agriculture and benefit to the economy in general**

Improve Living standard of the Laamu atoll communities in general by distributing organic fresh vegetables and fruits in affordable price.

Create many Job opportunities to the Laamu Atoll communities.

Minimise the import of fresh vegetables and fruits to the country.

Sustainable farming systems are capable of maintaining their productivity and usefulness to society indefinitely. The primary aspects of sustainable agriculture include,

Providing more profitable income

Promoting environmental stewardship including protecting and improving soil quality

Reducing dependence on non-renewable resources, such as fuel and synthetic fertilizers and pesticides

### **Optimum Land Use**

Trees which are useful locally to supplement use of firewood, wood required for furniture and boat building which gives maximum growth output with minimum inputs will be planted in the surrounding beach line. This will contribute to the general economy of the nearby islands and encourage local artisans to manufacture handicrafts from the available inputs.

Grow Papaya and mango trees throughout the vegetation area in a long distance basis, without harming to the vegetable crops, to optimise the maximum land use.

### **Direct and Indirect contribution to the National Economy**

Generating personal income and corporate profits influence to the country's national income through GDP  
Create job opportunities and income for many islanders for whom alternative economic activities may be limited.

Stable economic base for rural communities which is consistent with our sustainable farming concept

Reducing imports of vegetable and fruits will influence the country's economy directly

Larger food supplies will lessen the inflationary pressures.

Organic farming methodologies such as crop rotation, cover cropping, application of compost will be introduced and the use of synthetic fertilizers totally avoided.

### **Innovation and use of Technology**

- Latest technology will be incorporated in the establishment of the project especially by adopting state of the art post harvest handling and packaging methods for the outputs.
- Post Harvest Facility will be established to help in sorting, grading and proper packaging of vegetables and fruits.
- Rain water harvesting will be incorporated using latest techniques. Natural ponds will be formed according to the lie of the land. Appropriate storage tanks will be erected in all the required places to supplement the desalinated water production to the extent possible.
- Latest technologies like green house cultivation, Hydroponics systems and Aeroponics systems will be combined with Sustainable farming practices during the latter part of the project.
- Drip irrigation will be incorporated where ever possible to reduce the water consumption at the same time helping in imparting the required quantity of fertilizers and other plant growth promoters

### **3- Employment opportunities created and Localization**

Recruit 85% of the total staff from local islands the other 15% of staff will be Organic Farming experts from neighboring countries.

Educational awareness program to the neighboring island every 3 months

Sponsor 2 staff for higher education in agriculture related field in International Universities in every 02 year

Create many job opportunities to the neighboring islands.

### **Staff accommodation**

Double sharing accommodation in a room block with common bathroom room facilities 02 bed, 02 wardrobes, ceiling fan attached toilet and study table, Cable TV

### **Executive Staff complex**

The Executive staffs are housed in individual units of bungalows with bedroom, dressing, veranda and bathrooms with open courtyards. The bedroom has a sitting corner, double bed, writing desk, TV cabinet and fridge. The dressing area has a wardrobe and dresser. The bathroom consists of double vanity, shower, WC cubicle and open area shower in the enclosed courtyard.

### **Localization**

The following guidelines and initiatives/decisions will be enclosed in a code of corporate behaviour, incorporated in the Human Resources Manual, planned and scheduled in a three years Human Resources Development Plan.

- Expatriate labour force will be strictly controlled and recruitment of foreign labour will be processed only for specific & determined positions whenever Maldivian candidates are not identified or available. A gradual replacement of foreign labour by local labour will be initiated under a pre-planned recruitment & development program achieved within a period of 3 to 5 years. Ultimately, all Maldivian staff will supervise all the operations of the Kandaru Organic Vegetable and Fruit Farm Project and conduct training in their respective areas.
- Near by Islanders will be persuaded to grow vegetables and fruit plants with Company provided plant materials, fertilizers and training will be provided to grow plants properly. Company will buy the vegetables and fruits produced in this basis on a barter system. This will encourage a proper vocation to the islanders and also contribute to their economic upliftment.
- Commitment in developing the young generation through apprenticeship programs, scholarships, industrial training will assist in meeting our objective to localize the workforce.
- Commitment in luring Agricultural Universities graduates by providing them with a concise development plan, and a career growth calendar.



### **Staff Welfare, Incentives and Benefits**

Compensation is one of the most important Human Resources Management functions. It will be an important tool for motivating higher levels of job performance, and enhancing the organizational effectiveness. The objectives of our compensation philosophy will be:

- Attract & maintain the desired quality and mix of employees.
- Motivate employees to improve their performance continually while striving to achieve the Kandaru business objectives.
- Reinforce the company's key values and the desired organisational culture.
- Drive and reinforce desired employee behaviour
- Ensure compensation is maintained at the desired competitive level
- Ensure equitable treatment.
- Appropriately measure and reward performance and contribution.
- Provide appropriate compensation changes based on performance, promotion, transfers or other conditions.
- To access the most qualified and experience individuals existing in the labour market.
- To retain and build loyalty amongst the employed workforce.

### **Welfare**

Ascertaining our employees that care and attention will be extended to them on the short term and long term basis, and also to their family, two important constituents will be designed to meet their needs and allow them to work in a stress free mind set.

Health Care Insurance: a thorough and complete insurance scheme will be signed with an insurance company with a majority being expensed to the operation and a limited participation made by the employees. This insurance will not only cover the employees but also their spouse and children, covering not only medical expenditures met within the Maldives, but also the expenditures faced in foreign countries.

Provident Fund: a company managed provident fund will be created and offered to every employee. Such initiative will not only motivate loyalty amongst employees, but will allow them not to develop a certain anxiety over their post working life, and alleviate the burden put on their children.

For Local staff there will be a staff ferry service every day morning and evening from Kandaru / xxx / Kandaru

### **4- Management of Natural resources and environmental mitigation**

To accord with both our vision and our values for Kandaru, all environmental projects from inception will be designed to conserve and rehabilitate Kandaru natural habitat. The Island's environmental objectives are as follows:

- To ensure regular measurement and monitoring of the Island's progress in terms of international environmental management best practice;
- To build on knowledge gained in our unique island environment, and to continue to develop and pioneer new and innovative eco initiatives;
- To continue to add value to the lives of our local communities by our presence in Laamu Atoll;
- To preserve our environment by pursuing ecologically responsible policies and procedures in a manner that promotes the education of our community and a equitable distribution of resources for future generations;

- To use only organic fertilizers in kandaru. The natural environment greatly benefits and Island water resources are less likely to be damaged, protecting fishery resources by keeping reefs productive and sediment free
- Plants all around the island (beach line vegetations) 25 meters inside the island will be untouched for the protection of the island environment and to reduce soil erosion.
- Coconut palms and other massive Plants will be relocated with in the island, in the process of developing the vegetable farm and the public area.

### **Garbage Collection and Disposal**

Waste generated at the Kandaru would be sorted into plastic, metals, paper, organic and hazardous waste. Every day waste would be collected and temporarily stored separately at the island.

All accommodations, rest rooms and public spaces will be supplied with two waste baskets, one for biodegradable and the other for non-biodegradable material.

Waste bins that are aesthetically acceptable and depict local craftsmanship will be provided throughout the island to prevent littering.

Solid waste management site would be processed in accordance with the guidelines issued by the Ministry of Home Affairs and Environment.

### **Sewage and Waste Water Disposal Plan**

The sewage and wastewater generated at the Kandaru would be collected through a small bore sewerage system. The small bore sewerage system at the Kandaru would be designed in consultation with the Maldives Water and Sanitation Authority.

The small bore sewerage systems would be laid at shallow gradients at the island. Washrooms and kitchen service would be connected to the small bore system through a cesspit. The cesspit would carry primarily treated effluent and septic tanks would treat to secondary level before it is disinfected. The treated effluent will be used to recharge the groundwater of the island and to flush the toilet.

### **Conclusion:**

Our project meets economic, environment and social objectives simultaneously; because these three objectives always overlap and they are managed together. Economic sustainability requires selecting profitable enterprises and doing comprehensive planning. Social sustainability involves keeping money circulating in the local economy, and maintaining or enhancing the quality of life of the farm family. Environment sustainability involves keeping the four ecosystem processes viz. effective energy flow, water and mineral cycles, and viable ecosystem dynamics, in good condition. Managing economics, society, and environment simultaneously depends on clear goal-setting, effective decision making, and monitoring to stay on track towards the goal. Innovation and Hi-tech technologies implemented in this project will be suitable for replication in other projects in the Maldives and help take the country towards self sustenance. THIS WILL BE OUR HOLISTIC ATTITUDE TOWARDS THE PROJECT TO MAKE IT SUCCESSFUL, ECO-FRIENDLY AND SOCIALLY RESPONSIBLE IN THE INTEREST OF THE NATION.







