REUNA GROUP OF COMPANIES LIMITED

BLUE ECONOMY IMPLEMENTATION PROJECT

Sponsor; - Reuna Group of Companies Limited

P.O.BOX 15 - Mkuranga
Coastal Region - Tanzania
Call office: +255 698 770 777
Director: +255 698 444 414
Email: info@reunagroup.co.tz

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EXECUTIVE SUMARY

REUNA GROUP OF COMPANIES LIMITED is a fish processing company which deals with buying fish from different catchers and collectors and process them, the final product is sold within and for export market.

The company has captured a wide market but the fish collected does not meet the amount demanded by the customers. To meet the demand the company is seeking to establish fish collection centres in areas with rich fishing grounds, fishing units, and aquaculture field units.

The project being proposed is an expansion program whereby a fish processing and marketing company envisages to go deep into the line of business by fishing of finfish by handline and trawling prawns and farming of fish, sea weed, crab fattening and sea cucumber rearing. A complete fishing and processing project are proposed to be established in Zanzibar.

The project shall involve establishing collection centers in Mafia, Kilwa-Kivinje and Kisiju equip them with necessary equipment such as Ice plants, Blast Freezers, Cold Store and Refrigerated Vehicles.

Also, purchase a trawler for prawns a purse seiner for mackerel and a longliner for Tuna in the Deep sea

The promoters are seeking funds from financiers to the tune of TSHS. 18,165,619,000/= of which Tshs. 8,958,300,000/= shall be in foreign currency equivalent to us US$ 3,445,500 for importation of fishing boats and refrigerated Vans and containers.

At the beginning of production, a working capital of Tshs. 500,000,000/= shall be required.

The project is viable and funds to be invested shall be repaid within three years.

Financial considerations have been estimated on the following assumptions: -

- Loan amount has been proposed to be TSHS18,165,619,000/=
- One-year grace period has been provided.
- Interest rate of operation will be 20%.
- Corporation tax is 30% of gross profit
- Prices and costs have been assumed to remain constant throughout the project life of three years.

The project is technically feasible, economically viable, financially sound, socially equitable ad environmentally friendly.

The project is seeking coinventors for implementation

We recommend to financers to finance.

BUSINESS PROFILE

REUNA GROUP OF COMPANIES LIMITED is a newly registered company by registrar of companies (BRELA) vide registrations certificate No. 17127685 of 8th January, 2024.

The company takes over the business of ABAJUKO ENTERPRISES LIMITED, which was dealing with fish Processing and Marketing within the country and export market. The company intends to go deep into the line of business by introducing fishing farming activities.

1. PROJECT DESCRIPTION

The project being proposed is an expansion program whereby a fish processing and marketing company envisages to go deep into the line of business by fishing of finfish by handline and trawling prawns and farming of fish, sea weed, crab fattening and sea cucumber rearing. A complete fishing and processing project are proposed to be established in Zanzibar.

The project shall involve establishing collection centers in Mafia, Kilwa-Kivinje and Kisiju equip them with necessary equipment such as Ice plants, Blast Freezers, Cold Store and Refrigerated Vehicles.

Also, purchase outboard engines and small boats (of about 8m. long) for handline fishing and other gear.

1.1 The project wishes as well to purchase a mother ship for deep sea fishing and processing. The project shall involve purchase of the ship together with relevant fishing gears, purchase of supporting facilities that is refrigerated vans, reefers for transportations and storage of the product from the mother ship. Also, seek license from relevant authorities and commence fishing operations.

FISHERIES ACTIVITIES IN TANZANIA.

Tanzania is one of the greatest fisheries nations in Africa, ranking in the top 10 countries in terms of total capture fisheries production. The country is endowed with a territorial sea, an Exclusive Economic zone (EEZ) and stretch of a coastline of 1,424 kilometers along the Indian Ocean (Tanzania Integrated Coastal Management Country Profile, 1999). Given the extensive water resources, Tanzania has a big potential of fisheries resources in capture fisheries in marine waters. Marine fishery is dominated by artisanal fisheries for more than 95% and most of the fishing takes place in the territorial sea

The fisheries sector provides a source of employment and livelihood to a substantial number of people. About 182,741 people are engaged on fulltime basis, out of this, about 175,097 and 7,664 are involved in fresh water and marine fishing, respectively. While approximately more than four million people make their livelihood through various fisheries related activities such as; boat building, net making, fish processing and food marketing.

In 2012 total production was 365,023 metric tons, valued at Tsh 1,307,131.70 of which 86% was from fresh water.

Aquaculture in Tanzania is small scale (mixed sex) generally, with 3 fingerlings per m^2 stocking density. Average area of fish pond is $300m^2$(15m×20m)

From 2011-2012 data, the estimated number of farmers for fresh water were 17,277, while marine water farmers were 1,306 for milk fish, 51 for prawns; 188 for crabs, 98 for pearl culture and 2,826 farmers for sea weed.

PRAWN FISHING IN TANZANIA.

There have been no fishing activities for prawn since 2006 season, due to technical reasons by legislatures. Prawn fishing was open in the 2017 season; it is now five years. The fishing season is (April- August) every year. Prawns fishing are open to indigenous only, no foreign vessels are allowed. Tanzanians have no capabilities to own fishing vessels of the trawler size; thus, have depended on hire from outsiders and Tanzanians of foreign origin that no longer are interested in the venture. These boats are obsolete; such that those who sought for maintenance last season have ended in failure.

This season a total of eight (8) boat sought permition and got licenses for trawling; only four (4) boats have managed.

Figures of prawn's export recorded in the annual fisheries report i.e. 2012, are those from aquaculture ponds of the M/S Alpha Crust Co. Ltd

TUNA FISHING.

The Indian Ocean is one of several important tuna fishing areas of the world. Compared to the Atlantic and Eastern/Western Pacific, a high proportion of catches in the Indian Ocean comes from areas beyond national jurisdiction. In addition, tuna catches in this region are split about equally between industrial and non-industrial fisheries. The various types of Indian Ocean tuna fishing are set in a diversity of cultures and economic situations.

Indian Ocean tuna is an important component of food security, as well as a basis for significant industrial activity. These activities are set in a complex situation in which the different stakeholders have vastly different aspirations for the future.

Tanzania tuna fishery for artisanal fisheries has no significance-(Table)

STATUS OF SMALL-SCALE TUNA FISHERIES IN THE 10C MEMBER-COUNTRUES (2016)

10C	Small-scale Tuna Feet's		DW	Cash (metric tons)		
MEMBERS-STATES	**COASTAL**	**EXTENDED**	**FAD**	**COASTAL**	**EXTENDED**	**TOTAL**
COMOROS	2000	10	6	6600	0	6600
MADAGASCAR	350	8	0	100	330	430
MAURITUS	50	21	21	720	720	970
REUNION ISLAND	200	34	34	2100	2100	2900
SEYCHELIES	0	0	0	400	400	400
TANZANIA	-	-	-	-	-	-
KENYA	-	-	-	-	-	-

The commercial fishery is mainly concentrated in EEZ for tuna and tuna-like species which include; Yellow fin, big eye, Albacore, Marlin, Sharks, Sword fish and Skip jack.

EEZ CATCH TREND IN TUNA AND TUNA LIKE SPECIES IN METRIC TONES FOR 2001 – 2012

YEARS/ TYPE	Sword Fish	Yellow Fin	Big Eye	Albacore	Skip Jack	Marlin	Sharks	Others	OTAL
2001	208.4	60.2	23.3	35.9	1.3	18.5	0.0	2,158.4	**2,506.0**
2002	188.9	356.9	82.0	55.3S	0.0	0.0	48.0	4,173.2	**4,904.2**
2003	14.4	3,044.7	180.5	72.4	1,734.0	0.4	0.0	9,870.2	**14,916.5**
2004	340.5	21,758.8	5,615.9	7,351.2	972.2	1,265.2	0.0	11,529.8	**48,833.5**
2005	55.5	1,979.7	505.6	293.4	281.0	13.3	1.1	9,854.9	**12,984.4**
2006	38.0	1,829.7	390.0	76.5	1,030.0	71.1	4.6	2,906.0	**6,345.9**
2007	38.6	842.5	209.5	91.7	3.2	659.2	137.5	23.2	**2,005.3**
2008	18.5	1,281.2	1,731.5	3,786.4	241.0	24.9	78.0	2,985.2	**10,146.6**
2009		350.0	191.0		157.0				**698.0**
2010	15.5	250.3	197.6	54.4	373.0	8.7	16.8	105.3	**1,021.6**
2011	0.0	272.0	62.0	0.0	683.0	0.0	0.0	0.0	**1,017.0**
2012	0.0s	2,215.0	751.0	0.0	S3,413.0	0.0	0.0	182	**6,561.0**

Source: Ministry of Livestock and Fisheries Development

Tuna and tuna-like fish species have their specific issues including that of being highly migratory and highly harvested resource by DWFNs from Tanzania EEZ without much benefit to the national economy.

Tuna is not a single species of fish, but rather several species. Scientists often use the term "Tuna and tuna-like fish" to refer to a total of 61 species, 14 of which are considered "True Tuna". Four species are of major commercial importance in the Indian Ocean: Skipjack, yellow fin, big eye and albacore. The most important tuna-like species in the Indian Ocean is swordfish.

Fishing methods: - Include

- Purse seine – about a third of Indian Ocean tuna catch, about 330,000 tone
- Logline about 17%= 150,000 tones in the recent years
- Pole – and line: - about 10% equivalent to 90,000 mt
- Gillnet: - about a quarter equivalent to 225,000 mt

Purse seining is considered as more efficient than other methods, thus this project shall adopt it.

MACKEREL FISHING:

Mackerel is widespread in the Indo – West Pacific, from South Africa, Seychelles East Africa and Red Sea, East through Indonesia and Off Northern Australia, china over. Also, Mediterranean Sea it has entered through the Suez Canal.

In the Indian Ocean is found, the Indian Mackerel (Rastrelliger Kanagurta – Cuvier). The mature fish allied to tuna in the family scombries, feed on macro plankton including the larvae of fish and shrimp. It is slender, elongated body with a pointed head and deeply forked tail. Can grow between 25cm -35cm in length and weights around 100 – 150 gm on average. The upper part of the body is dark – blue or greenish – blue while the lower part is silver or white. Its fins are usually yellowish – orange in colour.

Primarily found in the warm waters of the Indian Ocean, the Bay of Bengal and the Arabian Sea. It is a highly migratory fish species that travels long distances in search of food and suitable breeding grounds.

During the monsoon season, Indian Mackerel fish move closer to the shore to spawn, making them easier to catch for fishermen with temperature of at least 17◦C

Rastrelliger Kanagurta Cuvier catches by purse seine reveal seasonal patterns of abundance associated with monsoon winds along West coast of Zanzibar. Low catches were obtained during the South – East monsoon (June – August) while the North – East (September-March) were characterized by high catches

OCTOPUS FISHERY IN TANZANIA

Octopus is soft-bodied, eight – limbed mollusk of the order octopod. The order consists of some 300 species. Class Cephalopoda, includes, Squid and Cuttlefish. They have bulbous heads, large eyes and eight limbs. Octopus Vulgaris is the common with has eight muscular arms equipped with two rows of suckers.

Octopus is exported frozen; Tanzania value of export was US$ 5.22 million for about 566.24 metric tons in 2022. Of these exports,

- Portugal accounted for 81.8% valued at US$ 4.27 million.
- France accounted for 13.99% valued at US$ 750.54 k.
- China accounted for 4.10% valued at US$ 217.27 k.
- Kenya accounted for 0.06% valued at US$ 3.34 k.
- DRC accounted for 0.04% valued at US$ 2.10 k.

Octopus fishery is growing fast post COVID, and several developments have taken place. The Seas Food Alliance for Legality and Traceability (SALT) had a program to combat illegal, unreported and unregulated (IUU) fishing of octopus.

The aim of the programmer was to expand global seafood market reach, and meet emerging food traceability regulations that key markets such as the European Union have established. Mtwara District alone accounted for nearly 50% of the country`s total production in 2020, when Tanzania`s total output reached an estimated 3,430 metric tons (MT).

Kilwa Octopus fishery was also in the program due to importance of the fishery to local livelihoods, the continued and forecasted growth for the fishery, the role of Women and Youths (in its operations), its reliance on an export market and the opportunities for improved biodiversity conservation and fishery management through improved data collection.

Tanzania octopus catches have steadily increased since 1990, when the country caught 483 MT worth of octopus, with the all – time high reached value

CRAB FISHERY IN TANZANIA

The mud crab, Scylla serrata is one of the largest portunids under order Decapoda and is widely distributed. The species forms a highly potential fishery estuarine system due to the well-known export trade, delicacy, medicinal value and local customer preference.

Scylla serrata crab (mud crab) has been harvested for a long time from mangrove holes during day time, low spring tides by expert fishers. Mud crab are nocturnal and normally inhabit turbid estuaries (Baines at all, 2002), they are maintained under low light condition.

The mud crab is another needed shellfish globally. In Tanzania the farming of crab fish started in the mangrove and has benefited communities but the growth has not been significant. The survival rate of crab-lets is 2% level of expertise is still low and calls upon more engagement of the young expertise to oversee the sector as it has both local and international potential.

Crab for export should weigh 500gm per crab to protect resources and promote sustainable development. Crab exports to China is increasing under the preferential policies for the least Developed Countries (LDCs), crabs are imported duty free. A consignment of 950kg saved 7% import duty of about Yuan 4297 (US $ 587), as a result of waiver and bilateral economic and trade ties between Tanzania and china.

This company has a crab fattening farm at Kisiju – Pwani village, thus some of the raw material shall originate within. The survival rate is more than the study of 2% due to engaging learned expert in aquaculture. The projects survival rate is 76%

1.2. PRESENT DEVELOPMENT

The company owns a fish processing plant at Vikindu-Madafu. The plant situated on Plot No. 21 and 22, ABAJUKO street No. 49. Is a complete fish processing plant with processing (sorting, grading, packaging and blast freezing facilities), storage room (60-ton capacity) and three forty feet containers. The company owns a five (5 acre) land at Kisiju-Pwani Village in which fish farming, Crab fattening are at present being practiced.

2.0 SPONSORSHIP, GOVERNANCE AND TECHNICAL ASSISTANCE

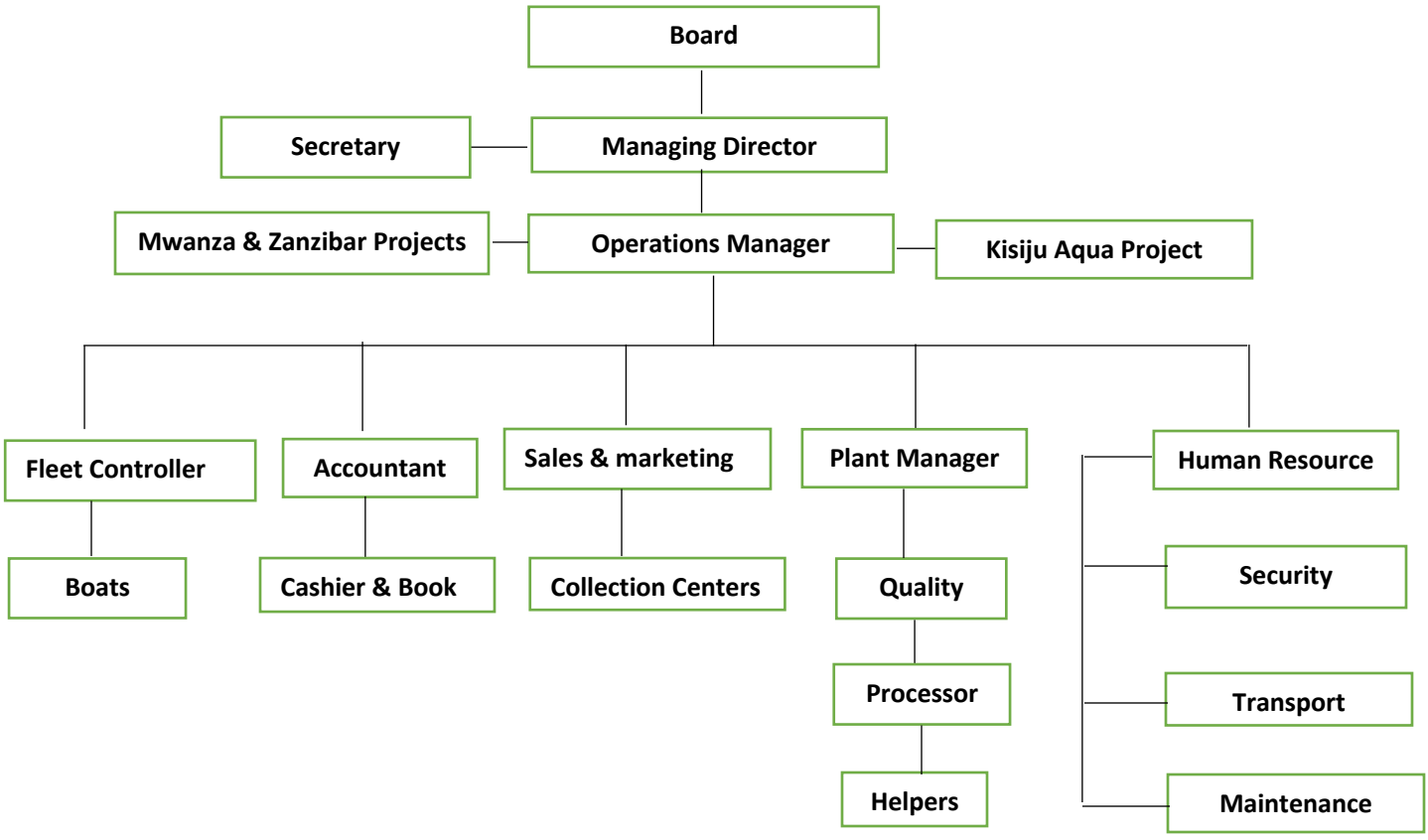
2.1. The sponsors

The sponsors of the project are REUNA Group of Companies Limited. The shareholders are credit worthy and are respected among the community they are living. The company has acquired a small fishing boat (14m) long intended for coastal shrimp fishing.
The company has employed competent and experienced key personnel in her ranks.
The company has captured a wide market but the supply of fish does not meet the amount demanded by customers, thus the need for establishing new collection centers and fishing units and aquaculture.

Besides the new boat, other fishing method may not require external assistance. The Longline boat shall require expertise from Far-East who are main users of such technologies

3.0. MANAGEMENT AND MANAGEMENT INFORMATION SYSTEM

3.1. ORGANIZATION CHART



3.2. MANAGEMENT

The management team earmarked shall consist of persons with vast experience in the fisheries related activities and financial management. The Managing Director shall directly manage the existing Madafu processing plant in Vikindu-Mkuranga. Under the Managing Director there shall be the Operations Manager responsible for day to day running of the project.

3.2.1 Key Personnel, duties and responsibilities

i. **Operations Manager**.

The earmarked Administration Manager is a fisheries technologist, business administrator and a banker. He has enough experience in all the fields. The manager shall be responsible for making sure that the project objectives are met through proper implementation of activities as outlines in the project document.

ii. Secretary

The managing Director shall be assisted by the office secretary on matters pertaining to documentation of the project activities, book keeping and accounting. He/she is expected to be a computer wizard in typing, printing and record keeping while clearly managing the office sincerely.

iii. Sales and Marketing

Shall be responsible for marketing research to understand the marketability of company's product. Under the manager there shall be procurement and sales personnel. Who shall be responsible for collection of raw material and selling final products?

Shall liaise with collection centers on availability of fish and the required type and amount

iv. Aqua culturist: (Project Manager)

Shall be responsible for the day to day running of the aquaculture project

v. Factory Manager

Shall be responsible for management of the Madafu Processing Plant. Under the factory Manager, there shall be two shift supervisors and four helpers per shift. Where the load is much, daily labors shall be hired.

vi. Quality Assurance Officer

The Quality Assurance post is vital in a fish processing plant. He/she is responsible for overseeing the raw material on arrival at the plant, on the processing line and at the storage. Also, as the product is loaded for dispatch.

vii. Accountant

Processing and sales result into cash, the person responsible for keeping records of cash and payment is the accountant. The project has a qualified accountant.

viii. Fleet Controller

Shall be responsible for coordinating Deep Sea, Vessels coastal permit and the management. The Deep-Sea Vessels have complicated issues including work for foreign crews and other investment requirements

ix. Boat Crews

Smaller fishing boats (below 21m long) are operated by liceused skippers. As the fishing operations are carried out along the coastal grounds, experience is the key factor. There are several licensed skippers in Dar es salaam together with the associated crew members.

Personnel for the Boat and collection centers are readily available in fishing parts.

x. Collection Center In charge

The project expects to operate with three collection centers namely; Kisiju, Mafia and Kilwa-Kivinje. These centers shall be administered by qualified quality assurance personnel, as they are the source of the raw material and in some cases, complete processing shall be done there

4.0. TECHNICAL FEASIBILITY, MANPOWER, RAW MATERIAL RESOURCE AND ENVIRONMENT

4.1. Brief description of production processes

i. Longlining

Longline fishing or longlining is a commercial fishing, angling technique that uses a long "main line "with baited hooks attached at interval via short branch lines called snoods or ganglions.

A snood is attached to the main line using a clip or swivel, with the hook at the end. A high flyer buoy is used to monitor gear position while fishing and light sticks are often used to target certain species.

This project Industrial longline expects to operate with five thousand (5,000) hook. At the catch rate of five percent (5%), a daily catch of two hundred and fifty (250) units of tuna weighing over one hundred twenty (120 KGS) is anticipated.

Free-swimming tuna schools tend to occur April to July in the areas to the East and West of Seychelles as well as off Tanzania (Tuna for Tomorrow by Robert Gillet, working paper no. 011-Indian Ocean commission).

Of late tuna fishers know that, tuna catches can be very good around objects floating offshore, especially ones that have been in the water for some time.

ii. Trawling:

Is a fishing method whereby; netting material are woven in a bag- like shape and mounted on the stern side of the fishing boat with the help of warps which facilitatethe towing process and otter boards for opening the mouth. The towing operation last for one to two hours and hauled.

Fish trapped in the process are sorted into different species, size and quality. After sorting, the products are rewashed and packed into convenient packages and then frozen in the plate freezers and later stored into a cold store. After a week of fishing, thefrozen product shall be transported by trucks to Dar es Salaam for sale and or export.

This project trawler expects to catch about 800kgs of prawns per day and about 2,500kgs of mixed bony fish. Fishing is expected to be done for 6days in a week and (5)five months, from April to August every year: where September to march is reserved for prawns breeding in the mangrove forest swamps.

iii. Purse seining

Purse seining is a fishing method whereby a long net (about 250-500m) is set surrounding a shoal of fish sited and close the sinker roper fast forming a "purse" trapping the shoal;
The method shall be used to catch mackerel and other surface and mid-water swimming species.

iv. Handline fishing

The project will start with a unit of 6 boats in one center. It is envisaged that, four units of 6 boats shall be added annually for the four marine centers till it reaches at 50 miles in the fifth year.

These boats shall be equipped with fish detecting equipment different fishing gears, such as handling drop line shark nets artificial baits etc**.**

Handline fish is a fishing method whereby a hoek is fixed to a monofilament line and baited. When the line is paid into the water fish is attracted and grab it, in the process the fish is caught

One fisherman can catch up to twelve fish in a day fishing trip.

Handline is productive in coral seabed.

v. AQUACULTURE

The project shall start with traditional methods of rearing marine creatures, but is subsequent years the project is aiming at employing modern techniques by introducing cages for all creatures which is as well an environmentally friendly method.

a) Crabs fattening

A crab fattening pond is under construction, the pond estimated to hold about ten thousand (10,000 pc) of crabs, in cages with two pieces in each cage. Crabs do mature for sale in about (3months) twelve weeks.

b) Fish farming

There are three fish ponds. The project will start with 1 pond measuring 50m × 70m. Stocking density shall be 10 fingerling per meter square

c) Sea cucumber

Sea cucumber farming in cages shall also be practiced starting with ten units 30m × 60m, stocking rate shall be three (3pcs) per meter square. Sea cucumber fingerling are supplied by Mbegani (FETA).

The project shall rear species which fetch high prices of the families, Holothurian, thelenota and stich opus, which are habitable in areas of sand, sea grass and coral/rubbles. Sea cucumber mature after fifteen months (15).

d) Seaweed farming

The project shall also practice seaweed farming using long line method, where by a long rope about one hundred (100m) is tied to two poles on the ends and several float and every after one-meter seaweed cutting is attached to the rope. After six weeks the seaweed cutting grow to an estimated weight of one kilogram (1kg). One hectare shall be utilized for seaweed farming making a total of hundred (100) ropes of 100 meters with a meter in between the ropes. Thus, a total of 100 × 100kgs/rope = 10,000kgs.

e) Support Items

The project shall be provided with a fish feed making machine, with a capacity of one thousand kgs (1000kgs). Estimated to cost about TSHS. 20,000,000/=. Also, a boat of nine (9m) meters long shall be bought to facilitate, feeding of the creatures and general monitoring and guarding. Solar powered lamps shall also be installed at different location for security purposes. To facilitate swift movement for raw materials a pick up car shall be bought. A building to house office and storage of finished products (Seaweed) shall be constructed.

vi. Fish collection centers

The project is establishing collection centers in Kisiju, Kivinje, Mafia and Zanzibar for marine products and Mwanza for fresh water products. These centers are meant to ease supply of raw materials at the main processing plant at Vikindu - Madafu.

These centers shall be elevated to fall process plants a year or two operations, thus, require all necessary equipment and tools such as: - freezers, Ice plants, reefers and handling tools.

a) Mafia collection center

Fish shall be collected from different landing stations in Mafia and brought at the collection center. At the center fish shall be "Organoleptically" assessed, washed, sorted and graded before blast freezing. During the process, Fish shall be chilled with ice and under enclosed condition. Finished products shall be loaded into an insulated container and transported to Vikindu Head Quarter

b) Kisiju collection center

Kisiju shall be provided with a building to house, ice store, and office insulated boxes and ice regularly. Fish and Prawns from different landing stations shall be "Organoleptically assessed", washed, sorted and iced. Inferior/stale raw material shall not be accepted as it is near the landing station or brought by the fisherman. Clean sorted and iced raw material shall be packed and transported to Vikindu.

c) Kilwa-Kivinje

Fishermen, mainly women and youths go out on the low spring tide in the coral reefs to catch the octopus. On arrival at receiving Centre, they are weighed and stocked in insulated boxes surrounded by ice.

When enough amount is collected, it shall be transported to Vikindu processing Plant, where the raw material shall be gutted, skinned, tenderized and flowered, before freezing and packaging for export.

Crabs are caught and tied with rope the biting limbs. Collected at the Centre and packed in a bucket and transported to Vikindu for packing ready for export.

4.2. Special technical complexities and need for know-how and special skills

i. The industrial fishing boats are manufactured in developed countries with all necessary processing and preservation facilities. The company shall employ qualified and experienced personnel from within the country and experts from developed industrial fishing countries. The trawler captain and mate also, Aqua-project growers shall be expatriates

ii. Possible Suppliers of Equipment

Inputs to be supplied from outside countries shall be the baits squid/herrings/sandiness which is mostly available from Malaysia or Indonesia. The Deep-Sea Fishing regulation do permit importation.

Feeds for aqua project shall be mixed at the center by a machine to be provided.

iii. Availability of infrastructure

Fishing ports for fishing boats are there. Mbegani is the main fishing port, besides being equipped with necessary infrastructure it is as well manned by qualified personnel for quality control purposes. Distant ports like Nyamisati and Kilwa – Masoko are also ideal and the Government quality controllers have to travel to those ports

iv. Requirements for and availability of skilled and unskilled manpower

Manpower for Longliner shall be from Far-East Asia, where the technology has advanced much.

Other fishing methods skilled manpower is abundant in the fishing ports.

v. Breakdown of project operating costs are elaborated under specific operating centers.

- **Fuel**: - the main operating item in fishing is fuel (diesel). The rated consumption of the boat is about 800ltrs per day. Trawling involve towing of a bag – like net which usuallyis dragged at the bottom of the sea. For this job, it is estimated to raise the consumption to 1,200ltrs per day. Thus; 1200ltrs @ 4,000/= x 3 vessel x 30 days = The consumption for purse seining is 1,200ltr × 30days @ 4,000 = 864,000,000/=

  The consumption of purse seining is estimated at one third (⅓) of that trawling

  i.e. 1,200ltrs/3 × 30 days @ 4,000= ×6 months = 288,000,000/=

- **Longline**: 200,000,000/= 1trip ×8trip = 1,600,000,000/=

- **Oil and Grease**: Is necessary for all revolving parts of the Engine. It is here estimated at 0.05% of fuel consumption.

  Thus: 2,752,000,000/= (above) ×0.05% = 1,376,000/=

  = **2,753,376,000/=**

- **Onboard Ration:** The cost for food for crew onboard, is estimated at Tshs. 5,000/= per head per day.

  Thus: - 25 members @5,000/= ×30 days = 3,750,000/=
  × 6 months
  22,500,000/=

  Add: Crew upkeep (soap, detergent & medicant) 15,000/= per head/month 22,500,000 + 2,250,000 =. Total 24,750,000/=
  × 3 boats
  Total Onboard Ration and upkeep **74,250,000/=**

- **Soap and detergents**: Tshs. 500,000/= ×7units = **3,500,000/=**
- **Fuel for Vehicles**: 20ltr /day ×8units @ 4,000/= × 360day = **230,400,000/=**
- **Electricity**: 120,000/day × 360days ×5 centers = **216,000,000/=**
- Telephone and Internet: 7 centres @450,000/month ×12 months **= 37,800,000/=**
- **Baits:** Another Vital operating item is bait which includes either squid herrings Mackerel or Sardines. The one which can be obtainable easily is mackerel from Malaysia or Indonesia.
  One container of Imported mackerel 20,000kgs @5,000/= 100,000,000 × 8 trips
  = 800,000,000/=
- **Packaging Materials (units × boats)**: 8 centres @750,000/= × 12 months
  = **72,000,000/=**
- **Aquaculture running costs, feeds & medicant**: 852,480,000/=
- **Office supplies**: Estimated at 2,000,000=/month 8 center = **192,000,000/=**

Others, shall include onboard ration, Packaging materials, soap and Detergent, crew upkeep and ground office supplies.

vi. **Source, cost, quantity of raw material supply**:
The main raw material for the project shall be fish from collection centers. Operating centers also have raw materials including fuels, feeds and power (electricity).
As for the Aqua culture, the project shall be provided with fish feed mixer to ensure the availability of feeds without elements of uncertainty.

vii. Import Restriction on Raw Materials
Baits for longline (Squid or Mackerel) it is allowed to be imported from Malaysia sea

viii. **Proposed Plant Location**.

The processing plant is at Vikindu-Madafu about twenty-five (25km) from Dar es salaam on the Kilwa road highway. The collection centers are all situated a few kilometers from the highway.

The road to Kisiju, about sixty (60km) from the plant, branching at Mkuranga (45km) from Dar es salaam is an earth road but passable throughout the year.

Kivinje is about ten (10km) kilometer from Kilwa road branching at Nangulukulu about 330 km from Dar es salaam.

Mafia is four hours cruise by MV. Kilindoni from Nyamisti about fifty km (50Km) from Bungu on the Kilwa road highway, about 100km from Dar es salaam.

All these centers are reached without much difficulties.

ix. Proposed Plant Size.

Dar es salaam has about three (3) fish processing plants of the projects size. Size does not matter but raw material received matters and the storage volume. This projects storage is about one hundred and twenty tons (120 ton)

x. Environmental issues

Disposal of water is the only issue at the plant. As at present a hired disposer is collecting the wastes, but the project is going to utilize the waste for fish feed manufacture as proposed in this project.

5.0. INVESTMENT REQUIREMENTS, PROJECT FINANCING AND EXPECTED RETURNS

I. Estimated Project costs

TSHS 000

S/N	PARTICULARS	EXISTING	ADDITIONAL LOAN		ADDITIONAL SUBTOTAL	TOTAL
			US$	TSHS		
1	Land & Building	1,300,000	-	4,987,000	4,987,000	6,287,000
2	Processing Equipment	-	360,000	1,467,250	2,403,050	1,403,050
3	Boat & Engine	-	2,575,500	659,000	7,394,300	7,394,300
4	Furniture & Fitting	-	-	350,000	330,000	330,000
5	Vehicles &Generators	-	510,000	915,000	2,241,000	2,541,000
6	Aqua Costs	200,000	-	978,029	978,029	510,260
	Total Fixed Assets	**1,500,000**	**3,445,500**	**9,156,079**	**18,16,619**	**19,665,619**
6	Contingency Allowance (10%)	-	344,550	-	-	-
7	Working Capital	-	-	500,000	-	500,000
	Total Project Costs	**1,500,000**	**3,790,050**	**9,656,079**	**18,165,619**	**20,165,619**

II. Project financing Plan

TSHS 000

SOURCE OF FUNDS	EXISTING	NEW FUNDING		TOTAL TSHS	GEARING %
		LOCAL	FOREIGN (US$)		
Promoter's Equity	1,500,000	-	-	1,500,000	10
Financier	-	9,156,079	3,790,050	18,165,619	90
Working Capital	-	500,000	-	500,000	
Total Finance	**1,500,000**	**9,656,079**	**3,790,050**	**20,165,619**	**100**

III. Types and Timing of Financing required

The project is seeking funds to the tune of Tshs. 18,165,619,000/= for purchase of fishing Vessels establishments of fish collection center in different ports of productive fishing grounds, and purchase of refrigerated containers and Van for transportation of raw materials collected by the collection centers.

Upon completion of the project equipment purchase and construction of centers, a Working Capital of Tshs. 500,000,000/= shall be required.

IV. Projected Financial Statements and return to investment: (Appendix V-VIII)

- The project income statements portray a profitable business entity "Ceteris Peribus".
- Cashflow Projection: The project will be liquid throughout its life span.

V. Critical factors determining Viability and Profitability.

- The deep-sea fishing vessel is expected to catch much fish at about minimal cost. The fishing ground is not more than knotical miles five hundred (500km miles) as against the Distance Water Fishing Nations (DWFNs) who travel a thousand of knotical mile
- Rufiji and Kivinje plateau are good breeding and feeding ground for marine creatures.

  The mangrove swamp which extends about 300km with intermittent river estuaries provides good grounds for prawns breeding. These grounds have not been destructed; they are virgin.

  The vessel to be acquired shall be new, making it possible to operate smoothly for the whole five (5) months of the year.

  The demand for fish in Dar es Salaam is very high and the price has been set very low as a sensitive measure as well.

  These are among the critical factors determine viability and profitability.

6.0. SALES AND MARKETS

6.1. Markets Orientations

(i) Local:

Although Tanzania could produce up to 700,000 tons of fish annually, irresponsible fishing and environment degradation has resulted in unimpressive annual catches of about 400,000 marine tons, mainly from Lake Victoria area, this is according to the fisheries division annual report 2014. The report continues to narrate that this shortage has led to the importation of about 200,000 metric tons from china annually.

Trade source have estimated that at the minimum 150 metric tons and at the maximum 170 metric tons of fresh water fish are to be consumed daily in Dar es Salaam. This would imply that half the fresh fish caught in Tanzania would be consumed in Dar es Salaam. The present supply of fish does not approach even 50% of the demand. Mafia and Kilwa being so near to Dar es Salaam is regarded as the source of fish for Dar es Salaam consumers. This explains why the product of this project shall have ready market, but mainly for Dar es Salaam

(ii) regional

Fish trade in Africa provides an estimated 200 million people (30% of the continent's population) with their main source of animal protein and micro-nutrients. It sustains the livelihoods of over 12.3 million people, 6.1 million direct fishers' 5.2 million processors and 0.9 billion fish farmers. The total first Sale value of fish is estimated to be nearly US$ 20 billion, the majority of which is earned by small-scale operators supplying food to local and sub-regional markets. Per capital fish consumption however is roughly half of the global average and is expected to decline to 5.6 KGS b 2030 whereas total fish consumption is expected to grow due to population growth. Whilst supplies of fish trade come from indigenous capture fisheries and aquaculture, many countries rely on fish imports and dependence on such imports from outside the continent is expected to rise. An unknown, but significant quantity of fish is traded cross borders from one country into another

6.2 Fish Trade

(i) Regional

Fish has become an important commodity traded within and between Regional Economic community and their member states, with the COMESA, SADC and EAC trade regions home

to some of Africa's. Most important fisheries resources, key development objectives of REC include:

- Increasing value addition
- Taking value chain approach to sector development
- Reducing post-harvest losses
- Improving trade and market condition
- Improving information and knowledge content and exchange
  Despite the importance of fish trade its development, sustainability and efficiency is affected by numerous challenges, including among several.
- High costs of doing trade due to high import tariffs, high transport costs, unpredictable trade regimes and inadequate market information for stakeholders
- Inefficient procedures at border crossing which promote informal rather than formal legal trade.
- Complexity of rules and regulations and lack of harmonized standards and common trade regulations between member states.
  Harmonized fish inspection procedures for cross-border trade how exists and it is expected that each country shall adopt and be incorporated into national system.
  With regard to consumer preference in the sub-region, fresh fish is preferred when available (mostly closer to water bodies) and there after frozen (when refrigeration is not a problem) or dried (smoked/salted/sundried) or canned (when refrigeration is not available). Tilapia is widely popular but dried dagaa is also popular (because of tradition/taste/storage convenience/low price) as is sardine/mackerel/herrings. Among the most popular export products from the sub-region are Nile perch fillets (or fresh whole Nile perch)
- Urbanization middle class growth and health awareness are three factors that are seen as contributing in increasing demand for fish. With 2020 in Eastern Africa, the highest in DRC and will remain so and lowest in Burundi
- Middle class is known to increase growth in consumption expenditure amongst other things. In Eastern Africa, the size of the middle classes (in 2020) varied between the countries with the largest middle class in Kenya 6.8% followed by Uganda 5.6% DRC 4.7%, Tanzania 2.9%, Rwanda 2.6% and Burundi 2.1%. These figures may impact on the projected growth in demand chapters (e.g. the coastal and the inland fisheries) are aimed at providing for the domestic /sub-regional markets and products are generally of lower quality due to insuffient or in appropriate preservation methods.
- With increasing Urbanization, income levels and health awareness, as well as growing population in general demand for fish and products (and better quality) will continue to increase. Thus, improving value chains with the aim of improving product quality, would provide better quality products that could fetch a higher price and thereby increasing

revenues for those involved in the value chain. These measures would also reduce post-harvest losses and thus make better use of the fish caught. Post-harvest losses occur mainly due to inadequate infrastructure and in appropriate handling in general. This is more of a problem in relation to fish aimed at domestic and sub-regional markets as noted above.

6.3. Demand for Fish

i. Regional

The Eastern Africa region consists of net importers (primarily DRC), net exporters (primarily Tanzania) and those which alternate between the two (Kenya). But as noted most of them have an unsatisfied and increasing demand for fish and fish products, largest in Uganda, Tanzania and DRC and Lowest in Burundi.

Demand for fish will likely grow in linear fashion in relation to population, which translates into a possible 43% increase in fish demand by 2030. Furthermore, demand has been seen to be a normal good, meaning it increase as income increases. This positive relationship has been analyzed by Abdullahi and Aubert (2004), they estimate elasticity between income and animal protein in Tanzania (e.g. Fish) at 1:04. This indicates that fish demand may increase at a slightly higher rate than GDP. With Tanzania's GDP having increased at an average of 4.6% per year between 2000 and 2017, fish demand will continue to rise by at least that rate. Taking this all into account, upward pressure from population and economic growth should more than double the quantity of fish demanded by 2030.

Thus, no business rivals are expected.

ii international

The global Tuna Fish Market will reach US$ 52.85 billion in 2028 growing with a CAGR of 3.65% from 2022 to 2028, according to the publisher. The rise in tuna fish imports in the United States can be due to the increasing popularity of seafood in the America diet, driven by tuna's convenience and versatility in various dishes. The growing demand for tuna also comes from health-conscious consumers and the awareness of the health benefits of eating seafood. Furthermore, the decline in domestic tuna production due to overfishing and environmental issues has increased reliance on imported tuna to meet demand.

6.4 Potential Users

i. Tuna

Tuna can be used in various dishes, making it a versatile ingredient that makers can incorporate into man cuisines. With the rise of social media and food bloggers, more people are learning about the benefits of tuna and integrating it into their diets. In addition, as the world's population continues to grow, so the demand for food, including sea food like tuna.

People's bus schedules today invite a rapidly increasing need for ready-to-eat food, with canned tuna being a popular choice. Another reason for the popularity and demand for canned tuna is its shelf life. Various countries are developing rapidly, and their natives are switching to easy-to-cook, long-lasting, and internationally loved food items. These people's preferences are a major cause for the growing worldwide consumption of canned tuna.

Furthermore, with growing health consciousness, many people are shifting from canned to fresh and frozen tuna. Although their price point is significantly higher than canned tuna, people are willing to pay, contributing to a higher economic value for the global tuna trade.

Yellowfin tuna is much-loved seafood due to its robust and meat flavor and firm texture, which wise choice for many health-conscious individuals Yellowfin tuna can be cooked in various ways, such as searing, grilling, or baking and used in multiple dishes, including sushi rolls and salads.

With the growing popularity of sushi, yellowfin tuna has become a prevalent ingredient in this dish, which has in turn, contributed to the increased demand for this fish. In addition, globalization and the expansion of international trade have made yellowfin tuna widely available in many parts of the world, further fueling the market. Moreover, yellowfin tuna is a sustainable seafood option, which is essential for people who are mindful of the environmental effects of their food choices.

ii. Prawns

Prawns have a readily export market; several processors have established processing plant with the aim of processing prawns for export. This project sells to Tourist Hotels namely **HYATT REGENCY, SERENA HOTEL AND LSG**, but the projects` long term plan is to process and export prawns and bonny fish.

iii. Bony Fish

Potential users of fish are mainly fish traders who buy from fisherman and distribute to retailers and or to final consumers. The situation of competing for fish is worse, trades are forced to deposit funds to fishing companies so that on return from fishing trips, it became easy for them (traders) to claim back in terms of fish.

The population of Dar es Salaam is growing fast, due to the industrialization of area around. The government is advocating the general public to turn to aquaculture, but the investment outlay for the venture, including unavailability of water, the rising value of land make the success of aquaculture development a nightmare.

This being the case a substitute product for caught fish is not in the offing.

Countries situated south of the Sahara Desert are uniting economically. The tariffs which were hindering trade and the subsequent cross border barriers have been cleared by the smart fish program of the Indian Ocean commission which was aimed at promoting value chain, food security and regional trade, so that countries in the hinterland get access to fish which is rich in animal protein and complete dietary food complement. Thus, with the removal of unnecessary tariffs and clearance of cross border barriers, the demand for fish has grown ten folds.

6.5. Aqua products

Aqua products include fish, crab, sea weed and sea cucumber. These products are mainly exported to China where it is believed that they are utilized as food and shampoo production.

7.0. INDUSTRIAL-DYNAMICS

NET EXPORTER IN VALUE TERMS

The value of exports and imports indicate that Africa has been a net exporting continent ever since 1985 (figure 8). However, in terms of volume, imports exceed exports, being composed of low value small pelagic fish (horse mackerel, mackerel and sardinellas).

The trade balance of selected countries as indicated, Morocco has by far the largest trade surplus of almost 1.4 billion followed by Namibia (US$ 500 million) and South Africa (US$ 299 million). Seychelles (because of tuna imports), Kenya and Tunisia have individually less than US$ 200 million. Angola, Democratic Republic of Congo, Cameroon, Ghana, Cote d`lvoire,

Egypt and Nigeria are fish and fishery products trade deficit countries. In 2011, Nigeria alone imported around US$ 1,245,394 while the trade deficit was higher than US$ 750 million.

SADC and COMESA_EAC imports are relatively high, partly due to demand for high-value products in South Africa. The region had the fastest annual average growth since 1976 at 8% per year, which increased to 10% over the last decade.

Main Species and Products

Imports are dominated by fish–essentially fresh, chilled and frozen-which accounted for close to 90% of imports on average, over the last decade. The most commonly imported fish has been fresh, chilled and frozen mackerel (almost 40%) and other unspecified frozen fish.

Fresh, chilled and frozen fish also accounted for the largest share of import values, although prepared and preserved fish tended to attract a high value (14% in 2006-2008) relative to their share in import value (5%). Imports of dried, salted and smoked fish remained low, even though they are widely consumed in Africa. The demand is likely met through domestic production which is processed and consumed locally, and/or fresh fish which is imported for processing into dried, salted or smoked products.

Fish trade in Africa provides an estimated 200 million people (30% of the continents population) with their main source of animal protein and micro-nutrients. It sustains the livelihoods of over 12.3 million people; 6.1 million direct fishers 5.2 million processors and 0.9 million fish farmers. The total first scale value of fish is estimated to be nearly US$ 20 billion the majority of which is earned by small-scale operators supplying food to local and sub-regional markets. Per capital fish consumption however is roughly half of the global average and is expected to decline to 5.6kgs by 2030 whereas total fish consumption is expected to grow due to population growth. whilst supplies of fish trade come from indigenous capture fisheries and aqua culture, many countries rely on fish imports and dependence on such imports from outside the continent is expected to rise. An unknown, but significant quality of fish is traded crosses borders from one country to another.

The project is aiming at primary production and the existing collection and processing marketing activities. This being the case, this company has more advantage over competitors.

As most of the fishing vessels in the EEZ are those owned by Distance Water Fishing Nations, this project vessels shall have no competitor. The DWFNs are the only competitors.

As regards domestics and regional markets, the share of this company is a hundred percent, infrastructure is the only limiting factor.

Fisheries is a developing sector; thus, no restriction have been posed.

Major fish traders include, Alpha Crust and East Dar

The market of fish globally is open and is yet to be satisfied.

The market for fish in this country is either domestic, regional or global.

Major buyers may be categorized country wise. They include China, Italy, England, Portugal and America

Seasonality Factor

Tuna and tuna-like fish are usually caught much between April and July off Tanzania coastline is peak. Slake season in between (September-March). Efforts shall be made to affix FAD which help to attract fish at some points. It is familiar in the Mozambique Channel.

Global and national events influencing the Industry.

Generally, fish as a trade commodity and a food component, is not expected to encounter global events that shall stop/hinder production efforts.

Global environmental instruments most relevant to Tanzania fisheries are the convention on trade as endangered species of flora and Fauna 1973 (CITES). The convention of migratory species 1979 etc.

8.0. GOVERNMENT/DONOR SUPPORT AND REGULATIONS

a) Project priority

"The per capital animal protein consumption from fish has shown a declining trend to 8.0kgs/capital/year in 2012. This is below the FAO recommended consumption of 20Kg/capital/year, and it is the aim of fisheries policy to increase this". This statement from the fisheries annual statistics report 2012 – Ministry of Livestock and fisheries development.

- **To promote fish increase**: - The government has waived all duties and taxes on imported fishing gears and equipment.

- Major landing centers have been provided with landing facilities, such as cold storage, ice plants etc.

The government is arguing communities with natural resources to harvest economically and sustainably. The general public has always complied to the regulations.

b) Contribution of project to economic development.

i. Employment effect: this project expects to employ more than (60) people on permanent terms during the fishing season. The project expects to catch over 300 metric tons of medium and small fish, which shall be utilized as a trade commodity by hundreds of small holders' fish monger in the five (5) months fishing seasons.

Several communities in Kilwa, Mafia and Mtwara districts shall be engaged in crabs and octopus catching and therefore earning income.

ii. Government Revenue

The government expects to earn a substantial amount of money in terms of corporation tax, licenses, different type of levies and the like.

iii. Foreign Exchange Earnings.

Longline is intended for Tuna. Tuna and Prawns are meant for foreign market; two thirds of the project sales are earned from export market. Thus, the government expects to earn from this project the highly demanded foreign exchange.

Crabs and octopus are also export business, thus the revenue expected is in foreign currency.

iv. Linkage Effect

The project shall have a forward linkage to the chemical industries such as soap detergents and pesticides, fishing gear manufactures and backward linkage to the food industry.

v. The company complies with Tax and Labour legislation as spelt out by law. (i.e. VAT, PAYE, OSHA etc.

9.0. SECURITY AND RISK MITIGATION

a) Proposed Security

The project is viable and the promoters are committed to undertake the venture successfully. This is initial security of the project. The second security shall be the chattel mortgage of the project assets to be purchased and duly covered by insurance. The third security shall be guarantee by Company Directors.

b) Major risks.

- **Electricity:** octopus is exported frozen. The electricity cuttings may cause the product to become stale and unfit for export. This shall be mitigated by providing own generator
- **Indirect flight**: Live crab may be flown for several hours before suffocation; thus, direct flights are required. `Air Tanzania' has a direct flight to China which shall be the mitigation for the risk of suffocation.

- **Marine accidents**: The vessel shall be covered by comprehensive marine insurance cover
- **Engine break down**: Unnecessary engine break down shall be mitigated by employing qualified and experienced professionals.
- **Longline destruction:** As with breaking down of engine, net destruction shall be mitigated by engaging diligent and kin skipper and master fisherman
- **Spoilage of fish and prawn on board:** Qualified quality controller and fish processor are necessary and above all, the ability of the ship captain to motivate the crew to perform their duties as per guideline, rules and regulations.
- **Post-harvest losses:** Generally, the industry has a few infrastructures in fish preservation; this project shall include the necessary equipment for preservation including; several refers, ice plants and refrigerated vans and blast freezers.
- **Sea Piracy:** Piracy in the Western Indian Ocean has had major impacts on tuna fishing activity in recent years.

Pirate attacks in the waters off Somali (one of the most productive areas of tuna fishing areas of the Indian Ocean) have progressively increased since the early 1990s. Originally, the target was coastal shipping but it has grown to include all ships, including tuna longliners, purse seiners, and gillnetters.

The geographic area has expanded as well; tuna vessels have been attacked over 1,000 nautical miles from the Somalia coast and now the area of threat covers almost all of the Western Indian Ocean. Past incidents have involved hijacking of Spanish, French, Seychelles and Thai purse seiners and Chinese, Taiwanese and Kenyan longliners. In response, there has

been much movement of tuna fishing activity vessels away from the Somalia zone to avoid piracy. The purse seine fleet of larger vessels usually carries security personnel on board and has been less affected on the areas of distribution, although there is a considerable impact in terms of additional costs and stress for the fishing crew on board. The situation is more delicate for the longline and gillnet vessels that are smaller and slower and therefore, more vulnerable to the attacks.

10. TIMETABLE INVISAGED FOR PROJECT IMPLEMENTATION AND COMPLETION

The project shall undergo the following sequence.

i. Consultancy and feasibility study/business plan preparation – one month – May - September, 2024
ii. Seeking donor support October – December, 2024 – January 2025
iii. Application scrutiny and processing February - April, 2025.
iv. Legal documentation and security registration May, 2025.
v. Purchase of equipment and tools for fishing June - July, 2025
vi. Construction of Processing Plants February – August, 2025
vii. Inspection of the vessels and license procedures August, 2025
viii. Purchase of fish Processing Equipment June – August, 2025
ix. Installation of Fish Processing Equipment September, 2025
x. Trial run of the vessel in the fishing zones September, 2025
xi. Trial run of Processing Equipment September- 2025
xii. Commencement of fishing 1st October, 2025

PROJECT IMPLEMENTATION SCHEDULE

ACTIVITY/TIMING		May -Sept	Oct	Nov	Dec 2024	January 2025	February	March	April	May	June	July	Aug	Sept	Oct
1	Consultancy and Business Plan Preparation	xxxx													
2	Seeking Donor Support/financier		xxxx	xxxx	xxxx	xxxx									
3	Application Scrutiny and Processing						Xxxx	Xxxx	xxxx						
4	Legal Documentation and Scrutiny Registration									xxxx					
5	Purchase of Equipment and Tools for Fishing										Xxxx	xxxx			
6	Construction of Processing Plants										Xxxx	Xxxx	xxxx		
7	Purchase of Processing Equipment										Xxx	xxx			
8	Inspection of Vessels												xxx		
9	Installation of Fish Processing Equipment												Xxx	xxx	
10	Trial Run of Vessels												xxx		
11	Trial Run of Processing Equipment													xx	
12	Commencement of Operation TRA & NEMC														x

11. ECONOMIC BENEFITS AND ENVIRONMENTAL ISSUES

The project is in line with government policy of producing more food and raising the consumption of animal protein from fish, from 7.6kgs to 18kgs/capital/year. The project will create employment to several people in the fisheries related activities. The government will earn revenue in terms of corporation tax and foreign exchange.

There are no environmental hazards to be caused by proposed project.

Above all the project is technically feasible, economically viable, financially sound, socially equitable and environmentally friendly.

SUMMARY OF INVESTMENT ITEM

APPENDIX I

TSHS 000

S/N	PARTICULARS	EXISTING	ADDITIONAL LOAN		ADDITIONAL SUBTOTAL	TOTAL
			US$	TSHS		
1	Land & Building	1,300,000	-	4,987,000	4,987,000	6,287,000
2	Processing Equipment	-	360,000	1,467,250	2,403,050	1,403,050
3	Boat & Engine	-	2,575,500	659,000	7,394,300	7,394,300
4	Furniture & Fitting	-	-	350,000	330,000	330,000
5	Vehicles &Generators	-	510,000	915,000	2,241,000	2,541,000
6	Aqua Costs	200,000	-	978,029	978,029	510,260
	Total Fixed Assets	**1,500,000**	**3,445,500**	**9,156,079**	**18,16,619**	**19,665,619**

LIST OF INVESTMENT ITEMS

ANNEX I

A. BOAT AND GEARS

TSHS 000

SN	PARTICULARS	BUDGET ANALYSIS	FOREIGH US$	LOCAL TSHS
1	Longliner	150 ton @ 700,000US$	800,000	2,080,000
	• Longliner gear	Unit of 5,000 hooks @ 75,000/=	75,000	195,000
	• Bedding & culinary Equipment	Estimate 2,500	2,500	6,500
	• Shipping costs	Far-East to Tanzania	120,000	312,000
	Sub-total		**997,500**	**2,593,500**
2	Purse Seines	21m × 6.5m × 5m	600,000	1,560,000
	• Purse Seine Net	500m long × 60m deep	25,000	65,000
	• Bedding & culinary	2,500 US$	2,500	6,500
	• Shipping costs	Far-East to Tanzania	120,000	312,000
	Subtotal		**747,500**	**1,943,500**
3	Trawler	25m × 7m× 3m	700,000	1,820,000
	• Traw Net and Offer boars	2 sets @ 4,000 US$	8,000	20,800
	• Bedding &culinary	2,500 US$	2,500	6,500
	• Shipping costs	Far-East to Tanzania	120,000	312,000
	Sub-total		**830,500**	**2,150,300**
4	Handline Units			
	• Boats	7m × 1.5m × 10 units @50,000,000	-	500,000
	• Handline gear	10units @500,000	-	5,000
	• Outboard Engine	40HP × 6units @10,000,000	-	100,000
	• Camp Equipment	11units @2,000,000	-	22,000
	• Ice boxes (500lt)	11units @2,000,000	-	22,000
	Sub-total			**659,000**
	Sub-total:	**Boats & Gears**	**2,575,500**	**7,345,300**

B. **FISH PROCESSING PLANTS**

1. Vikindu Head Office: (Additional) Tshs 000

SN	PARTICULARS	BUDGET ANALYSIS	FOREIGH US$	LOCAL TSHS
1	Standby Generator	400KVA @79,000	85,000	221,000
2	Refers 40'	40' × 4units	-	36,000
3	Display Freezers	1,500ltr ×10 units@7,000,000/=	-	70,000
4	Digital Weighing Scales	0-10kgs × 10units @500,000	-	5,000,
5	Selling Space Rental	4 location @5,000,000	-	20,000
6	Refrigerated Vehicles	• 3tons × 2units @75,000 • 2tons × 2units @70,000	- -	150,000 140,000
7	Block Ice Plant	5tons containerized with storage chamber	60,000	156,000
8	Office Vehicle	Toyota		250,000
9	Lobster & Crabs rearing House	20m × 25m @750,000	-	375,000
10	Lobster & Crab Rearing Equipment	Estimated (aerators etc)	-	20,000
	Sub-total Vikindu		**145,000**	**1,443.000**

2. MAFIA CENTER TSHS 000

SN	PARTICULARS	BUDGET ANALYSIS	FOREIGH US$	LOCAL TSHS
1	Land Acquisition/Rental Fee	Beach Plot	-	500,000
2	Fish processing Plant building	25m × 30m @750,000	-	563,000
3	Fish Processing Plant Equipment: • Flake Ice Plant • Blast Freezer (30HP) • Blast Insulation • Cold Store Insulation • Cold Unit • Cold Store door	 5tons @ 47,000,000 30HP @60,000,000 27m³ @ 400,000 70m³ @4,000 (25HP) @47,000,000 + vat 18%846,000 1unit @2,950,000	 - - - - - -	 75,000 60,000 10,800 28,000 55,460 2,950
4	Refrigerated container	40' × 1 unit @40,000,000	-	40,000
5	Refrigerated Van	3tons × 1unit @75,000,000	-	75,000
6	Block Ice Plant	5tons Containerized with Storage Chamber	60,000	156,000
7	Lobster & Crab rearing House	20m × 25mm @750,000	-	375,000
8	Insulated Fish Boxes	500ltr ×5units @2,000,000	-	10,000
9	Standby Generator	400KVA @79,000	85,000	221,000
10	Lobster & Crab rearing Equipment	Aerators etc.	-	20,000
11	Furniture & Fitting	Tables, Chairs air-conditions etc.	-	30,000
	Sub-total Mafia		**145,000**	**2,222,210**

3. KISIJU CENTER **TSHS 000**

SN	PARTICULARS	BUDGET ANALYSIS	FOREIGH US$	LOCAL TSHS
1	Land Acquisition/Rental Fee	Beach Plot	-	30,000
2	Fish processing Plant building	25m × 30m @750,000	-	563,000
3	Fish Processing Plant Equipment:			
	• Flake Ice Plant	5tons @ 47,000,000	-	75,000
	• Blast Freezer (30HP)	30HP @60,000,000	-	60,000
	• Blast Insulation	27m³ @ 400,000	-	10,800
	• Cold Store Insulation	70m³ @4,000	-	28,000
	• Cold Unit	(25HP) @47,000,000 + vat 18%846,000	-	55,460
	• Cold Store door	1unit @2,950,000	-	2,950
4	Refrigerated container	40' × 1 unit @40,000,000	-	40,000
5	Refrigerated Van	3tons × 1unit @75,000,000	-	75,000
6	Block Ice Plant	5tons Containerized with Storage Chamber	60,000	156,000
7	Lobster & Crab rearing House	20m × 25mm @750,000	-	375,000
8	Insulated Fish Boxes	500ltr ×5units @2,000,000	-	10,000
9	Furniture & Fitting	Tables, Chairs air-conditions etc.	-	30,000
	Sub-total Kisiju		**145,000**	**1,357,210**

4. MWANZA CENTER **TSHS 000**

SN	PARTICULARS	BUDGET ANALYSIS	FOREIGH US$	LOCAL TSHS
1	Land Acquisition/Rental Fee	Beach Plot	-	30,000
2	Fish processing Plant building	25m × 30m @750,000	-	563,000
3	Fish Processing Plant Equipment:			
	• Flake Ice Plant	5tons @ 47,000,000	-	75,000
	• Blast Freezer (30HP)	30HP @60,000,000	-	60,000
	• Blast Insulation	27m³ @ 400,000	-	10,800
	• Cold Store Insulation	70m³ @4,000	-	28,000
	• Cold Unit	(25HP) @47,000,000 + vat 18%846,000	-	55,460
	• Cold Store door	1unit @2,950,000	-	2,950
4	Refrigerated container	40' × 1 unit @40,000,000	-	40,000
5	Refrigerated Van	3tons × 1unit @75,000,000	-	75,000
6	Block Ice Plant	5tons Containerized with Storage Chamber	60,000	156,000
7	Insulated Fish Boxes	500ltr ×5units @2,000,000	-	10,000
8	Furniture & Fitting	Tables, Chairs air-conditions etc.	-	30,000
	Sub-total Mwanza		**145,000**	**1,136,210**

5. KIVINJE CENTER **TSHS 000**

SN	PARTICULARS	BUDGET ANALYSIS	FOREIGH US$	LOCAL TSHS
1	Land Acquisition/Rental Fee	Beach Plot	-	30,000
2	Fish processing Plant building	25m × 30m @750,000	-	563,000
3	Fish Processing Plant Equipment:			
	• Flake Ice Plant	5tons @ 47,000,000	-	75,000
	• Blast Freezer (30HP)	30HP @60,000,000	-	60,000
	• Blast Insulation	27m³ @ 400,000	-	10,800
	• Cold Store Insulation	70m³ @4,000	-	28,000
	• Cold Unit	(25HP) @47,000,000 + vat 18%846,000	-	55,460
	• Cold Store door	1unit @2,950,000	-	2,950
4	Refrigerated container	40' × 1 unit @40,000,000	-	40,000
5	Refrigerated Van	3tons × 1unit @75,000,000	-	75,000
6	Block Ice Plant	5tons Containerized with Storage Chamber	60,000	156,000
7	Lobster & Crab rearing House	20m × 25mm @750,000	-	375,000
8	Insulated Fish Boxes	500ltr ×5units @2,000,000	-	10,000
9	Furniture & Fitting	Tables, Chairs air-conditions etc.	-	30,000
	Sub-total Kivinje		**145,000**	**1,752,210**

6. ZANZIBAR CENTER **TSHS 000**

SN	PARTICULARS	BUDGET ANALYSIS	FOREIGH US$	LOCAL TSHS
1	Land Acquisition/Rental Fee	Beach Plot	-	30,000
2	Fish processing Plant building	25m × 30m @750,000	-	563,000
3	Fish Processing Plant Equipment:			
	• Flake Ice Plant	5tons @ 47,000,000	-	75,000
	• Blast Freezer (30HP)	30HP @60,000,000	-	60,000
	• Blast Insulation	27m³ @ 400,000	-	10,800
	• Cold Store Insulation	70m³ @4,000	-	28,000
	• Cold Unit	(25HP) @47,000,000 + vat 18%846,000	-	55,460
	• Cold Store door	1unit @2,950,000	-	2,950
4	Refrigerated container	40' × 1 unit @40,000,000	-	40,000
5	Refrigerated Van	3tons × 1unit @75,000,000	-	75,000
6	Block Ice Plant	5tons Containerized with Storage Chamber	60,000	156,000
7	Lobster & Crab rearing House	20m × 25mm @750,000	-	375,000
8	Insulated Fish Boxes	500ltr ×5units @2,000,000	-	10,000
9	Furniture & Fitting	Tables, Chairs air-conditions etc.	-	30,000
	Sub-total Zanzibar		**145,000**	**1,752,210**

C. AQUACULTURE PROJECT - KISIJU

SN	PARTICULARS	BUDGET ANALYSIS	LOCAL TSHS
1	Fish Farming:		
	• Land Acquisition	5 acres	30,000,000/=
	• Pond Maintenance – Pond 1	46m × 64m@5,000	14,720,000/=
	• Pond Maintenance – Pond 2	12m ×64m @5,000	29,440,000/=
	• Pond Maintenance – Pond 3	32m ×46m @5,000	7,360,000/=
	• Breading Stock – Pond 1	2,944m² ×10pcs @500	14,720,000/=
	• Breading Stock – Pond 2	5,888m²10pcs @500	29,440,000/=
	• Breading Stock – Pond 3	1,472m ×10pcs @500	7,360,000/=
	• Stocking costs	10,304pcs @1,000	10,304,000/=
	Sub-total Fish Farming		**143,344,000**
2	Crab Fattening		
	• Pond Construction	35m ×35m @5,000	6,125,000/=
	• Cage Construction	5,000 cages @15,000	75,000,000/=
	• Fattening Stock	5,000 cages ×2pcs @4,000	40,000,000/=
	• Stocking Costs	10,000 cages @1,000	10,000,000/=
	Sub-total Crab		**131,125,000/=**
3	Crab Catching		
	• Land Kechuru	2 acres @1,000,000/=	2,000,000/=
	• Live House	25m × 30m @50,000/=	40,000,000/=
	• Rearing Equipment	Estimated	1,500,000/=
	• Boat	8m × 4units @250,000/=	1,000,000/=
	• Out board Engine	40HP @10,000,000/=	40,000,000/=
	• Anchor Rope	4 rolls × 12mm 240,000/=	160,000/=
	• Anchor	4units × 20kgs @65,000/=	260,000/=
	• Traps	2,000 units @5,000/=	10,000,000/=
	• Collection Car	1 ton @70,000,000/=	70,000,000/=
	• Initial Baits	4,000pc fish @60/=	240,000/=
	• Initial Feeds	5,000 crabs × 2 fish @60/=	600,000/=
	Sub-total Crab Catching		165,760,000/=
4	Sea cucumber		
	• Cage Construction (Ranch)	30m ×60m @5,000 × 10units	90,000,000/=
	• Rearing Stock	30m × 60m × 3pcs × 10units @1,200	64,800,000/=
	• Stocking Costs	54,000pcs @1,000	54,000,000/=
	Sub-total Sea cucumber		**208,800,000/=**
5	Seaweed Farming:		
	• Longline (1Ha)	500 strings @15,000	7,500,000/=
	• Anchorage costs	500 strings @1,000	500,000/=
	• Drying Racks	20 Racks @200,000	4,000,000/=
	Sub-total Seaweed		**12,000,000/=**
6	Support Items:		
	• Pick-up Vehicle	1ton ×4wd @180,000	180,000,000/=
	• Fiberglass Boat	7m × 1unit @40,000	40,000,000/=
	• Out boar Engine	40HP × 1 unit @10,000	10,000,000/=
	• Feed Mixer	• Grindes: 5,000,000 • Mixer: 10,000,000 • Pellet Mc: 5,000,000	20,000,000/=
	• Office & ware House	15m ×30m @50,000	22,000,000/=
	• Furniture & fittings & solar Lamps	Tables, Chair, Computer &Racks	45,000,000/=
	Sub-total Support		**317,000,000/=**
	TOTAL AQUQCULTURE COSTS		**978,029,000/=**

OPERATING COSTS

ANNEX II

MANPOWER REQUIREMENT AND COSTS

1. VIKINDU HEAD OFFICE

S/N	CADRE	NO	MONTHLY SALARY	TOTAL (TSHS)
1	Managing Director	1	10,000,000 × 12 months	**120,000,000/=**
2	Admin Manager	1	6,000,000 × 12 months	**72,000,000/=**
3	Sales Manager	1	5,000,000 × 12 months	**60,000,000/=**
4	Plant Manager	1	5,000,000 × 12 months	**60,000,000/=**
5	Accountant	1	5,000,000 × 12 months	**60,000,000/=**
6	Quality Assurance	1	1,000,000 × 12 months	**12,000,000/=**
7	Shift supervisor	2	800,000 × 12 months	**19,00,000/=**
8	Processors	2	600,000 × 12 months	**14,400,000/=**
9	Helpers	4	400,000 × 12 months	**19,200,000/=**
10	Live House Keeper	2	1,000,000 × 12 months	**24,000,000/=**
11	Refrigeration mechanic	2	800,000 × 12 months	**19,200,000/=**
12	Secretary / Book keeping	1	500,000 × 12 months	**6,000,000/=**
13	Drivers	2	400,000 × 12 months	**9,600,000/=**
14	Security Guard	2	280,000 × 12 months	**6,720,000/=**
	Sub Total Add: 20% Social Benefit			**502,320,000/=** **100,464,000/=**
	TOTAL SALARIES AND WAGES			**602,784,000/=**

2. KISIJU/KICHURU AQUA PROJECT

S/N	CADRE	NO	MONTHS SALARY		TOTAL (TSHS)
			US$	TSHS	
1	Project Manager	1	3,000	-	**93,600,000/=**
2	Project supervisor	1	2,500	-	**78,000,000/=**
3	Fauna Supervisor	1	2,000	-	**62,400,000/=**
4	Flora Supervisor	1	2,000	-	**62,400,000/=**
5	Crab Collector	1	-	1,500,000/=	**18,000,000/=**
6	seaweed Farmer	1	-	1,000,000/=	**12,000,000/=**
7	Sea cucumber Reared	1	-	1,000,000/=	**12,000,000/=**
8	Crab Fattening In charge	1	-	1,500,000/=	**18,000,000/=**
9	Fish Farmer	1	-	1,000,000/=	**12,000,000/=**
10	Night Watch Security	2	-	280,000/=	**6,720,000/=**
11	Driver	1	-	400,000/=	**4,800,000/=**
	Sub Total Add: 20% Social Benefits		9,500		**379,920,000/=** **75,984,000/=**
	TOTAL SALARIES AND WAGES				**455,904,000/=**

3. CENTERS

A. MAFIA

NO	CADRE	NO	MONTHL SALARY	TOTAL (TSHS)
1	Project manager	1	2,000,000/= × 12 months	24,000,000/=
2	Plant Manager	1	1,500,000/= × 12 months	18,000,000/=
3	Quality Assurance Office	1	1,000,000/= × 12 months	12,000,000/=
4	Accountant	1	1,500,000/= × 12 months	18,000,000/=
5	Live House Keeper	2	600,000/= × 12 months	14,400,000/=
6	Shift Supervisor	2	800,000/= × 12 months	19,200,000/=
7	Processors	2	600,000/= × 12 months	14,400,000/=
8	Helpers	8	400,000/= × 12 months	38,400,000/=
9	Secretary	1	500,000/= × 12 months	6,000,000/=
10	Refrigeration Mechanic	2	800,000/= × 12 months	19,200,000/=
11	Security Guards	2	280,000/= × 12 months	6,720,000/=
	Sub-total	**21**		**190,320,000/=**
	Add: 20% Social Benefits			**38,064,000/=**
	Total salaries and wages			**228,384,000/=**

B. KIVINJE

NO	CADRE	NO	MONTHL SALARY	TOTAL (TSHS)
1	Project manager	**1**	2,000,000/= × 12 months	24,000,000/=
2	Plant Manager	**1**	1,500,000/= × 12 months	18,000,000/=
3	Quality Assurance Office	**1**	1,000,000/= × 12 months	12,000,000/=
4	Accountant	**1**	1,500,000/= × 12 months	18,000,000/=
5	Live House Keeper	**2**	600,000/= × 12 months	14,400,000/=
6	Shift Supervisor	**2**	800,000/= × 12 months	19,200,000/=
7	Processors	**2**	600,000/= × 12 months	14,400,000/=
8	Helpers	**8**	400,000/= × 12 months	38,400,000/=
9	Secretary	**1**	500,000/= × 12 months	6,000,000/=
10	Refrigeration Mechanic	**2**	800,000/= × 12 months	19,200,000/=
11	Security Guards	**2**	280,000/= × 12 months	6,720,000/=
	Sub-total	**21**		**190,320,000/=**
	Add: 20% Social Benefits			**38,064,000/=**
	Total salaries and wages			**228,384,000/=**

C. ZANZIBAR

NO	CADRE	NO	MONTHL SALARY	TOTAL (TSHS)
1	Project manager	1	2,000,000/= × 12 months	24,000,000/=
2	Plant Manager	1	1,500,000/= × 12 months	18,000,000/=
3	Quality Assurance Office	1	1,000,000/= × 12 months	12,000,000/=
4	Accountant	1	1,500,000/= × 12 months	18,000,000/=
5	Live House Keeper	2	600,000/= × 12 months	14,400,000/=
6	Shift Supervisor	2	800,000/= × 12 months	19,200,000/=
7	Processors	2	600,000/= × 12 months	14,400,000/=
8	Helpers	8	400,000/= × 12 months	38,400,000/=
9	Secretary	1	500,000/= × 12 months	6,000,000/=
10	Refrigeration Mechanic	2	800,000/= × 12 months	19,200,000/=
11	Security Guards	2	280,000/= × 12 months	6,720,000/=
	Sub-total	**21**		**190,320,000/=**
	Add: 20% Social Benefits			**38,064,000/=**
	Total salaries and wages			**228,384,000/=**

D. KISIJU

NO	CADRE	NO	MONTHLY SALARY	TOTAL (TSHS)
1	**Project Manager**	**1**	2,000,000/= × 12 months	24,000,000/=
2	**Plant manager**	**1**	1,500,000/= × 12 months	18,000,000/=
3	Quality Assurance Office	**1**	1,000,000/= × 12 months	12,000,000/=
4	Accountant	**1**	1,500,000/= × 12 months	18,000,000/=
5	Shift Supervisor	**2**	800,000/= × 12 months	19,200,000/=
6	Processors	**2**	600,000/= × 12 months	14,400,000/=
7	Helpers	**8**	400,000/= × 12 months	38,400,000/=
8	Secretary	**1**	500,000/= × 12 months	6,000,000/=
9	Refrigeration mechanic	**2**	800,000/= × 12 months	19,200,000/=
10	Security Guards	**2**	280,000/= × 12 months	6,720,000/=
	Sub-total	**-**		**175,920,000/=**
	Add: 20% Social Benefits			**35,184,000/=**
	Total salaries and wages			**211,104,000/=**

E. MWANZA

NO	CADRE	NO	MONTHLY SALARY	TOTAL (TSHS)
1	Project Manager	1	2,000,000/= × 12 months	24,000,000/=
2	Plant manager	1	1,500,000/= × 12 months	18,000,000/=
3	Quality Assurance Office	1	1,000,000/= × 12 months	12,000,000/=
4	Accountant	1	1,500,000/= × 12 months	18,000,000/=
5	Shift Supervisor	2	800,000/= × 12 months	19,200,000/=
6	Processors	2	600,000/= × 12 months	14,400,000/=
7	Helpers	8	400,000/= × 12 months	38,400,000/=
8	Secretary	1	500,000/= × 12 months	6,000,000/=
9	Refrigeration mechanic	2	800,000/= × 12 months	19,200,000/=
10	Security Guards	2	280,000/= × 12 months	6,720,000/=
	Sub-total	**-**		**175,920,000/=**
	Add: 20% Social Benefits			**35,184,000/=**
	Total salaries and wages			**211,104,000/=**

4. BOATS

A. LONGLINER

	CADRE	NO	SALARY ANALYSIS	US$	TSHS
1	Boat Captain	1	US$ 3,000 ×12	36,000	93,000,000/=
2	Mate	1	US$ 2,000 ×12	24,000	62,400,000/=
3	Chief Engineer	1	US$ 2,500 ×12	30,000	78,000,000/=
4	Assist Engineer	1	US$ 2,000 ×12	24,000	62,400,000/=
5	Longline Process	1	US$ 2,500 ×12	30,000	78,000,000/=
6	Factor Process	1	US$ 2,000 ×12	24,000	62,000,000/=
7	Bosun	1	US$ 1,200 ×12	14,400	37,440,000/=
8	Refrigeration Engineer	1	US$ 2,500 ×12	30,000	78,000,000/=
9	Chief Cooker	1	US$ 1,000 ×12	12,000	31,200,000/=
10	Second Cooker	1	US$ 750 ×12	9,000	23,400,000/=
11	Factory Hand	3	US$ 350 ×12	12,600	32,760,000/=
12	Oiler	2	US$ 450 ×12	10,800	28,080,000/=
13	Deck Hand	4	US$ 400 ×12	19,200	49,920,000/=
	Subtotal	**19**		**276,000**	**717,600,000/=**
	Add: 20% Social Benefits			**55,200**	**143,520,000/=**
	Total salaries and wages			**331,200**	**861,120,000/=**

B. TRAWLER

NO	CAADRE	NO	MONTHLY SALARIES		ANNUAL SALARIES
			US$	TSHS	
1	Captain	1	3,000	-	93,600,000/=
2	Mate	1	2,000	-	62,400,000/=
3	Master fisherman	1	2,000	-	62,400,000/=
4	Engineer	1		2,000,000/=	24,000,000/=
5	Fish processor	1		2,000,000/=	24,000,000/=
6	Master Fisherman	1		1,500,000/=	18,000,000/=
7	Second Engineer	1		1,500,000/=	18,000,000/=
8	Fishing Crew/Processor	10		500,000/=	60,000,000/=
	Sub-total	**15**			**362,400,000/=**
	Add: 20% Social Benefits				**72,480,000/=**
	Total				**434,880,000/=**

C. PURSE SEINER

NO	CAADRE	NO	MONTHLY SALARIES		ANNUAL SALARIES
			US$	TSHS	
1	Captain	1	3,000	-	93,600,000/=
2	Mate	1	2,000	-	62,400,000/=
3	Master fisherman	1	2,000	-	62,400,000/=
4	Engineer	1		2,000,000/=	24,000,000/=
5	Fish processor	1		2,000,000/=	24,000,000/=
6	Master Fisherman	1		1,500,000/=	18,000,000/=
7	Second Engineer	1		1,500,000/=	18,000,000/=
8	Fishing Crew/Processor	10		500,000/=	60,000,000/=
	Sub-total	**15**			**362,400,000/=**
	Add: 20% Social Benefits				**72,480,000/=**
	Total				**434,880,000/=**

D. BOAT PROJECT

NO	CADRE	NO	MONTHLY SALARY	TSHS
1	Captain	1	800,000/= × 12 months	9,600,000/=
2	Master Fisherman	1	700,000/= × 12 months	8,400,000/=
3	Engineer	1	600,000/= × 12 months	7,200,000/=
4	Galley Staff	1	400,000/= × 12 months	4,800,000/=
5	Sea Men	2	400,000/= × 12 months	9,600,000/=
	Sub-total **Add: 20% Social Benefit**			**39,600,000/=** **7,920,000/=**
	Total Salaries and Wages			**47,520,000/=**

OTHER OPERATING COSTS

1. VIKINDU HEAD OFFICE

S/N	PARTICULAR	BUDGET ANALYSIS	TOTAL (TSHS)
1	Electricity	3,000,000 × 12 months	**36,000,000/=**
2	Soap and Detergents	40,000 × 52 weeks	**2,000,000/=**
3	Processing gears	50,000 × 12 months	**600,000/=**
4	Packing Materials	1,500,000 × 12 months	**18,000,000/=**
5	Telephone, Internet & Advertise	750,000 × 12 months	**9,000,000/=**
6	Fuel	1,200,000 × 12 months	**14,400,000/=**
7	Stationery	600,000 × 12 months	**7,200,000/=**
	TOTAL		**87,200,000/=**

2. FISHING PROJECT

S/N	PARTICULARS	BUDGET ANALYSIS	TOTAL (TZS)
1	Fuel	10lt × 12 hrs × 30 days @4,000	**86,400,000/=**
2	Oil and Grease	0.05% of fuel	**4,320,000/=**
3	Repair and Maintenance	0.005% of machine cost	**408,000/=**
4	Onboard Ration	8 crew @4,000 × 30 day	**5,760,000/=**
5	Soap and Detergents	-Estimated	**240,000/=**
	TOTAL FOR SIX MONTHS		**97,128,000/=**

3. KISIJU AQUA PROJECT

NO	PARTICULARS	BUDGET ANALYSIS	TOTAL (TSHS)
1	Fish & Fish & another creatures feed	50kgs × 30 days @3,000	**54,000,000/=**
2	Medicaments	Estimated	**2,400,000/=**
3	Fuel and Oil	10lts × 30 days @4,000	**14,400,000/=**
4	Replacements	Estimated	**240,000/=**
5	Car Repair & maintenance	2 cars @2,000,000/=	**4,000,000/=**
6	Baits for crab	960,000/= × 12 months	**11,520,000/=**
7	Fuel for cars	20ltrs/day × 7months × 12months	**6,720,000/=**
	TOTAL		**93,280,000/=**

4. KIVINJE

S/N	PARTICULARS	BUDGET ANALYSIS	TOTAL (TSHS)
1	Electricity	60,000 × 30 days × 12 months	**21,600,000/=**
2	Soap and Detergents	60,000 × 12 months	**72o,000/=**
3	Fuel for Guta	10 lt × 300 days @4,000	**12,000,000/=**
4	Packing Materials	50,000 × 12 months	**600,000/=**
	TOTAL		**34,920,000/=**

5. ZANZIBAR

S/N	PARTICULARS	BUDGET ANALYSIS	TOTAL (TSHS)
1	Electricity	60,000 × 30 days × 12 months	**21,600,000/=**
2	Soap and Detergents	60,000 × 12 months	**72o,000/=**
3	Fuel for Guta	10 lt × 300 days @4,000	**12,000,000/=**
4	Packing Materials	50,000 × 12 months	**600,000/=**
	TOTAL		**34,920,000/=**

6. KISIJU

S/N	PARTICULARS	BUDGET ANALYSIS	TOTAL (TSHS)
1	Electricity	60,000 × 30 days × 12 months	**21,600,000/=**
2	Soap and Detergents	60,000 × 12 months	**72o,000/=**
3	Fuel for Guta	10 lt × 300 days @4,000	**12,000,000/=**
4	Packing Materials	50,000 × 12 months	**600,000/=**
	TOTAL		**34,920,000/=**

7. MWANZA

S/N	PARTICULARS	BUDGET ANALYSIS	TOTAL (TSHS)
1	Electricity	60,000 × 30 days × 12 months	**21,600,000/=**
2	Soap and Detergents	60,000 × 12 months	**72o,000/=**
3	Fuel for Guta	10 lt × 300 days @4,000	**12,000,000/=**
4	Packing Materials	50,000 × 12 months	**600,000/=**
	TOTAL		**34,920,000/=**

8. TRAWLER

S/N	PARTICULARS	BUDGET ANALYSIS	TOTAL TZS
1	Fuel	40ltrs × 12hrs × 30dys × 6months @4,000/=	**345,600,000/=**
2	Oil & Grease	0.05% of fuel	**1,296,000/=**
3	Onboard Ration	20 crew @5,000/= × 30 days × 6months	**18,000,000/=**
4	Packaging Materials	Estimated (2,000,000/= × 6 months)	**12,000,000/=**
5	Soap & Detergents	60,000/= × 6 months	**360,000/=**
6	Preservatives	Estimated (500,000/= × 6 months	**3,000,000/=**
7	Refrigeration Service	Estimated – 200,000/month	
	Total Annual		**381,456,000/=**

9. PURSE SEINER

S/N	PARTICULARS	BUDGET ANALYSIS	TOTAL TZS
1	Fuel	10ltrs/hr × 6hrs × 30days × 10 months @4,000/=	**72,000,000/=**
2	Oil & Grease	0.05% of fuel	**360,000/=**
3	Onboard Ration	20 crew @2,000/= × 30 days × 10months	**12,000,000/=**
4	Packaging Materials	500,000/= × 10 months	**5,000,000/=**
5	Soap & Detergents	60,000/= × 10 months	**600,000/=**
6	Preservatives	300,000/= × 10 months	**3,000,000/=**
7	Refrigeration Service	100,000/= × 10 months	**1,000,000/=**
	Total		**93,960,000/=**

10. HANDLINE UNIT (6 BOATS)

S/N	PARTICULARS	BUDGET ANALYSIS	TOTAL TZS
1	Fuel (Petrol)	20ltrs/day × 14dysmonths × 10months @5,000/=	**84,000,000/=**
2	Food	5,000/=/head × 24days/month × 24 crew	**28,800,000/=**
3	Baits	5kgs/boat @5,000/= × 24 days × 6 boats	**36,000,000/=**
	Subtotal for 10 months		**148,800,000/=**

11. MAFIA CENTER

S/N	PARTICULARS	BUDGET ANALYSIS	TOTAL (TZS)
1	Electricity	120,000 × 30 days × 12 months	**43,200,000/=**
2	Soap and Detergents	60,000 × 12 months	**720,000/=**
3	Fuel for Van	10 lt × 300 days @4,000	**12,000,000/=**
4	Packing Materials	50,000 × 12 months	**600,000/=**
	TOTAL		**56,520,000/=**

12. LONGLINE

S/N	ITEM	BUDGET ANALYSIS	TOTAL
1	Fuel (1 trip)	10ltrs/km × 5,000 km @4,000 × 6months	**1,200,000,000/=**
2	Onboard Ration	20 crew @5.000 × 30days	**18,000,000/=**
3	Crew upkeep	20 crew 15,000	**1,800,000/=**
4	Baits	Mackerel × 1 Container (20,000 kgs @5,000	**600,000,000/=**
5	Soap and Detergents	10 bags @50,000	**3,000,000/=**
6	Packaging Materials	Estimated	**20,000,000/=**
7	Ground Office Supplies	Estimated	**1,200,000/=**
	TOTAL MONTHLY		**1,844,000,000/=**

13. SUMMARY OF OPERATING COSTS

TSHS. 000

SN	PARTICULARS	YEARS		
		1	**2**	**3 - 10**
1	Fixed/Semifixed Costs:			
	• Salaries &Wages	3,944,448	**3,944,448**	**3,944,448**
	• Fuel &Oil	3,086,496	**3,086,496**	**3,086,496**
	• Onboard Ration & Crew upkeep	82,560	**82,560**	**82,560**
	• Electricity & water	216,000	**216,000**	**216,000**
	Total fixed/Semifixed Costs	**7,329,504**	**7,329,504**	**7,329,504**
2	Variable Costs:			
	• Feeds & Medicament	852,480	**852,480**	**852,480**
	• Baits	843,920	**843,920**	**843,920**
	• Soap & Detergents	5,660	**5,660**	**5,660**
	• Packing Materials	73,800	**73,800**	**73,800**
	• Office Supplies	192,000	**192,000**	**192,000**
	• Telephone & internet	46,800	**46,800**	**46,800**
	• Repair &maintenance	4,408	**4,408**	**4,408**
	Total Variable Costs	**2,019,068**	**2,019,068**	**2,019,068**
	Total Operating Costs	**9,348,572**	**9,348,572**	**9,348,572**

REVENUE ESTIMATES **ANNEX III**

a) FISH TRADE

S/N	PARTICULARS	BUDGET ANALYSIS	TOTAL (TSHS)
1	Vikindu Head Quarter Tiger sales Less: Purchases	 7,000kgs @45,000/= 7,000kgs @30,000/=	 **315,000,000/=** **210,000,00/=**
	Gross Income		**105,000,000/=**
2	Kisiju Fish Sales Less: Purchases	7,000kgs @10,000 7,000kgs @7,000/=	**70,000,000/=** **49,000,000/=**
	Gross Income		**21,000,000/=**
3	Kivinje fish sale Less: purchase	7,000kgs @10,000 7,000kgs @7,000/=	**70,000,000/=** **49,000,000/=**
	Gross Income		**21,000,000/=**
4	Zanzibar fish sale Less: purchase	7,000kgs @10,000 7,000kgs @7,000/=	**70,000,000/=** **49,000,000/=**
	Gross income		**21,000,000/=**
5	Mafia Sales Less: Purchase	7,000kgs @10,000/= 7,000kgs @6,000/=	**70,000,000/=** **42,000,000/=**
	Gross Income		**28,000,000/=**
6	Mwanza fish sale Less: purchase	7,000kgs @10,000/= 7,000kgs @6,000/=	**70,000,000/=** **42,000,000/=**
	Gross income		**28,000,000/=**
	SUBTOTAL	273,000,000 × 10 months	**2,730,000,000/=**
7	Fishing Project Sales • Prawns • Fish	 250kgs ×25days × 15,000/= × 5 month 1,000kgs × 25days @2,000/= × 5 month	 **468,750,000/=** **250,000,000/=**
	SUB TOTAL		**718,750,000/=**
8	Kisiju – Crab Sales (From year 2) • Crabs • Fish	 5 harvest × 250kgs @26,000/= 1,000 @8,000/=	 **32,500,000/=** **8,000,000/=**
	SUB TOTAL		**40,500,000/=**
	TOTAL SALES (1-8)		**1,032,250,000/=**

b) OCTOPUS AND CRABS TRADE

- Octopus is generally Purchased at TZS 7,000.00 per KGS
  Thus;
  40,000 KGS @7,000.00 × 12 months = **TZS. 3,360,000,000.00**
  Equivalent to **US$ 1,292,308.00**
- Crabs are usually purchased at TZS 18,000.00
  Thus;
  40,000 KGS @ 18,000.00 × 12 months = **TZS 8,640,000,000.00**
  Equivalent to **US$ 3,323,077.00**

  Total Requirement **TZS 12,000,000,000.00** Equivalent to **US$ 4,615,385.00**

PROJECT PROFITABILITY

Total annual Sales US $ 2,400,000/= + US $ 6,480,000 = US $ 8,880,000.00

Less: Purchases US$ 1,292,308.00 + US$ 3,323,077 = US$ 4,615,385.00

Gross Margin *= US$ 4,264,615.00* *= TSHS 11,087,999,000*

c) LONGLINER

S/N	PARTICULARS	BUDGET ANALYSIS	US$	TSHS
1	Fish Sales	Number of Hooks 5,000 at 5% catch rate = 250 units of Tuna of about 120kgs × 25days/month at US$ 8 × 6 months of fishing	36,000,000	93,600,000,000/=

d) TRAWLING

Trawling: Is allowed from 6:00am to 18:00 in the evening. During operations the boat expects to catch about 800kgs of Prawns daily and about 2500kgs of by-product bonny fish. One kilogram of Prawns sells at US$ 6.00 and that of bonny fish 2,000/=
Thus:

i. 800kgs/day × 24 days @ US$ 6.00 = US$ 115,200 = TSHS 299,520,000/= per month
ii. 2,500kgs/day × 24 days @2,000/= =120,000,000/= per month

Total Monthly Sales = 419,520,000/= × 10 Months = <u>4,195,200,000/=</u>

e). MAFIA

i. Handline Fishing

One fisherman catches 12 fish (of 2kg) × 4 fisherman /boat × 24 days @ 5,000/= per kg

= 11,520,000/= per month

× 6 boats

Total Handline Catch = 69,120,000/= per month × 10 months = 691,200,000

ii. Block Ice

Production 336 blocks/day × 24 days/Month @ 5,000/= = 40,320,000/= × 10 months = 403,200,000/=

Total annual income = 1,094,400,000/=

f) PURSE SEINING

- Dagaa 50 buckets/day × 14days @ 20,000/= ×10months**= 140,000,000/=**

- Vibua 20 buckets/days × 14day @ 30,000/= × 10months **= 84,000,000/=**

Total Purse Seine = 224,000,000/=

g) SUMMARY OF REVENUE COLLECTION

SN	CENTER	VALUE
a)	Fish Trade	1,032,250,000/=
b)	Octopus & Crab Trade	11,087,999,000/=
c)	Longliner	93,600,000,000/=
d)	Trawling	4,195,200,000/=
e)	Mafia Fishing & Ice Sales	1,094,400,000/=
f)	Purse Seining	224,000,000/=
	Total Revenue	**111,233,849,000/=**

h) PROJECT PROFITABILITY

DESCRIPTION/YEAR	1	2	3 - 10
Project Sales	111,233,849	111,233,849	111,233,849
Less: Operating Costs			
• Variable costs	2,019,068	2,019,068	2,019,068
• Fixed/Semi fixed costs	7,329,504	7,329,504	7,329,504
• Loan Repayment	2,179,874	2,179,874	2,179,874
Gross Income	**99,705,403**	**99,705,403**	**99,705,403**