

SUPREME PERCH LIMITED

**Proposed Project for Rehabilitation
and
Expansion of Fish Processing Facilities
at
Nyamkazi Industrial Area, Bukoba Municipality**

A BUSINESS PLAN: 2020 - 2025

Prepared by:

Supreme Perch Limited

P.O. Box 1139

Mwanza

Tanzania

MAY 2020

TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY

- 1.1 Introduction
- 1.2 Rationale behind the Project
- 1.3 The Project Concept
- 1.4 The Business Plan Objectives
- 1.5 The Project Promoters
- 1.6 Location and Infrastructure
- 1.7 Capital Investment Structure
- 1.8 Financing Arrangement
- 1.9 Raw Material Sources and Supply Arrangement
- 1.10 Production Capacity and Revenue Forecast
- 1.11 Resources for Fish Processing: Raw Material and Manpower
- 1.12 Market and Marketing Aspects
- 1.13 Competition
- 1.14 Financial Considerations
- 1.15 Environmental aspects
- 1.16 Organization and Management
- 1.17 Risk Analysis
- 1.18 Social, Economic/Developmental Benefits
- 1.19 Project Implementation Schedule
- 1.20 Conclusion and Recommendations

2.0 PROJECT BACKGROUND

- 2.1 Introduction
- 2.2 Project Review: 2017/2019
 - 2.2.1 Capital Invested
 - 2.2.2 Raw Fish Cost and Quantity Processed
 - 2.2.3 The Products
 - 2.2.4 Production and Sales Revenue
 - 2.2.5 Processing/Direct Costs
 - 2.2.6 Markets and Marketing Aspects
 - 2.2.7 Organization and Employment aspects

3.0 BUSINESS ENVIRONMENT AND SECTOR ANALYSIS

- 3.1 Introduction
- 3.2 The Fishery Sector
- 3.3 Fisheries Sector Institutions
- 3.4 Inland Fisheries
- 3.5 The Nile Perch
 - 3.5.1 Description
 - 3.5.2 The Catches
 - 3.5.3 The Main Fishing Grounds
 - 3.5.4 Industrial Fish Processing
 - 3.5.5 Hygiene Conditions

3.5.6 Fish Processing Capacity

4.0 TECHNICAL ASPECTS

4.1 The Project Concept

4.2 Location and Infrastructure

4.3 Ownership

4.4 New Planned Activities

4.5 Strategies to be employed

4.6 Financial Aspects – Investment Costs

4.7 Raw Material Sources and Procurement Arrangement

4.8 Production Process

4.9 Packaging and Storage

4.10 Production Estimates and Revenue Forecast

4.10.1 Material Requirement and Cost

4.10.2 Processing Capacity, Product Price and Sales Revenue

4.10.3 Total Sales Revenue Forecast

4.11 Cost Estimates and Sales Forecast

4.12 Project organization, Management and Labour Requirements

5.0 FINANCIAL ANALYSIS

5.1 Financial Viability

5.2 Fundamental Assumptions

5.3 Financial Review – Analysis and Evaluation of Financial Results

5.3.1 Projected Profit and Loss Statement

5.3.2 Cash Flow Projections for Financial Planning

5.3.3 Projected Balance Sheet

5.3.4 Discounted Cash flow

5.3.5 Break-even analysis

5.3.6 Key Financial Ratios

5.3.7 Sensitivity Analysis

5.3.8 Payback Period

6.0 ENVIRONMENTAL ASPECTS

6.1 Introduction

6.2 Nature of Project Activities

6.3 Work Health and Safety Policy

6.4 Environmental Impact Screening

6.4.1 Air Pollution

6.4.2 Land Contamination

6.5 Company's Commitment to Environmental Protection and Fisheries Regulations

7.0 RISK ANALYSIS

8.0 SOCIAL AND ECONOMIC/DEVELOPMENTAL BENEFITS

9.0 CONCLUSION AND RECOMMENDATIONS

10.0 FINANCIAL PROJECTIONS

Annex I: Income Statement Projections

Annex II: Cash flow Statement from Investing Activities

Annex IV: Projected Balance Sheet

Annex V: Loan Information and Payment Schedule

Annex VI: IRR Computation

Annex VII: Payback Period Analysis

Annex IX: Break-even Analysis

LIST OF TABLES

Table 1.1 Capital Investment Summaries: 2020/2022

Table 2.1 Capital Invested: 2017/2019

Table 2.2 Raw Fish Cost and Quantity Processed: 2017/2019

Table 2.3 Fish Fillet Production: 2017/2019

Table 2.4 Fish Fillet Export: 2017/2019

Table 2.5 Fish Maws Production: 2017/2019

Table 2.6 Fish Maws Export: 2017/2019

Table 2.7 Saleable By-products Production and Sales: 2017/2019

Table 2.8 Processing/Direct Costs: 2017/2019

Table 3.1 Fish Production in Tanzania – 2015

Table 3.2 Nile Perch Catch in 2013 by Regions Surrounding the Lake

Table 3.3 Nile Perch Fish Fillet Export Data – 2013

Table 4.1 Company Shareholders and Shareholding Structure

Table 4.2 Planned Investment Structure: 2020/2022

Table 4.3 Capital Investment Financial Plan: 2020/2022

Table 4.4 Raw Material Requirement Projections and Cost Estimates

Table 4.5 Fish Fillets Production Estimates 2020/2022

Table 4.6 Fish Maws Production Estimates: 2020/2022

Table 4.7 Saleable By-products Production Estimates: 2020/2022

Table 4.8 Total Sales Revenue Forecast: 2020/2022

Table 4.9 Cost Estimates and Sales Revenue

Table 4.10 Management and Labour Force

1.0 EXECUTIVE SUMMARY

1.1 Introduction

M/s Supreme Perch Limited of P.O Box 1139 Bukoba, Kagera region is a locally registered company under certificate of incorporation number 132318 dated 5th January, 2017. The company started fish processing activities in Bukoba in year 2017 after obtaining TIC Certificate of Incentives No. 043204 dated 14th March 2017 granted for purposes of facilitating implementation of the fish processing project. Having achieved satisfactory results in the first three years of operations (2017 – 2020), the company is now planning to carry out major rehabilitations and modernization of the fish processing facilities located within Bukoba Municipality, Kagera region. Envisages activities will include rehabilitation of the factory premises, plant and machinery as well as acquisition of few machineries and transportation facilities. In the process, the company plans to inject additional US\$ 1.230 million in the project where US\$ 730,000- is for fixed assets while US\$ 500,000- is to be utilized to finance working capital requirements.

With the additional investment, the company targets to continue utilizing as raw material the abundant Nile perch fish available around the shores of Lake Victoria in Kagera region (most of which is currently being smuggled to feed Ugandan factories) to increase production by at least 20% from the current production level during the next three years.

1.2 Rationale behind the Rehabilitation and Expansion Project

The applicants advocate two major economic reasons for considering Bukoba as their strategic area for expansion:

- (i) Bukoba has very few fish processing factories compared to peer places like Kisumu, Entebbe, Jinja and Mbarara. While Bukoba has only one (1) operating factory, Kisumu has three (3), Entebbe has five (5), and Masaka, Uganda, a few kilometres from Bukoba Municipality has three. Lack of active fish processing factories encourages local fish suppliers from Kagera region to smuggle their fish to neighbouring Uganda, occasioning loss of revenue to the government of Tanzania. Rehabilitation and expansion of the existing processing facilities will therefore strengthen market share to fish suppliers in Bukoba/Kagera, enabling them to sell the otherwise smuggled fish within the country thus preventing further losses in government revenue;
- (ii) Tanzania owns 51% of Lake Victoria but compared to its counterparts and her lake potentials, the country has only 8 operating factories compared to Uganda with 43% share of the lake (11 operating factories) and Kenya with only 6% share of the lake (5 operating factories). Given this share analysis, Tanzania's lake potential is either underutilized or utilized to the maximum with fish supplies channeled to neighbouring countries

due to lack of sufficient fish processing factories. Given the country's potential, and sufficient fish catch in Bukoba/Kagera, the project envisages expansion of Tanzania's market share in the industry and thus maximizing the government revenue;

1.3 The Project Concept

The project entails rehabilitation of existing leased property and acquisition of new facilities for processing Nile Perch fish fillets and fish maws for export. Saleable by-products are skins and extracted bones, belly flaps, head, and fats. Installed processing capacity (raw fish) of the existing facilities is about 40 tons per day or approximately 12,000,000 kgs per day assuming 300 working days per annum. Presently, factory capacity utilization stands at only 44% (5,324,620 kgs - 2019 production data). The rehabilitation and expansion programme looks at increasing processing capacity by 20% from the current utilization of 44% to at least 64% of installed capacity, thereby processing 7,731,347 kgs of raw fish per annum.

1.4 The Business Plan Objectives

This document has been prepared for two main reasons. Firstly, to determine the viability of the proposed expansion programme and serve as a business plan for rehabilitation and expansion of the fish processing project. Secondly, it is meant to facilitate the application for Tanzania Investment Centre (TIC) Certificate of Incentives so as to access exemptions on duties, VAT deferments and other benefits and protections as statutorily provided for under Tanzania Investment Act (1997) for the project.

1.5 The Project Promoters

Supreme Perch Ltd is a Private Limited company incorporated in Tanzania under Certificate of Incorporation No. 132318 dated the 5th day of January 2017. It is jointly owned by Mr. Saju Thankappan (75%) and Mrs. Smitha Saju (25%). The Company is registered with authorized share capital of TShs 1,000,000,000/= divided into 1,000 ordinary shares of TShs 1,000,000/= each. Its fiscal year is the calendar year. The shareholders are Indian nationals

Directors:

1. Mr. Saju Thankappan - Indian
2. Mr. Smitha Saju - Indian

1.6 Location and Infrastructure

The company's head office and processing plant is located at at the shores of Lake Victoria at Plot No 37 Block 42 Nyamkazi Industrial Area, Kahororo Ward in Bukoba Municipality, Kagera Region. The factory premises, project plant and most of transportation facilities are operated on lease basis. The leased property

provides offices, plant and machinery, office equipment, transportation facilities and other fish processing facilities.

1.7 Capital Investment Structure

The directors and shareholders of Supreme Perch Limited plan to make substantial investments in the rehabilitation and acquisition of new assets, including rehabilitation of factory buildings and related civil works, and acquisition of additional processing and fish transportation facilities.

The rehabilitation and expansion project is estimated to cost US\$ 730,000- for financing fixed capital items, and additional US\$ 500,000- to finance working capital requirements.

Table 1.1: Capital Investment Summary: 2020/2022

S/No.	Capital Item	Capital Investment (US)
1.	Rehabilitation of Civil Structures and Buildings	90,000
2.	Plant Machinery, Tools and Equipment	435,000
3.	Utility Motor Vehicles	205,000
	TOTAL	730,000
7.	Add: Working Capital Requirements	500,000
	GRAND TOTAL	1,230,000

It is assumed that all motor vehicles will be replaced in the sixth-year operation.

1.8 Financing Arrangement

The proposed **fixed assets** of the project estimated to cost US\$ 730,000-- is planned to be wholly financed through owners' equity (ploughed back profits) Working capital will be financed through a short-term loan if and when required, depending on the business tempo. Initially, an overdraft facility of US\$ 500,000- is considered adequate for the initial working capital requirements.

The rehabilitation and expansion project will apply to be registered with Tanzania Investment Centre so as to be eligible to enjoy the various tax incentives and other benefits as statutorily provided under Tanzania Investment Act of 1997 as well as for meeting conditions for obtaining processing and export licences per The Fisheries Regulations of 2009.

1.9 Raw Materials Sources and Supply Arrangement

Nile Perch (Sangara), the raw material for fish processing under this project is obtained entirely from the Lake Victoria. The company will continue employing

collection agents who will obtain the fish from artisan fishermen. As has been our company norm, care will be taken to ensure only size of fish allowed for processing is purchased from the suppliers to avoid conflict with fisheries authorities.

1.10 Production Capacity and Revenue Forecast

Installed processing capacity (raw fish) of the existing facilities is about 40 tons per day or approximately 12,000,000 kgs per day assuming 300 working days per annum. Presently, factory capacity utilization stands at only 44% (5,324,620 kgs – 2019 production data). The rehabilitation and expansion programme looks at increasing processing capacity by 20% from the current utilization of 44% to at least 64% of installed capacity.

Under this expansion programme, processing capacity of raw material (raw Nile perch) is estimated to raise from the current 5,324,620 kgs to 7,731,347 kgs per year at full project implementation, thereby increasing fish fillets production from 2,324,832 kgs (2019 production data) to 3,401,792 kgs at full implementation. During the same period, production of fish maws is estimated to increase from 123,812 kgs (2019) to 154,626 kgs at full implementation. The processing activity will likewise increase production of saleable by-products (skins and extracted bones, belly flaps, head and fats) which are earmarked for the domestic market mainly for production of animal feeds from 2,998,856 kgs (2019) to estimated 4,174,927 kgs per annum at the end of implementation period.

At full implementation of the programme, raw material (raw fish) is estimated to cost about US\$ 17.0 million (equivalent to 69.4% of total sales revenue) annually, all of which will go into the pockets of our local fishermen and collection agents. Under these production assumptions, the proposed project is set to generate revenue in excess of US\$ 24,491,315- up from US\$ 12,511,509- (2019) and US\$ 20,318,332- (2018) per annum. This translates to huge increase in government revenue in form of royalty, corporate tax and other taxes.

1.11 Resources for Fish Processing: Raw Materials and Manpower

The two main resources for producing Nile Perch fillet are raw material and labour which are abundantly available in the region. The company is producing raw material from Lake Victoria, the second largest fresh water lake in the world and the largest in Africa. Forty Nine percent (51%) of the lake is under the territorial jurisdiction of Tanzania. The company will make substantial investments in the infrastructure for procuring the raw material like fishing boats, engines, fishing nets etc. Furthermore, fishing gear will be supplied to local artisan fishing community to ensure regular and assured supply of raw material.

The expansion project envisages creating 10 more permanent jobs for skilled local people, increasing total local employment from 51 to 61; while maintaining

the current number of 157 casual labourers. The company will likewise maintain the same number of 12 expatriate staff, mainly fish technologists. Total employment is therefore expected to increase from 220 to 230.

1.12 Market and Marketing Aspects

The company will continue to export fresh chilled and frozen Nile Perch fillets to its traditional major markets of Europe, Far East and Middle East.

The demand for these Nile Perch fillets and allied products has been constantly growing as transportation and logistics issues are taken care of and accessibility to markets in Europe, America and East Asian countries become easier. The demand for this fish in these countries is likely to grow. The prices of the Nile perch fish are more competitive than those of similar fish species and the supply virtually constant. This makes the Nile Perch fish fillets more attractive.

1.13 Competition

The emergence of and increasing global domination by Bassa fish from Vietnam is real threat to the Nile Perch. Before, there was ample scope in the world market for this product.

With the earlier EU ban and resultant greater awareness of hygiene requirements: many smaller players, who have not been able to upgrade their facilities to the required standard, have been weeded out of the market. Present restrictive quota regime operative for other white fillet fish like cod will help the company in market penetration.

The next logical step will be to enter in the value-added production and ready to eat meal section of the market in which as at present there are no or fewer players.

1.14 Financial Considerations

The attached Financial Projections analyses the Total Production Costs, Income Statement Projections and Break-even Analysis as summarised hereto below. The analysis is well elaborated in the attached projections and summarised as follows:

- Internal Rate of Return on investment 43.29%
- The Normal Payback Period is 2 years when discounted at the assumed discount rate of 8%.
- NPV Ratio is positive and computes at 1.73
- Breakeven Point decreases as major assets depreciates, computing at 14.62% in year one, 12.59% in year two, ranges from 11.84 to 12.34 from year three to year five.

- Company Net worth grows over nine-fold during the five years of operations, increasing from US\$ 730,000- at the end of construction period in year 2020 to US\$ 7,151,385- at the end of the assumed economic life of the project in year 2024.

1.15 Environmental Aspects

The project activities involve collection, cleaning and cutting the fish into fish fillets, before packaging and chilling/freezing the products ready for transportation in refrigerated trucks to the export points (airport/sea port). In the process, the company cooperates with various regulatory authorities, including Tanzania Fisheries Department, OSHA, MMC, TRA, CGL and NEMC. Supreme Perch Limited will adhere to all regulations as appearing in The Fisheries Act (2003) and Fisheries Regulations (2003) which guides fish processors on the necessary the processors have to observe regarding environmental aspects before the processors can be granted fish processing and export licence.

Generally, Tanzania has environmental regulations governing the industrial operations/manufacturing activities etc. Nevertheless, each operator takes basic precautions to ensure that during operations, damage to environment is limited to the minimum possible level.

1.16 Organization and Management

The project is managed through the Board of Directors consisting of two members. The Board formulates policy and offer strategic business guidance to management and regularly monitor and evaluate performance of the company.

The day to day management of the project is vested in the Management Team. The Management Team comprises of the General Manager who is the overall in-charge of the project. The General Manager is assisted by Production Manager. The General Manager and his deputy are assisted by Section Supervisors and Officers. These are in turn supported by qualified personnel in their areas of specializations.

1.17 Risk Analysis

The major risk factor considered under this project is the possible temporary suspension of fishing activities in the Lake Victoria as fish stock is said to have been reduced substantially due to illegal fishing activities. There is an on-going debate that to prevent the fish stock being depleted further, the three governments sharing the lake should introduce fishing quotas. Should this happen, it is obvious the project will be adversely affected as it will be forced to temporarily stop production during the time of fishing suspensions. The second major risk is the possibility of the increase of number of fish processing companies which may increase competition drastically and thus reduce supply of raw materials to the company.

1.18 Social, Economic and Developmental Benefits

The fish processing activities generates a lot of developmental benefits, including but not limited to the following:

- Rehabilitation and expansion of the fish processing facilities will further strengthen and expand a reliable market for the local fishermen and fish collection agents in Bukoba/Kagera thus reducing losses in government revenue;
- Given the country's potential, and the abundant fish catch in Bukoba/Kagera, the project has expanded Tanzania's market share in the industry and thus maximizing the government revenue;
- The project employment will create 10 more skilled local jobs, increasing the number from 51 to 61 while maintaining the current number of 157 casual labourers and 12 expatriate staff.
- Estimated amount of US\$ 17.0 million will be collected by local fishermen and collecting agents, income and other suppliers, the project is set to change the economy of Bukoba irreversibly;
- Bukoba Municipal Council will collect substantial revenue (levies/taxes) from fish processing activities;
- Except for saleable by-products, the entire production is geared for export; therefore, the proposed project will generate foreign currency. It is anticipated that the export earnings of the project at full implementation will be in the excess of US\$ 24.49 million per annum.

1.19 Project Implementation Schedule

The company directors have the financial muscle, technology, market access and all other necessary resources required to implement the expansion project. Given that all the permits and authorization are in place, implementation of the project should take place immediately.

It should be noted that by nature of this industry, rehabilitation and replacement of the project facilities are an on-going exercise so as to meet product quality requirements of international standards. This exercise is therefore expected to be continuous for the next three years (2020 – 2022) as indicated in the investment plan.

1.20 Conclusion and Recommendations

The foregoing discussion highlights on the social, economic and financial dimensions which the envisaged rehabilitation and expansion project is set to generate in this country. The briefly analysis indicates that the proposed

expansion project is economically feasible, financially viable, socially desirable and environmentally manageable. Therefore, it is strongly recommended that the sponsors, Supreme Perch Limited be availed the required institutional assistance so as to enable them implement the proposed expansion project. It is further recommended that an application for TIC Certificate of Investment Incentives be submitted to Tanzania Investment Centre with a view to benefit from investment benefits and protection as statutorily allowed under Tanzania Investment Act, 1997.

2.0 PROJECT BACKGROUND

2.1 Introduction

Supreme Perch Ltd was incorporated in 5th January, 2017 with the objective of procuring, processing, marketing and exporting fresh and frozen Nile perch fishery products. Initially the company leased an on-going fish processing factories in Mwanza and Bukoba, but on implementation, the directors decided to concentrate in Bukoba, and thus abandoned the Mwanza processing plan. The leased facilities are owned by M/s Vicfish Limited and are located at Plot No 37 Block 42 Nyamkazi Industrial Area, Kahororo Ward in Bukoba Municipality, Kagera Region. The plant has installed capacity to process 40 tons of raw fish per day.

Supreme Perch Ltd has been in operation for the last three years and has been able to fulfill most of its objectives despite some operating challenges unforeseen at the start of the project. Initial plans were to rehabilitate some of the leased facilities as well as investing in acquisition and installation of new facilities to meet the product quality and demands. It was likewise planned to produce two main lines of products primarily focusing on chilled and frozen fish products. These products were earmarked for distribution to Europe, Middle East, USA, and other destination where the market is appreciative of good quality fish.

2.2 Project Review: 2017 - 2020

2.2.1 Capital Invested

Capital invested during the period fall in two major categories: fixed capital assets amounting to TShs 350,295,541/= (financed through ploughed back profits), and working capital ranging from TShs 3,607,275,623/= to TShs 5,653,201,888/= financed through directors' loans and bank overdraft facilities.

Fixed Investment

As indicated in the Lease Agreement, M/s Supreme Perch Limited is operating in leased property where the lessor, M/s Vicfish Limited provides the demised premises together with factory equipment and machines together with motor vehicles for both collections of raw fish as well as transportation of finished products. The Lease Agreement provides room for the lessee to make structural changes and modifications and carry out regular maintenance. The contract also allows the lessee to invest on plant, machinery and equipment. The property along with all the facilities is leased at the rent of US\$ 60,000- per month or US\$ 720,000- per annum

Since the premises, plant, machinery, tools and vehicles were found to be in very good condition, no major investment was required for rehabilitation and acquisition of new facilities. The following were the fixed investments made during the period:

Table 2.1: Capital Invested - 2017/2019

S/NO.	CAPITAL INVESTMENT	AMOUNT (TSHS)
1.	Land and Buildings	42,222,683
2.	New Ice Machine	84,488,255
3.	Tools	19,526,986
4.	Motor Vehicles	190,495,280
5.	Computers and Consumables	13,562,337
	TOTAL FIXED ASSETS	350,295,541

Working Capital

Working capital was mainly required to finance purchasing of raw fish and other direct costs. It ranged from TShs 3,607,275,623/= to TShs 5,653,201,888/= and was financed through directors' loans and bank overdraft facilities.

2.2.2 Raw Fish Cost and Quantity Processed

Table 2.2: Raw Fish Cost and Quantity Processed - 2017/2019

ITEM/PERIOD	2017	2018	2019
Quantity Processed (Kgs)	5,017,816	6,351,567	5,324,620
Price per Kg (TShs)	7,214	6,377	4,835
Cost of Raw Fish (TShs)	36,198,535,450	40,505,632,950	25,742,332,800

2.2.3 The Products

The company produces three main products: fish fillets (fresh and frozen), fish maws and by products. While fish fillets and fish maws are mainly for the export markets, by products are sold locally for production of poultry feeds.

2.2.4 Production and Sales Revenue

The tables below summarize sales revenue of the above three (3) products during the period under review:

Table 2.3: Fish Fillet Production/H&G - Production: 2017/2019

PRODUCTION/VALUE	2017	2018	2019
Fish Fillets Production (Kgs)	2,156,973	3,249,807	2,360,183
Price per Kg (US\$)	5.89	4.64	3.77
Production Value (US\$)	12,694,503	15,086,398	8,908,189

Table 2.4: Fish Fillet/H&G - Export - 2017/2019

EXPORT SALES/VALUE	2017	2018	2019
Fish Fillets Export (Kgs)	2,119,673	3,023,512	2,319,421
Price per Kg (US\$)	5.89	4.64	3.77
Exports (US\$)	12,474,981	14,035,881	8,754,338

Table 2.5: Fish Maws - Production - 2017/2019

PRODUCTION/VALUE	2017	2018	2019
Fish Maws Production (Kgs)	102,666	138,546	123,812
Price per Kg (US\$)	39.07	45.19	36.67
Production Value (US\$)	4,011,097	6,261,357	4,539,800

Table 2.6: Fish Maws - Export 2017/2019

EXPORT SALES/VALUE	2017	2018	2019
Fish Maws Export (Kgs)	98,322	118,266	76,214
Price per Kg (US\$)	39.07	45.19	36.67
Export Value (US\$)	3,841,380	5,344,836	2,794,530

Table 2.7: Saleable By-products - Production and Sales - 2017/2019

PRODUCTION/SALES	2017	2018	2019
Fish Maws Production/Sales (Kgs)	2,848,748	3,373,182	2,998,856
Price per Kg (TShs)	784	724	722
Production/Sales Value (TShs)	2,233,063,517	2,442,818,491	2,166,472,911

2.2.5 Processing/Direct Costs (in TShs)

Table 2.8: Processing/Direct Costs - 2017/2019

Year	2017	2018	2019
Wages	184,899,414.00	381,860,387.00	337,748,690.00
Packing materials	713,423,314.60	809,994,394.22	579,182,873.17
Factory Expenses	20,065,360.00	10,760,500.00	24,655,480.00
Import Expenses	46,460,881.40	105,190,270.00	100,054,184.50
Electricity& Water	545,193,706.20	774,983,421.34	503,511,195.98
Lease Rentals	2,232,764,000.00	2,659,046,000.00	1,823,280,000.00
Processing Expenses	83,321,824.15	103,277,270.88	68,539,250.00
Ecolaballing Expense	125,013,600.00	50,356,250.00	67,413,600.00
Transportation Charges'	939,438,283.23	1,287,167,245.08	824,574,689.23
Grand Total	4,890,582,400.58	6,182,637,756.52	4,328,961,981.88

2.2.6 Markets and Marketing Aspects

During the period under review, the company exported its products to the following countries: Netherlands, Germany, Belgium, Italy, Spain, Romania, Greece, Poland, Japan, Dubai (UAE), Saudi Arabia, and Vietnam.

As stated from the outset, our marketing strategies involved production of high quality fish products, implementing quality controls as per international standards, aggressive marketing to expand our sales share in international markets, minimizing production cost without compromising the product, and benchmarking our competitors.

2.2.7 Organization and Employment Aspects

The company is headed by a Managing Director who is also a company director and shareholder, Mr. Saju Thankappan. He is assisted by a General Manager who is currently an expatriate staff. The General Manager is further assisted by Production Manager and competent supervisors.

The company has four core departments as indicated below with number of employees in brackets:

- (i) Administration Department (including the Managing Director, General Manager, logistics and security) (13)
- (ii) Production Department (37)
- (iii) Engineering (2)
- (iv) Eco Laboratory (11)
- (v) Casual Labourers (157)

Total employment during the period under review (including the Managing Director) adds to 63 skilled and permanent staff, and 157 casual labourers as per the breakdown below:

- Local Skilled Workers: 51
- Expatriate Staff: 12 comprised of:
 - the Managing Director (1)
 - the General Manager (1)
 - the Production Manager (1)
 - Fish Technologists (9)
- Casual Labourers: 157

3.0 BUSINESS ENVIRONMENT AND SECTOR ANALYSIS

3.1 Introduction

Tanzania is blessed with fisheries resources from marine, freshwater, riverine and wetland species, according to a Study Report *“The Tanzania Fisheries Sector: Challenges and Opportunities”* by the Ministry of Agriculture, Livestock and Fisheries (2016). By making use of these resources, the sector provides direct employment of about 183,800 fishers. More than 4,000,000 people such as boat builders, fish processors, net and engine repairers are indirectly employed. It provides income for local people from foreign earnings, food for coastal and upcountry communities and also contributes to GDP (2.4% in 2015). This makes the country one of the greatest fisheries nations in Africa, ranking in the top 10 in terms of total capture and fisheries production. Current information on the assessment of the fisheries management performance is scanty. The fisheries resources in Tanzania are currently exploited using the open access principle, through a licensing system and community participation in fisheries management.

3.2 The Fishery Sector

Tanzania is endowed with rich marine and inland waters that yield a wide range of living aquatic resources, providing livelihoods, food security, export revenues, and potential further economic development. The fisheries can be divided into the following subsectors: marine and inland capture fisheries, aquaculture, and fish processing. The scale of operations ranges from small-scale subsistence fishing to industrial fish processing. There is a vibrant export market, exploited by small-scale fish processors and traders serving the regional market, and by large fish processors selling into international markets.

Over the last decade, Tanzania fisheries production has been in the range of 325,000 to 380,000 tonnes per annum. About 85% is from inland fisheries, 14% from marine fisheries and just 1% from aquaculture. In 2014, there were some 183,800 people engaged in fishing, accounting for about 0.7% of the work force, with a large, but unknown number, also engaged in fish trading and processing.

Table 3.1: Fish Production in Tanzania – 2015

SOURCE	METRIC TONNES	AS A % OF TOTAL
Inland	314,062	85%
Marine	51,912	14%
Aquaculture	3,942	1%
TOTAL CATCH	369,966	100%

Source: Fisheries Statistics 2014 Ministry of Agriculture, Livestock and Fisheries (MALF) - Department of Fisheries

3.3 Fisheries Sector Institutions

The Ministry of Livestock and Fisheries (MLF) is responsible for the preparation, implementation, monitoring, and reviewing of national fisheries policies and regulatory frameworks in Tanzania. The Department of Fisheries Development within the MLF is responsible for the management of inland fisheries, and for marine fisheries within the territorial waters of the mainland.

In addition, several institutions work in the fisheries sector in research, training and development roles. The Tanzania Fisheries Research Institute (TAFIRI) carries out research in Fisheries and has its headquarters in Dar es Salaam and offices in Mwanza, Kigoma and Kyela. The institute undertakes research in fresh water and marine capture fisheries, aquaculture and mariculture, fish processing and quality as well as socio-economic studies.

The Mbegani Fisheries Development Centre and the Nyegezi Fisheries Institute (Mwanza) operate under Fisheries Education Training Agency (FETA). They offer technical training courses in fishing technology, aquaculture, fish processing and quality control, coastal resources management, and other subjects relevant to the development needs of the fishery sector.

3.4 Inland Fisheries

Inland fisheries accounted for about 85% of the national fish production in 2014. Lake Victoria and Lake Tanganyika are the most important lakes from a fishery point of view, accounting for about 94% of the total inland fish production. Lake Victoria, according to the Lake Victoria Fisheries Organization, is the most productive freshwater fishery in Africa.

The inland fisheries are currently exploited by an estimated 132,982 fishers, operating 42,288 (mostly very small) vessels, and over the last 15 years have produced an average overall catch of 296,370 tons. Of the three lakes, Lake Victoria accounted for about 63% of all fish production from freshwater capture fisheries during 2013, Lake Tanganyika contributed about 18% and Lake Nyasa about 3%. The main freshwater species of commercial interest are the Nile Perch (*Lates niloticus*), Nile Tilapia (*Oreochromis niloticus*), and freshwater sardine or Dagaa (*Rastrineobola argentea*).

3.5 Nile Perch

3.5.1 Description

Nile Perch Is a fatty white fish found apparently exclusively in freshwater lakes in central and eastern Africa, overwhelmingly in Lake Victoria. Lake Victoria is the second largest lake in the world and also the largest lake in Africa, covering a surface area of 68,000km² and a catchment area of 184,000km². The lake fishery is a shared resource with Uganda (45%), Tanzania (49%) and Kenya (6%).

Over the past two decades, the Nile Perch fishery has attained great importance from both food security and economic points of views. Nile Perch, which is a top predator, is caught mostly from small traditional designed wooden canoes (paddle, sail or outboard powered), and is fished with gillnets and longlines. Tanzania's annual catch of Lates species in Lake Victoria and Tanganyika was about 112,000 tonnes in 2014 (36% of freshwater fish production).

An extensive system of collector vessels, mostly powered by outboard motors, delivers the catch to the landing sites, where it is sold to traders and processors, who bring vehicles and ice to the location. Nile Perch, of a suitable size and quality, is processed into chilled and frozen export products in ten factories operating to international standards. The importance of this species is reflected in the substantial private investment in processing infrastructure for the export of Nile Perch.

3.5.2 The Catches

Fisheries Export Data available from Tanzania Fisheries Department (2013) indicates that Tanzania caught 47,051 metric tons of Nile Perch from Lake Victoria in year 2013, which accounted for 20.1% of total fish catch during the period. It further reveals that during the same period, the country exported a total of 20,859,003.8kgs of fresh and frozen fillets.

3.5.3 The Main Fishing Grounds

The Nile Perch fishing grounds are located around the entire shoreline of Lake Victoria although they are concentrated in certain areas more than others. The Fisheries Export Data (2013), the busiest areas on the Tanzania shoreline were in the Ukerewe – a very large Island in the south east corner of the lake which contributed 13,704.2 metric tons (29.1% of total Nile Perch catch on the Tanzanian side), Musoma District (7,186.1 tons or 15.5%), south west corner of the lake on the islands in Muleba District (6,931.5 tons or 14.7%), and Sengerema District (5,866.2 tons or 12% of total Nile Perch catch during the year). In summary, the catch in the three Tanzanian regions surrounding the lake were as follows:

Table 3.2: Nile Perch Catch in 2013 by Regions Surrounding the Lake

REGION	CATCH IN METRIC TONS	AS A % OF TOTAL
Kagera	10,097.2	21.46%
Mara	11,019.8	23.42%
Mwanza	25,934.0	55.12%
TOTAL	47,051.0	100.00%

Source: Fisheries Annual Statistics Report 2013 - Ministry of Agriculture, Livestock, and Fisheries Development - Fisheries Development Division

3.5.4 Industrial Fish Processing

Nile Perch provides a substantial white flesh which is readily filleted, and is in good demand on international markets. Statistics obtained from a Study Report on the Tanzania Fisheries Resources - “The Tanzania Fisheries Sector: Challenges and Opportunities” by Ministry of Agriculture, Livestock and Fisheries (MALF) (2016) reveal that up to 2016, there were ten processing plants in Tanzania authorized for international export of Nile Perch (compared to fourteen in Uganda and four in Kenya). All are situated in the region of Lake Victoria.

All these establishments are operated to international standards, including HACCP, and are compliant with EU hygiene rules. As well as complying with EU hygiene requirements, many of the establishments are certified to ISO 22000 BRC and other global standards certified on issues of food safety, hygiene standards.

Fresh fish on ice is delivered to the processing plant directly from the landing site, and sorted into export and non-export grades. Nile Perch is gutted and scaled and processed by hand into a range of products according to market requirements. Premium quality fish is used for chilled fillets and steaks etc., which are freighted in fresh form to global destinations. The EU is the major market, but product is also sent to the Middle East, USA, Australia, Israel and South Africa. More recently, markets for skins and maws (swim bladders) have been developed.

3.5.5 Hygiene Conditions

Tanzania was one of the first countries in Africa to achieve hygiene approval from the European Union, and be permitted to export fish and fishery products to the EU. At present there are 14 establishments and two freezer vessels approved for export to the EU. The Fisheries Development Division of the MALF is the nominated Competent Authority for official control of fishery product exported to the EU.

The system is periodically audited by European Commission. The inspectorate is well equipped with a microbiological laboratory and a chemical analysis laboratory. There are 34 inspectors of whom 22 are based in Mwanza Office and the rest in field offices on Lake Victoria. Fish inspectors take regular samples from all fish processing factories to assess the sanitary conditions of the fish before export. The national sanitary regulations require that establishments apply the Hazard Analysis and Critical Control Point (HACCP), and that they employ qualified Quality Control Staff.

3.5.6 Fish Processing Capacity

The MALF report reveals that today, the Tanzanian factories have the capacity to process an average of 500 tonnes of raw fish per day. The decline in catches of fish of a suitable size has led to most plants operating at a much-reduced capacity; only 25% in some of the larger plants in 2016. Fisheries Annual Statistics Report (2013) of the Ministry of Agriculture, Livestock and Fisheries Development – Fisheries Development Division provides the following data on fish fillet exports:

Table 3.3: Nile Perch Fish Fillets Export Data - 2013

FISH PRODUCTS	WEIGHT (KGS)
Fresh Fish Fillets	9,962,862.0
Frozen Fish Fillets	10,896,141.8
TOTAL EXPORTS	20,859,003.8

Source: Author’s Construction from Fisheries Annual Statistics Report 2013 – Ministry of Agriculture, Livestock, and Fisheries Development – Fisheries Development Division

The international market for Nile Perch has also been hit by the rise of the much cheaper Pangasius fillets from Asian aquaculture suppliers, such as Vietnam. However, most of the plants are over 20 years old, and are able to continue operations with relatively low overheads.

4.0 TECHNICAL ASPECTS

4.1 The Project Concept

The main activity of Supreme Perch Limited is fish processing and packaging, mainly for the export market. Traditionally, the main product has been fish fillet and fish maws for export, while processing by-products are sold locally as an important input in the production of chicken feed.

The project entails rehabilitation of existing leased property and acquisition of new facilities for processing Nile Perch fish fillets and fish maws for export. Other products are saleable by-products including skins and extracted bones, belly flaps, head, and fats. The rehabilitation and expansion programme envisages increasing utilization of fish processing installed production capacity by at least 20% from the current utilization of 44% to 64%.

4.2 Location and Infrastructure

The company's head office and processing plant is located at the shores of Lake Victoria at Plot No 37 Block 42 Nyamkazi Industrial Area, Kahororo Ward in Bukoba Municipality, Kagera Region. The factory premises, project plant and most of transportation facilities are operated on lease basis. The leased property provides offices, plant and machinery, office equipment, transportation facilities and other fish processing facilities. The site is a well-developed area with all the necessary infrastructure (water supply and electricity connectivity from the main municipal distribution system).

4.3 Ownership

Supreme Perch Ltd is a Private Limited company incorporated in Tanzania under Certificate of Incorporation No. 132318 dated the 5th day of January 2017. It is jointly owned by Mr. Saju Thankappan (75%) and Mrs. Smitha Saju (25%). The Company is registered with authorized share capital of TShs 1,000,000,000/= divided into 1,000 ordinary shares of TShs 1,000,000/= each. Its fiscal year is the calendar year. The shareholders are Indian nationals

Table 4.1: Company Shareholders and Shareholding Structure

NAME AND ADDRESS OF SHAREHOLDER	NUMBER OF SHARES TAKEN BY EACH	NATIONALITY
Saju Thankappan Plot No. 37 Nyamkazi Industrial Area P.O Box 1139 Bukoba	75 (25%)	Indian
Smitha Saju Plot No. 37 Nyamkazi Industrial Area P.O Box 1139 Bukoba	25 (25%)	Indian
TOTAL	100	

Directors:

3. Mr. Saju Thankappan - Indian
4. Mr. Smitha Saju - Indian

4.4 New Planned Activities

Installed processing capacity (raw fish) of the existing facilities is about 40 tons per day or approximately 12,000,000 kgs per day assuming 300 working days per annum. Presently, factory capacity utilization stands at only 44% (5,324,620 kgs – 2019 production data). The rehabilitation and expansion programme looks at increasing processing capacity by 20% from the current utilization of 44% to at least 64% of installed capacity, thereby processing 7,731,347 kgs of raw fish per annum.

Specifically, the company plans to do the following during the next three years (2020 – 2022):

- Carry out major rehabilitation of the factory premises at a budget of US\$ 90,000;
- Replace some of the Machinery and Equipment at a budget of US\$ 435,000-
- Strengthen transportation facilities at a budget of US\$ 205,000-.

4.5 The Strategies to be employed

In order to realize the planned expansion, the company will use the following strategies:

4.5.1 Modernization and Expansion of fish fillets processing and storage facilities. This will include procurement and installation of the following the following:

- Plate Freezer units comprising of compressor, evaporators and other accessories;
- Blast Freezer unit comprising of compressor, evaporators, and other accessories;
- Flake Ice Machines;
- Compressors and freezing accessories;
- Insulated tubs and miscellaneous tools and equipment.

4.5.2 Expansion of transportation facilities. This will include procurement of the following the following:

- Light Trucks with insulated body (refrigerated)
- Heavy Duty Truck with Semi Trailer

4.5.3 Rehabilitate the leased factory premises to conform to laid down fish processing international standards;

- 4.5.4 Continue to adhere to the EU Food Standards in collaboration with the country's fisheries authorities to ensure we are eligible to enter any global market at all times;
- 4.5.5 Ensure continuous specialized staff training and motivation throughout so as to maintain a local trained and dedicated work force.

4.6 Financial Aspects - Investment Costs

The company plans to invest additional capital amounting to US\$ 730,000- in rehabilitation of existing assets, and procurement of new tangible assets. The main investment items are mentioned in the Section 4.4 and costs summarized in the table 4.2:

Table 4.2: Planned Investment Structure: 2020 to 2022 Period

S/NO.	CAPITAL ITEM	QTY (UNITS)	UNIT PRICE (US\$)	INVESTMENT 2020	INVESTMENT 2021	INVESTMENT 2022	TOTAL COST (US\$)
1.0	Rehabilitation of Civil Structures and Buildings			50,000	20,000	20,000	90,000
2.0	Plant Machinery and Equipment						
2.1	Plate Freezer units with accessories	2	60,000	0	120,000	0	120,000
2.2	Blast Freezer & accessories	1	75,000	0	0	75,000	75,000
2.3	Flake Ice Machines	1	75,000	75,000	0	0	75,000
2.4	Compressors and freezing accessories	10	7,500	0	75,000	0	75,000
2.5	Miscellaneous tools and equipment			30,000	30,000	30,000	90,000
	Sub total			105,000	225,000	105,000	435,000
3.0	Transport Facilities						
3.1	Light Refrigerated Trucks	1	45,000	45,000	0	0	45,000
3.2	Heavy Duty Truck with Semi Trailer	1	160,000	0	0	160,000	160,000
	Sub total			45,000	0	160,000	205,000
	TOTAL						730,000
	Add: Working Capital						500,000
	GRAND TOTAL						1,230,000

Table 4.3: Capital Investment Financing Plan – 2020/2022

Source	Amount (US\$)
Ploughed back Profits	730,000
Short Term Loan (Bank Overdraft Facility)	500,000
TOTAL FINANCING	1,230,000

M/s Supreme Perch Limited will apply for this rehabilitation/expansion project to be registered with Tanzania Investment Centre so as to be eligible to enjoy the various fiscal incentives and other benefits as statutorily provided under Tanzania Investment Act of 1997.

4.7 Raw Materials Sources and Procurement Arrangement

Nile perch was first introduced to Lake Victoria in the 1960's. Due to its ecological tenacity, it now accounts for approximately two thirds of the lake's total harvest with the prospect of virtually continuous supply.

This is one resource, which is in no immediate danger of over fishing. The fishing methods are traditional, and that too is only by local artisan fishermen. The tree countries, which share the lake, have not permitted mechanized commercial harvesting of the fish resultantly; the fishing is restricted to about seven km from the shore, providing ample opportunities for breeding in the central and deeper sections of the lake.

The fresh fish required for processing is procured from the artisan fishermen through the local co-operative societies and the company plans to make substantial investments in infrastructure that ensures continuous and consistent supply to the processing plant. These include the supply of fishing boats, nets, outboard engines and consumables, on very easy terms to artisan fishermen.

Nile Perch Latin name *Lates Niloticus* belongs to the Grouper family of fish. It's a wonderfully sweet tasting, firmly textured, highly nutritious, virtually odourless and retains its high moisture content when cooked. This fish is low on calories, rich in trace nutrients, and it is lipid poly saturated. This species is the largest fresh water fish in the world. It can grow in excess of 230 kgs (500lbs), however, only fish below 23 kgs (50lbs) are used commercially, to assure tenderness and low-fat content.

4.8 Production Process

4.8.1 General Information

The company sponsoring this project, M/s Supreme Perch Limited has been in this trade for a significant period of time, having a number of plants already operating in Uganda and Tanzania, Consequently, they are fully conversant with the technology of filleting and freezing. This industry in any case is not technology driven; all it requires is the maintenance of a high degree of hygiene and cleanliness. The factories need to have walls and floorings finished to food grade requirements, adequate supply of fresh and clean water and skilled filleters, the process of filleting is essentially manual.

4.8.2 Materials Procurement and Selection

The fish is procured from the artisan fishermen and weighed quantities are delivered to the factory. At the point of receipt of the fish and then again at factory, the fish is visually inspected for quality and freshness. Quality inspectors are in a position to access the quality of the raw material by the sense of touch smell and visual inspection.

4.8.3 Fish Processing Process

The acceptable fish is only taken into the factory premises where it is first washed with fresh clean water, and then dipped in a chlorine solution of 20 PPM and graded. The treated and graded fish is taken to the production line for filleting. The process of filleting involves

- Filleting, de-boning and removal of offal
- Removal of belly flaps
- De-skinning
- Trimming
- Grading
- Graded fillets are then individually poly-wrapped and weighed and packed in 6 kilo boxes
- Freezing for 1 hour 45 minutes to about 2 hours in plate freezers at minus 40 degrees Celsius
- Strapping of boxes and storage in cold stores at minus 18 degree Celsius
- Export by Air from Mwanza Airport or Transportation to Mombasa for export by Sea
- From the offal we remove the fish maws, skins, chest portions, head, skeleton and the tail
- Fish maws are frozen and it is an expensive product for sale in the far East market
- The belly flap and the chest portion are sold locally. Efforts are being made to export these by products also.
- Skin skeletons and the tail is at present sold to fishmeal manufacturers

4.9 Packaging and Storage

Primary Product Forms

Frozen Deep skinned boneless fillets; skin-on boneless fillets, Head less and gutted

Fresh Deep skinned boneless fillets; head less and gutted

Packaging

Frozen Fillets are typically Individually Layer Packed (ILP) or individually poly-wrapped (IPW) in 6 kg boxes, and frozen to minus 40 degrees Celsius and stored at minus 18 degree Celsius

Fresh Packed in 6 kg insulated boxes and chilled to minus 4 degrees Celsius.

Brands

Frozen Branding mainly depend on the marketing strategy applicable in countries in question.

Fresh Fresh product is normally supplied in white Styrofoam cartons

Storage Period

Frozen: Properly packed and stored – up to 18 months

Fresh: Fresh fillets will keep for 8 10 days

4.10 Production Capacity and Revenue Forecast

4.10.1 Materials Requirement and Cost

On starting of the rehabilitation/expansion project implementation, the project plans to procure and process an average of 6,389,544 kgs of raw fish per annum in the first year of production, increasing to 7,028,498 on second year before stabilizing at 7,731,347 kgs per annum from third year onwards at estimated 300 work days per annum. The average purchase price of raw fish is estimated at US\$ 2.2 per kilo throughout the first three years of operations.

Table 4.4: Raw Material Requirement Projections and Cost Estimates – 2020/2022

		ESTIMATED NILE PERCH FISH COLLECTION FOR PROCESSING			
	Item/Products	Unit	Year 2020	Year 2021	Year 2022
1.	Material Requirement (Raw Nile Perch)	kgs	6,389,544	7,028,498	7,731,347
2.	Price of Raw Fish per Kilo	US\$	2.2	2.2	2.2
3.	Cost of Raw Materials	US\$	14,056,997	15,462,695	17,008,963

4.10.2 Processing Capacity, Product Price and Product Sales Revenue

It is assumed that fish fillets production will constitute 44% of raw fish while fish maws will constitute 2%. Saleable by products will form 54% of raw fish as in reality; nothing is thrown away in the fish processing activity.

It is further assumed that from the production estimates production of fish fillet will amount to 2,811,399 in year one, 3,092,539 in year two before climbing and stabilizing at 3,401,792 kgs from year three onward. The export price is estimated at US\$ 4.77 per kilo) throughout the project economic life period.

Table 4.5: Fillets Production Estimates and Revenue Forecast - 2020/2022

	Item/Products	Unit	Year 2020	Year 2021	Year 2022
1.	Fish Fillet Production	Kgs	2,811,399	3,092,539	3,401,792
2.	Export Price	US\$	4.77	4.77	4.77
3.	Revenue	US\$	13,410,373	14,751,411	16,226,547

Production of fish maws assumed to constitute 2% of raw fish is estimated at 127,790 kgs in year one, 140,570 kgs in year two before raising and stabilizing at 154,626 kgs from year three onwards. The export price is estimated at US\$ 44- per kg and is assumed to remain stable throughout the economic life of the project.

Table 4.6: Fish Maws Production Estimates and Revenue Forecast - 2020/2022

	Item/Products	Unit	Year 2020	Year 2021	Year 2022
1.	Fish Maws Production	Kgs	127,790	140,570	154,626
2.	Export Price	US\$	44	44	44
3.	Revenue	US\$	5,622,760	6,185,080	6,803,544

On the other hand, production of saleable by-products is estimated at 3,450,354 kgs in year one, 3,795,388 kgs in year two before raising and stabilizing at 4,174,927 kgs from year three onwards. The factory price is estimated at US\$ 0.35- per kg and is assumed to remain stable throughout the economic life of the project.

Table 4.7: Saleable By-products Production Estimates and Revenue Forecast - 2020/2022

	Item/Products	Unit	Year 2020	Year 2021	Year 2022
1.	Production of Saleable By-products	Kgs	3,450,354	3,795,38	4,174,927
2.	Local Price	US\$	0.35	0.35	0.35
3.	Revenue	US\$	1,207,633	1,328,386	1,461,224

4.10.3 Projected Total Sales Revenue

From the above production estimates Table 4.5, 4.6 and 4.7), total sales revenue is projected at US\$ 20,240,766- in year one, US\$ 22,264,877- in year two before stabilizing at US\$ 24,41,315- from year three onwards as indicated in Table 4.8

Table 4.8: Total Sales Revenue Forecast- 2020/2022

	PRODUCTS	UNIT	YEAR 2020	YEAR 2021	YEAR 2022
1.	Fish Fillets	US\$	13,410,373	14,751,411	16,226,547
2.	Fish Maws	US\$	5,622,760	6,185,080	6,803,544
3.	Saleable By-products	US\$	1,207,633	1,328,386	1,461,224
4.	Total Sales Revenue	US\$	20,240,766	22,264,877	24,491,315

4.11 Cost Estimates and Sales Forecast

The major cost item under this fish processing project is procurement of raw material (fish) which constitutes about 69% of sales revenue. Other major direct operating costs are lease rentals (mostly constitute the cost of leasing the factory premises including processing and transportation facilities), transportation charges, packaging materials, electricity and water, salaries and wages, processing expenses, import expenses, laboratory expenses, and general factory premises as detailed under Table 4.9

Table 4.9: Costs Estimates and Sales Revenue Forecast (in US\$)

Year	2020	2021	2022
Sales Revenue	20,240,766	22,264,877	24,491,315
DIRECT OPERATING COSTS			
Cost of R/M	14,056,997	15,462,695	17,008,963
Salaries & Wages	178,907	196,797	216,477
Packing Materials	337,367	371,104	408,215
Factory Expenses	12,779	14,056	15,463
Import Expenses	44,727	49,199	54,119
Electricity & Water	261,371	288,168	316,985
Lease Rentals	958,431	1,054,274	1,159,702
Processing Expenses	46,004	50,605	55,666
Ecolabelling Expense	35,142	38,656	42,522
Transportation Charges	447,268	491,994	541,194
Total Operating Costs	16,378,993	18,017,548	19,819,306
Operating Costs as % of Sales	80.92%	80.92%	80.92%

ADMINISTRATIVE COSTS

Canteen Expenses	19,431.00	21,374.00	23,511.00
Depreciation & Amortization	85,666.00	85,666.00	85,666.00
<i>Employment Costs</i>			
(i) Directors' Remuneration	7,894.00	8,683.00	9,551.00
(ii) Medical Expenses	3,440.00	3,785.00	4,164.00
(iii) Social Security Contributions	24,289.00	26,718.00	29,390.00
(iv) Salaries & Wages - Administration	91,083.00	100,192.00	110,210.00
(v) Skills & Development Levy	11,942.00	13,136.00	14,450.00
(vi) Staff Welfare	8,096.00	8,905.00	9,796.00
(vii) Training Expenses	9,108.00	10,019.00	11,021.00
(viii) Visas & Permits	30,200.00	30,200.00	30,200.00
(ix) Workers Compensation Fund	10,120.00	11,132.00	12,245.00
General Office Expenses	16,597.00	18,257.00	20,082.00
Insurance	56,269.00	61,896.00	68,085.00
Licences, Fees and Levies	34,409.00	37,850.00	41,635.00
Fines & Penalties	10,525.00	11,578.00	12,735.00
Postages & Telephones	5,870.00	6,457.00	7,102.00
Printing & Stationery	5,667.00	6,234.00	6,858.00
Professional, Legal and Secretarial Fees	5,263.00	5,789.00	6,368.00
Security Expenses	41,898.00	46,088.00	50,697.00
Subscription & Fees	4,250.00	4,675.00	5,143.00
<i>Selling & Distribution Overheads</i>			
(i) Freight, C&F and Export Charges	705,405.00	783,724.00	862,094.00
(ii) Fuel Expenses	133,994.00	147,393.00	162,133.00
(iii) Motor Vehicle Running Expenses	377,243.00	40,967.00	45,064.00

(iv) Royalty on Exports	588,197.00	647,017.00	710,933.00
(v) Travelling & Hotel Expenses	20,038.00	22,042.00	24,022.00
Repairs & Maintenance	82,582.00	90,841.00	99,924.00
Service Levy	66,390.00	73,029.00	80,331.00
Bank Charges & Commissions	42,505.00	46,756.00	51,432.00
Total Administrative Costs	2,498,371.00	2,738,503.00	3,000,418.00
Administrative Costs as % of Sales	12.34%	12.20%	12.25%

COST SUMMARY

Direct Operating Costs	16,378,993.00	18,017,548.00	19,819,306.00
Administrative Costs	2,498,371.00	2,738,503.00	3,000,418.00
Total Costs	18,877,364.00	20,756,051.00	22,819,724.00
Total Cost as % of Sales	93.26%	93.22%	93.17%

4.12 Project Organization, Management and Labour Requirement

The project will be managed through the Board of Directors consisting of two members. The Board will formulate policy and offer strategic business guidance to management and regularly monitor and evaluate performance of the company.

The day to day management of the project will be vested in the Management Team. The Management Team will comprise of the General Manager who will be the overall in-charge of the project. The General Manager will be assisted by Production Manager. The two will be assisted by competent Supervisors in the various departments/sections. These will in turn be supported by qualified personnel in their areas of specializations.

Presently, the project employs 51 local people permanent employees and 157 casual labourers; and 12 expatriate staff (including the Managing Director). The project envisages employing 10 more skilled local people, partly to beef-up the accounts section while maintaining the same number of casual labourers and expatriate staff. This will raise the strength of total labour force to 230.

The table 4.10 indicates positions and strength of labour force that will be required to run the project:

Table 4.10: Management and Labour Force

S/N	CATEGORY	STRENGTH	DOMICILE	REMARKS
1.0	CORPORATE OFFICE			
1.1	Managing Director	1	Foreign	In place
1.2	General Manager	1	Foreign	In place
1.3	Personal Secretary	1	Local	In place
1.4	Driver cum Messenger	1	Local	In place
	<i>SUB TOTAL</i>	4		
2.0	PRODUCTION DEPARTMENT			
2.1	Production Manager	1	Foreign	In place
2.2	Processing Supervisors	4	Local	In place
2.3	Packing Supervisors	4	Local	In place
2.4	Scaling Assistant Supervisor	1	Local	In place
2.5	By-product Supervisors	1	Local	In place
2.6	Off-loading Supervisors	3	Local	In place
2.7	Receiving Supervisor	1	Local	In place
2.8	Fish Technologists	9	Foreign	In place
2.9	Laboratory Technician	1	Local	In place
2.10	Filleters	5	Local	In place
2.11	Filleters	7	Local	New
2.12	Ice Controllers	1	Local	In place
2.13	Environment Officer	1	Local	In place
2.14	Administration Officer	1	Local	In place
2.15	Stores & Procurement Officer	1	Local	In place
2.16	Nurse	1	Local	In place
2.17	Secretary	1	Local	In place
2.18	Security Officers	3	Local	In place
	<i>SUB TOTAL</i>	46		
3.0	ECO-LABORATORY/QUALITY CONTROL DEPARTMENT			
3.1	Eco Labeling Officer	1	Local	In place
3.2	Landing Site Monitors	3	Local	In place
3.3	Landing Site Supervisors	5	Local	In place
3.4	Boat Skipper	1	Local	In place
3.5	Secretary	1	Local	In place
	<i>Sub total</i>	11		
4.0	ENGINEERING			
4.1	Machine Operator	1	Local	In place
4.2	Boiler Attendant	1	Local	In place

	<i>Sub total</i>	2		
4.0	FINANCE AND HUMAN RESOURCE DEVELOPMENT DEPARTMENT			
4.1	Finance Manager and Human Resource Development Manager	1	Local	New
4.2	Human Resource Officer	1	Local	In place
4.3	Accountant	1	Local	New
4.4	Cashier	1	Local	New
	Export Officer	1	Local	In place
4.5	Export assistant Clerks	2	Local	In place
4.8	Secretary	1	Local	In place
4.10	Driver	1	Local	In place
4.11	Office Attendant	1	Local	In place
	SUB TOTAL	10		
	Total Skilled Workers	73		
5.0	Casual Labourers	157	Local	In place
	GRAND TOTAL	230		

The Proposed Management and labour Force Summary

Local Employees: 61

Expatriate Staff: 12

Total Skilled and Employment: 73

Casual Labourers: 157

Total Number of Employee: 230

5.0 FINANCIAL ANALYSIS

5.1 Financial Viability

The analysis of the proposed project shows that the project can generate a fairly good profit and that it generates sufficient cash to meet its financial obligations. The review is given below under the following sub – sections:

- Fundamental Assumptions
- Capital Expenditure and Financing
- Operating Costs;
- Working Capital Requirements;
- Projected Profitability
- Projected Balance Sheets;
- Projected Cash Flow;
- Break-even Analysis;
- The Pay Back Period

5.2 Fundamental Assumptions

The preparation of the financial projections considered the following main assumptions:

- 5.2.1** The operating period under which the viability of the project is being evaluated is five (5) years.
- 5.2.2** The tangible capital cost of the proposed project is US\$ 730,000-
- 5.2.3** All the calculations throughout the economic lifetime of the project are constant with May 2020 being the base date
- 5.2.4** The projected direct operational costs are shown under Annex I
- 5.2.5** The main revenue source is from export of fish fillets and fish maws as well as local sales of saleable by-products for production of animal feeds.
- Export price of fish fillets is estimated at US\$ 4.77 per kg while that of fish maws is US\$ 44- per kg. Saleable by-product price is estimated at US\$ 0.35 per kg. These prices are assumed to remain constant throughout the economic life of the project.
- 5.2.6** The average cost of Nile Perch raw fish is US\$ 2.2 per kg throughout the economic life of the project.
- 5.2.7** Packaging materials cost is estimated at US\$ 0.12 per kg of exports
- 5.2.8** The agents will collect a commission at the rate of US\$ 0.05 per kg over c&f price.
- 5.2.9** Freight (outbound cargo transport and ocean freight) is estimated at US\$ 0.08 per kg

5.2.10 Product content per raw fish is assumed to be as follows:

- Fish Fillet 44%
- Fish Maws 2%
- Saleable by-products
(Skins and Extracted Bones
Belly Flaps,
Heads, Fats and other wastes) 54%

5.2.11 Capital expenditure has been assumed to be incurred for a continuous period of 3 years.

5.2.12 The financial plan is for the tangible assets under this rehabilitation/expansion project to be financed through ploughed back profits (US\$ 730,000-) while working capital requirements will be financed through bank overdraft facilities at the prevailing bank interest of 8%, if and when the need arises. It is assumed that an overdraft of US\$ 500,000- should be adequate to finance the short term requirements.

5.2.13 Economic depreciation rates based on useful lifetimes of the various capital items have been adopted. The following facts apply for the depreciation rates in this project:

- Building and Civil Works are depreciated at 5% Straight line. Most buildings are supposed to last for about 25 years.
- Equipment, Processing Plants, Machinery and Operating Equipment 12.5% and therefore replacement is after 8 years. Scrap value is put at 35%.
- Motor Vehicles are depreciated at 20% with scrap value estimated at 20%. All the motor vehicles will be replaced during the sixth year of operation
- Furniture, Fixture & Fittings at 12.5%

5.2.14 Working Capital Requirements

Ideally, working capital requirements are directed by the volume and business tempo. Initial working capital is budgeted at US\$ 500,000-.

5.3 Financial Review

Analysis and Evaluation of Financial Results

The liquidity performance of the project is shown under the Cash flow Statement of the Financial Projection Schedules. The projections consider the assumed sources and applications of funds over the planned period and show the ability of the project to meet financial obligations and capital expenditure requirements.

Following are highlights of the financial projections and analysis:

5.3.1 Appendix I - Projected Income Statement

Net Profits for the 5-year Project after providing for interest, depreciation and corporate tax obligations generated by the project in year one of operation is US\$ 914,382- (4.52% of sales) in year one, US\$ 1,164,779- (5.23%) in year two, US\$ 1,439,243- (5.88%) in year three, US\$ 1,447,196- (5.91%) in year four before reaching US\$ 1,455,785- (5.94%) in year five.

Total sales revenue ranges from US\$ 20.241- million to US\$ 24.491- million during the five-year period operations period.

5.3.2 Appendix II- Cash flow Statement

The project generates surplus cash inflows throughout the period of the financial projections.

The projected Cash flow Statement from investing activities in the period of five years under review indicates that the project will generate enough cash to meet its financial obligations. Net cash surplus balance increases from US\$.914,382- in year one to range between US\$ 1,164,779- and US\$ 1,455,785. – during the 5-year operations period. The cumulative cash balances during the same period increases from US\$ 914,382- in the first year of operation to US\$ 2,881,284- in the 5th and last year of operations. This is a positive indication that the project is liquid enough to meet its cash requirements to support its trading operations.

5.3.3 Appendix III - Projected Balance Sheets

The balance sheets indicate a favourable state of affairs of the project throughout the projected period. Similarly, current liabilities are well covered by the current assets, the ratio ranging from 49% to 54%.

Project net worth as represented by total Net Assets shows remarkable growth, growing over nine fold from US\$ 730,000- at the end of construction period to US\$ 7,151,385- at the assumed end of the project economic life in five years.

5.3.4 Discounted Cash flow

Project cash flows have been discounted using 8%. This rate is the approximated cost of capital for this project. This has produced a Net Present Value (NPV) for the project of US\$ 3,812,292.- indicating that this is a profitable and feasible project, which must be undertaken. The project has been further discounted using 20% and 30% as discounting rates to test the sensitivity of the project to variable cost of capital factors. In both cases, the project has yielded positive NPVs thus reinforcing the conclusion about the attractiveness of the project.

These Net Present Values indicate that the Internal Rate of Return is 43.29% which is much higher than the assumed cost of capital of 8%. Again, this is an indicator that this project is viable and should therefore be undertaken.

5.3.5 Appendix VII - Breakeven Analysis

The break-even analysis (considering cost of finance) sales revenue ranges from US\$ 2,802,415.- (year six) to US\$ 3,022,050- (year five)- while the break-even sales ratio stands at 11.84% and 14.62% during the same period.

5.3.6 Key Financial Ratios

The key ratios are acceptable with Internal Rate of Return (IRR) at 43.29%, positive NPV Ratio, Net Present Value of US\$ 3,812,292- and a Payback Period of 2 years at Normal Payback at zero discount rate, at the assumed 8% discount rate (interest).

5.3.7 Sensitivity Analysis

- **Sensitivity to decrease in revenues:** The project is relatively sensitive to decrease in revenues. A 5% produces a marginal loss in the first-year operation but it does not affect the project's profitability from the second year onwards a loss-making venture after the first year of operation. However, the project is very sensitive to a 10% decrease in revenue when all the above-mentioned factors become negative.
- **Sensitivity to increase in production costs:** The project is very sensitive to increase in production costs. A 10% increase in production costs produces negative NPV, and NPV Ratio. Payback period is further prolonged while IRR is not found.
- **Sensitivity to increase in operating costs:** the effect of a 10% increase in operating costs produces a modest loss in the first year of production but it remains positive for the rest of the years to year 10.

5.3.8 Pay-back Period

The project's normal payback period is two years at the discount rate of 8%.

6.0 ENVIRONMENTAL ASPECTS

6.1 Introduction

The project activities involve collection, cleaning and cutting the fish into fish fillets, before packaging and chilling/freezing the products ready for transportation in refrigerated trucks to the export points (airport/sea port). In the process, the company cooperates with various regulatory authorities, including Tanzania Fisheries Department, OSHA, MMC, TRA, CGL and NEMC. Supreme Perch Limited adheres to all regulations as appearing in The Fisheries Act (2003) and Fisheries Regulations (2003) which guides fish processors on the necessary the processors have to observe regarding environmental aspects before the processors can be granted fish processing and export licence.

Generally, Tanzania has environmental regulations governing the industrial operations/manufacturing activities etc. Nevertheless, each operator takes basic precautions to ensure that during operations, damage to environment is limited to the minimum possible level.

Supreme Perch Limited obtained European Union Certification for the processing plant before starting operations, and this has ensured a working quality control system. The HACCP System (Hazard Analysis & Critical Control Points) of quality control gives this factory a global competence. A working laboratory, an efficient training programme, good team work and support from the government authorities have helped this project to grow day-by-day. The company implements all directives from the EU and therefore has been granted approval for export to all the EU countries and the global market in general including the Middle East and to the other member states of East Africa.

6.2 Nature of Project Activities

The Project Activities: involve collection, cleaning and cutting the fish into fish fillets, before packaging and chilling/freezing the products ready for transportation in refrigerated trucks to the export points (airport/sea port). Processing begins with fish receiving and selection of ideal fish for processing. The only chemical applied during the processing is Chlorine used for cleansing purposes.

Mode of Liquid Waste Disposal: Recycled and treated waste water and the affluent disposed in underground tanks.

6.3 Work Health and Safety Policy

To ensure environmental aspects are fully accommodated in the project activities, the Company has established its Environmental Management Plan which shows commitment of Supreme Perch Limited Management and Workers to health and safety, with aims to remove or reduce risks to health, safety and

welfare of all workers, contractors and visitors, and everyone else who may be affected by the Company's business operations

The aim of this workbook is to:

- Show the commitment of Supreme Perch Limited Management and Workers, Contractors to health and safety;
- To remove or reduce the risks to health, safety and welfare of all workers, contractors and visitors, and anyone else who may be affected by the Company's business operations;

Under this environmental management plan workbook, the Management is responsible for providing and maintaining:

- Safe working environment;
- Safe system of work;
- Plant and substances in safe condition;
- Facilities for the welfare of all workers;
- Any information, instructions, training and supervision needed to make sure all workers are safe from injury and risks to health;
- A commitment to consult and cooperate with workers in all matters relating to health and safety in the workplace.
- A commitment to continually improve our performance through effective safety management.

6.4 Environmental Impact Screening

The nature of the project indicates that there are no major negative environmental effects of public concerns, except two minor ones:

6.4.1 Air Pollution (Odour/Offensive Smell)

It has been noted that during processing fish, the processing may be associated releases of offensive smell, and as a result, may disturb the surrounding community. However, the fish processing operations for M/s Supreme Perch Limited are conducted in an ultra-modern factory that meets all the Fisheries Act (2009) and Fisheries Regulations (2009), and therefore processing is carried out under very clean environment.

This impact is therefore considered negative, cumulative, short term and of low significance.

6.4.2 Land Contamination from Chemicals/Effluent

It is urged that improper management of effluent and other cleansing chemicals like chlorine spills may occur from processing. This is also considered of low significance as all effluent water is channelled to water treatment plant. Mitigation measures are in place and other necessary precaution are taken in order to avoid land pollution.

6.5 The Company's Commitment to Environmental Protection and Fisheries Regulations 2009

As discussed above, the project does not involve any wastes as all processing wastes are either further processed for sale or sold raw as an important input for production of animal feeds. Environmental degradation is therefore not an issue in this project. Notwithstanding the minimal environmental impact of the project, M/s Supreme Perch Limited ensures maximum cleanliness of the project is maintained, and that the project conforms to requirements in The Fisheries Act, 2003 and Fisheries Regulations, 2009.

7.0 RISK ANALYSIS

The major risk factor considered under this project is the possible temporary suspension of fishing activities in the Lake Victoria as fish stock is said to have been reduced substantially due to illegal fishing activities. There is an on-going debate that to prevent the fish stock being depleted further, the three governments sharing the lake should introduce fishing quotas. Should this happen, it is obvious the project will be adversely affected as it will be forced to temporarily stop production during the time of fishing suspensions. The second major risk is the possibility of the increase of number of fish processing companies which may increase competition drastically and thus reduce supply of raw materials to the company.

However, the Government of Tanzania through her Fisheries Department regulates the number of fish processing licence. For more than ten (10) years, the government has stopped granting new licences. The good news is, for the past few years the government has embarked into a full-time campaign to fight against illegal fishing. This exercise has helped a lot in the increase of Nile Perch stocks in the lake.

8.0 SOCIAL, ECONOMIC AND DEVELOPMENTAL BENEFITS

The fish processing activities generates a lot of social, economic and developmental benefits, including but not limited to the following:

- Establishing the factory has strengthened a reliable market for the local fishermen and fish collection agents in Bukoba/Kagera, enabling them to sell their fish within the country which would otherwise be smuggled to Uganda, thus preventing losses in government revenue;
- Although Tanzania owns 51% of Lake Victoria, it has fewer factories than her counterparts of Uganda and Kenya who own a combined total of 49%. Tanzania's lake potential is either underutilized or present processing capacity is insufficient, necessitating excess fish supplies to be channeled to neighbouring countries. Given the country's potential, and the abundant fish catch in Bukoba/Kagera, the project envisages

expansion of Tanzania's market share in the industry and thus maximizing the government revenue;

- The project presently employs 73 people, 51 of whom are local skilled employees in various positions, and 157 casual labourers. Under the rehabilitation/expansion programme, the company envisages employing 10 more local skilled workers, increasing their number to 61 while maintaining the current number of 157 casual labourers and 12 expatriate staff, mostly fish technologists;
- Estimated amount of US\$ 17.0 million will be collected by local fishermen and collecting agents, income and other suppliers, the project is set to change the economy of Bukoba irreversibly;
- Bukoba Municipal Council will collect substantial revenue (levies/taxes) from fish processing activities;
- Revenue to the government Treasury and other organs in the form of taxes, fees and levies;
- The project generates a considerable amount of foreign exchange through the sale of fish fillets and fish maws. Almost 100% of fish fillet and fish maws sales are for the export market of European Union, the Middle East and other East Africa countries;
- The project personnel will benefit from training on fish processing skills.

9.0 CONCLUSIONS AND RECOMMENDATION.

9.1. Conclusion

Financial and economic analyses above reveal the following:

- 9.1.1 The project is financially viable, economically feasible and environmentally friendly as indicated by the projects' cost of production and profitability tables, cash flows and balance sheet;
- 9.1.2 The proposed rehabilitation/expansion programme will strengthen a reliable market for the local fishermen and fish collection agents in Bukoba/Kagera, enabling them to sell their fish within the country which would otherwise be smuggled to Uganda, thus preventing losses in government revenue;
- 9.1.3 The project envisages expansion of Tanzania's market share in the industry and thus maximizing the government revenue;
- 9.1.4 The project has a very short payback period of two years relative to its fixed capital investment of US\$ 730,000-.

- 9.1.5 The project is will employment opportunities, transfer of technology. It is geared to employ about a total of 61 local employees, a significant number of which will be women;
- 9.1.6 The project will generate a considerable amount of foreign exchange through the sale of fish fillets and fish maws;
- 9.1.7 The project will have a huge impact in the economy of Bukoba/Kagera region considering the generous amount that will be paid to workers per annum in form of salaries and wages and the estimated amount of US\$ 17.0 million that will be collected by local fishermen and collecting agents, income and other suppliers, the project is set to change the economy of Bukoba irreversibly;

9.2 Recommendations.

In view of the above, it is strongly recommended that the project be approved by Tanzania Investment Centre and be granted the TIC Certificate of Incentives with its associated privileges and benefits as provided for under Tanzania Investment Act, 1997 to facilitate smooth implementation without undue delays.

FINANCIAL PROJECTIONS

Income Statement Projections

(all numbers in US\$)

Revenue							
	<u>Year 0</u>	<u>Year 2020</u>	<u>Year 2021</u>	<u>Year 2022</u>	<u>Year2023</u>	<u>Year 2024</u>	<u>TOTAL</u>
Fish Revenue	-	20,240,766	22,264,877	24,491,315	24,491,315	24,491,315	115,979,588
Total Operating Revenue	-	20,240,766	22,264,877	24,491,315	24,491,315	24,491,315	115,979,588
Expenses							
	<u>Year 0</u>	<u>Year 2020</u>	<u>Year 2021</u>	<u>Year 2022</u>	<u>Year2023</u>	<u>Year 2024</u>	<u>Total</u>
Salaries		178,907	178,907	178,907	178,907	178,907	894,535
Social Charges & Pension Payments		17,891	17,891	17,891	17,891	17,891	89,454
Raw material		14,056,997	15,462,695	17,008,963	17,008,963	17,008,963	80,546,581
Administrative Costs		2,498,371	2,738,503	3,004,418	3,004,418	3,004,418	14,250,128
Utilities		261,371	288,168	316,985	316,985	316,985	1,500,494
Factory expenses/packaging, import etc		1,743,019	1,743,019	1,743,019	1,743,019	1,743,019	8,715,095
Other Costs eg Ecollabing		35,142	38,656	42,522	42,522	42,522	201,364
Total Operating Costs		18,791,698	20,467,839	22,312,705	22,312,705	22,312,705	106,197,651
Operational Net Earnings before Depreciation, Interest & Tax		1,449,068	1,797,038	2,178,610	2,178,610	2,178,610	9,781,938
<i>%age Gross Contribution</i>		7	8	9	9	8.90	41.92
Depreciation		85,666	85,666	85,666	85,666	85,666	880,374
Net Earnings before Tax & Interest		1,363,402	1,711,372	2,092,944	2,092,944	2,092,944	8,901,563
Interest Paid (Bank Loan)		40,000	33,182	25,818	17,865	9,276	126,141
Tax (30%)		409,020.69	513,412	627,883	627,883	627,883	2,806,082
Net Earnings		914,382	1,164,779	1,439,243	1,447,196	1,455,785	6,421,384
Percent of sales		4.52	5.23	5.88	5.91	5.94	5.54

Cash Flow statement from Investing Activities for five years						
(all numbers in US\$)						
	<u>Year 2020</u>	<u>Year 2021</u>	<u>Year 2022</u>	<u>Year2023</u>	<u>Year 2024</u>	
CASH FLOW FROM OPERATING ACTIVITIES						
Cash receipts from Sales	20,240,766	22,264,877	24,491,315	24,491,315	24,491,315	
Cash paid to suppliers and employees	(18,791,698)	(20,467,839)	(22,312,705)	(22,312,705)	(22,312,705)	
Cash generated from operations	1,449,068	1,797,038	2,178,610	2,178,610	2,178,610	
Dividends received*	0	0	0	0	0	
Interest received	0	0	0	0	0	
Interest paid	(40,000)	(33,182)	(25,818)	(17,865)	(9,276)	
Tax paid	(409,021)	(513,412)	(627,883)	(627,883)	(627,883)	
Net cash flow from operating activities	1,000,048	1,250,445	1,524,909	1,532,862	1,541,451	
CASH FLOW FROM INVESTING ACTIVITIES						
Replacement of equipment	0	0	0	0	0	
Proceeds** from sale of equipment	0	0	0	0	0	
Net cash flow from investing activities	0	0	0	0	0	
CASH FLOW FROM FINANCING ACTIVITIES						
Proceeds from capital contributed	730,000	0	0	0	0	
Proceeds from loan	500,000	0	0	0	0	
Payment of loan	(85,228)	(92,046)	(99,410)	(107,363)	(115,952)	
Net cash flow from financing activities	1,144,772	(92,046)	(99,410)	(107,363)	(115,952)	
NET INCREASE/ DECREASE IN CASH						
Cash at the beginning of the period	914,382	1,164,779	1,439,243	1,447,196	1,455,785	
Cash at the end of the period	3,059,201	2,323,177	2,864,742	2,872,695	2,881,284	

Pro forma balance sheet

(all numbers in US\$)

	<u>Year 2020</u>	<u>Year 2021</u>	<u>Year 2022</u>	<u>Year2023</u>	<u>Year 2024</u>
ASSET					
Current asset	914,382	1,164,779	1,439,243	1,447,196	1,455,785
Investment	1,230,000	1,254,600	1,279,692	1,305,286	1,331,392
Fixed Asset	0	0	0	0	0
Liquidity	1,449,068	1,797,038	2,178,610	2,178,610	2,178,610
TOTAL ASSET	3,593,450	4,216,417	4,897,545	4,931,092	4,965,787
EQUITY & LIABILITIES					
Equity	1,230,000	1,262,472	1,374,378	1,496,202	1,628,826
Reserves					
Total Own Equitiy	1,230,000	1,262,472	1,374,378	1,496,202	1,628,826
Provisions	1,743,535	2,229,639	2,684,390	2,596,112	2,498,183
Long term loan	125,228	125,228	125,228	125,228	125,228
Short term Liabilities	494,687	599,078	713,549	713,549	713,549
Total Equity & Liabilities	3,593,450	4,216,417	4,897,545	4,931,092	4,965,787
CL/CA RATIOS	0.5410	0.5143	0.4958	0.4931	0.4901

Loan Information and Payment Schedule

Loan Data		Loan Summary	
Original Principal	500,000.00	Scheduled Payments	125,228.23
Loan Term (Years)	5.00	Scheduled number of payment	5.00
Annual Interest Rate	0.08	Actual number of payment	5.00
Payments per Year	1.00	Total Early Payment	-
Payment	447088.00	Total Interest	1,470,885.00

Year	Payment	Interest	Cumulative Interest	Principal	Balance
0.00					500000.00
1.00	125228.23	40000.00	40000.00	85228.23	414771.77
2.00	125228.23	33181.74	73181.74	92046.49	322725.29
3.00	125228.23	25818.02	98999.76	99410.20	223315.08
4.00	125228.23	17865.21	116864.97	107363.02	115952.06
5.00	125228.23	9276.16	126141.14	115952.06	0.00

IRR for the Project

(all numbers in US\$)

	Initial Investment	-1,230,000
Year 2020	Additional Annual Net Profit	914,382
Year 2021	Additional Annual Net Profit	1,164,779
Year 2022	Additional Annual Net Profit	1,439,243
Year 2023	Additional Annual Net Profit	1,447,196
Year 2024	Additional Annual Net Profit	1,455,785
	IRR (in 5 years)	43.29%

The IRR above indicates that the expected return on the 1,230,000 initial investment after 5 years is 43.29%.

Payback Period Analysis

	Year	Beginning Balance	Net Cash Flows	Ending Balance
Cost of investment	0.00	1,230,000.00	0.00	1,230,000.00
	1.00	1,230,000.00	914,381.61	315,618.39
	2.00	315,618.39	1,164,778.87	849,160.48
	3.00	849,160.48	1,439,242.99	2,288,403.47
	4.00	2,288,403.47	1,447,195.80	3,735,599.27
	5.00	3,735,599.27	1,455,784.85	5,191,384.11

Payback Period	2.00	Years
=		

**Break-Even Analysis
in (\$)**

	year 2020	<u>Year2021</u>	<u>Year2022</u>	<u>Year 2023</u>	<u>Year 2024</u>
Revenue	20,240,76	22,264,877	24,491,315	24,491,315	24,491,315
Variable	2,498,371	1,164,779	1,439,243	1,447,196	1,455,785
Fixed	1,230,000	1,254,600	1,279,692	1,305,286	1,331,392
Total	3,728,371	2,419,379	2,718,935	2,752,482	2,787,176
Operating Expenses					
Variable	914,382	1,164,779	1,439,243	1,447,196	1,455,785
Fixed	1,230,000	1,254,600	1,279,692	1,305,286	1,331,392
Total	2,144,382	2,419,379	2,718,935	2,752,482	2,787,176
Total Costs & Expenses					
Variable	3,412,753	2,329,558	2,878,486	2,894,392	2,911,570
Fixed	2,460,000	2,509,200	2,559,384	2,610,572	2,662,783
Total	5,872,753	4,838,758	5,437,870	5,504,963	5,574,353
Variable Costs/Revenue Ratio	0.05	0.10	0.12	0.12	0.12
Break-Even Point Revenues	2,958,893	2,802,415	2,900,253	2,960,437	3,022,050
Break even sales ratios	14.618	12.587	11.842	12.088	12.339