

TAKE FISH FARM LTD

BUSINESS PLAN ON PROPOSED CAGE FISH FARMING SOTA / SHIRATI RORYA- MARA REGION

Tilapia



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**TAKE FISH FARM LTD
PROPOSED CAGE FISH FARMING
PROJECT**

BUSINESS PLAN

TABLE OF CONTENTS.

CONTENTS	PAGE NO.
1.0 BUSINESS BACKGROUND:	2- 4
2.0 TECHNICAL ASPECTS:	5 - 8
3.0 MARKETS AND MARKETING:	9 - 10
4.0 MANAGEMENT AND ORGANIZATION:	11 - 11
5.0 FINANCIAL EVALUATION	12 - 13
6.0 SOCIAL ECONOMIC BENEFIT:	13 - 13
7.0 SECURITY COVER:	13 - 13
8.0 CONCLUSIONS & RECOMMENDATION:	13 - 13
SCHEDULES:	NUMBER
9.0 PROJECT INVESTMENT COSTS	Schedule I
10.0 INVESTMENT AND FINANCING PLAN:	Schedule II
11.0 ECONOMIC DEPRECIATION SCHEDULE:	Schedule III
12.0 LOAN REPAYMENT SCHEDULE:	Schedule IV
13.0 STAFF SALARIES	Schedule V
14.0 FISH PRODUCTION AND SALES:	Schedule VI
15.0 FISH FEEDING COSTS:	Schedule VII
16.0 OPERATING EXPENSES:	Schedule VIII
17.0 BUSINESS REVENUE PROJECTIONS:	Schedule IX
18.0 PROJECTED INCOME STATEMENT:	Schedule X
19.0 WORKING CAPITAL REQUIREMENT:	Schedule XI
20.0 ANNUAL CASHFLOW:	Schedule XII
21.0 BALANCE SHEET PROJECTIONS:	Schedule XIII
22.0 FINANCIAL RATE OF RETURN:	Schedule XIV

TAKE FISH FARM LTD PROPOSED CAGE FISH FARMING PROJECT

BUSINESS PLAN

1.0 BUSINESS BACKGROUND:

1.1 The Company:

M/S Take Fish Farm Limited) is a private company established and registered in Tanzania on 21.06.2022 by BRELA under the Companies Act, 2002 vides Certificate of Incorporation No. 156566403. Its Head offices are based in Tarime Town in Mara Region. It is involved in breeding and rearing of aquatic organism by means of "cage fish". The company now proposes to expand its operations in "**Cage Culture "of Tilapia fish** at same site.

1.2 Company Ownership:

The registered share company of the company is Tshs 6,000,000,000 divided into 6,000 shares of Tshs. 1,000 each. It is owned by six shareholders namely; Peter Jackson Mwera, 1,200 shares, Boss Peter Mwera, 1,200 shares, Loyce Ludana Makongoro, 600 shares, Evans Sakhasia 1,200 shares, Jimmy Sakhasia 1,200 shares and Brian Sakhasia, 600 shares as given in the company Memorandum.

1.3 Aquaculture Fish Farming Business:

The idea of investing into fish farming project has been promoted by the company due to increasing demand and supply forces of tilapia fish fillets in both local and export markets. Aquaculture fish farming industry is therefore seen as an alternative approach aimed at sustaining the existing fish processing plants by having surplus input of tilapia fish through fish farming. The business in aquaculture fish farming has actually proved to be profitable attracting more local investors into the business. The recent competition in European markets and the current restriction on fishing net has also forced the fish fillet processors in the lake region to invest in this area since the raw material from Lake Victoria at present may not sustain their production capacities given the increasing demand for the product. The company proposes to adopt the **cage and net pen culture** which is a common technique for freshwater fish production. In cage culture, fish are confined in cages constructed of wire or fiber netting suspended from a floating frame. Cages range in size from 1 to 2000 m³ or more. They are secured by anchors in streams, lakes, and reservoirs.

1.4 Company Mission, Vision and Goals:

1.4.1 Mission:

The Company Mission is to provide healthy fish of high nutritional value and at affordable prices that improves people's lives and high-quality while improving the lives and livelihood of Musoma populace and the Nation at large.

1.4.2 Vision Statement:

The Company Vision is to become one of the leading fish farm brands not just in Mara Region but in and outside the United Republic of Tanzania.

1.4.3 Goals:

The Company is in the fish industry and its objective is to exploit the vast opportunities available in the agriculture industry and contribute in the growth of the economy of the United Republic of Tanzania through production of quality fish for the local and export markets.

1.5 Project Scope and Objectives:

M/S Take Fish Company Limited proposes to expand its Cage Fish Farming Project based on Lake Victoria waters at Sota in Shirati – Mara Region. The project will consist of the brooding farm and hatchery to be located at same site and a total of 31 cages for outgrow fish which will be based at same site at Sota – Shirati in Mara Region. The main objectives of this project are:

- To exploit the potential existing in such venture and generate good returns for improved welfare of the Company.
- To establish an innovative model of complete cages enterprise that can be replicated by the surrounding community. This will be the first such enterprise of its kind to serve potential fish farmers in Tarime District.
- To produce quality Tilapia fish for marketing in the local and export markets at competitive pricing.
- To sensitize the surrounding community to participate in aquaculture fish farming and support them by providing fingerlings at affordable price.
- To provide training and technical support to the surrounding community for purpose of disseminating the technique of cage fish farming so as to widen the participation of more Tanzanians in such fishing ventures hence improvement in community welfare.
- To create new jobs for the Tanzanian youths in particular.

1.6 The Business Proposal:

M/S Take Fish Farm Ltd proposes to borrow from a Commercial or Development Bank a total of **Tshs 2.610 Billion** for purpose of part financing the proposed expansion in Cage Fish Farming Enterprise to produce tilapia fish species. The term loan is proposed to be repaid **over 5 years excluding one year grace period with interest at 9% per annum.**

1.7 Need for the Credit Facility:

The company needs the above credit facility for purpose of achieving the following business objectives;

- To facilitate full implementation of the planned project within the prescribed time frame of 12 months.
- To make economic use of available business opportunity in fisheries resources and generate good returns for the company.

1.8 Past Performance:

Take Fish Farm Limited is a new company recently established for purpose of investing in Cage Fish farming. Until very recently therefore, the business operated as a Sole Proprietorship. Take Fish Farm therefore has no record of past performance. As for the Proprietorship which operated 11 fish cages of 10x10 meters its, performance for the recent past is as indicated in the Audited Accounts.

2.0 TECHNICAL ANALYSIS:

2.1 Cage Culture:

Cage aquaculture involves the growing of fishes in existing water resources while being enclosed in a net cage which allows free flow of water. It is an aquaculture production system made of a floating frame, net materials and mooring system (with rope, buoy, anchor etc.) with a round or square shape floating net to hold and culture large number of fishes and can be installed in reservoir, river, lake or sea. A catwalk and handrail is built around a battery of floating cages. Cage culture is expanding rapidly raising hopes for an increased production of fish. According to, fisheries officials, farmers and researchers, it is more profitable to grow a higher quantity of fishes in cages as compared to ponds.

2.2 Project Location:

The Cage Fish Farm is an expansion venture located at Sota Shirati Mara Region. The cage farm shall be supported by brooding stock and fingerlings ponds, hatchery and other facilities based at same site. The location of the cage fish farm has been carefully selected to suite the conditions required for proper rearing and harvesting of the fish. It is easily accessible throughout the year.

2.3 Product Description:

The farm is to produce **Tilapia fish** specially hatched and grown under fresh water conditions and natural characteristics of the project farm. The production process, handling and distribution of this product will emphasize quality in terms of high nutrient value, hygiene and full compliance with the national fish regulations. The fish to be produced will have an average length of 25cm and a weight of not less than 500 grams.

2.4 Cage Fish Farming Process

2.4.1 Breeding and Juveniles;

The first step of production is the breeding of juveniles carried out in the land-based hatchery where selected brood fish are reared. Fertilized eggs from these brood fish are incubated and hatched under highly controlled conditions. The tiny larvae are initially fed specially grown live feeds then weaned onto dry diets. The feeds are **specially formulated** to meet the nutritional needs of the fish in each phase of their development.

2.4.2 Pre-growing:

This is the last stage of juvenile growth before transferring to fattening (on-growing) farms. This step is used to **give juveniles the best start when the water is cold**, as in open-sea farming or for winter placement. When juvenile's weight is from 0.3 to 1 gram, they are transferred to large inland tanks where they make gain weight and begin a gradual transition into a systematic diet.

2.4.3 On growing:

Finally, the juveniles are transferred to the lake in large tanks on trucks. They are placed in special cages for the on-growing or fattening season and their maturation into adult fish. The cages are moored in the lake and ensure the fish welfare. They allow the fish freedom of movement, but also offer protection from predators. The fish are fed special diets for **optimum health and best growth**. The on-growing cycle is strictly controlled by biologists and trained personnel.

2.4.4 Harvesting and Packaging

When the fish in the cages have reached market weight (about 500gms), they are harvested. The harvest of the fish is carried at night or sunrise with the utmost care so as not to damage or stress the fish. The harvested fish are placed in ice in insulated tanks and transferred to packaging section then graded according to size and packed in special insulated transport trucks ready for marketing.

2.5 Fish feeds:

Feeding is the most important part of fish farming. It is very important that the fish is provided with high quality and nutritious food. As the quality of food leads to maximum production but also keeps the fish healthy with more weight. They should also be provided with both supplementary fish feed along with natural food. There are many brands of supplementary fish feed available in the market depending on the specific fish species. The fish feed can also be prepared internally but one should make sure that the feeds should have all necessary nutrients, vitamins, minerals, salt etc. Feeding time depends on the fish species. Over feeding may affect the fish. The project will in this case procure feeds from outside to start with and later on produce its own feeds from its plant for internal consumption as well as sell the surplus to nearby aquaculture farmers in

the region. The feeds will be produced based on locally produced materials to guarantee ready supply and community benefit. The formula shall consist of; lake sardines (dagaa), sun flower brand (mashudu ya alizeti), maize brand, cassava flour, and assorted minerals.

2.6 Feeding Ratios:

It is generally known that smaller fish consume more feed per unit body weight compared to larger fish. There are recommended feeding schedules for tilapia using formulated feed under different stocking densities in semi-intensive (pond and intensive farming systems. The suggested feeding schedules as used by aquaculture farming in China for example; tilapia are stocked at 30,000 -37,500 fish/per hectare and fed with pelleted feeds (28-35 percent CP) two to three times daily at 6-10% body weight (BW) per day for fish below 100gms, 3-6 % BW/day for fish between 100-250 grams and 1.5 – 4% BW/day for fish 300 - 800 grams. Under these conditions yields range from 15-20 tones/per hectare at a feed conversion ratio of 1.5-2.0. In this particular project the recommended feeding ratio used is; as indicated under;

Feeding Period	Fish Weight (gms)	Feeding Ratio
1 st Week – 1 Month	<100	8%BW
2 nd Month	100 -200	7%BW
3 rd Month	201 -300	6%BW
4 th Month	301 – 600	3%BW
5 th Month	601 – 700	2%BW
6 th Month	701 -850	1.5%BW

2.7 Project Investment and Financing:

The proposed cage aquaculture fish farm involves the construction of additional 25 cages to add up to 36 cages with related facilities at Sota in Tarime. The cages will consist of three different capacities which will have capacity to stock a total of 4,490,000 pieces of tilapia fish. It is will also involve investments in other related facilities as indicated under. The investments costs amount to **Tshs. 3.725 Billion** as per breakdown given under;

Investments	Tshs. '000
	Total
• Buildings and Civil Works	1,105,000
• Cages, Nets & Fishing Gear	870,000
• Boats and Equipment	585,000
• Motor Vehicles	710,000
Sub Total	3,270,000

- Working Capital 455,000
- **Total** **3,725,000**

The above investments are proposed to be financed as follows:

	Tshs '000		
Investments	Equity	Loans	Total
Building & Civil Works	515,000	590,000	1,105,000
Cages, Nets & Civil Works	375,000	495,000	870,000
Boats and Equipment	100,000	485,000	585,000
Motor Vehicles	<u>50,000</u>	<u>650,000</u>	<u>710,000</u>
Sub Total	1,040,000	2,230,000	3,270,000
Working Capital	75,000	380,000	455,000
TOTAL FINANCING	<u>1,115,000</u>	<u>2,610,000</u>	<u>3,725,000</u>

All the project investment activities i.e. building construction, purchase and installation of related facilities are expected to be completed within 12 months time frame. Assuming that funds required are fully firmed up by November, 2022, the project should be able to go into full commercial operations by October, 2023.

2.8 Production and Sales Plan:

The project is to concentrate on production of Tilapia fish produced from 31 cages based at Sota in Shirati / Tarime. The production facilities at Tarime will involve production of fingerlings that will be transferred to grow out facilities in cages. Total fish production is projected at 4,490,000 pieces. However taking into account the survival rate at 80% per cycle, the production and sales plan for the first three years would be as indicated under;

A	Year	2023/24	2024/25	2025/26
B:	No of Cages	31	31	31
1.	Production (Kgs)	3,952,000	4,031,040	4,111,661
2.	Sales (Tshs)	9,880,000,000	10,077,600,000	10,279,152,000

Note: Production has assumed 5% growth per annum.

3.0 MARKETS AND MARKET ANALYSIS:

3.1 Fish Farming – An Overview:

Fish farming, also known as aquaculture, is the process of raising fish in an enclosed area for use in the fishing industry. A farm can be built on land or over naturally occurring bodies of water, such as off of an ocean shore. Within the body of water, a wide variety of fish and aquatic plants can be raised. Every year, such farms throughout the world produce over 65 million tons (59 million MT) of many varieties of sea life for harvesting. Fish farming also gives the farmers the unique ability to create a habitat for raising one specific type of fish. This not only allows them to be able to focus on the species that is intended to be raised, but also removes the difficult process of separating out unwanted types of fish and sea life when harvesting a catch. Different types of sea creatures also need specific varieties of food to survive, and a fish farmer can cater to the needs of a specific species.

3.2 Local Market Demand:

There is an increasing demand for fish and fish protein in the local market which has resulted in widespread overfishing in Lake Victoria in particular. The demand is also reflected by the current high prices of tilapia fish obtaining in the market which is due to high shortage in supplies. The local market demand mainly consists of households, restaurants and various institutions and government departments. Marketing of the product is therefore not considered to be a serious problem in this particular case.

3.3 The Target Market:

The target market apart from fish processing industries shall include all those who are the end consumers of fish and those who benefit from the business value chain of the fish industry. As a matter of fact, every household consumes produce from fish. In view of that, we have positioned our business to attract consumers of fish not just in Musoma municipality alone but also other nearby Districts like Musoma Rural, Tarime, Sirari, Nyamongo and Serengeti. We have conducted our market research and survey and we will ensure that we meet and surpass the expectations we set for the business. Specific target markets include; Households, Individuals, Hotels, Restaurants, Fast food eateries, Agriculture merchants, Student's community and other institutions. The business would make effort to contact cold room buyers within the Municipals, as well as reach out to industrial users that utilize the fish for fish meal production and other products.

3.4 Buying Behaviour:

As a new business that is just starting, also considering the location of our business, we will be selling basically on cash but might consider giving credits to customers who purchase in large quantity either for consumption or resale

3.5 Competition Analysis:

The main competitor in this fish farming business is the small, medium and large scale farmers producing fish for household consumption and for the domestic market. From our analysis, the cost per kilogram of tilapia is Tshs.4000/=. Currently, the tilapia is sold to main distributors at Tshs. 5000 per kilogram, and it is retailed at Tshs.600 per kilogram, this makes it reasonably cheaper. For other competitors in the cat fish market, we have a considerable advantage, being that fish farming is our passion and our farm is situated right within reach of the market place which makes supervision easier and effective. The climate of the area is very suitable for fish production. The business has relatively low overhead expenses with few staff presently to match production capacity.

3.6 Competition:

The business will concentrate in the production of tilapia and catfish fish and therefore anticipates competition in the respective product area mainly from local fishermen operating on Lake Victoria and its catchments streams and swamps. These fishermen are numerous and do supply a variety of species including tilapia. They have been in the business for a long time and have developed a big customer base which enables them to control a reasonable proportion of the market. However, they are informal and usually employ illegal fishing methods which undermine the quality of their supplies. In addition their output highly experiences daily and seasonal fluctuations which create a big opportunity for the business to exploit on entry into the market.

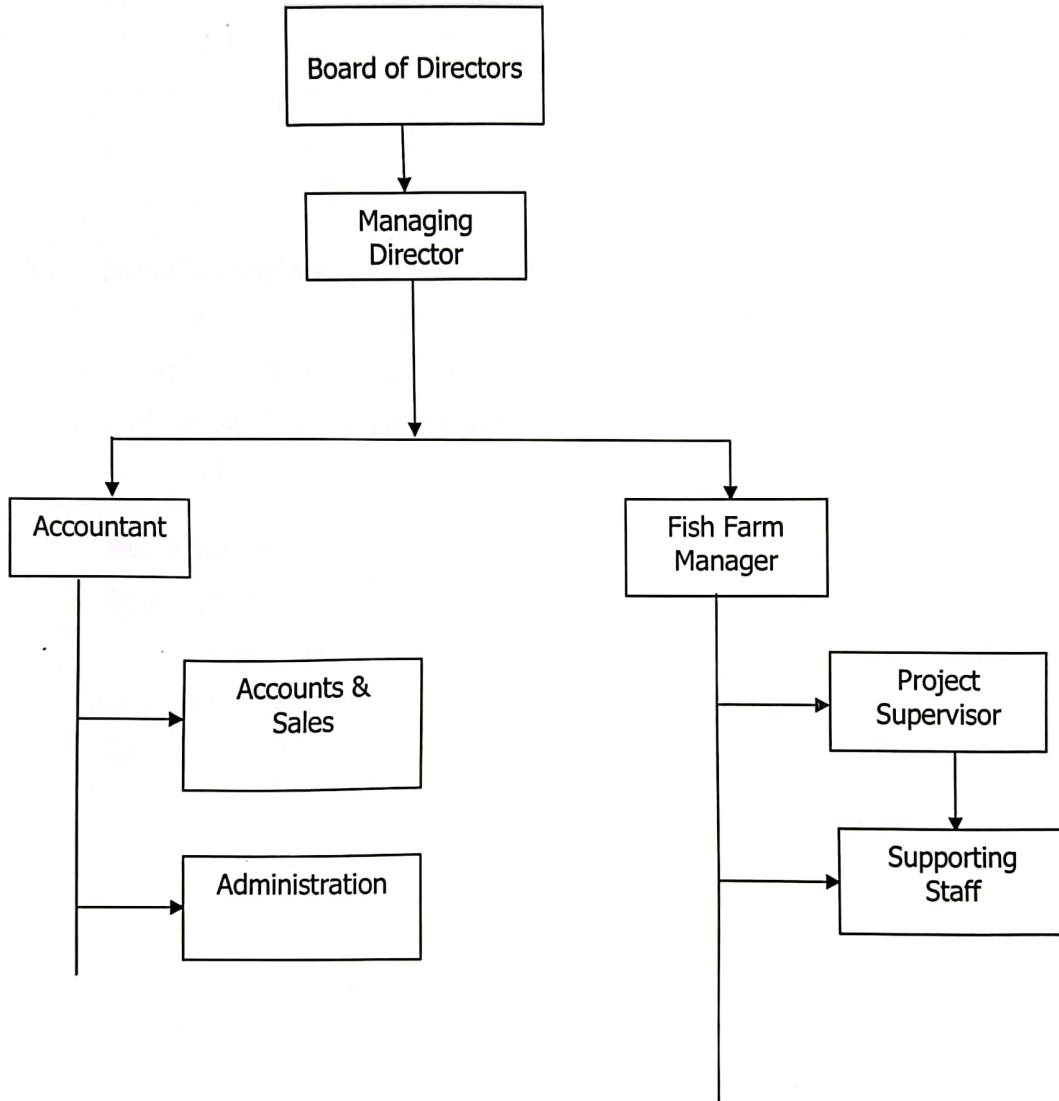
4.0 BUSINESS MANAGEMENT:

4.1 Project Organization Structure:

The business organization structure is based on the project activities. It is under the guidance of the Board of Directors as the Chief Authority Organ led by the Chairman. The proposed organization structure is as indicated below;

ORGANIZATION STRUCTURE

TAKE FISH FARM LTD



4.2 Project Management:

The project key management staff will be lead by the Managing Director. He will be assisted by the Farm Manager and farm supervisor to be recruited from the open labour market. The Farm Manager will be reporting to the MD who reports to the Board of Directors of the company.

5.0 FINANCIAL EVALUATION:

The business after being fully implemented is a going concern. It has therefore been assumed that it will continue running as a going concern. The business is projected to run smoothly and generate adequate profits to be able to meet its financial commitment without problems. The financial evaluation carried out on this report indicates that the project is technically feasible and financially a sound investment to undertake. The results are as summarized below;

5.1 Project Investments and Financing:

The total project investment costs are estimated at Tshs. 3.725 Billion which have been assumed to be financed through term loan of Tshs. 2.610 Billion from a Commercial or Development Bank and equity contribution of Tshs. 1.115 Billion by the investors.

5.2 Working Capital:

The working capital component is estimated at Tshs. 380 Million. The amount will be used for purchase of fish fingerlings, feeds and other day to day running costs as per details shown in schedule XI. The requirement has been assumed to be part of the term loan from the lending bank.

5.3 Projected Income Statement:

Based on assumptions and considerations used in the evaluation of the project, the business is projected to make net profit of Tshs. 1.313 Billion by the first year increasing to Tshs. 1.386 Billion by the second year and to Tshs. 1.459 Billion by the third year as per details given in schedule X of this report.

5.4 Projected Cash Flow:

The annual net cash movement for the first year is projected at Tshs. 1.115 Billion for the first year increasing to Tshs. 1.188 Billion by the second year and to Tshs. 1.262 Billion by the third year. The cash flow has taken into account all operating costs and repayment of the term loan during the 5 years projected period. Details are as given in schedule XII of this report.

5.5 Projected Balance Sheets

The projected balance sheet portrays a sound gearing. Net assets of the business are projected to increase from Tshs. 2.428 Billion by first year increasing to Tshs. 8.418 Billion by the 5th year of the projected period after full repayment of the term loan. Details are as given in schedule XIII of this report.

5.6 Financial Rate of Return:

As per financial evaluation carried out, the project is commercially viable. The internal Rate of Return works out to 31% which is commercially viable based on assumed cost of capital of 9% as per details given in schedule XIV.

6.0 SOCIO-ECONOMIC BENEFITS:

Full implementation of the proposed Project will have the following social economic benefits;

- It will result into increased supply of fish for human consumption hence increase protein consumption for healthy living in Mara Region and other nearby areas.
- The project will serve to impart knowledge in aquaculture to local communities in Mara Region hence increase the production of fish in the region through aquaculture.
- It will serve to generate new direct and indirect jobs in its area of operation.
- The government will also gain through increased tax revenue to be generated through increased fish farming activities in the district.

7.0 SECURITY COVER:

As security for the credit facility, the project sponsors propose to mortgage the landed property located in Tarime District the details of which are provided in the Valuation Report.

8.0 CONCLUSIONS AND RECOMMENDATION:

8.1 Conclusions:

- 8.1.1 The business proposal to invest and operate the cage aquaculture fish project as described in this report is technically feasible, financially and economically sound.
- 8.1.2 The proposal will go a long way towards improved supply of raw fish for human consumption in Mara Region and other areas.
- 8.1.3 The proposed borrowing will allow for timely execution of the expansion project ready for commercial operation by October, 2023.

8.2 Recommendations:

Based on the forgoing analysis and considerations, it is recommended for Commercial Banks or Development Banks to consider and provide **M/S. TAKE FISH FARM LTD** with Credit facility of **Tshs 2.610 Billion for part** financing the investment costs of the project. The term loan is proposed to be repaid over 5 years excluding one year (12 months) grace period with interest at 9% per annum.

TAKE FISH FARM LTD
FISH CAGE FARMING PROJECT
SOTA SHIRATI- MARA REGION
PROJECT INVESTMENT COSTS

					SCHEDULE I
					Tshs.
S/No	Project Investment Costs	Units Quantity	Existing Investments (Equity)	Additional Investments (TADB Loan)	Total Costs Investments
A	Building and Civil Works				
1	Office & Store Block & Feeds Machine	2	300,000,000	200,000,000	500,000,000
2	Ice Flash Machine Block House	1	-	100,000,000	100,000,000
3	Fish Clean house	1	100,000,000	100,000,000	200,000,000
4	Staff Houses	3	-	90,000,000	90,000,000
5	Fencing	2	50,000,000	50,000,000	100,000,000
6	Hatchery house	2	25,000,000	25,000,000	50,000,000
7	Bluders fish and fisher lings pounds	13	40,000,000	25,000,000	65,000,000
8	Sub Total		515,000,000	590,000,000	1,105,000,000
B	Cages, Nets & Other Fishing Gears				
1	HDPE Round Cages (30x30 meters)	20	-	420,000,000	420,000,000
2	HDPE Round Cages (20x20meters)	5	140,000,000	-	140,000,000
3	HDPE Round Cages (10x10 meters)	11	180,000,000	-	180,000,000
4	Cage net	26	55,000,000.0	75,000,000	130,000,000
5	Sub Total		375,000,000	495,000,000	870,000,000
C	Boats and Equipment				
1	Fiber boat and Engines	1	-	30,000,000	30,000,000
2	Ice Machine	1	-	50,000,000	50,000,000
3	Ice Bin	20	-	100,000,000	100,000,000
4	Cold room Containers	6	60,000,000	120,000,000	180,000,000
5	Cold room Equipment House	6	-	60,000,000	60,000,000
6	Ponds Liner Rolls	13	40,000,000	25,000,000	65,000,000
7	CCTV Camera Fish	10	-	50,000,000	50,000,000
8	Fish Solar lamp on cages	100	-	50,000,000	50,000,000
9	Sub Total		100,000,000	485,000,000	585,000,000
E	Motor Vehicles				
1	Refrigerated Truck 7 -10 Tons	5	50,000,000	200,000,000	250,000,000
2	Field Double Cabin Trucks	2	-	160,000,000	160,000,000
3	4 Prime mover 4 Trailer for Cold Room	2	-	300,000,000	300,000,000
4	Sub Total		50,000,000	660,000,000	710,000,000
			1,040,000,000	2,230,000,000	3,270,000,000
F	Working Capital				
1	Purchase of Fingerlings	1,500,000	75,000,000	150,000,000	225,000,000
2	Purchase of Feeds Pellets	100 Tons	-	230,000,000	230,000,000
3	Sub Total		75,000,000	380,000,000	455,000,000
D	TOTAL INVESTMENTS		1,115,000,000	2,610,000,000	3,725,000,000

FISH TAKE FARM LTD
FISH CAGE FARMING PROJECT
SOTA - SHIRATI MARA REGION
INVESTMENTS AND FINANCING PLAN

SCHEDULE II
Tshs.

S/No	A: PROJECT INVESTMENT:	Existing Invest Investment	Additional Investment	Total Investment
1	Buildings and Civil Works	515,000,000	590,000,000	1,105,000,000
2	Cages, Nets & Other Fishing Gears	375,000,000	495,000,000	870,000,000
3	Boats and Equipment	100,000,000	485,000,000	585,000,000
4	Motor Vehicles	50,000,000	660,000,000	710,000,000
5	Sub Total	1,040,000,000	2,230,000,000	3,270,000,000
6	Working Capital	75,000,000	380,000,000	455,000,000
7	Total Investments	1,115,000,000	2,610,000,000	3,725,000,000

B: PROOJECT FINANCING PLAN:		Existing Structure		New Structure		TOTAL	
	Non Current Assets:	Equity	Loans	Equity	TADB Loans		
1	Buildings and Civil Works	515,000,000	-	515,000,000	590,000,000	1,105,000,000	
2	Cages, Nets & Other Fishing Gears	375,000,000	-	375,000,000	495,000,000	870,000,000	
3	Boats and Equipment	100,000,000	-	100,000,000	485,000,000	585,000,000	
4	Motor Vehicles	50,000,000	-	50,000,000	660,000,000	710,000,000	
5	Sub Total	1,040,000,000	-	1,040,000,000	2,230,000,000	3,270,000,000	
6	Working Capital / OD	75,000,000	-	75,000,000	380,000,000	455,000,000	
7	TOTAL FINANCING	1,115,000,000	-	1,115,000,000	2,610,000,000	3,725,000,000	
8	Financial Gearing	100%	0%	100%	70%	100%	

**FISH TAKE FARM LTD
FISH CAGE FARMING PROJECT
SOTA - SHIRATI MARA REGION
TERM LOAN REPAYMENT**

**SCHEDULE IV
Tshs.000'**

Bank Loan		2,610,000				
Interest Rate:		9%				
Year	Year	Opening Balance	Principal Repayment	Interest	Closing Balance	
0	2022/23	2,610,000	-	-	2,610,000	
1	2023/24	2,610,000	522,000	234,900	2,088,000	
2	2024/25	2,088,000	522,000	187,920	1,566,000	
3	2025/26	1,566,000	522,000	140,940	1,044,000	
4	2026/27	1,044,000	522,000	93,960	522,000	
5	2027/28	522,000	522,000	46,980	-	
TOTAL			2,610,000	704,700		

**FISH TAKE FARM LTD
FISH CAGE FARMING PROJECT
SOTA - SHIRATI MARA REGION
STAFF SALARIES**

SECTION Staff	Nos.	Monthly Rates	Monthly Salaries	SCHEDULE V
				TSHS. '000'
				Annual Salaries
Farm Manager	1	800,000	800,000	9,600,000
Accountant	1	500,000	500,000	6,000,000
Aqua Culture Fish Experts	1	600,000	600,000	7,200,000
Ponds Attendants	2	200,000	400,000	4,800,000
Fish Cages Attendants	2	200,000	400,000	4,800,000
Watchmen	4	150,000	600,000	7,200,000
Total Annual Wage Bill	11		3,300,000	39,600,000

TAKE FISH FARM LTD
FISH CAGE FARMING PROJECT
SOTA - SHIRATI MARA REGION
FISH PRODUCTION AND SALES

SCHEDULE VI
Tshs.

(a) Fish Cages Production Plan (30X30):

S/No.	Products	No. of Cages	Fish Stocks Per Pond	Fish Stock Density	Product Cycles	Total Production (PCS)
1	Tilapia	20	200,000	4,000,000	1	4,000,000
2	TOTAL	20		4,000,000		4,000,000

(b) Fish Cages Production Plan (20x20):

S/No.	Products	No. of Cages	Fish Stocks Per Cage	Fish Stock Density	Product Cycles	Total Production (PCS)
1	Tilapia	5	100,000	500,000	1	500,000
2	TOTAL	5		500,000		500,000

(c) Fish Cages Production Plan (10X10):

S/No.	Products	No. of Cages	Fish Stocks Per Cage	Fish Stock Density	Product Cycles	Total Production (PCS)
1	Tilapia	11	40,000	440,000	1	440,000
2	TOTAL	11		440,000		440,000

(d) Sales Plan:

S/No.	Products	Total No. of Cages	Annual Production PCS	Average Weight	Selling Price/ Pc	Total Sales Value
1	Fish Cages	36	4,940,000	500gms	2,500	12,350,000,000
2	TOTAL		4,940,000			12,350,000,000

TAKE FISH FARM LTD
FISH CAGE FARMING PROJECT
SOTA- SHIRATI MARA REGION
FISH FEEDING COSTS

A: FISH FEEDING COSTS (Rorya Fish Cages):

S/No	Period	Fish Weight Range (g)	Fish Mean Weight (g)	Feeding Rate (%) Body Weight / Day	Qty of Feeds Required (gms) / day	Period (Days)	Qty of Feeds Required (gms) / Period	Qty of Feeds Required (kgs) / Period	Stocking Density / Cycle Survival (80%)	Qty of Feed Required (kgs) / Cycle	Qty of Feed Required (kgs) / 2 cycles	Feeds Costs Tshs / kg	Amount Tshs
1st wk -1Month		<100	100	8.0%	8	30	240.0	0.2	3,952,000	948,480	1,896,960	450	853,632,000
2nd Month		100 - 200	150	7.0%	11	30	315.0	0.3	3,952,000	1,244,880	2,489,760	450	1,120,392,000
3rd Month		201-300	250	6.0%	15	30	450.0	0.5	3,952,000	1,778,400	3,556,800	450	1,600,560,000
4th Month		301-600	450	3.0%	14	30	426.0	0.4	3,952,000	1,600,560	3,201,120	450	1,440,504,000
5th Month		601 -700	650	2.0%	13	30	390.0	0.4	3,952,000	1,541,280	3,082,560	450	1,387,152,000
6th Month		701 -850	750	1.5%	11	30	337.5	0.3	3,952,000	1,333,800	2,667,600	450	1,200,420,000
TOTAL										8,447,400	16,894,800		7,602,660,000

B: BROOD STOCK MANAGEMENT COSTS
Management Costs

Cages	36	Cost / Tshs /Cage Costs /2 cycles	50,000	3,600,000
TOTAL DIRECT COSTS				7,606,260,000

C: FEEDS COMPOSITION

S/No.	Feeds Composition:	Cost / Tshs / Kg
1	Sardines - (Dugan)	1,200
2	Seed Cake	500
3	Huaka	200
4	Sunflower	500
5	Fish Wastes (Panky)	300
6	Total Cost	2,700
	Average Costs	450

SCHEDULE VII

FISH TAKE FARM LTD
FISH CAGE FARMING PROJECT
SOTA - SHIRATI MARA REGION
OPERATING EXPENSES

SCHEDULE VIII

Tshs. '000'

PARTICULARS	2023/24	2024/25	2025/26	2026/27	2027/28
SELLING EXPENSES:	1	2	3	4	5
Salaries & Wages	39,600,000	40,392,000	41,199,840	42,023,837	42,864,314
NSSF Employers Contribution	3,960,000	4,039,200	4,119,984	4,202,384	4,286,431
Traveling & Transport	5,200,000	5,304,000	5,410,080	5,518,282	5,628,647
Directors Remmuration	12,000,000	12,240,000	12,484,800	12,734,496	12,989,186
MV Repair & Maintenance	2,200,000	2,244,000	2,288,880	2,334,658	2,381,351
Fuel, Oil & Lubricants	7,500,000	7,650,000	7,803,000	7,959,060	8,118,241
Tyres & Tubes	720,000	734,400	749,088	764,070	779,351
Water & Electricity	600,000	612,000	624,240	636,725	649,459
Licence & Fees	1,000,000	1,020,000	1,040,400	1,061,208	1,082,432
Bank Charges	200,000	204,000	208,080	212,242	216,486
TOTAL ADMN. COSTS	72,980,000	74,439,600	75,928,392	77,446,960	78,995,899

**FISH TAKE FARM LTD
FISH CAGE FARMING PROJECT
SOTA - SHIRATI MARA REGION
BUSINESS REVENUE PROJECTIONS**

**SCHEDULE IX
Tshs.**

YEAR	2023/24	2024/25	2025/26	2026/27	2027/28
	1	2	3	4	5
A: FISH FARM SALES:					
Sales Value	4,940,000	5,038,800	5,139,576	5,242,368	5,347,215
Survival Rate (%)	80%	80%	80%	80%	80%
Projected Production (Pcs)	3,952,000	4,031,040	4,111,661	4,193,894	4,277,772
Selling Price / Pc	2,500	2,500	2,500	2,500	2,500
Sales Value	9,880,000,000	10,077,600,000	10,279,152,000	10,484,735,040	10,694,429,741

FISH TAKE FARM LTD
FISH CAGE FARMING PROJECT
SOTA- SHIRATI MARA REGION
PROJECTED INCOME STATEMENT

SCHEDULE X

Tshs. '000'

Particulars / Year	2023/24 1	2024/25 2	2025/26 3	2026/27 4	2027/28 5
Fish Sales	9,880,000	10,077,600	10,279,152	10,484,735	10,694,430
Less: Direct Costs					
Fish Feeding Costs (Cages)	7,606,260	7,758,385	7,913,553	8,071,824	8,233,260
Total Direct Costs	7,606,260	7,758,385	7,913,553	8,071,824	8,233,260
Gross Profit	2,273,740	2,319,215	2,365,599	2,412,911	2,461,169
Gross Margin %	23%	23%	23%	23%	23%
Less: Oprating Overheads					
Administrative Costs	72,980	74,440	75,928	77,447	78,996
Operating Income	2,200,760	2,244,775	2,289,671	2,335,464	2,382,173
Less: Capital Charges					
Depreciation	323,875	323,875	323,875	323,875	323,875
Interest on Term Loan	234,900	187,920	140,940	93,960	46,980
Total	558,775	511,795	464,815	417,835	370,855
Profit Before Tax	1,641,985	1,732,980	1,824,856	1,917,629	2,011,318
Tax Provision	328,397	346,596	364,971	383,526	402,264
Net Profit After Tax	1,313,588	1,386,384	1,459,885	1,534,103	1,609,055
Retained Earnings	1,313,588	2,699,972	4,159,857	5,693,960	7,303,015

**FISH TAKE FARM LTD
FISH CAGE FARMING PROJECT
SOTA -SHIRATI MARA REGION
WORKING CAPITAL REQUIREMENT**

SCHEDULE XI

Tshs.'000'

YEAR	2023/24	2024/25	2025/26	2026/27	2027/28
Current Assets:	1	2	3	4	5
Debtors (1 Month)	411,667	419,900	428,298	436,864	445,601
Direct Costs (1 Month)	2,535,420	2,586,128	2,637,851	2,690,608	2,744,420
Total	2,947,087	3,006,028	3,066,149	3,127,472	3,190,021
Less:					
Current Liabilities:					
Trade Creditors	2,492,087	2,551,028	2,611,149	2,672,472	2,735,021
Total	2,492,087	2,551,028	2,611,149	2,672,472	2,735,021
Net Working Capital Requirement	455,000	455,000	455,000	455,000	455,000
WMC Increase	455,000	0	0	0	0
Working Capital Requirement	455,000				

**TAKE FISH FARM LTD
FISH CAGE FARMING PROJECT
SOTA - SHIRATI MARA REGION
ANNUAL CASH FLOW**

SCHEDULE XII

Tshs. '000

YEAR	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
INFLOWS	0	1	2	3	4	5
Equity	1,115,000	0	0	0	0	0
Term - Loan	2,610,000	0	0	0	0	0
Depreciation	0	323,875	323,875	323,875	323,875	323,875
Net Profit After Tax	0	1,313,588	1,386,384	1,459,885	1,534,103	1,609,055
TOTAL INFLOWS	3,725,000	1,637,463	1,710,259	1,783,760	1,857,978	1,932,930
OUTFLOWS						
Investment & Re-investments	3,725,000	0	-	-	-	-
Increase in W/Capital	-	-	-	-	-	-
Term Loan Repayment	0	522,000	522,000	522,000	522,000	522,000
TOTAL OUTFLOWS	3,725,000	522,000	522,000	522,000	522,000	522,000
NET CASH FLOW	-	1,115,463	1,188,259	1,261,760	1,335,978	1,410,930
Opening Balance	0	-	1,115,463	2,303,722	3,565,482	4,901,460
CLOSING CASH BALANCE	-	1,115,463	2,303,722	3,565,482	4,901,460	6,312,390

TAKE FISH FARM LTD
FISH CAGE FARMING PROJECT
SOTA - SHIRATI MARA REGION
BALANCE SHEET PROJECTIONS

SCHEDULE XIII
 TSHS. '000

YEAR	2023/24	2024/25	2025/26	2026/27	2027/28
	1	2	3	4	5
Fixed Assets at Cost	3,270,000	3,270,000	3,270,000	3,270,000	3,270,000
Less: Acc. Depreciation	323,875	647,750	971,625	1,295,500	1,619,375
Net Fixed Assets	2,946,125	2,622,250	2,298,375	1,974,500	1,650,625
Current Assets					
Cash	1,115,463	2,303,722	3,565,482	4,901,460	6,312,390
Debtors	411,667	419,900	428,298	436,864	445,601
Other Assets	2,535,420	2,586,128	2,637,851	2,690,608	2,744,420
Total	4,062,550	5,309,751	6,631,631	8,028,932	9,502,411
Current Liabilities					
Overdraft Facility	0	0	0	0	0
Creditors	2,492,087	2,551,028	2,611,149	2,672,472	2,735,021
Sub Total	2,492,087	2,551,028	2,611,149	2,672,472	2,735,021
Net Current Assets	1,570,463	2,758,722	4,020,482	5,356,460	6,767,390
Total Assets	4,516,588	5,380,972	6,318,857	7,330,960	8,418,015
Long Term Liabilities					
Term Loan	2,088,000	1,566,000	1,044,000	522,000	0
Net Total Assets.	2,428,588	3,814,972	5,274,857	6,808,960	8,418,015
Represented by:					
Equity	1,115,000	1,115,000	1,115,000	1,115,000	1,115,000
Retained Earnings	1,313,588	2,699,972	4,159,857	5,693,960	7,303,015
Total Assets	2,428,588	3,814,972	5,274,857	6,808,960	8,418,015
	0	0	0	0	0

TAKE FISH FARM LTD
FISH CAGE FARMING PROJECT
SOTA - SHIRATI MARA REGION
FINANCIAL RATE OF RETURN

SCHEDULE XIV
Tshs. ' 000

YEAR	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
CASH INFLOWS						
Net Profit After Tax	0	1,313,588	1,386,384	1,459,885	1,534,103	1,609,055
Depreciation	0	323,875	323,875	323,875	323,875	323,875
Interest on Term Loan	0	234,900	187,920	140,940	93,960	46,980
Salvage Value(Fixed Assets)	0	0	0	0	0	0
TOTAL INFLOWS	-	1,872,363	1,898,179	1,924,700	1,951,938	1,979,910
OUTFLOWS						
Investment & Re-investments	3,725,000	0	0	0	0	-
Increase in W/Capital	0	455,000	-	-	-	-
TOTAL OUTFLOWS	3,725,000	455,000	0	0	0	0
NET CASH FLOW	(3,725,000)	1,417,363	1,898,179	1,924,700	1,951,938	1,979,910
Discount Rate	10%					
Discount Factor at 10%	1.000	0.909	0.826	0.751	0.683	0.621
Net Present Value	(3,725,000)	1,288,383	1,567,896	1,445,449	1,333,174	1,229,524
NPV at 10%	3,139,426					
Discount Rate	20%					
Discount Factor at 20%	1.000	0.833	0.694	0.579	0.482	0.402
Net Present Value	(3,725,000)	1,180,663	1,317,336	1,114,401	940,834	795,924
NET PRESENT VALUE at 20%						
	31,394,261					
	1,515,267					
	21%					
IRR =					31%	