Tanlake Samaki Limited

Cage Aquaculture Project

Business Plan

1 EXECUTIVE SUMMARY

Tanlake Samaki Ltd will be commencing the first large scale cage aquaculture project in the Tanzanian portion of Lake Tanganyika. The aquaculture sector in East Africa has been increasing dramatically with large projects such as Lake Harvest and Victory farms showing great potential. Tanzania has yet to capitalise on this trend and Tanlake Samaki Ltd aims to help drive the sector forward.

A summary of the project is below.

- To be registered under TIC in Tanzania.
- Stage 1 production is 500T which will be achieved 24 months into the project.
- Stage 2 production is 3000T achieved 48 months into the project.
- Stage 3 will include feed production, and other processing activities.
- Outside invested capital (not including capital reinvested from internal cash flows) to be 3,000,000 USD over the first 48 months.
- Sales throughout the region including Tanzania, Burundi, Rwanda, DRC and Kenya through owned retail and wholesale distribution channels.
- EBITDA from year 6 onwards approx. 3M usd/annum
- Over 200 employees from year 4.

Contents

1 Executive Summary 1
2 Business Description 3
3 Market 4
3.1 Competitive Analysis 4
3.2 Customer Analysis 5
3.2.1 Local 5
3.2.2 Regional 6
3.2.3 International 7
3.3 Pricing Strategy 7
4 Operations Plan 8
4.1 Location 8
4.2 Funds 8
4.3 Sourcing 8
4.4 Personnel Requirements 8
4.5 Initial Facility Requirements 9
4.5.1 Floating cages 9
4.5.2 Onshore hatchery facility 10
4.5.3 Additional facilities 12
5 Appendices 14

2 BUSINESS DESCRIPTION

The business proposal is for a cage aquaculture project to be operated in Lake Tanganyika, Kigoma Rural district. Cage aquaculture has been seen as a pillar of the blue economy, by providing large amounts of aquatic meat protein without putting additional pressure on natural fisheries. Lake Tanganyika is an enviable location for this project due to the market dynamics, bathometrics, and positive business environment.

The project will comprise of 3 primary activities:

1. Hatchery Operations – to selectively breed and provide fingerlings.
2. Grow-out Operations – growing the fish from fingerlings to harvestable size.
3. Cold-chain and Sales – logistics and sales operations for the end product.

Later, once operations are going well, it will be assessed to see if additional value addition and vertical integration can be done. This would include, but not be limited to:

4. Fish Processing – filleting and processing of the fish into higher value products.
5. Feed Production – using a feed mill to make floating feeds which do not currently exist in Tanzania.

In addition, our company will potentially conduct the following activities which will be related to our aquaculture operations:

6. Farming to assist in producing feeds.
7. Production and processing of related products.
8. Service and input sales to related businesses.
9. Other cold chain related operations.
10. General trading activities.

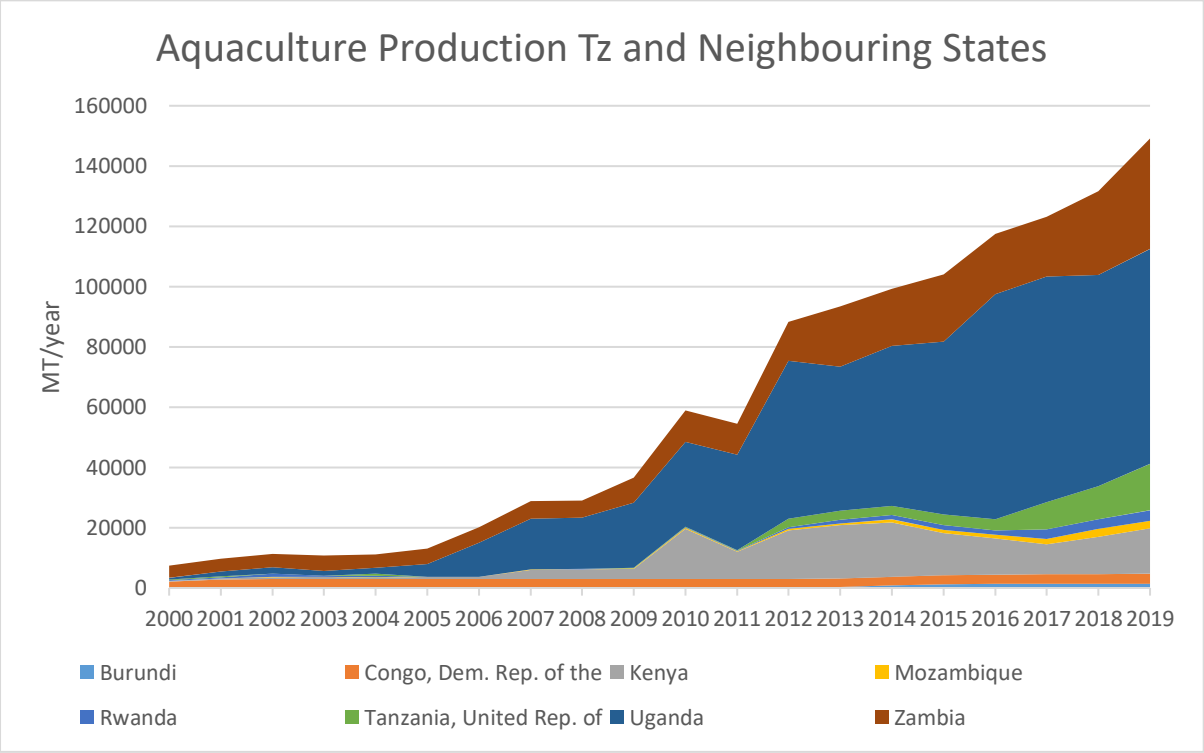
Oreochromis Tanganicae, the species to be farmed in the Tanlake Samaki Ltd operations in Lake Tanganyika.

3 MARKET

3.1 COMPETITIVE ANALYSIS

Currently competition comes from locally caught fish, locally and regionally farmed fish (primarily in ponds) and from imports. Due to the high tariffs on imported fish from places like China this gives a good market price in just the wholesale market.

Regional aquaculture production is led by Uganda, however total production has increased from less than 10,000T/annum in 2000 to over 150,000T/annum today. Tanzania, being the most populous country in the region has a long way to go, with goals by the national government of 50,000T of production by 2030 from 18,000T in 2020.



Regional aquaculture production by country. Even though Tanzania is the second most populous, production lags behind other countries.

There are examples of large scale cage aquaculture companies in Mozambique, Zambia, Kenya, Uganda and Rwanda. Currently Tanzania is lagging in developed aquaculture, even though the water bodies which are accessible are of better quality. Inputs which need to be imported can also be brought in from the international shipping port in Dar es Salaam as well as through regional borders (such as for feeds from Zambia). Tanzania has huge potential for aquaculture and is in a great position to be leading East Africa in this sector.

3.2 Customer Analysis

Due to the enviable location of Kigoma there are a number of potential markets which can be accessed with differing levels of complexity; these have been split up into Local, Regional and International and are described in greater detail below.

Map of Tanzania with Kigoma on West near Burundi, potential export markets of Burundi, DRC and Tanzania will be the initial target markets.

3.2.1 Local

The local and proximate regional markets are immediate markets which can be accessed via road with non-refrigerated trucking (pre-cool and insulated containers will be used to lower costs). This includes the greater Kigoma region, Tabora, Shinyaga and Rukwa.

Women selling fish in a Kigoma market.

3.2.2 Regional

This includes the rest of Tanzania with the primary market being Dar es Salaam as well as nearby countries which can be reached via road or shipping along Lake Tanganyika, as these are further afield additional cold chain in the form of ice and refrigerated transport is required for the journey and so additional capital would be needed to service these locations.

Regional shipping boats at Kibirizi, on Lake Tanganyika discussions with traders confirm that produce from here is sent throughout Lake Tanganyika including the DRC and Burundi.

3.2.3 International

The international market is comprised of countries and locales which are further afield and would need to be reached either by refrigerated container shipping or air freight. Potential markets include Europe, Middle-East and Asia.

3.3 PRICING STRATEGY

Pricing will be dependent upon market considerations. As Tilapia is deemed a commodity product in many segments of the market initially the company will accept the market pricing until branding on the superior fish quality can be established. Estimated market pricing selling to wholesalers will be approximately 6,000 to 9,000 Tzs/kg. With B2B sales through HORECA (hotels, restaurants, and catering) giving pricing closer to 9,000-15,000 Tzs/kg.

A thorough market study has been conducted on the prices of tilapia sold through different markets in Tanzania, this has given the pricing indications shown above which long term trends have also shown to be increasing as demand for whole fish increases.

Direct retail and value-added products will be expanded upon, with retail chain stores selling fresh fish direct to local consumers in differing cuts.

4 OPERATIONS PLAN

The operations will be commenced in three separate stages.

1. Pre-project planning and licencing. This will involve registering the project with TIC, finalising land requirements, conducting an ESIA with NEMC and gaining all other permits and licences which are required for the operation of a cage aquaculture project in Lake Tanganyika.
2. Initial investment to bring the project to 500T per annum production and set up the hatchery and cold chain operations. This will be for the first 24 months of the project. Initial retail shop fronts will also be set up during this phase.
3. Additional investment to bring total production to 3000T per annum with an expanded cold chain.
4. Final investment will possibly include a feed mill with processing facility for increased value addition on site.

4.1 LOCATION

The desired location is adjacent to Kiseke town in Kigoma Rural District. A plot of land is currently being negotiated with the owners, the village and the district to be titled for the use of Tanlake Samaki Ltd. The plot has lake frontage and the cages will be located in water of approximately 10-20m water depth between 100 and 400m from the shoreline.

4.2 FUNDS

Funding for stage 1 will come from equity investment from shareholders with stage 2 and 3 funding to either come from equity or debt financing which is still finalising negotiation. Internal cash flows will be reinvested into the business.

Estimated equity input by stage:

Pre-funding and scoping – 100,000 USD

Stage 1 – 1,450,000 USD

Stage 2 – 1,450,000 USD

Stage 3 (provisional) – 1,500,000 USD

4.3 SOURCING

Capital equipment will be sourced from Tanzania and EAC where possible and economically feasible. Otherwise, specialised equipment will be sourced from China and Turkey, both countries have strong aquaculture industries, and low manufacturing costs. Other projects in Sub-Saharan Africa (Zambia, Kenya, Mozambique, Rwanda) have sourced from the same manufacturers.

4.4 PERSONNEL REQUIREMENTS

The project will be looking to hire on over 200 personnel by the 6th year of operations for aquaculture production operations.

Years from start	1	2	3	4	5	6	7	8
Local Employees	36	54	102	134	183	300	300	300
Expatriate experts	2	2	3	3	3	6	6	6

4.5 Initial Facility Requirements

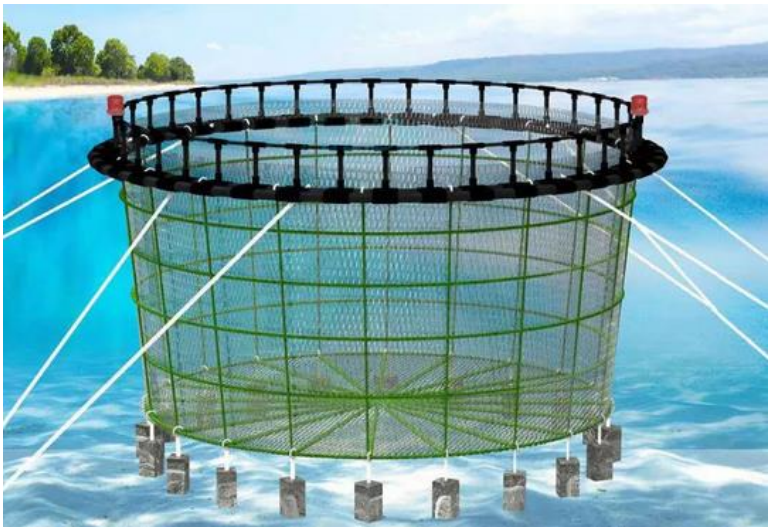
The facility will be primarily comprised of:

1. Floating cages in the lake where the fish will be grown.
2. Onshore hatchery facility.
3. Cold store, ice production facility, offices and warehousing.

4.5.1 Floating cages

The floating cages to be used will consist of floating HDPE piping which has been welded closed with nylon netting. The size will be from 6m to 12m in diameter. They will be anchored to the ground to ensure they stay in the correct location. A picture of a common cage setup is shown below.

Cages floating in formation



Typical cage setup with net shown below as an example

4.5.2 Onshore hatchery facility

Needed as there are no commercial hatcheries operating in Kigoma, this part of the project will be aimed at producing fingerling until they are the correct size to put into the floating cages (after approximately 4-8 weeks after hatching.

The hatchery will include ponds for brood stock, a small hatchery complex, and small ponds to nurse the fry into fingerlings. Pictures below indicate what some of these will look like. At 3,000T of production, the operation will require approximately 10 Ha of land dedicated to ponds.

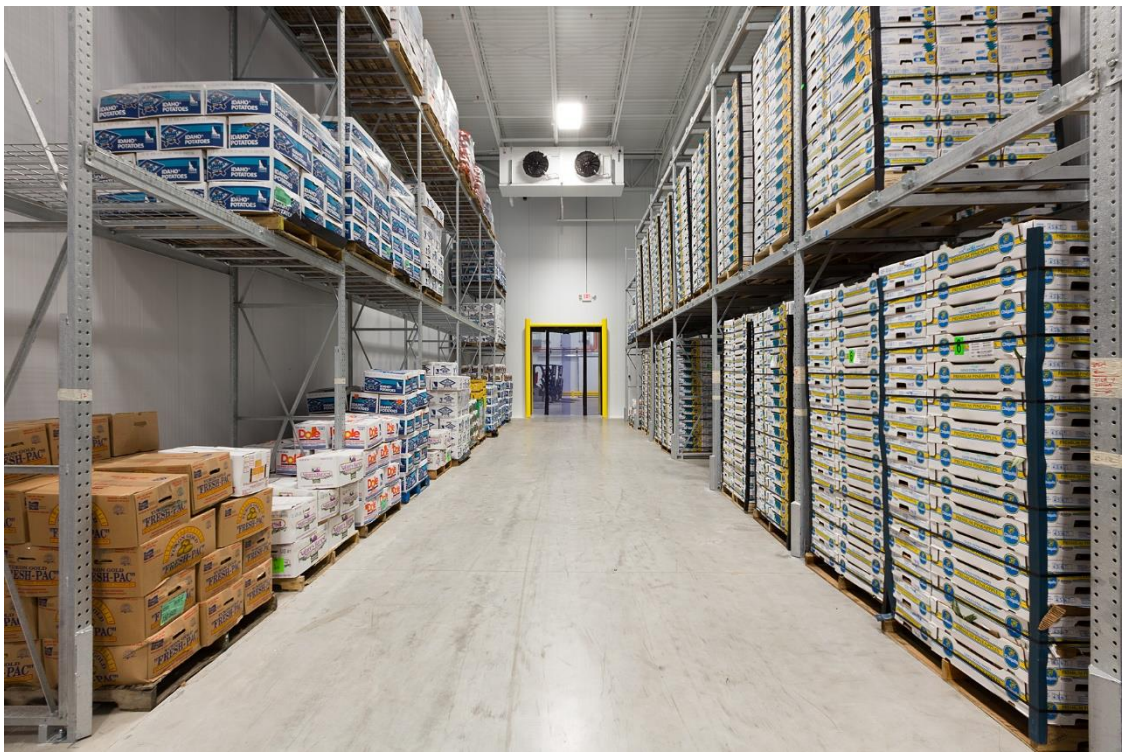
Examples from different hatchery setups, showing incubation setups for hatching eggs.

Artificial ponds made for broodstock

4.5.3 Additional facilities

In addition to the primary aquaculture facilities, additional equipment and facilities will be required to conduct the operations. These include a cold store, ice production facility, site offices and warehousing. This will all be onsite, so that better supervision of the aquaculture operations can be conducted.

Example of Stage 1 warehouse inside of which the initial cold store would be placed to reduce energy usage.



Stage 2 cold store

Rendered view of envisioned packaging facility with combined offices.

5 APPENDICES

List of items requested for Tax exemption

Cash flow projections

Income statement

Balance sheet

Land location description and layout of activities