September 2023

Background

Tanlapia Ltd ("Tanlapia") is a large-scale aquaculture project in Bagamoyo. Our primary product is whole, gutted tilapia for the domestic market.

With its strategic location and state-of-the-art technology, Tanlapia has demonstrated that it is well positioned to meet the strong and growing demand for fresh fish in Dar-es-Salaam and Tanzania as a whole.

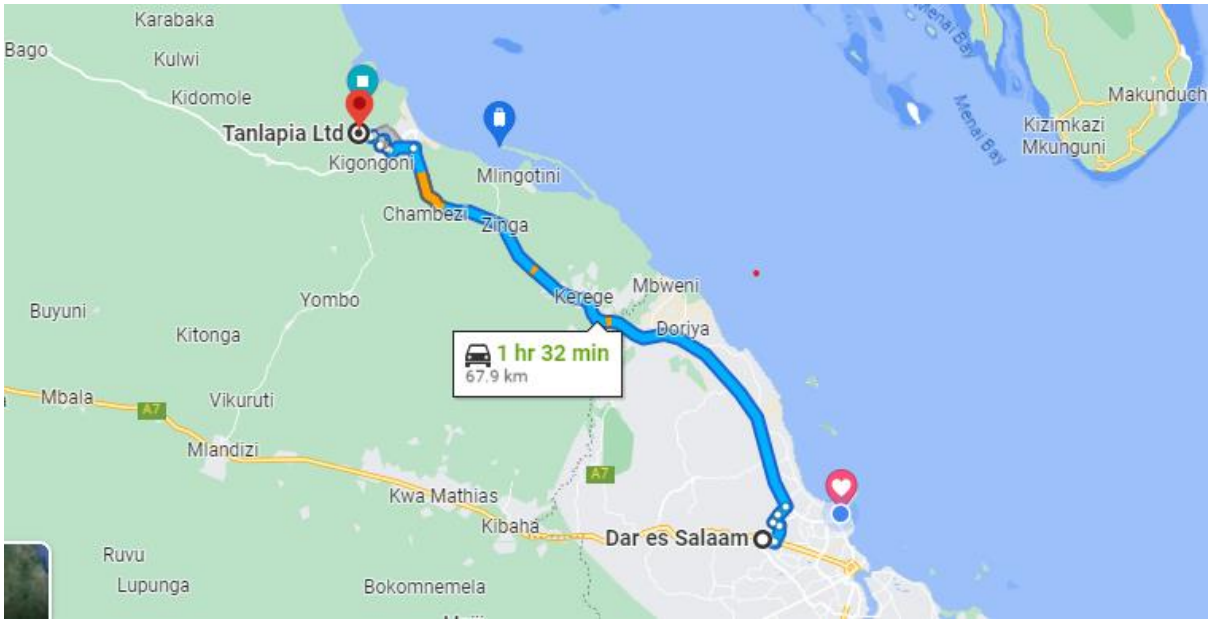
- *In less than three years of operations, we have grown to become the largest producer of Tilapia in the country.*

IPRS cells, Tanlapia, Bagamoyo

Location

One of Tanlapia's key advantages is its location: we are based on a 600-hectare farm in Kingani, Bagamoyo, on the floodplains of the perennial Ruvu River and less than two hours from downtown Dar-es-Salaam. We harvest our fish and transport it to our retail location in Ubungo within a few hours, making our fish the freshest available, with the lowest logistics costs. This allows us to be highly competitive on both price and quality. (For comparison, Mwanza is an expensive 18-hour drive in refrigerated truck from Dar-es-Salaam.)

- *To date we have used less than 10% of the available land – we have ample room for expansion and diversification.*



Strategy & Mission

Since breaking ground in 2020, Tanlapia has grown rapidly and now produces **over 30 metric tonnes (MT) of fish per month**, making us the largest producers of Tilapia in the country.

Farida Buzohera – Hatchery Manager

Our target:

- Current: 30+ MT/month (360 MT/year)
- Mid 2024: 100 MT/month (1,200 MT/year)
- Mid 2025: 200 MT/month (2,400 MT/year)
- Mid 2026: 300 MT/month (3,600 MT/year)

These are achievable targets.

➢ *We have demonstrated we can produce fish at a large scale and that there is massive unmet demand in Dar-es-Salaam and surrounding areas.*

Tanlapia plays an active role in the community and frequently hosts students and delegations from Sokoine University of Aquaculture and other institutions.

We are proud to have been chosen as a stop for the Uhuru Torch in 2022.

➢ *The company is built around a core belief that its actions and production technology must be sustainable and provide opportunities to all Tanzanians, including women and children.*

The Market

Tanzania's fish consumption is less than half the global average, and wild fish stocks are under pressure from overfishing. The government's immediate goal is to increase that to half the global average. This will require an additional 110,000 MT of fish according to Dr Madalla, Director of Aquaculture at the Ministry of Livestock and Fisheries. The shortfall will need to come overwhelmingly from aquaculture.

We sell both wholesale (over 500kg per order) and retail. Our proportion of retail is increasing, and the target is to be around 70% retail and 30% wholesale.

Mama Ntilias forms a main part of our loyal customer base and on harvest days the queue can been seen stretching out from the shop front. Mama Ntilias cooks our fish and sell it on to the city's residents and workers.

We are very proud that our product helps to provide a valuable income stream for women in the city.

Customer of Tanlapia in Bagamoyo with our Refrigerated Truck

There is also a large untapped international market we intend to engage with, within 18 months. This would involve us securing certain certifications. Possible export markets include South Africa, Congo and Europe.

The Technology

Globally over 45% of fish is now farmed, up from 25% just 10 years ago[1]. This is a huge transformation in our society, which can be compared to the move from hunting to domestication of livestock. This trend will continue and even accelerate going forward.

Our farm uses a hybrid system consisting of:

- Open hatchery ponds for low-tech reliable production of eggs in the hatchery (0-5g)
- Semi-intensive ponds with aeration for nursery stage, growing, (5g-50g)
- In-Pond Raceways System (IPRS) or semi-intensive ponds with aeration for grow-out from 50g to market size (usually 330g-350g)

IPRS is a state-of-the-art aquaculture technology. Fish are held in 'cells' which are cement-sided, mesh-ended cages within larger ponds. Water is circulated through the cells and pond with the help of electrically powered aerators. This simulates a river, allowing the areas outside of the cells to act like a large biofilter. This keeps the fish healthy and allows them to be closely monitored for any signs of disease or stress. It also reduces feed loss, which is key for a successful farm.

We currently have 28 cells in operation across two 6.5-hectare ponds, making us by far the largest IPRS system in Africa.

Night view of Tanlapia IPRS cells, Bagamoyo

We also make use of advanced aquaculture software to optimise our inputs and production of fish. Various water quality parameters (pH, dissolved oxygen, ammonia and others) and fish behaviour are monitored on an hourly basis and results recorded in the software. Our farm team makes adjustments or escalates as appropriate to ensure the fish are in optimal condition 24/7.

Energy

Given the high biomass, constant aeration is essential. We have TANESCO and also backup generators. Given the space available on the property, we intend to convert to solar or wind power. Talks have already commenced on this. With our planned expansion, by mid-2025 we expect to require at least 3 MW installed power.

[1] https://www.fao.org/3/cc0461en/online/sofia/2022/world-fisheries-aquaculture.html

Marketing

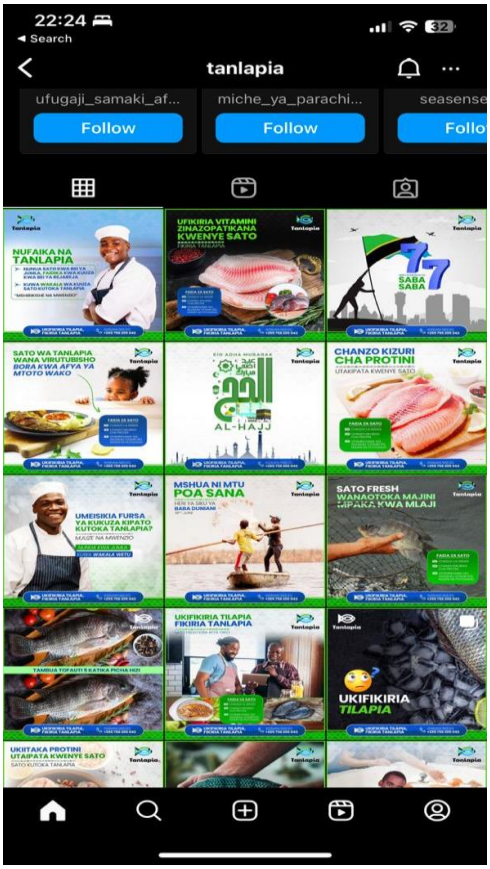
Tanlapia is unable to meet demand for its products. We have a depot in Ubungo near the established fish and poultry market. We currently harvest three times a week and sell out the same day.

Demand is so strong that we recently cut our marketing budget by over 80%, as we have established a loyal customer base.

On Saturdays we harvest, process and sell fish from the farm gate in Bagamoyo. This is to maintain good relationships with our neighbours and contribute to development in the local area. Processing is carried out in Bagamoyo by 20-30 casual labourers (mostly women), creating much needed employment in the area.

We have a dedicated sales and marketing team operating out of Ubungo. Fish is marketed via social media, dedicated whatsapp chats and direct calls to customer. We have established relationships with most large buyers in the country, and our Mama Ntilia network continues to grow by word of mouth.

Our longer-term plan is to open a network of depots across Dar-es-Salaam and beyond.



Tanlapia Instagram Posts

As mentioned above, we also intend to explore exporting fish to the SADC region and Europe in due course, but our current focus is Tanzania.

Financing

Our audited accounts for the last financial year (2022) are available upon request.

Some of the highlights are:

- Net Total Equity and Liabilities increased from USD 2.64million in 2021 to USD 4.040million in 2022.
- Revenue increased from USD0.42million in 2021 USD 0.228 million in 2022. To date (End of August 2023) our sales for the year exceed USD0.318million . We are on target to break revenues of over USD 0.520million in 2023.
- Our net assets are positive by over USD 0.520million despite our investment and development program.
- Our non-current assets exceed our total liabilities.

To date we have been financed by private investors and by CRDB and TADB, with CRDB providing working capital and TADB providing funds for capital expenditure.

Source (Up to September 2023)	Amount (including accrued interest) USD
Equity as cash	**524,684**
Contributed property (internal valuation)	1,545,433
Directors & Shareholder's Loans	2,085,823
CRDB	499,200
TADB	752,603
TOTAL	5,407,743

Current Status

Our current production infrastructure is:

- 4 'A' ponds – 30m * 60m
- 4 'B' ponds – 160m* 60m
- 6 'C' ponds – 100m * 30m
- 2 IPRS ponds – each about 10 hectares, with 14 IPRS cells.
- an office block (75% completed),
- a processing building with ice flake machine (80% completed and operational)
- storage warehouse (completed)
- 2nd storage (60% completed)

We also have a storage depot in Ubungo in Dar es Salaam with a 30 MT-capacity cold room and a 12 MT refrigerated truck to maintain the cold chain as we transport fish from the farm to market.

Funding Requirement & Expected Returns

Tanlapia intends to implement a phased approach, reaching 300 MT per month over the next 3 years. Our investment requirement is as follows:

(a) In US$ (exchange rate of US$ = 2,500 TZS):

Investment Required to Produce:	Phase 1 (100MT)	Phase 2 (200MT)	Phase 3 (300MT)
CAPEX, US$	448,077	1,388,846	1,275,000
Feed CAPEX, US$	1,538,462	-	-
Financing Costs, US$	423,077	346,154	461,538
TOTAL Expenses Expected to Be Covered by External Funds, US$	2,409,615	1,735,000	1,736,538
Requested funding amount, US$	**2,500,000**	**1,750,000**	**1,750,000**

As mentioned, Tanlapia is currently producing over 30 MT of fish per month from sales of fish in the local market***. Revenues in August 2023 were over USD 0.128 million.*** Our calculations show that we will be able to cover feed expenses and operational expenses from our own cash flow from 100 MT/month onwards, hence these amounts are not included in the table above.

Phase 1: 100 MT per month by mid-2024

With some adjustments, the infrastructure we have in place is sufficient for us to produce over 100 MT a month of fish, which will enable us to break even and make a profit. We also intend to build specific infrastructure to support further phases of development.

With financial support of**(USD 2.5 million,** we will be able to achieve that goal by mid-2024.

These funds will be spent on both capital and operational expenses and to cover the financial costs:

- Building 7 ponds * 0.3 ha ponds USD0.056 million
- Building 8 ponds * 1.0 ha ponds USD 0.064 million
- Upgrading hatchery USD 0.060 million
- Improving water inflow and outflow USD 0.114 million
- Finish offices USD 2 million
- Finish processing USD 8.0 million
- Genset move USD 2.0 million
- New genset purchase and installation TZSUSD0.060 million
- Excavator & Tractor purchase USD ..100million
- Feed USD 1.600million
- Financing cost USD 0.440million

Phase 2: 200 MT per month by mid-2025

with an additional **USD 1.75 million** we will be able to:

- Finish 2 IPRS ponds of 16 cells each USD 0.960million
- Build 32 additional SI ponds USD 0.200 million
- Hatchery upgrade USD 0.070 million
- Equip processing to international standards USD 0.080 million
- Open sub-depots across Dar-Es-Salaam and its region (rent) USD 0.14 million
- Vehicles purchasing USD0.025 million
- Obtain certifications to allow us to export (generating foreign exchange) USD0.020million
- Genset purchase and installation USD 0.080 million
- Financing cost USD 0.360 million

These steps would enable us to produce over **200 MT of fish per month** for the local and international market. Margins would enable us to pay dividends or build up reserves for additional capital expenditure to further increase production.

Some members of Tanlapia's fish processing team

It also should be mentioned that during the Phase 2 we intend to develop a solar power project which will be funded separately. This will further reduce our energy costs and also has the potential to generate revenue for the Company. We have not included this in our cash flows.

Phase 3: 300 MT per month by mid-2026

with an additional **USD 1.75 million)** we would be able to:

- Finish 2 IPRS ponds of 16 cells each USD0.960 million
- Build 32 additional semi-intensive ponds USD0.200 million

- Hatchery upgrade USD 0.070 million
- Purchase 3 items of Tractors USD 0.096million
- Financing cost USD 0.480million

Future Plans

The total useable area of the farm is close to 600 hectares. The project described above represents 80 hectares in total plus another 5 hectares for solar/wind.

We can comfortably expand the farm to produce up to 10,000 MT of fish per year, and we will do so in step with demand.

We have an excellent opportunity to develop the farm into a sustainable industries park. Related projects we are assessing include:

- Crabs for export, using guts from the fish as feed
- Black soldier fly production in partnership with other local companies
- Catfish production in low-tech ponds
- Providing manure from the fish, which is an excellent fertiliser, to local agriculture ventures
- Once we get to a large enough size we can explore building a feed mill and supplying others
- Ecotourism opportunities
- Selling fingerlings to local small-scale farmers
- Create and operate a study centre for fish farmers which will provide a wide range of courses and studies regarding what technologies may be used for fish farming, what feeding charts to apply, what challenges there are and how to overcome them easily and quickly, etc.

Tanlapia hatchery and grow out ponds

Appendix 1: Team

JAVED MAWJI – Director & Chairman

Javed is an experienced entrepreneur with several active projects in Tanzania in varied sectors, ranging from agriculture to manufacturing and mining. Educated in Tanzania and the UK, he holds a Philosophy & Economics BA from University College London and an MBA from Edinburgh University. He lives in Dar es Salaam.

MAHIMBO MDOE – Chief Executive Officer

Over 20 years' experience in senior management roles in the United Nations, running large offices and operations in health and other service delivery in South Sudan, Malawi, Central African Republic and Sierra Leone. Successfully mobilized resources and oversaw effective implementation of donor funded projects worth more than 100 million USD, from government agencies, development banks and foundations, while also leading engagement with authorities. Previous experience of programme development and implementation in non-governmental organizations in Tanzania, DR Congo, and elsewhere. Degree in Business Administration from Universities of Canterbury and Huron, UK. Has been supporting Tanlapia with commercial advisory and as a Director/member of the Board since the launch of business operations in 2020.

BARAKA KALANGAHE – Farm & Development Director

Baraka has a degree in Marine Biology and Chemistry from University of Dar es Salaam and a Masters in Community Economic Development from Open University of Tanzania. More than 20 years of experience in managing donor funded development projects (USAID &EU) at senior positions (Director). Has been involved in the planning of this farm for the last 30 + years. Responsible for Farm Operation and Development.

ABDU SIMBA – Director

Studied History and Politics at London University, 30 years of experience in the media and communications sector, including head of the Tanzania Media Fund. Currently Board Director at Wananchi Communications, Ltd.

SALIM MNKONJE – Company Secretary & Legal Advisor

Renowned legal expert and adviser in business law in Tanzania. Advocate of the High Court of Zanzibar and member of the East African Law Society. Specializes in civil litigation, constitutional law and administrative law. Holds an LLB from the University of Dar es Salaam.

TATANIA ZHILINSKAYA – Chief Operations Officer

PhD in Accounting and Statistics, Charted Accountant (DipIFR by ACCA, UK, London), with over 13 years of auditing experience with companies in various sectors: IT, industry, construction, agriculture, tourism and others. Over 18 years of experience in business consultancy and tax advisory. Joined Tanlapia recently, in 2023.

HERVE LUCIEN BRUN – External Technical Consultant

Herve has over 40 years of experience in technical direction of aquaculture, including projects in Egypt, Ecuador and other fast-developing economies, including farming fish, shrimp and other species. Providing technical advisory to World Bank funded projects. Master's in Animal Physiology, specialized in marine animals.

SAMEER REMTULLA – Commercial Manager

Studied Business Administration at the University of Hertfordshire, with over 10 years of experience in the banking sector in local and multi-national banks. Specialized in corporate department, trade finance and treasury department. Working with Tanlapia for the past four years, overseeing the commercial department.

FARIDA BUZOHERA – Hatchery Manager

Diploma in aquaculture technology from Fisheries Education and Training Agency (FETA) in Mbegani, Tanzania. 6 years of experience in aquaculture and fisheries management. Specialized in aquaculture technology in fish farming. With Tanlapia for four years, in charge of the hatchery department and semi-intensive production.

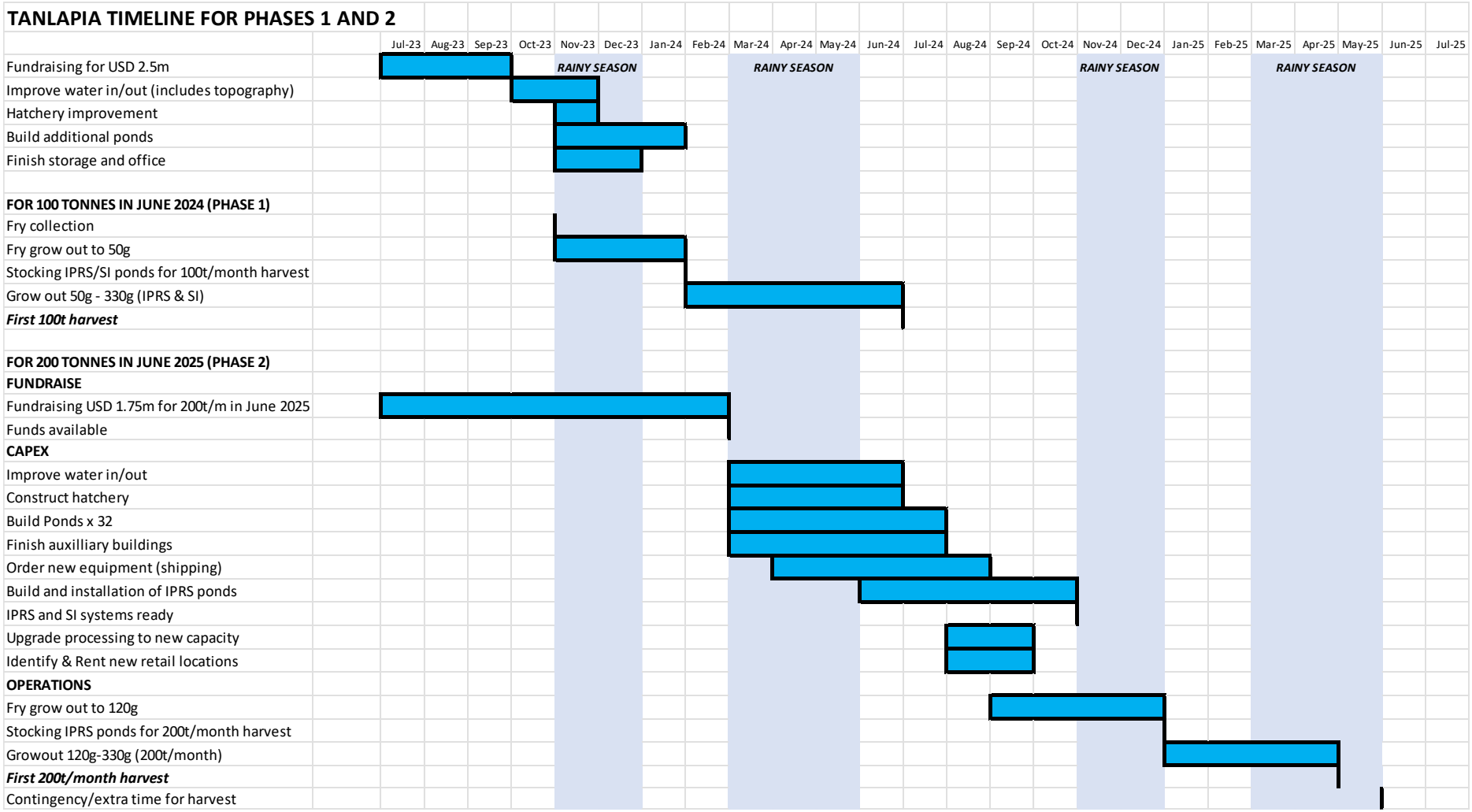
PETER MROPE – Farm Production Manager

Master's degree in Aquaculture from Zhejiang Ocean University, China, with over five years' experience in aquaculture, specialized in fish nutrition, breeding and production. Currently working with Tanlapia for the past two years, responsible for farm production using the in-pond raceway system (IPRS).

Appendix 2: Risks

RISK	MITIGATION
Competition – large, experienced competitors could aggressively enter the market	**We are currently the largest in Tanzania and we need to ensure we build up enough capacity to withstand and respond to any large-scale new entrant. We also have first mover advantage. Our location gives us another advantage. Diversification also key in the medium to long term. Any new project would take at least 18 months to enter the market.**
Costs – costs of inputs such as feed may in increase	**Good market knowledge and careful ordering. We stockpile several months of feed. So far it has been within acceptable range. Increases are likely to affect all feeds and all forms of protein. We will continue to be a high-quality, lower-cost protein.**
Biological	**Very close and careful monitoring of the health of the fish and making sure they are well fed to keep up immunity.**
Regulatory	**There could be changes in regulatory environment for example allowing imports or changing taxes. We are in close communication with the government to monitor this and make the case for the domestic aquaculture industry.**
Supply Chain (inputs)	**Supply chain for key inputs such as food. Make sure we have several suppliers and keep good amount of stock.**
Exchange rate	**USD may strengthen against the TZS making imports more expensive. Our strategy to mitigate is to start exporting sometime next year to earn foreign exchange. We are also making purchases in local currencies (not USD) where possible (for example from India and Kenya)**
People/Skills	**We have a highly experienced and dedicated team and we are well supported by internationally recognised consultants who can step in in the short term and also help us to identify suitably skilled people to join the team if needed. We also have a policy of hiring and training Tanzanians for key roles.**
Climate	**We have factored in that we may expect more extreme weather events. For example our dykes are at lease a metre higher than any recent tide.**
Power	**Power costs and reliability can be an issue. We currently have back up gensets and we are exploring transitioning to renewables (solar or wind).**

Appendix 3: Timeline



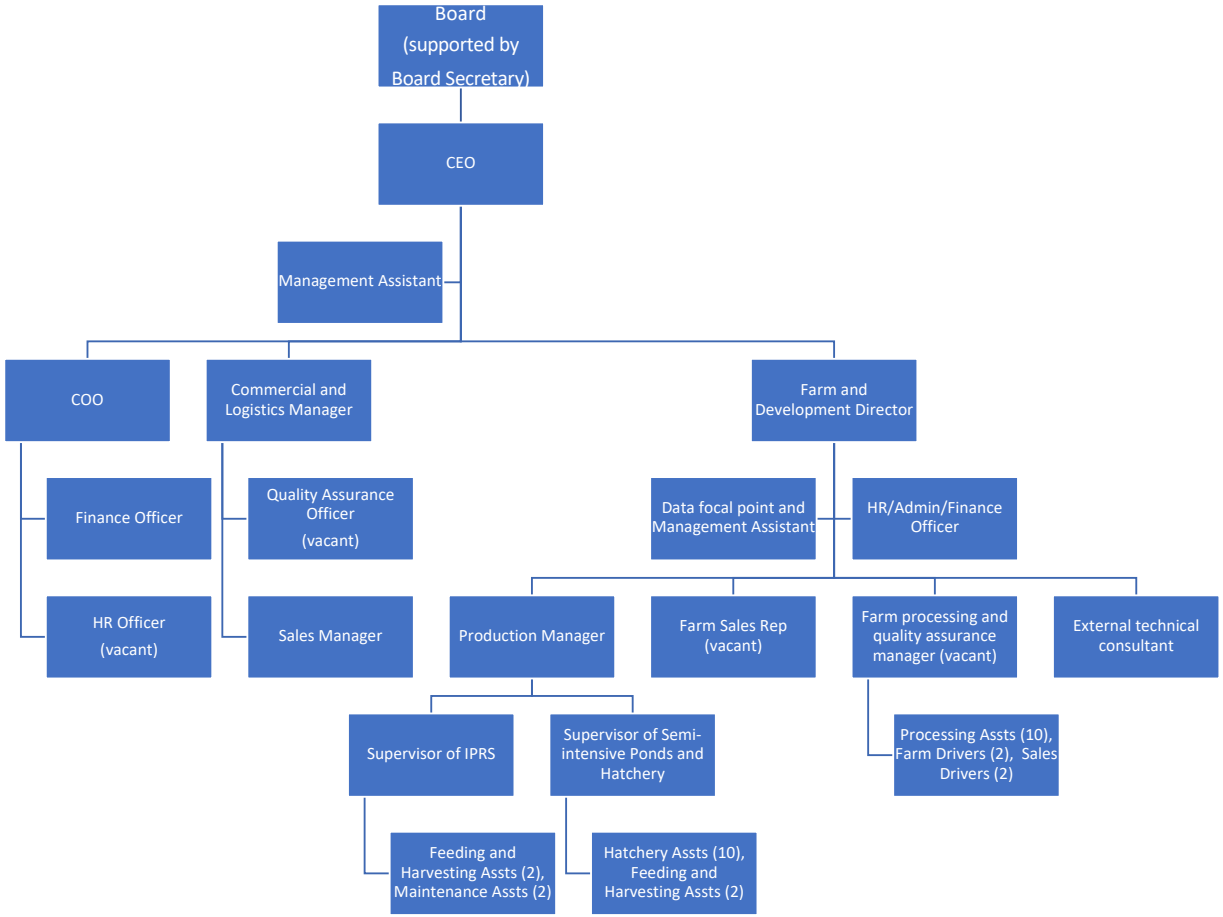
Appendix 4: Organisation Chart (up to 100MT)

Proposed Tanlapia Org Chart – Phase 1: 2023 and Q1-2 2024 (up to 100 MT)

Tanlapia

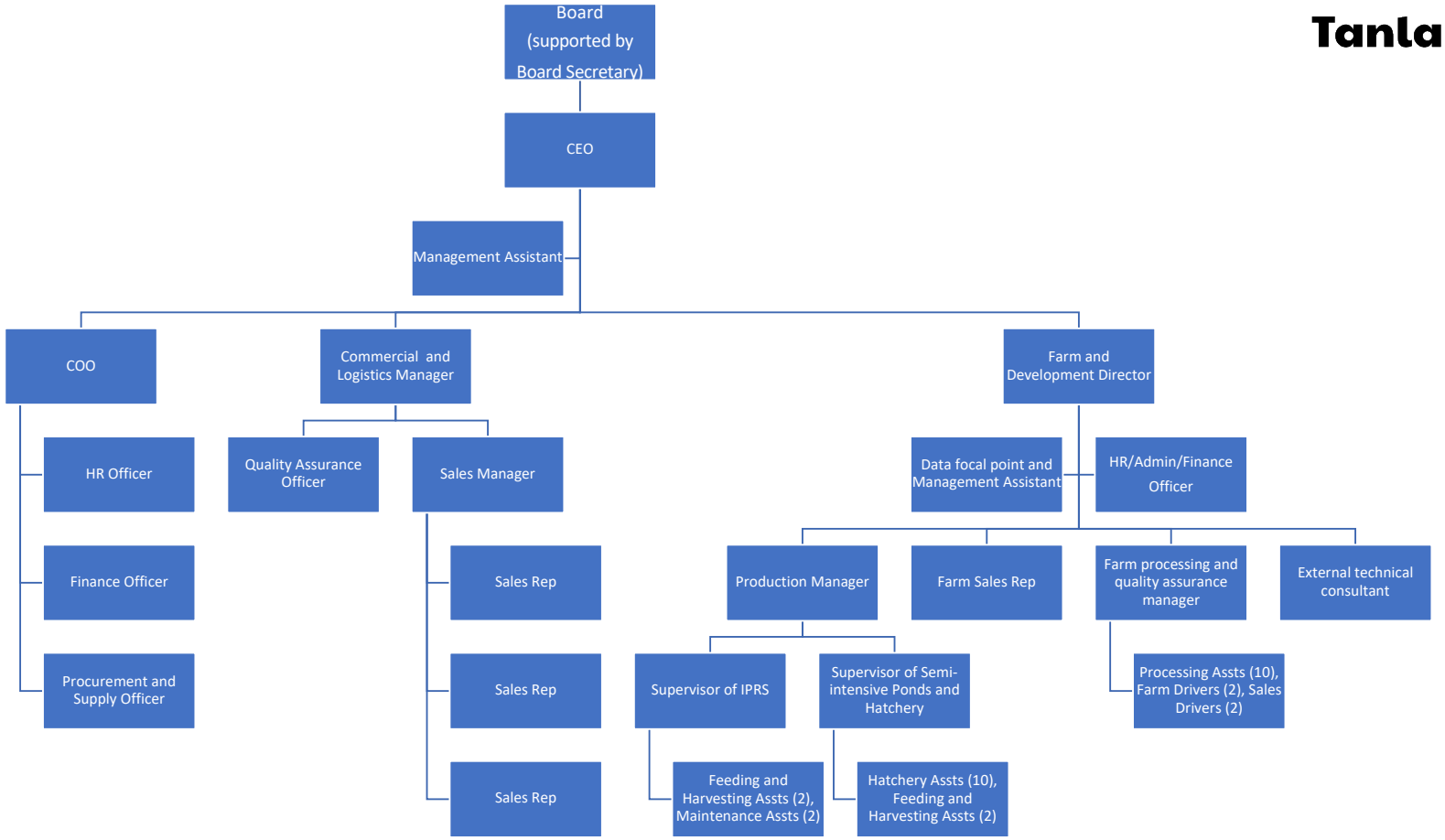
Interim arrangements:

- Commercial manager covers procurement and supply/logistics function
- Management assistant covers HR officer function
- Both above functions move to COO upon growth /hiring of dedicated officers
- Feeding, harvesting, maintenance, hatchery and processing assistants are currently employed as laborers; will be moved to contracts as 'Aquaculture technicians' during this period



Appendix 5: Organisation Chart (100+ MT)

Proposed Tanlapia Org Chart – Phase 2: Q3-4 2024 (100 MT+ production)



TANLAPIA LIMITED

ESTIMATED CAPITAL COST SUMMARY

US $

DESCRIPTION	Amount	TOTAL
Land and Building	1,084,938	1,084,938
Plant & Machinery&Bilogical assets	954,225	954,225
Furniture & Fittings	2,197	2,197
Vehicles	84,011	84,011
Pre-operational expenses	592,075	592,075
Others (Generator)	1,041,520	1,041,520
Working Capital	2,241,034	2,241,034
TOTAL INVESTMENT	**6,000,000**	**6,000,000**

TANLAPIA LIMITED

PROPOSED FINANCING PLAN

Investment Required to Produce:	**Phase 1 (100MT)**	**Phase 2 (200MT)**	**Phase 3 (300MT)**
CAPEX, US$	448,077	1,388,846	1,275,000
Feed CAPEX, US$	1,538,462	-	-
Financing Costs, US$	423,077	346,154	461,538
TOTAL Expenses Expected to Be Covered by External Funds, US$	2,409,615	1,735,000	1,736,538
Requested funding amount, US$	**2,500,000**	**1,750,000**	**1,750,000**

TANLAPIA LIMITED

REVENUE SCHEDULE

US $000

YEAR	1	2	3	4	5	6	7	8	9	10
Revenue	1,176	3635	3604	3736	3,872	3,872	3,872	3,872	3,872	3,872
Total revenue	**1,176**	**3635**	**3604**	**3736**	**3,872**	**3,872**	**3,872**	**3,872**	**3,872**	**3,872**

TANLAPIA LIMITED

PROJECTED PROFIT AND LOSS STATEMENT

(USD 000)

ITEM/YEAR	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Revenue from Operations	1,176	3635	3604	3736	3736	3736	3736	3736	3736	3736
Cost of goods sold	**794**	**2250**	**2352**	**2469**	**2469**	**2469**	**2469**	**2469**	**2469**	**2469**
Gross Profit	**382**	**1,385**	**1,252**	**1267**	**1267**	**1267**	**1267**	**1267**	**1267**	**1267**
Operating Profit	**382**	**1,385**	**1,252**	**1267**	**1267**	**1267**	**1267**	**1267**	**1267**	**1267**
Less: admin, salaries &wages	149	166	171	176	176	176	176	176	176	176
Fixed expenditure	90	99	102)	105	105	105	105	105	105	105
depreciation	266	278)	278	277	277	277	277	277	277	277
Toatal Fixied costs	**505**	**543**	**551**	**558**	**558**	**558**	**558**	**558**	**558**	**558**
Profit Before Tax	**(123)**	**842**	**699**	**709**	**709**	**709**	**709**	**709**	**709**	**709**
Taxable Income	**(123)**	**842**	**699**	**709**	**709**	**709**	**709**	**709**	**709**	**709**
Corporation Tax – 30%	253	210	213	213	213	213	213	213	213	253
Net Profit After Tax	**(628)**	**632**	**486**	**496**	**496**	**496**	**496**	**496**	**496**	**496**
Revenue Reserves	**(629)**	**4**	**490**	**986**	**1,482**	**1,978**	**2,474**	**2,970**	**3,466**	**3,962**

TANLAPIA LIMITED
PROJECTED CASH FLOWS STATEMENT

(USD '000)

ITEM/YEAR	0	1	2	3	4	5	6	7	8	9	10
INFLOWS - Equity	**6,000**										
PROFIT BEFORE TAX		**(123)**	**842**	**699**	**709**	**709**	**709**	**709**	**709**	**709**	**709**
Depreciation		266	278	278	277	277	277	277	277	277	277
TOTAL INFLOWS	**6,000**	**266**	**278**	**278**	**277**	**277**	**277**	**277**	**277**	**277**	**277**
OUTFLOWS											
Investment & Reinvestment	**6,000**										
Taxation		253	210	213	213	213	213	213	213	213	213
TOTAL OUTFLOW	**6,000**	253	210	213	213	213	213	213	213	213	213
NET OUTFLOW	-	**13**	**68**	**65**	**64**	**64**	**64**	**64**	**64**	**64**	**64**