

Tanlake Samaki

Towards a Sustainable
Blue Revolution in Lake Tanganyika

Building the first Tanzanian
cage culture fish farm
on Lake Tanganyika



Overview

April 2023



**TANLAKE
SAMAKI**

Executive Summary



- Population growth and limited sustainable supply of fish from the wild have led to an ever-growing supply gap of fish in Tanzania. This presents a multi-million-dollar market opportunity to develop the aquaculture (=fish farming) sector in the country and thereby ensure food security and employ thousands of people.
- Lake Tanganyika – located in the West of Tanzania – is the largest tropical lake in the world and possesses vast and still unmet potential for aquaculture development. However, only endemic fish species should be farmed as the introduction of fish species/strains from other parts of the world would have devastating effects on the environment.
The development of an endemic fish species from Lake Tanganyika as a viable aquaculture species is therefore eminent and time critical.
- Tanlake Samaki: Our mission is to catalyse a sustainable blue revolution in Lake Tanganyika. Tanlake Samaki is establishing the first Tanzanian Tanganyika tilapia cage culture fish farm in Lake Tanganyika. In 2021 & 2022, we have acquired a 25ha plot next to Lake Tanganyika and started the initial establishment of the facility. Until 2027, we will scale up to produce 1'500 tons of table-sized Tanganyika tilapia and ~10 million fingerlings per year. Further, Tanlake Samaki aims to build an outgrower program to support the development of hundreds of smallholder fish farms in the region until 2027.
Beyond 2030, Tanlake Samaki envisions to become the largest sustainable protein supplier in the Lake Tanganyika Region.

Challenges & Opportunities – The fast growing population in Tanzania will lead to rapidly increasing demand in fish



- The human population and food demand in Tanzania will more than double until 2050 (Figure 1)
- One important food item is fish: Current fish consumption per capita is 7kg/year
- By 2050, Tanzania needs to more than double its fish supply to ensure food security

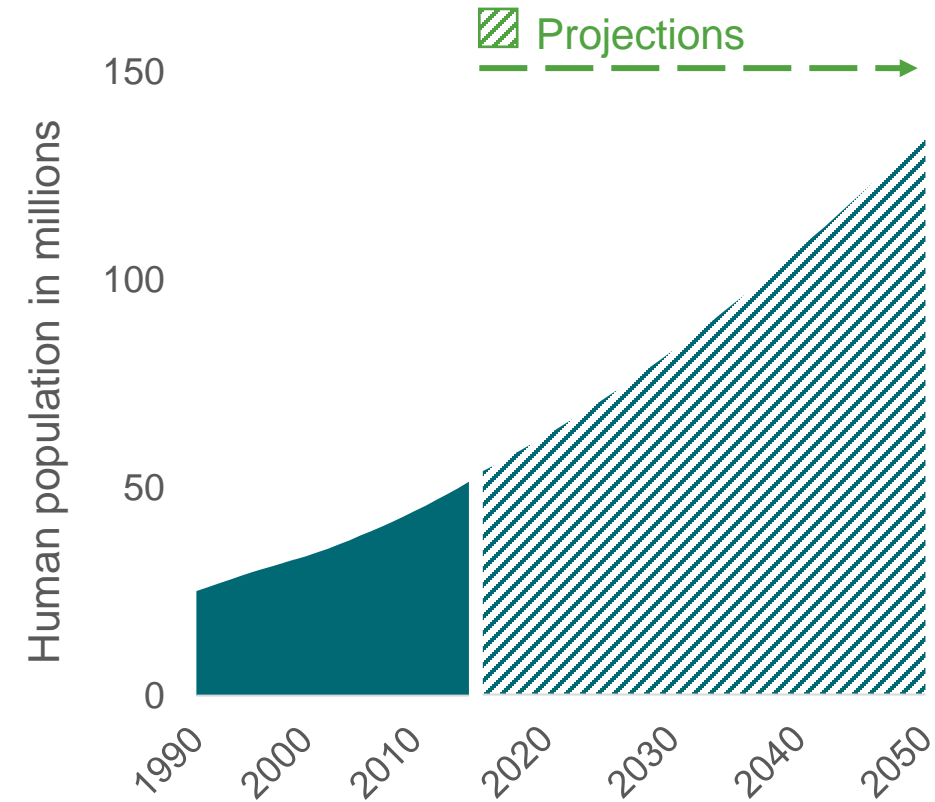


Figure 1: Past and future population growth in Tanzania

Challenges & Opportunities – Aquaculture in Tanzania needs to increase 34-fold until 2050 to meet the growing fish demand



- Current fish production in Tanzania is relying on wild capture fisheries which is no longer scalable
- To close the fish supply gap until 2050, Tanzanian aquaculture production needs to grow at least 34-fold
- With access to large fresh- and saltwater resources, the country has vast unmet potential in fish farming

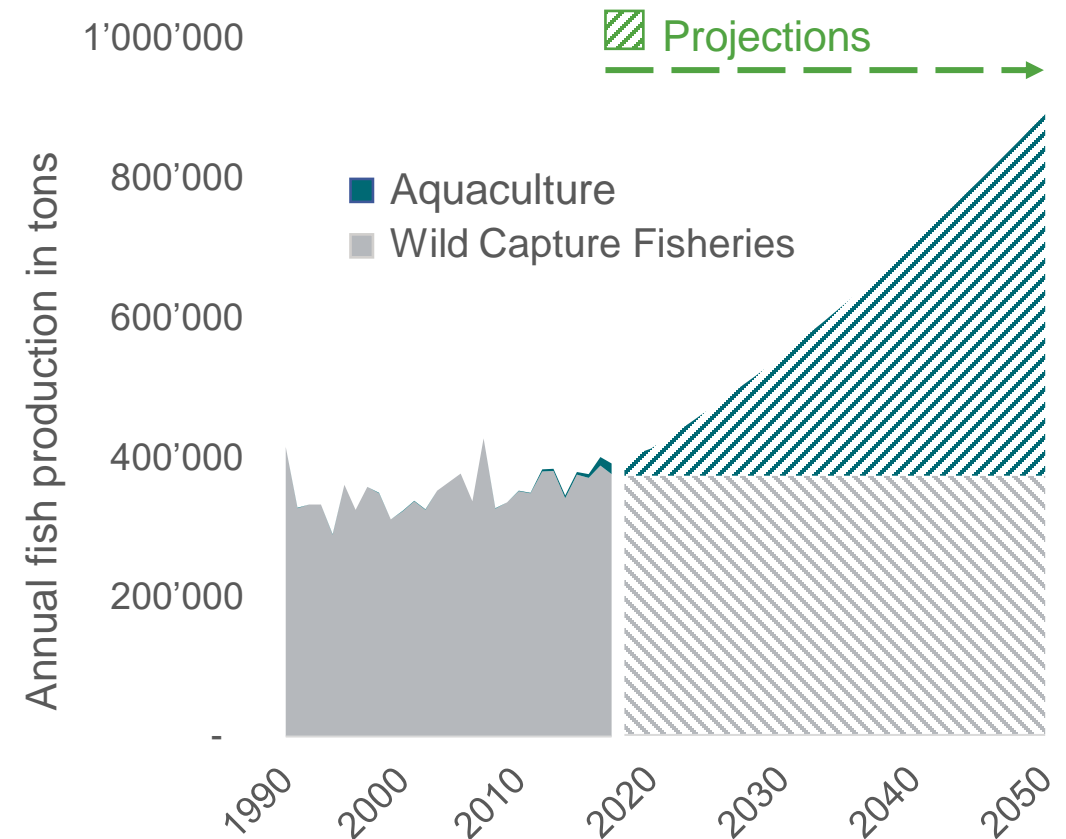


Figure 2: Past and future fish production in Tanzania, (conservative estimate with constant per capita consumption of 7kg/year)

Challenges & Opportunities – Lake Tanganyika holds the largest potential for sustainable aquaculture development in Tanzania



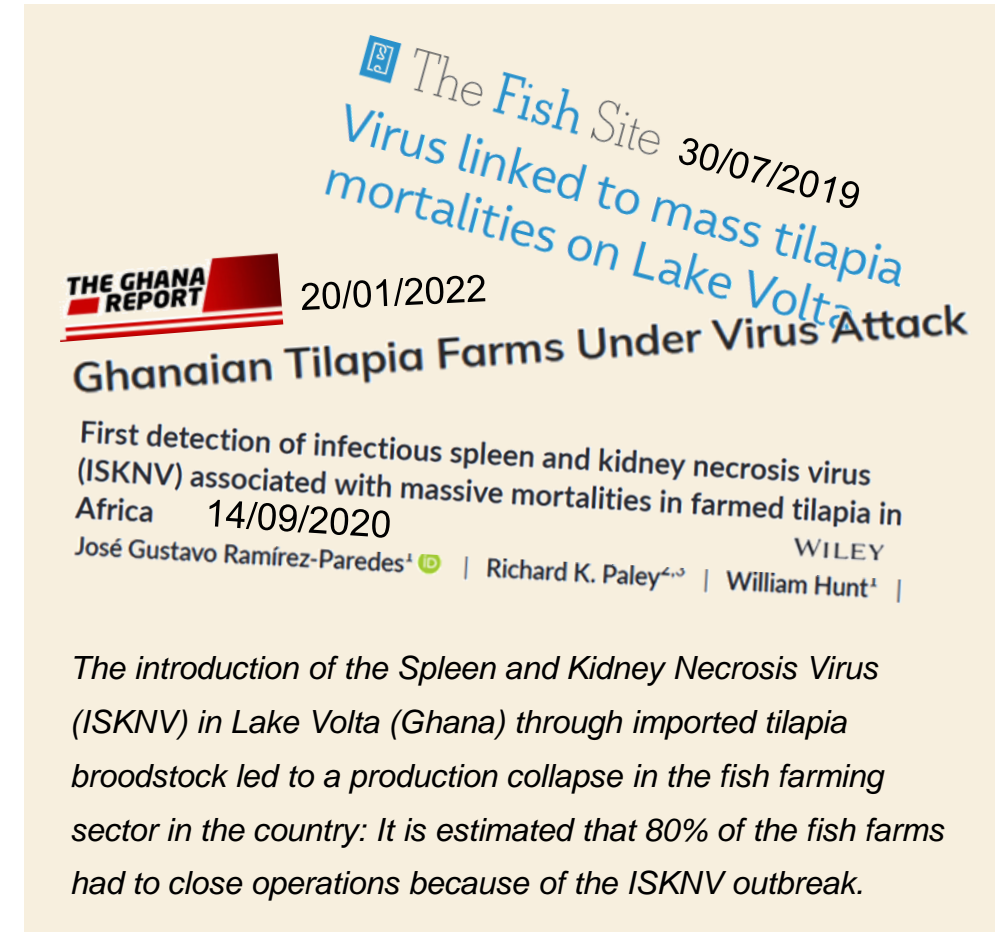
- One region with high potential for aquaculture development in Tanzania is Lake Tanganyika (LT) Region
- LT is the second largest freshwater lake in the world by volume
- Climate change, malpractice in fishing industry and population pressure has led to significant decrease in fish catches
- The lake has favourable conditions for aquaculture
- Fish from Lake Tanganyika fetch high prices due to high quality



Figure 3: African Great Lakes Region with highlighted Lake Tanganyika and location of Kigoma

Challenges & Opportunities – The development of an endemic aquaculture species is key to ensure sustainable production in the region

- In contrast to Lake Victoria (TZ, KE, UG) and Lake Kariba (Zambia, Zimbabwe), fish farming is not yet a common activity in Lake Tanganyika Region
- To ensure sustainability and prevent introduction of invasive fish species/strains & viruses/pathogens, the development of an **endemic aquaculture fish species** is urgent and time critical
- Without the timely development of a feasible endemic aquaculture species, it can be expected that fish farming will take off with imported/invasive fish species/strains and the lake's ecosystems will be at serious risk



Tanlake Samaki – Unlocking the potential of sustainable aquaculture in Lake Tanganyika



Our Mission

Towards a Sustainable Blue Revolution in Lake Tanganyika

Our Vision

Becoming the largest sustainable fish protein supplier in Lake Tanganyika Region



Figure 4: The Tanlake Samaki Team

Our Business Model

- Farming of **endemic Tanganyika Tilapia (*Oreochromis tanganyicae*)** in cages in the lake in Kigoma, Tanzania
- Production of **endemic Tanganyika Tilapia fingerlings** in a land-based hatchery next to the lake
- Sales of **table sized Tanganyika Tilapia** to local distributors in Kigoma region and across Tanzania
- **Outgrower Model**: Distribution of fish farming inputs including extension services & coaching and buyback of fish from smallholder fish farmers in Lake Tanganyika Region
- **Processing & export of Tanganyika tilapia** to EU as a sustainability-focused produce alternative to Nile tilapia imports

Our Management Team – A diverse team with a solid track record in creating profitable and sustainable businesses in East Africa



Alexander Chetkovich – General Manager
Experience in building profitable agribusinesses in Tanzania (e.g. largest honey producer in TZ)



Theresia Bundala – Administration
Experience in business admin in aquaculture & tourism in TZ



Georgina Gibson – Accounting
Former Experience in bookkeeping and tax auditing in TZ



Ramesh Meiyathan – Aquaculture Mgr
Aquaculturist with experience in cage fish farming setups & management in Africa



Wasseem Emam – R&D and Fish Welfare
Aquatic ecologist with 12 years of experience across the fisheries and aquaculture sector



Figure 5:
Tanlake Samaki Team



Byela Bandio – HR
Background in human resource management with wide network in Tanzania



Arno Rohwedder – Sales
Operations & sales background in oil & gas and extensive experience in agribusiness in TZ



Proscovia Alando – Relations & Outreach
Vast experience in aquaculture content creation, article writing, blogs and social media



Severin Spring – Business Development
Aquaculture investment professional with extensive experience in East Africa

Establishment Plan – By 2027, our goal is to reach a production of 1'500 tons of table-sized fish and ~10m fingerlings



Stage I (2022 – 2024)

- Establishment of production facility of **500 tons of fish & ~5m fingerlings** p.a.
- Sales to distributors in **regional markets**
- Development of **The Kigoma Aquahub** and an **outgrower program** to support the establishment of smallholder fish farmers (SHF) in the region



Stage II (2025 – 2027)

- Increase production to **1'500 tons of fish and ~10m fingerlings** p.a.
- Outgrower program to scale up to reach **hundreds of smallholder farmers**
- Sales to distributors **nationwide and regional & international export markets**



Stage III (2030 –)

- Scale up production facility to **10'000 tons of fish** p.a.
- Processing facility to **produce >1'000 tons of Tanganyika tilapia** filet p.a.
- **Certification** for international export markets



Figure 6: Impression of facilities (top & middle: fish cages bottom: Hatchery pond)

Our History – With gained insights from our pilot project and the acquisition of the necessary land and permits we are well prepared to scale up



Figure 7: 400m shoreline at the Tanlake Samaki site in Kimbwela, Tanzania

- **Pilot Project:** Partnered with the Tanzanian Fisheries Research Institute (TAFIRI) since 2016/2017. Production and breeding trials of Tanganyika Tilapia in a pilot cage in Lake Tanganyika
- **Land search & acquisition:** Site scoping, purchased 25ha of land with 400m of shoreline (45min drive from Kigoma), environmental impact assessment in process
- **Current state:** Raised mezzanine capital to expand pilot production & initial establishment of the farm, water rights & farming permits in process, built a local team of >20 talented staff

Potential Impact

Community

- Direct employment: 2022-2024: **>50 FTE**, 2024-2026: **>140 FTE**
We strive to employ **50% women** and be the best employer in LT Region
- Establishment of **The Kigoma Aquahub**, an aquaculture learning center where people can learn sustainable best practices
- Supply of fish farming inputs (incl. know-how & market access) with the goal to reach **hundreds of fish farmers** by 2027

Environment

- Supply of high-quality fingerlings of an endemic species to prevent introduction of invasive fish species & viruses/pathogens (c.f. slide 6)
- Environmental (& socio-economic) monitoring program by independent consortium led by The Nature Conservancy (TNC)
- Integration of renewable energies (solar PV) & sustainable construction technologies (rammed earth) into the Tanlake Samaki facilities



Figure 8: Top: College interns at Tanlake, Bottom: Endemic Tanganyika tilapia

The following logos show potential partnerships and do not mean ongoing collaboration or partnership or any signed agreements





For Nature and People –
Let's build a sustainable fish farming sector together!

Figure 9: Women power at Tanlake Samaki

Contacts



Tanlake Samaki Limited

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Blue Revolution in Lake Tanganyika*

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Figure 10: Tanlake Samaki site near Kigoma, Tanzania