

## Unlocking the Fish Value Chain, Expanding Income and Improving Food Security in Tanzania - A Step towards Integrated and Inclusive Sustainable Fish Value Chain

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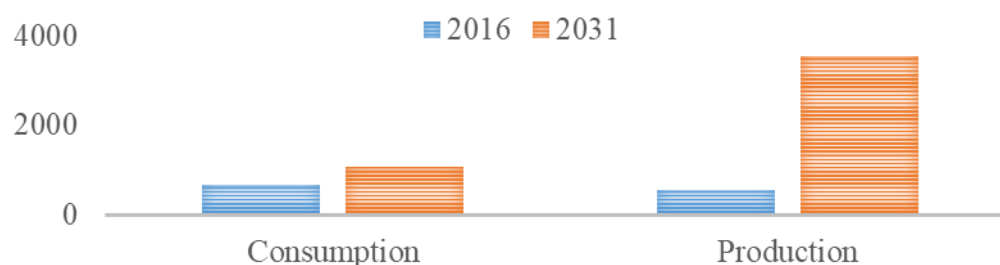
### Summary

*The human population in Africa is growing at a faster rate in comparison to the meat and food production using the incumbent production technology. In Tanzania, there is a clear unsustainable divergence between population growth and meat production (all meats) since 2016 and the divide between consumption and production is ever increasing. Unless there is dedicated investment and supportive policy environment to catalyze the additional investment in the sector, we might be sitting on a time bomb. In this policy brief, we explore how the integrated and inclusive fish value chain development could be part of the solution. Specifically, we present how a strategic partnership between the Tanzania Agricultural Development Bank (funder), the private sector (supplier of technology, capital and expertise) and smallholder fish farmers (participants in both upstream and downstream production system) could be formed to address the triple bottom line of food security, poverty alleviation, income and job creation. Tanzania Agricultural Development Bank has identified a private sector partner and are seeking support through an intervention the sector by providing patience capital.*

### 1. Introduction

The population growth in Africa is increasing fast while the rest of the world's population is stagnant or declining. It is predicted that the population in Africa will be around 4.2 billion by 2100, compared to the current population of about 1.2 billion. On the contrary, the food and meat production in the continent is growing at a very slow rate which creates a time bomb for food insecurity and related social economics menaces. Figure 1 below clearly demonstrates the emerging gap between total production and consumption of all meat types for Tanzania in particular.

**Figure 1:** Production versus consumption of all meats in Tanzania

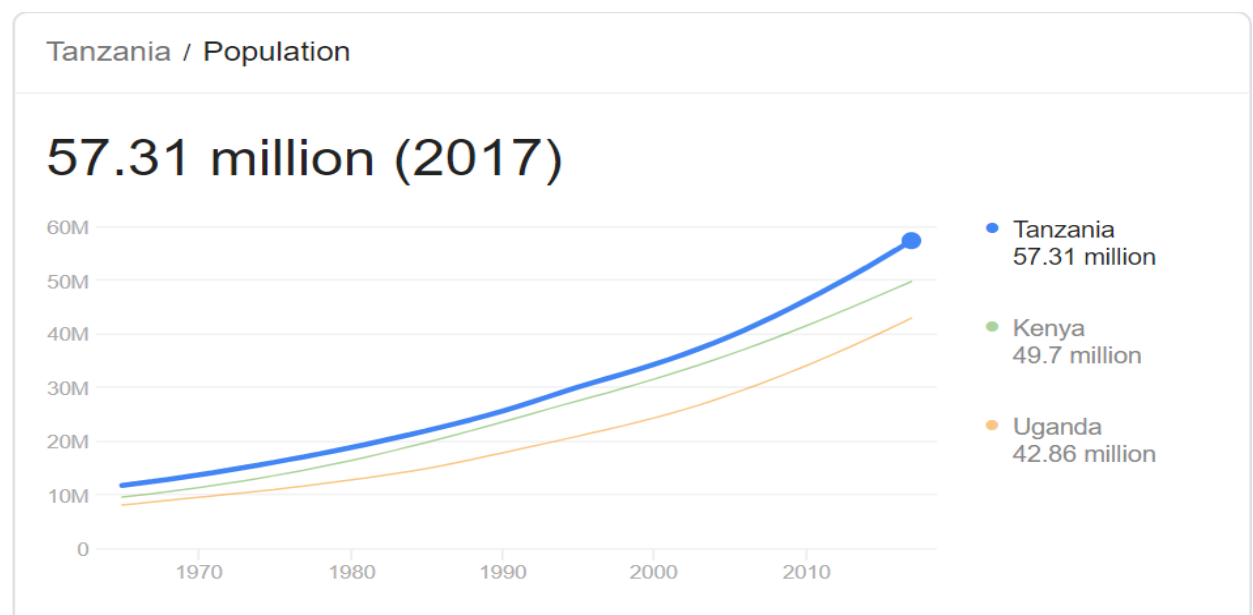


Source: Tanzania Livestock sector analysis 2016/2017-2031/2013

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Tanzania has the highest population in East Africa and it has maintained an aggressive population growth over the past seven decades (see figure 2, below) however, the food and meat production is lagging behind. Putting things into perspective, the total consumption for meat in the country is more than the total meat production and the gap has been increasing since 2016. It is estimated that by 2021 there will be about 100% deficit in the meat demand (i.e. the consumption will be two folds of the local supply using the incumbent technology). If no intervention is taken, the deficit will grow to 200% by 2031, which means that, the production capacity within the country will only cater for 30% of the total consumption. It is against this background that the Tanzanian Agricultural Development Bank has taken the initiative to craft a strategic partnership with the private sector, the government, and smallholder farmers to develop an integrated fish value chain in the country. Such initiatives are geared towards enhancement in productivity, income generation, job creation and an advancement in achieving food security.

**Figure 2:** Population Growth in Tanzania from 1970 to date



Source: World Bank 2018

The Fish value chain is one of the several other priorities<sup>2</sup> value chains which the bank has developed an intervention strategy. However, the fish value chain has a

<sup>2</sup> Other value chains supported by TADB are: cotton, coffee, cashew nuts, dairy, poultry, beef, cassava, maize, tea, sugar cane, sunflower

unique opportunity due to the global decline in fish stock – from natural fishing – while the demand is ever increasing. The implication of a declining fish stock in the traditional fish sector imply that there is a significant opportunity for aquaculture development. Indeed, fish is one of the most traded food commodities in the global market with revenues well above \$153 billion. The declining fish stocks from traditional sources creates a huge opportunity for countries like Tanzania which is well endowed with water bodies ranging from sea, lakes to rivers. The ever-increasing population growth could only make the demand even better. The objective of this brief is to explore the documented challenges on aquaculture value chain development and borrow the best practice from global fish farming superpowers to develop an integrated, and inclusive, fish value chain in the country. The next section identifies the challenges and proposed solution for fish value chain development in the country.

## **2. Challenges and Solutions**

The main challenges for the fish value chain, like many other value chains, can be categorized into the following main categories: Genetic potential and seed multiplication; managerial competencies and technical knowhow; access to finance; feed stocks; technology; animal health and quality control; regulatory framework. The problem with developing countries is that most of these pillars are missing or are inadequate which creates a wall between the potential benefits from an enhanced value chain, and the actual benefits from existing fragmented and inefficient value chain. To effectively develop an integrated and inclusive value chain entails a dedicated development of all of these key pillars which are required for successive implementation of the integrated and inclusive values chain. The next section articulates the proposed intervention on fish value chain development in the Indian Ocean and the Lake Victoria.

## **3. Development of the Integrated and Inclusive Value Chain**

A successful fish value chain is expected to be integrated or linked into high quality and reliable markets both locally and internationally. For this to happen the value chain ecosystem need to deliver the top-class products and services in response to the market needs. This entails the need to have a world class fully developed and integrated value chain. To achieve this, there is need for strategic partnership of the key stakeholders locally and globally along the fish value chain while benchmarking our best practices to the industry leaders.

All these factors are sufficient conditions for the industry transformation to happen, however the necessary conditions are political will and social license to operate both from local and international community. Our role as a Tanzanian Agricultural Development Bank is to identify and recruit the world class players in the fish value chain and facilitate the development of the local value chain. We are ready and willing to extend patience capital to the right partners and we expect that by unlocking access to finance it will be relatively easy to achieve other pillars. We envision our role as a strategic funding institution to support the initial stage of the project through the development of off-takers while ensuring the smallholder farmers are strategically integrated in the fish farming ecosystem, and through leveraging the social economic potential of the industry.

The major intervention will lead to development of seed and optimal genetic breed's production centers in the country. These will be responsible for the following:

- The selection and multiplication of the best fingerlings for optimal fish production;
- The development of large-scale fish feeds production facility for local consumption and potential for export across Africa. The fish feed industry is expected to create a number of jobs through forward and backward linkages including the demand for soya beans and other intermediate material required as inputs to fish meals preparation;
- Development of nuclear farmers/out grower's scheme for fish farming;
- Development of fish processing, packaging, and sales facility for both local and international markets.

In addition, the fish research institutes will be motivated to generate up-to-date knowledge and insights on technological and production innovations along the fish farming industry.

The bank has identified a private sector partner from Norway and potential local partners. The efforts are ongoing to identify potential out growers to effectively participate in the fish farming production system.

#### 4. Recommendations

There are significant socio-economic benefits if Tanzania that could develop and improve her fish farming industry. The potential for food security, income generation, job creation and socio-economic stability cannot be overemphasized. However, since most of the required pillars for a successive integrated fish value chain are missing, or undeveloped, there is a need for collaborative engagement and intervention across the government, the private sector, and local communities. The preliminary intervention should include;

- Development of a business friendly and pro-growth regulatory framework in the fishing sector by the government.
- Training and capacity building by the private sector, the government and local communities on the best practice for commercial and small holder fish farming.
- Provision of capital for both commercial and small holders' farmers by government, private sector, international communities and development institutions.
- Development of the feed stock and food supply by private sector and small holders' farmers
- Development of seed multiplication centers by private sectors
- Development of processing and storage facility by the private sectors
- Market identification and development both locally and globally.

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#### **About Tanzania Agricultural Development Bank**

*This policy brief has been prepared by Tanzania Agricultural Development Bank directorate of policy, research and planning. Tanzania Agricultural Development Bank. Tanzania Agricultural Development Bank Limited (TADB) was established under the Company Act, 2002 CAP 212 in September 2012. The establishment purpose of the Bank was to lead capacity-building strategies and programmes to strengthen the agriculture financing value chain and to support the Government of Tanzania initiatives to shape and implement policies and initiatives for agricultural and rural lending.*

*The Banks as a key stakeholder in the development and envisaged revolution of the agricultural sector, it is committed to delivering on undertakings made in the context of the national agriculture related strategies consistent with its Vision, Mission and Objectives. Further the bank was tasked with implementation of the Government's*

*Second-Generation Financial Sector Reforms, the national policies and strategies for the development of the agricultural sector.*

*Our mission is to facilitate development and support transformation of the agriculture sector by providing short, medium- and long-term finance to agriculture projects in Tanzania that promotes economic growth, food security and reduction of income poverty. Our vision is to be a world-class model agriculture development bank that supports and promotes Tanzania's agriculture transformation from subsistence to commercialized modern farming and agri-business for economic growth and poverty reduction. For details about the bank visit our website at: <https://www.tadb.co.tz/mission-vision/>*

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