



# Transforming East Africa's Aquaculture Sector







**With the potential to create 80,000 jobs, support the livelihoods of 150,000 smallholder input suppliers and provide a nutritious, low-carbon food source, the rapid growth of East Africa's aquaculture sector highlights the importance of establishing strong business models, attracting catalytic investment, and implementing critical policy changes.**

Like the rest of the world, East Africa needs a rapid increase in protein to feed its fast-growing population. Aquaculture presents one of the most efficient, affordable, and low-carbon solutions to bridge the growing protein gap. With abundant freshwater resources ideal for aquaculture, East Africa is also home to tilapia—the world's most farmed fish and the preferred choice of the local market.

## **Identifying the drivers of transformation**

In 2016, when Gatsby first explored aquaculture in East Africa, the sector remained nascent despite receiving donor and government support for developing small-scale pond fish farms. Although there was a strong consumer preference for local fish, imported fish from China was dominating the market. We identified significant opportunities for fish farming in Lake Victoria, but few businesses had yet demonstrated how to make it profitable.

We concluded that the key drivers of the industry's productivity and profitability would be higher-quality fish feed combined with improved farm management practices. Our analysis indicated that other challenges could be tackled once the industry gained momentum and began to grow.

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## The role of catalytic investment

We firmly believed that if an aquaculture operator could demonstrate success at scale for the first time, it would encourage other operators and financiers to follow suit. However, in this unproven industry, the lack of data on commercial feasibility and lack of skills among current operators made investors hesitant.

Gatsby conducted analytical work on the fish farming opportunity and engaged with both current and potential investors. In 2018, Gatsby helped to cost-share a full feasibility assessment and then bridge the financing gap by providing early-stage debt funding to a team of experienced fish-farming entrepreneurs exploring large-scale fish production in the region. That business, Victory Farms (VF), has since become one of Africa's fastest-growing companies and recently secured \$35 million in Series B investment. The success of VF has been followed by investments by other larger firms, in fact 96% of the growth of the sector since 2017 has been due to the growth of larger firms (producing >2000 MT fish/yr). As the largest firm in the region, VF accounts for 40% of this growth.



**Victory Farms has become one of Africa's fastest-growing companies and secured \$35 million in Series B investment.**

## Building a broad-based but competitive industry

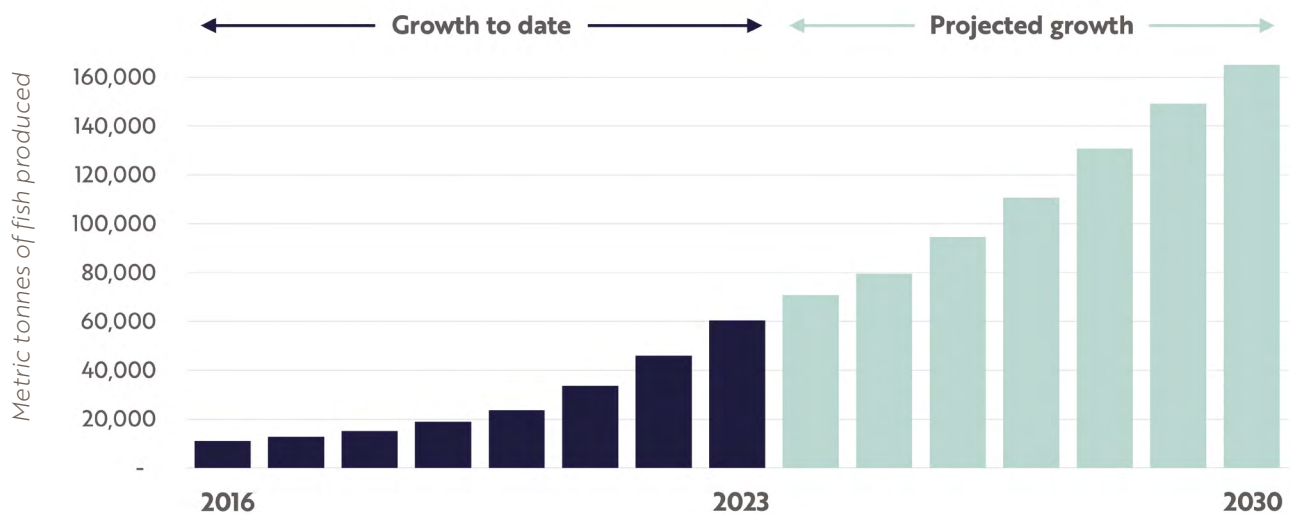
A lack of investment in feed – a key driver of the cost of production in aquaculture – was holding the industry back. Feed companies had no incentive to invest given the industry's small size. The growth of VF helped to break this deadlock – incentivising feed investment, complemented by a second debt investment from Gatsby in a new feed mill. This new mill is now applying competitive pressure to the local feed market, driving down prices and driving up quality. Today, local production of quality feed is sufficient to cover 50% of demand and growing, a dramatic increase from 100% imports in 2017.

Local SME operators struggled to find the right technical expertise, which hindered their ability to achieve profitability. Since 2019, Gatsby has supported a group of promising SME farms to adopt a more robust, data-driven approach to production. As a result, there are now profitable East African SME operators for the first time. Gatsby is seeking to support experienced agri-business entrepreneurs from the region to develop fish farming ventures.





**Figure 1: Achieved and projected growth in production**



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**The sector is on track for rapid and sustained growth to produce 165,000 tons of fish annually by 2030 - resulting in nearly one billion additional fish meals per year, creating 80,000 jobs and supporting livelihoods for 150,000 smallholder input suppliers.”**

James Gichuhi and Lucy Kimani Aquaculture Programme Directors, Gatsby Africa

This increase in fish production has brought with it an additional 21,000 jobs to the sector and has created a new market for a further 30,000 smallholder suppliers. The vast majority of these jobs are low-skilled, providing a route out of low-productivity, informal agriculture for young people. Work to assess the quality of jobs, shows that wages (while still relatively low) are substantially higher than employees were previously earning, and that stable, formal work brings other benefits.

## Building sector resilience

Now that the aquaculture sector is taking off (see Figure 1), Gatsby is supporting key building blocks of the ecosystem that are vital for resilient growth. One such element is effective spatial planning, licensing, and regulation. Gatsby is supporting the Kenyan and Rwandan governments on this agenda and have been invited by other governments in the region to provide similar support. Gatsby is also working with fish farms, diagnostic service providers and veterinarians to catalyse a commercial system for the delivery of fish health services. Both these efforts are crucial for minimising risks related to the environment, fish health, and community cohesion.

Gatsby is also collaborating with fish farms to establish apprenticeships and partnering with other players, such as feed millers, on other initiatives to enhance skills, addressing a major barrier to the sector's growth. Additionally, Gatsby is partnering with hatcheries to execute breeding plans aimed at improving fish genetics, which have the potential to increase fish growth rates by 40-50%. This increase in productivity will raise profitability and enable greater re-investment to further drive scale of production, employment and other impacts.

## Conclusion

Having built the right conditions for sector growth, East Africa's aquaculture industry is showing impressive momentum, expanding six-fold over the past seven years. Profitable businesses at both large and SME scales highlight the sector's potential, and investment is expanding in crucial input and service markets. Government efforts to coordinate and regulate the sector are now set to bolster the resilience of this growth, so it can further contribute to the large-scale employment opportunities urgently needed across the region.

