



A CASE STUDY FOR UNDERSTANDING THE STARTUP ECOSYSTEM IN KENYA



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INTRODUCTION

AquaRech Ltd was founded in 2019 by Dave Okech and James Odede. The Kisumu-based social enterprise uses an IoT-powered mobile application technology, "AquaRech Farmer App" to improve fish farmers' productivity, enable market access and create an inclusive aquaculture value chain.

AquaRech tackles problems facing aquacultures such as lack of access to quality and affordable fish feeds, lack of organized market systems, lack of information on the available sources of fish, and lack of data management platform to support precision farming.

To manage these challenges facing the sector, AquaRech has a centralized database system that connects the three main actors in the fish value chain: the farmer, the trader, and the input supplier (feeds and fingerlings).

The intervention involves offering a one-stop-shop solution for the many small-scale fish farmers in Kenya. Through the mobile application, farmers are able to access fish feeds at the comfort of their phones, sell fish produce by connecting directly to bulking

centers/traders, increase yields/productivity and improve their farm management practices by using the application to record, process and analyze data from the farm.

Revenue is generated by charging a commission on the quantity of fish and feeds traded on the platform.

AquaRech Ltd is changing the way fish is produced and traded in Kenya and Africa by accelerating sustainable and inclusive growth of the aquaculture sector through the use of climate-smart technology, high-quality inputs, technical support, and market linkages to increase productivity and build farmers' resilience with a specific focus on women and youth.



DAVID OKECH
FOUNDER, CIO,
AQUARECH





OUR GROWTH STORY: THE JOURNEY



We are now able to supply 100 tones of high-quality feeds a month to smallholder farmers in Kenya. It's the first time that they've had access to such good quality feed - which is normally only available to the big fish producers



Okech reflects

With around 1,500 users of the platform (approximately 250 using the system and about 1,200 buying the feeds), Okech secured investment, with two of Africa's largest aquafeed providers - Mauritius-based LFL and AquaGroup Feed from Egypt. The two agreed to provide their feeds to the smallholder farmers using the AquaRech platform.

Owing to the new partnerships, AquaRech has been part of the Kenya Climate Smart Agriculture program. Under this program, the enterprise has been working with 40 farmers from Kirinyaga county.

AquaRech was also one of the cohorts under Disruptive Agricultural Technology program.

AquaRech secured a spot after being selected as one of the enterprises disrupting the aquaculture sector. AquaRech is primarily based in Kisumu county but the enterprise plans to scale to 6 other counties by June 2022. These counties are Homabay, Siaya, Kakamega, Busia, Kirinyaga and Vihiga.

1,500

USERS ON AQUARECH PLATFORM





**AQUARECH HAS RAISED
\$100,000 OVER TWO
FUNDING ROUNDS.
AQUARECH ALSO
RECEIVED A \$100,000
GRANT FROM GOOGLE
FOR STARTUPS IN 2021**

AQUARECH: FUNDING, PARTNERS

Other investors who have in Aquarech are BFA Catalyst Fund, who in 2022, helped raise an undisclosed amount in a non-equity assistance round. In early 2022, Aquarech was in the process of fundraising aiming to raise USD 1M. Out of the USD 1m, only USD 250k was raised.

At present AquaRech seeking external impact-oriented debt and equity investors, to help raise the USD 3m balance for their expansion plans.

THROUGH PARTNERSHIPS WITH OTHER PLAYERS AND INVESTORS, AQUARECH AIMS AT IMPROVING FISH PRODUCTION...

...through better data recording practices utilizing the app within the first year of operations, connecting farmers and traders through a streamlined online trading platform based on the app and connecting input suppliers and farmers through a customized central database hosted on the app within six months.



The startup also aims at reducing the fish-for-sex trade by enabling women fish traders to access fish through a verified platform free within the first harvest. Aquarech has partnered with World Bank for this initiative.

FUTURE OUTLOOK

Aquarech is Kenya's first fish farming platform that enable fish farmers, fish feed manufacturers, and fish traders to trade and build trusting long-lasting partnerships.

Africa has about 400,000 small and medium fish farmers, with Kenya representing more than 49,000. However, these numbers are growing. Aquaculture accounts for approximately 20% of the total fish production in Africa, but fish production is increasing every year by millions of tons as climate change threatens wild stocks.

It represents a growing industry that will, in the future, be key to the continent's food security. Aquarech plans to work side by side with these smallholder farmers, as well as with feed manufacturers and fish buyers, to transform food production in the continent and ensure nutritional security.

According to Dave Okech, the demand for fish in Kenya is very high and a lot of work is needed to meet it. Kenya has an annual deficit of about 350,000 tones of fish. This is against the production of 51,000 tones, inclusive of imported fish. Coupled with a high population growth rate and the shift from consumption of red meat to white meat being on the rise, market for aquaculture is expected to grow significantly. These factors provide an ideal backdrop for the enterprise to grow.

AquaRech is working to establish a network of fish bulking facilities - where smallholder farmers are able to aggregate their harvests and process before being offered for sale. These will also act as hubs where farmers can collect high-quality feeds. Thanks to USD 80,000 in funding from the World Bank's Kenya Climate Smart initiative, Aquarech plans to establish four hubs - with the combined capacity for handling the harvests of 2,000 smallholders.



Aquarech has proven to be a one-of-a-kind platform that provides the greatest fish feed that you and your fish will undoubtedly enjoy. Aquarech is my preferred platform for all of my fish feeds, and consultants can't wait for you to give it a try. ● ● ●

Alfred Sidindi

Aquarech Farmer



KEY TAKEAWAY: IMPACT, RECOMMENDATIONS

WHAT IMPACT HAS AQUARECH BROUGHT?

Overall, fish farming will continue playing an increasingly essential role in reducing food and nutrition insecurity in Africa, as well as promote socioeconomic growth and improve the livelihoods of marginalized communities.

The fish sector currently supports the livelihoods of 12.3 million people in the continent, notably empowering females in the process since 58% of the actors involved in post-harvest activities are women. To date, AquaRech has onboarded more than 360 fish farmers in Kenya and contributed directly to the sustainable production of over 1000 metric tons of cultured fish.

By reducing the growth cycle from a 13-16 months production cycle to an 8-10 months, AquaRech has enabled an increase in the harvest cycle per annum of around 66%, improving productivity with benefits also extend to the environment.

By sharing technical information and market intelligence with farmers and promoting the use of water quality monitoring devices, AquaRech helps farmers use natural resources more carefully. Additionally, AquaRech provides adequate payment periods and moderate interest rates on loans given.

HOW CAN THE ECOSYSTEM BE IMPROVED?

The government has a significant role to play in creating a favorable environment for fish farming to thrive. The government should enforce policies that guide both physical and software infrastructure. Fisheries is a devolved sector, under the County Government, while the lake is a national asset that is managed by the National Government.

The government should make it clear as to which party has the final say in matters regarding aquaculture licensing and the issuance of fishing permits to farmers, traders, and investors.

Okech also points out the need for policy enforcement that guides physical and software infrastructure.

To satisfy all sectors, Oketch recommends inclusivity for both small and large-scale fish farmers so that both parties have a share of the value system.

Aquarech proposes the need for formation of better aquaculture policies that not only protect the lake but also helps in protecting the sector itself.



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