

Healthy Aquaculture in Tanzania: Assessing current Challenges and potential Solutions (HATACS project)

Project Update August 2024

Thank you for taking part in the HATACS project. We would like to update you on the project, and what the next steps will be.

What is the HATACS project?

To know how best to support a healthy, sustainable tilapia cage farming industry in Lake Victoria, the HATACS project brought together academic researchers and key Tanzanian industry stakeholders to:

- 1) Map the tilapia cage farming value chain in the Lake Victoria region,
- 2) Discuss opportunities, challenges and potential solutions in maintaining fish health,
- 3) Identify actions to help strengthen the Tanzanian tilapia cage farming industry so that it can continue to flourish sustainably.

What has been done so far?

The following activities took place between April 8th and 19th 2024:

- Farm visits and individual interviews with tilapia farmers from around the Lake Victoria region to understand the challenges and opportunities faced by the industry (8th – 15th April 2024)
- Two focus group discussions with key stakeholders, including seed and feed vendors, tilapia farm owners and farm attendants from operations of various sizes, processors and market vendors, veterinary extension officers, and experts from the Tanzania Fisheries Research Institute (TAFIRI) and National Fish Quality Control Laboratory (NFQCL) to map challenges and opportunities along the value chain (16th – 17th April 2024)
- A prioritisation workshop with participants from the two focus groups, to identify the issues that were of the highest priority and were most feasible to address (18th April 2024)
- A meeting with key people from the Tanzanian Ministry of Livestock and Fisheries (MLF); the Aquaculture Association of Tanzania (AAT); Mwanza City Council; the NFQCL; and TAFIRI to gain government and industry-level perspectives, and to discuss the challenges, opportunities and priorities identified during the farm visits, interviews, focus groups and workshops, and prioritise future solutions and research needs (19th April 2024)

What did we find?

The challenges identified by producer, market, supplier, technical, regulatory, research and laboratory stakeholders as the highest priority for action were grouped into four areas: Training and Capacity Enhancement, Supply and Demand, Legal and Regulatory, and Infrastructure. These are detailed in the table below, along with responses/input from government stakeholders where relevant.



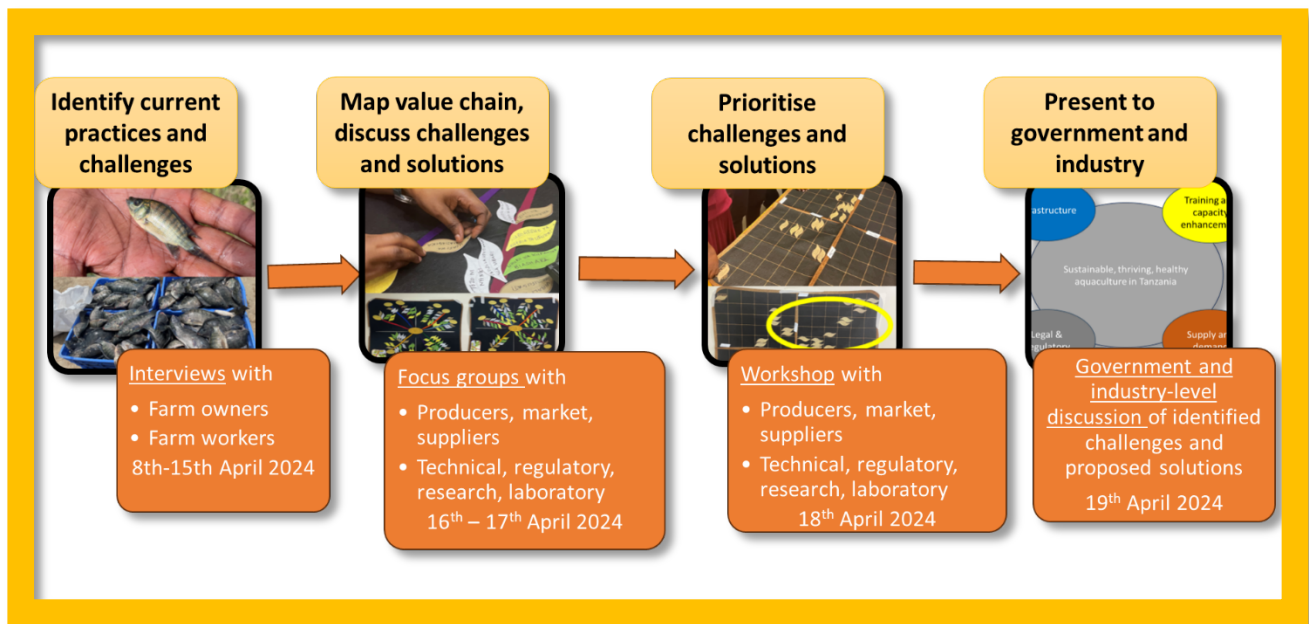
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HATACS activities in Mwanza, April 8th – 19th 2024



Priority Challenges for Action

1. Training and Capacity Enhancement

Challenges

- Farmers receive minimal training and often find their own way with fish health problems
- Extension officers provide good support, but are in very high demand
- Low cage-side water monitoring capability makes predicting water turnover and water quality difficult

Proposed Solutions

- Establish a knowledge resource / aquatic diagnostic centre
- Establish a focal development centre for production / hatchery farms
- Potential investment in existing centres to do this (e.g. TAFIRI, Fisheries Education and Training Agency (FETA), Ministries)

Input from government

- There are training materials available for cage fish farming; however, these need updating to reflect current practices of cage culture of tilapia (e.g. Lake Victoria)

Priority Challenges for Action

2. Supply and Demand

Challenges

- Unreliable supply of fish seed (quality and quantity), often from unregistered hatcheries
- Unreliable supply of fish feed (quality and quantity)
- Consumer preferences / misconceptions about farmed versus wild-caught fish
- Limited markets / price fluctuations

Proposed Solutions

- Create a positive investment environment for local fish seed and feed production
- Facilitate market expansion (local, national, international)

Input from government

- TAFIRI has model hatchery and feed plant to help develop best practices

3. Legal and Regulatory

Challenges

- Lengthy, complicated and costly permit / licence process
- Different acts and policies often contradict each other and are hard to implement
- Lack of harmonized biosecurity measures

Proposed Solutions

- One-stop shop for permits / licences
- Harmonisation of acts / policies
- Government guidelines (& monitoring / enforcement) for biosecurity, water quality, etc.

Input from government

- Efforts are currently underway to develop regulations for aquatic animal health

4. Infrastructure

Challenges



Priority Challenges for Action

- Fish must be sold once harvested, leaving producers open to having to sell at lower than ideal prices
- Transport of fish from farm to market is via poor roads, increasing transport time and damage to meat, resulting in a lower quality product

Proposed Solutions

- Provision of local refrigerated storage facilities so that fish do not need to be sold immediately after harvesting; however, more reliable electricity supply is required to run such facilities
- Investment in better roads to decrease travel time from farm to market and decrease damage to stock, and thereby increase meat quality

While it was acknowledged that infrastructure issues are not easy to fix, the group felt it was still important to point out the need for improvement of roads and electricity supply, and for local refrigerated storage facilities.

What next?

The academic researchers are working to synthesise the findings from the farm visits, interviews, focus groups, workshops and discussions to create actionable recommendations for government and industry in a formal report that will be distributed to stakeholders like you for comment.

Once stakeholders have told us what they think about the report we will revise it to include their input and finalise it for presentation to government and industry.

A healthy tilapia cage farming industry in the Lake Victoria region is vital to ensuring the continued sustainable expansion of aquaculture in Tanzania.

The researchers collaborating on this project are Professor Robinson Mdegela, Dr Janeth George (College of Veterinary Medicine and Public Health Sokoine University, Tanzania); Ms Sophia Shaban (Tanzania Fisheries Research Institute); Dr Taya Forde, Dr Angelo Mendes and Professor Cindy Gray (School of Biodiversity, One Health and Veterinary Medicine, School of Social and Political Sciences, The University of Glasgow); Dr Kerrie Wiley and Dr Fransisca Samsing (Sydney School of Public Health, Sydney Veterinary School and Sydney Infectious Diseases Institute, The University of Sydney); Professor Margaret Crumlish (Institute of Aquaculture, The University of Stirling). This project is a collaboration between Sokoine University of Agriculture, Tanzania, The University of Glasgow, The University of Sydney and The University of Stirling. The project is funded through the University of Sydney / University of Glasgow Ignition Grant Scheme, the Glasgow Centre for International Development, and Dr Wiley's University of Sydney Horizons Fellowship.



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