Africa Centre of Excellence in Aquaculture and Fisheries Science (AQUAFISH), LUANAR, Malawi

TICAD| 23 August 2025

LUANAR

Aqua Fish
Africa Centre of Excellence

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QUALITY EDUCATION FOR DEVELOPMENT

THE WORLD BANK

AquaFish Center | LUANAR

1. The Africa Center of Excellence in Aquaculture and Fisheries (AquaFish Center) is housed by the Department of Aquaculture and Fisheries Science at Lilongwe University of Agriculture and Natural Resources (LUANAR), **established in 2016** in Lilongwe, Malawi
2. **World Bank-financed** initiative involving 8 ESA **governments**
3. AquaFish: among the first **24 ACE II Projects**, one of 2 pioneer Centers in Malawi; now 1 of 5 centers in the country.

ACE II Project (Aug 2016 – Dec 2023) US$6,000,000.00

a. Develop skilled human resources to strengthen the fisheries sector.
b. Enhance fish value chain for improved nutrition, food security and economic growth

- **ACE II AF (Additional Financing) Project (Nov 2022-Dec 2025) US$6,000,000.00**

a. Expanded to train the human resource skills in integrated systems (fish-animal-crops integration)

Context, Challenges | Vision & Mission

Problem

(i) **Critical food insecurity** SADC food insecurity at **11.5%.** 61% SADC population involved in agriculture livelihoods (64.1% = Malawi).

(ii) **Food loss - 37%** between production & consumption | FAO, 2011. Malawi, 30% grain loss, 50% perishables e.g., vegies, fruits, roots, tubers, meat, & fish.

Cause: insufficient capacity & infrastructure, Skills gaps in agro-processing, value addition, storage, marketing.

Center Intervention

Integrated Agriculture-Aquaculture (IAA) is the solution to these Agri-food systems challenges through:

- **Capacity building**: Sustainable integrated fish-crop-livestock production models at community, academic, and industry levels.
- **Agribusiness & Entrepreneurship:** Commercial Farming | Towards IAA Oriented food systems.
- **Policy analysis & advocacy:** Analyzing policies and advocating for changes to align with sustainable IAA goals.

AquaFish Center

Vision: To be a world class Center of excellence in aquaculture and fisheries.

Mission: To advance innovation and entrepreneurship in the production of high skilled fit-for-purpose critical mass of scientists for improved aquaculture and fisheries management and value chains in order to enhance food, nutrition and economic security.

Research areas

Development of feed products – Fish & Livestock using Hemp, Mealworm larvae, BSF larvae

Insect Production for use in feeds (BSF, Mealworm)

Development of food products (e.g., Fish powder, hemp powder, development of fish canning processes using local ingredients, Fresh Fish Lactic Acid Biopreservative)

Industrial hemp production

Innovative fish production systems, i.e., Aquaponic systems

Aquatic Health – i.e., Development of Fish herbal vaccines

Sustainable fisheries – Engagement with communities

BSF for Fish feed

Cannabis seed powder (nsima)

Fresh Fish Lactic Acid Biopreservative

Fish herbal medicine vaccines

Mealworms for fish feed

Aquaponics – climate smart tech

Infrastructure

- **Extensive land and modern facilities**
  - Classrooms, laboratories, hatcheries, and processing facilities to support business incubation
  - AquaFish Insect breeding and production facilities
  - Offices and meeting spaces

Lecture Theatres

Hatcheries

Chemistry Lab

Biotech Lab

Wetlab AQFSD

BSF insectary

Office Complex

Research topics – including potential joint research areas

Integrating aquaculture and fisheries in One Health

- Including common fish diseases in Malawi, development and transfer of diagnostic tools, and sustainable treatments.

Selective breeding programs

- Development of fast-growing, disease-resistant, and high-yielding fish species suitable for Malawian conditions

Fish processing

- Improved fish processing, preservation, and marketing to reduce post-harvest losses and increasing the economic value of fish products.

Feed

- Development of high-quality, low-cost fish and livestock feeds

Possible collaboration with Japanese partners

Capacity building:

- Scholarships for postgraduate studies
- Reciprocal staff–student exchange programs
- Joint training/workshops for farmers and technical experts

Infrastructure:

- Modernize AquaFish research facilities, labs, and experimental farms.

Policy & industry:

- Support Malawi's aquaculture policy development process
- Support SMEs through Japan–Malawi partnerships for technology transfer, investment, and job creation

Previous collaboration with Japan

- Funded aquaculture & fisheries infrastructure development at LUANAR (1999).
- JICA supported Malawi's National Aquaculture Master Plan with training & technology transfer.
- Scholarships & staff–student exchanges strengthening academic capacity (e.g., AquaFish hosted Kagoshima University staff and supported 1 lecturer + 3 students to be trained in Japan).
- Recent visit by Japanese Ambassador to review progress at LUANAR and AquaFish Center.

Contact information

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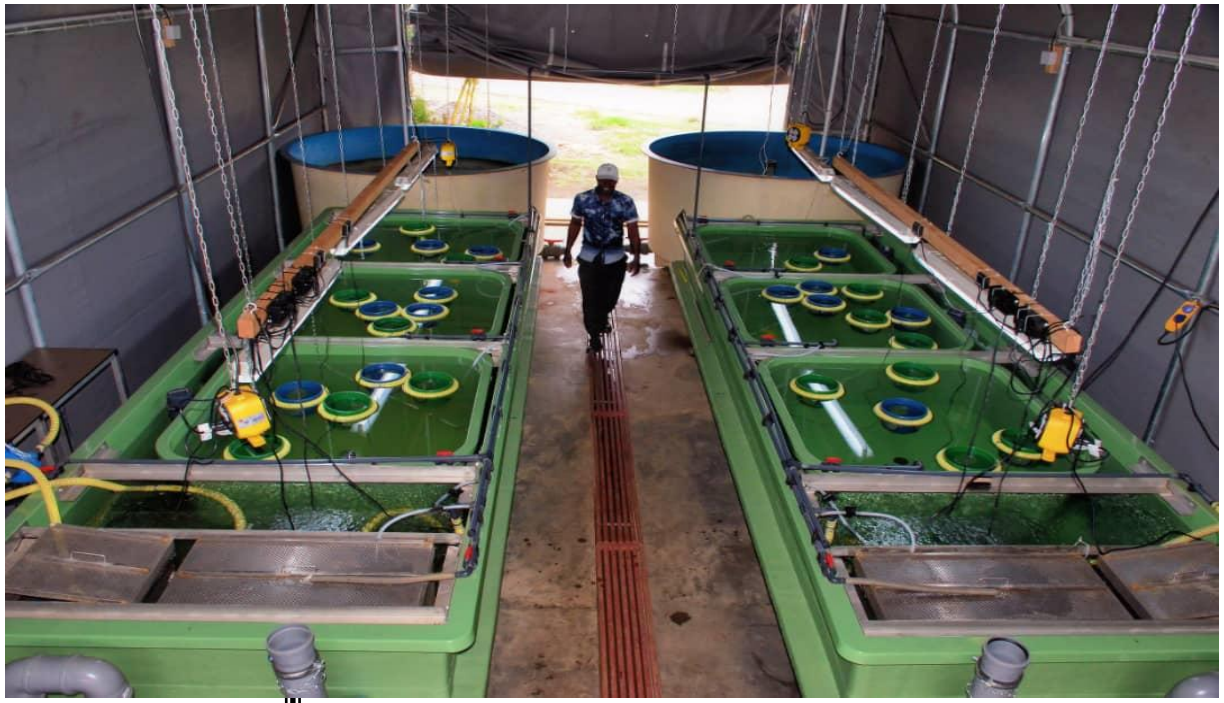
THANK YOU

FOR YOUR



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