

# Aquatic Animal Health: Malawi Case



## Training of National Focal Points for Aquatic Animal Health (Cycle IV)

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## Capture fishery



## Aquaculture

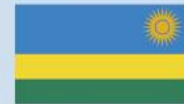


## Aquarium trade/ornamental





# FISH SPECIES FARMED IN MALAWI



*Oreochromis shiranus*



*Oreochromis karongae*



*Coptodon rendalli*



*Oreochromis mossambicus*



*Clarias gariepinus*



# INFECTIOUS DISEASE OCCURRENCE AND BIOSECURITY MEASURES

- Malawi experienced EUS outbreak in 2019 and has spread to many sites
  - Previously NO serious disease reported
  - Best aquaculture practices are promoted
- AMR poses a potential threat
  - Heavy usage of chicken manure where antibiotics are used
  - Application of agricultural pesticides
    - ✓ There is a high chance of residual transfer into water bodies

# INFECTIOUS DISEASE OCCURRENCE AND BIOSECURITY MEASURES

- Biosecurity measures
  - Certification of hatchery operators to supply seed
  - Application of best aquaculture practices through strengthened extension services
  - Policy and legislation prohibit use of exotic species
  - Recommend responsible and prudent use of antimicrobials
    - In aquaculture, no antimicrobials are used in Malawi

# Surveillance activities

- National Promised Aquatic Disease Pathogen list is under development
- Surveillance activities for such diseases will be conducted using the FAO recommended 12-point surveillance plan
- However, risk based surveillance activities are being done for Epizootic Ulcerative Syndrome (EUS) following its incursion into the country in 2020 using the referred FAO 12-point surveillance plan above.



# Requirements for the 12-point surveillance plan

1. Scenario setting: Status of EUS in the country:
2. Objectives: Surveillance objective(s)
3. Defining populations: Consideration is on high risk populations
4. Disease clustering: Consideration is on when is the disease likely going to occur
5. Case definition: Covers clinical, laboratory and epidemiological risk factors for disease occurrence
6. Diagnostic testing
7. Study design and sampling methodology
8. Data collection and management
9. Data analysis
10. Validation and quality assurance
11. Human and financial resources
12. Surveillance in a broader picture: Consideration is on the cost benefit analysis of the disease control program.

# Monitoring and Reporting

- Monitoring is through active and passive surveillance activities
- Reporting is at three levels
  - ✓ First level (local) from  
Local area of disease to the district councils
  - ✓ Second Level (National)  
District to the Director of Animal Health and Livestock Development (WOAH country delegate)
  - ✓ Third level (regional and international)  
Delegate to SADC and AU-IBAR, and WOAH respectively.
  - ✓ The first and second reports are usually sent via emails whilst the third is via emails or WAHIS.



## Diagnostic capacity building

- Two laboratory technicians recently trained in fish disease surveillance and diagnosis
- One personal undertaking aquaculture medicine at PhD level
- Center of excellence in aquaculture at Lilongwe University of Agriculture and natural resources.

# Training on Aquaculture principles and Aquatic animal health Egypt, september 2023 (WorldFish & NORAD)





## Opportunities

- Currently Malawi has 17,000 fish farmers employing 70,000 people and more than 2,000,000 people from various fish value chains are earning their livelihoods BUT there is a great potential for aquaculture growth.
  - About 10-20% of land is feasible for pond construction
  - Enormous potential in Lakes and river systems for cage culture
  - Great demand for fish
  - Conducive policy framework

## CHALLENGES

- Unregulated nature of subsistence fisheries
- Climate change
- NSAAH not in place
- Inadequate human capacity
- Transboundary movements



## RECOMMENDATIONS

- Strong collaboration between fisheries and veterinary authorities
- Certification schemes
- Enabling environment for fisheries and aquaculture development
- Strengthening extension services
- Capacity building
- Development of NSAAH

- Thank you so much!
- Zikomo kwambiri