

IMPORTANCE OF THE RELATIONSHIP BETWEEN GOVERNMENT AND PRIVATE SECTOR TO SUPPORT FISH EXPORTS

**PAUL MWERA
LAKE HARVEST, ZIMBABWE**



Lake Harvest

- Was established in 1996 as one of the Commonwealth Development Corporation (CDC) projects
- Lake harvest is a subsidiary company of the African Century Holdings since 2008
- The business is a monoculture farm growing *Oreochromis niloticus*
- It is situated in Kariba, north of Zimbabwe



Farm practices

- The farm has evolved from 100 tones in 1996 to 10,200 tones in 2012
- It has ponds (hatchery) and the lake cages (grow-out production)
- Has own fish processing plant in Kariba
- Products are fresh & round fish, whole & gutted fish and fresh & frozen fillets
- Has markets in the region as well as in Europe





Farm Practices and Standards

- The farm is an intensive fish farm i.e high capital intensive
- It is a **GlobalGAP** certified business entity
- Has a strong **Environment management** and CSR practice
- Has a **fish Welfare code** to guide husbandry practices
- Has **Animal health Plan** that covers risk assessments, contingency plan, monitoring and disease management and disease control measures



Fish health & Management

- “ The lake production cages are situated in a tropical freshwater lake which is an open water system.
- “ The lake is a multi-purpose use resource.
- “ Various users such as boating safaris, fishing safaris (motorised and mechanical), crocodile farms and other holiday makers tour the lake.
- “ Given the attendant environment, the need for effective biosecurity measures can not be overemphasized

Fish health Management (a shared responsibility)

- “ The FHM triad (3 parties)
- “ Fish health management is a shared responsibility.
- “ The business could not go it alone.
 - The lake resource is a Government owned resource with multiple users,
 - LHA has control over own operations.
 - Fish health is a unique field with limited expertise.
- “ A triad of Private practitioner, government practitioner and Lake harvest was established for effective FHM.



The role of Government

- “ The administration of fish health falls under a division of agriculture under the Department of veterinary Technical Services.
- “ Its mandate is as follows
 1. Provide technical services in veterinary public health (inspect all fish food exports from the processing point)
 2. Definitive disease diagnostics
 3. Research into animal health problems in order to provide knowledge and technologies about animal disease



LHA – Vet services interface

- The business relates to Vet Services in the following areas;
- a) Certification of product,
- b) supervision of slaughter
- c) auditing export processing establishment
- d) Case reporting
- e) Disease Surveillance



Veterinary Work

- “ Zimbabwe has limited number of well placed fish veterinarians.
- “ A Private Vet consultant was initially roped in to investigate the cause of high mortalities that the business was experiencing
- “ The experience gained through the period of assessment led to the decision of broadening the scope of disease management
- “ The focus shifted from simple managing disease problems to preventative measures.



Veterinary work

- “ A system for monitoring and surveillance was established
- “ A Government Vet was also roped in to provide the statutory guidance and exercise government mandate on health management
- “ A Full scope Veterinary Health Plan was developed by the business in consultation with Private Vet (Dr David Huchzermeyer and a Government Vet)



Veterinary work

- **Development of VHP and reviewing exercise**
- The exercise involved pathogen risk assessment and this was reviewed each time the vet visited the farm.
- More knowledge was gained through histological, microscopic examinations and bacteriological test conducted on each visit
- We mapped our threats and management measures were put down for each threat



Records

- A database of pathogen in the environment is being developed through sampling of the fish
- This data is forwarded to the vet department to add to their data bank of pathogens
- We have not yet isolated pathogens that are endemic to Zimbabwe especially Lake Kariba
- EUS monitoring is conducted quarterly on two points of the business process
- Broodstock, and at the factory point



Records

- Despite existence of EUS in the upper Zambezi, our fish tested negative
- Triangulation of Samples was done to confirm/deny existence of EUS in our business
- Gvt Central Vet lab, Idexx Laboratory in S. Africa and University of Zambia (EUS focal lab for Southern Africa)
- The results were negative in all the labs
- There are no reportable diseases yet



Records

- The business has developed an auditable trend of records
- Standard operating procedures on areas of environment, Feeds and Feeding, stocking density, fish handling
- All SOPs are all knitted with reference numbers linked to the VHP
- Records on microscopic examination, bacteriological and histological examinations are kept at a location identified in the SOPs and VHP



Fish health systems

- The farm has distinct fish flow process
- Each stage forms a definitive sanitary cell with measures put in place to prevent forward and backwards contamination
- The following are epidemiological units established in the VHP – Nursery area (brood stock and nursery tanks), Fingerling production area , production sites
- Still working on appropriate biosecurity distance between sites

The triad of Fish health management at Lake Harvest

- The technical team for fish health management is composed of the 3 bodies below.
- Private practitioner
- Government Practitioner
- Lake Harvest

Quarterly technical meetings on fish health are conducted



Fish health Technical Meetings

- What constitutes the agenda of the meetings?
- Fish health stock assessment (inspection)
- Biosecurity assessment of the business flow
- EUS inspection, surveillance
- Auditing of Records
- Sampling for lab tests
- Executive review of the fish health status



Gvt and the exports

- The factory has HACCP system in place
- Critical control points are well identified and records are kept for each CCP
- All corrective measures are documented
- QA section of the factory plant deals with all quality standards related to EU requirements for export
- A government vet visits the factory and audit the system and verifies the information by way of sampling where necessary
- Only registered and certified labs are used for samples analysis



Significant Outputs

- Diagnosis of Diseases (More often than not some problems were not pathogenic but nutritional)
- Revision of nutritional profile of the Feed (this has tremendously improved the fish health)
- Reliable standard operating procedures with tangible results
- Business transparency, credibility through data collection and auditable fish health practices
- A sound business that practices Internationally acceptable standards on fish health management (biosecurity practices) -A health Stock



END

- Thank you