A Practical Tool: One Health Considerations for Land-Based Aquaculture Facilities

Facility Name:	·
Location:	·
Planned/current fish species:	•
One Health Point Person(s):	

One Health Areas	Current or Projected	Mitigation or Development Strategy
Cultural Competency		
Impact on Various Demographics (Role of Women)		
Impact on Religions and Traditions (Local Fishing Practices and Protected Areas)		
Continuing Education and Training (Professional Advancement Training)		
Geographic Region (Product Disbursement)		
Current Role/Dependency		

One Health Considerations for Land-Based Aquaculture Facilities pg___of___,

One Health Areas	Current or Projected	Mitigation or Development Strategy
Labor Availability		
Employment Creation (Diversity, Equity, Inclusion)		
Health & Wellness		
Potential for Zoonotic Disease (Collaboration with Local Physicians)		
Potential for Acute and Chronic Illness (Promotion and Prevention, including Physical and Mental Health)		
Impact on Occupational Health (Aquaculture-specific Safety Training, Handling/Exposure Zoonosis)		
Impact on Animals and Environment		
Impact on Land (Spatial Footprint)		
Impact on Air (Carbon		

One Health Considerations for Land-Based Aquaculture Facilities pg___of___,

One Health Areas	Current or Projected	Mitigation or Development Strategy
Footprint/Greenhouse Gas Emissions/Energy Consumption)		
Impact on Sea/Water (Disease and Farmed Stock Exposure)		
Waste Management Systems (Contained vs. Uncontained System)		
Potential for Antimicrobial Resistance (Litigious Use and Strict Containment/Prevention of Spillover)		
Potential for Vector Borne Disease (Flying Animal/Insect/Rodent/Pet Protection)		
Impact on Food Safety and Security (Contaminant and Pollutant Screening e.g. Bacteria and Heavy Metals)		
Impact on Animal		

One Health Considerations for Land-Based Aquaculture Facilities pg__of__,

One Health Areas	Current or Projected	Mitigation or Development Strategy	
Welfare (Timely Disease Prevention and Treatment)			
Supplemental Food (Source/Supply)			
Integrative Farming (Additional Crops, Mono or Polyculture, Salt or Freshwater)			
Financial Sourcing and	Financial Sourcing and Management Practices		
Before (Planning/Construction Stages)			
During (Operational)			
After (Exit Strategy)			

One Health Considerations for Land-Based Aquaculture Facilities pg___of__,

Additional One Health Considerations:

•	Who are the stakeholders (are they represented in facility plans)?
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•	Which experts (locals, naturalists, scientists, financial advisors, policy makers, etc.) should be contacted? Who will contact them and when?
•	What is the local political structure and how will this impact the facility?
•	Are any government restrictions or promotions in place for growth of specific species?
•	Will a feasibility study be performed, if no-why not, if yes-how?
•	How can a community input forum be fashioned? Who will initiate this, and when?

One Health Considerations for Land-Based Aquaculture Facilities pg___of___,

•	How will this facility be regularly monitored from within the country/locally?
•	What role can the media/news (local, regional, global) play?
•	What will be an effective evaluation strategy (frequency, rigor, validity, sustainability)? How will it be determined if the venture has become a sustainable community-led social enterprise?
•	What programs are in place to encourage empowerment, capacity building, democratic organizing, human rights education?
•	What is the exit strategy for this production facility?
•	What are the projected market trends?

One Health Considerations for Land-Based Aquaculture Facilities pg__of__,

What facility security measures will be in place?
• What natural disaster or seasonal planning is advisable (flood, droughts, over-wintering, etc.)? Who can be consulted for an emergency contingency plan?
• What type of aquaculture system is utilized (extensive, improved extensive, semi-intensive, intensive)?

Please contact Drs. Liegey (fawnvuevet@gmail.com) and Camargo (CCamargo@rossvet.edu.kn) with feedback on this rubric. The above document is part of the MSc in One Health thesis work by Dr. Catherine Liegey, advised by Dr. Jennifer Ketzis of Ross University School of Veterinary Medicine.