



UPDATE ON AU-IBAR's CONTINENTAL AQUACULTURE AND AMR ACTIVITIES

by

Nelly Isyagi, Fisheries and Aquaculture Trade and Investment Expert, AU-IBAR

WOAH standards: Addressing AMR while enhancing sustainable Aquaculture production
Regional workshop for English speaking African countries

13th to 15th August, 2025
HARARE, ZIMBABWE

A: AU-IBAR AND ITS ROLE IN THE SECTOR

- **A specialized technical office** of the African Union Commission (AUC), headed by the Director who reports directly to the AUC through the Department of Rural Economy and Agriculture (DREA).
- **Founded** in 1951 to study the epidemiological situation and fight rinderpest in Africa
-
- **Mandate:** Provide technical leadership, support and coordinate the sustainable management and utilization of all Africa's animal resources (*terrestrial, aquatic, domestic & wild*) for the human wellbeing and socio-economic development of African Union (AU) Member States and the Regional Economic Communities (RECs) to which they belong.

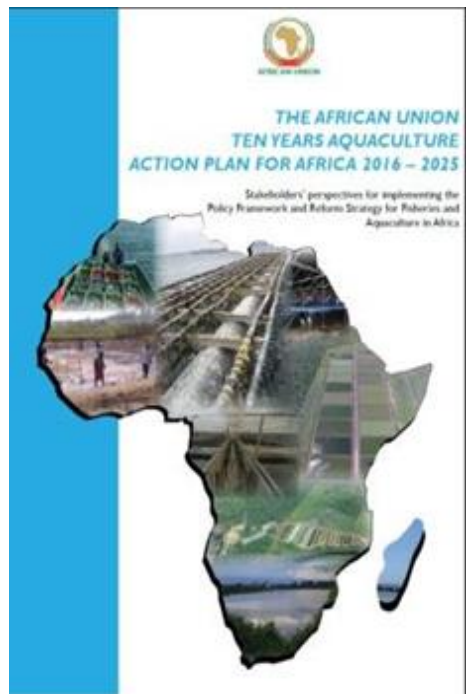
A: AU-IBAR AND ITS ROLE IN THE SECTOR



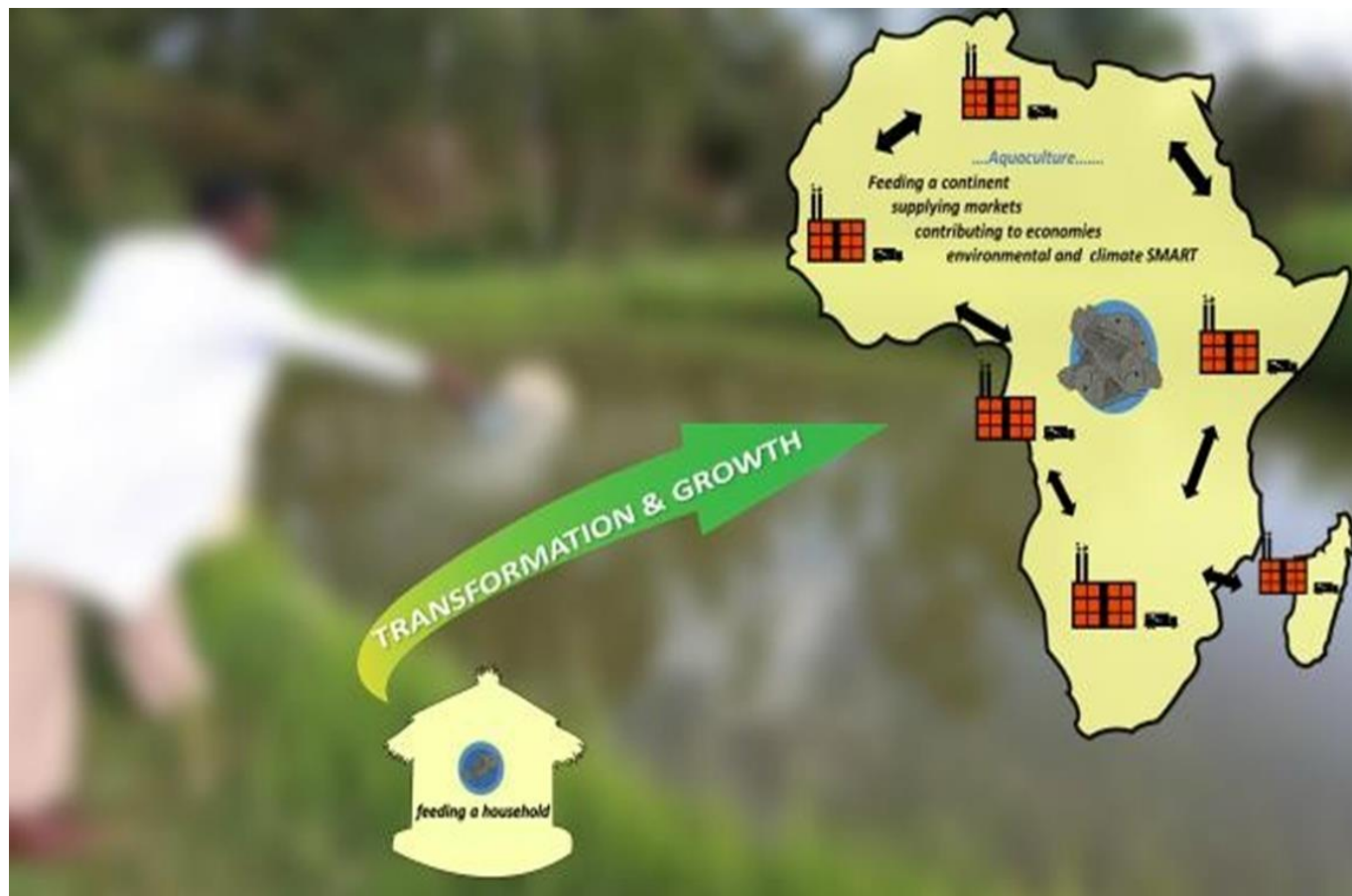
B: THE POLICY FRAMEWORK AND REFORM STRATEGY FOR FISHERIES AND AQUACULTURE IN AFRICA (PFRS)



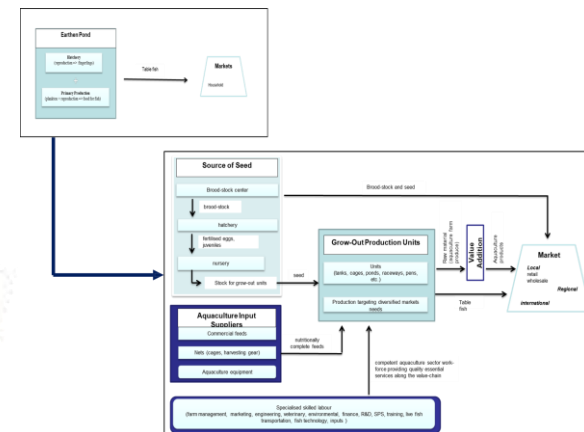
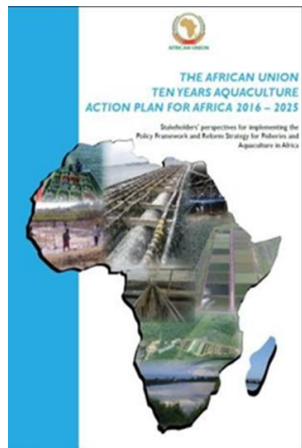
Aim to Jump-start market led aquaculture development



Outlines the pathway



B: POLICY PILLAR 3: SUSTAINABLE AQUACULTURE DEVELOPMENT

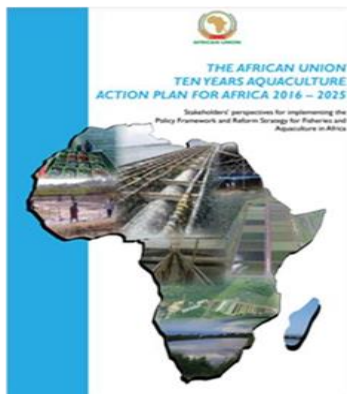


anchors on international, continental and regional best practices and norms to achieve the vision

B: THE AQUACULTURE ACTION PLAN'S PROGRESSIVE OUTLOOK

Development Criteria	Subsistence Level	Emerging Fish Farmer Level	Start Up Commercial Fish Farmers	Developing Commercial Fish Farmers	Aquaculture Industry
1. Quality Fish Farm Design & Construction	None	None	Limited based upon visits to other farms/facilities with incomplete or poor designs	Development of core group of commercially viable producers and poor copycats; Design by academia or government support	Establishment of specialized services by private sector- Engineering, design and construction services
2. Quality & Quantities of Feeds	Compost or supplemental feeds (Ag/household wastes)	Supplemental or on-farm feed production	Limited access, incomplete on-farm produced sinking feeds	Development of nutritionally complete pelleted feeds with increased access, but limited understanding of feed application and its economics	Extruded and pelleted feeds widely available with quality control measures in place; Feed costs decrease or remain the same (but quality increases) as market expands and competition increases.
3. Quality & Quantities of Fish Seed from Hatcheries	Irregular, limited availability; Usually natural pond production or government supplied	Government supplies seed; Limited hatchery design; Limited artificial spawning techniques	Improved Hatchery Design with Aeration; Use of Artificial Spawning Techniques	Increased use of artificial spawning with greater production intensity through improved aeration/water quality management	Variety of spawning techniques available and implementation of quality control management plans; Fingerling producers become specialized and foodfish producers purchase fingerlings from hatcheries.
4. Record Keeping (Inventory & Budgets)	None	None or little; mostly in journal format.	Awareness and Started	Greater need as intensity and required inputs increase. Records used to make management decisions.	Business plans implemented and used by banks for loan qualification. Farm records assure traceability of produce on-farm and are used to make management decisions
5. Water Quality Monitoring & Management	None	None; Limited flushing for control	Awareness but no equipment	Water Quality Monitoring & Management increases requiring increased access to equipment	Widespread use of water quality monitoring for intensive farm management and environmental/marketing requirements.
6. Understanding of Holding & Transport Live Fish	None	None to poor	Awareness but no equipment	Increased need for holding and transporting fingerlings and foodfish; Introduction of specialized methods and equipment	Specialized private-sector services for harvesting, transporting and live holding for markets
7. Fish Farm Production Management Plans	None	None to Limited	Awareness	Limited numbers of technical packages available for farmers for field implementation and testing	Widespread use of field-proven technical packets with development of additional systems/species by academia/government
8. Fish Health Management	None; disease outbreaks limited or not recognized	None; disease outbreaks limited or not recognized	Awareness due to increased outbreaks, but limited planning	Limited development of support services and limited understanding of management relationship to disease occurrence	Widespread use and private and public service providers available for on-farm management advising plus developed disease diagnostic services
9. Quality Training in Aquaculture	None	Limited training by NGOs and local government	Limited Government & Academic Delivery	Training emphasis provided in hands-on, commercial-scale production by NGO/academia	Level of training increases to strengthen technical knowledge and provided by academia and on-farm experience
10. Availability of Trained Farm Staff	None	None	Very limited; mostly theoretical training	Increasing in number and quality but still limited	Widely available with practical knowledge & highly competitive (i.e., higher pay)
11. Quality Advisory Services	None	Limited Extension Services by Government	Limited Extension Services (i.e., NAADS), but no certification of qualifications	Quality increasing but still mostly farm based support (farmer to farmer transfer)	Network of Service Providers with certification
12. Equipment & Suppliers/ Tech Support Capacity	None	None	Self-served by farmers or NGO-driven	Very few with some farmer cooperatives forming to facilitate purchasing	Network of Suppliers with technical back-stopping
13. AQ Regulations & Laws	None or Limited	None or Limited	Developing but often conflicting	Understood need to develop and harmonize	Need to facilitate industry development but set reasonable limits
14. Markets	Mostly household consumption	Mostly household use and pond bank sales	Local sales	Local sales (retail) with expanding wholesale market	Range in retail and wholesale markets with regional distributors and exporters

C: ACHEIVEMENTS: *implementation guidelines; and mainstreaming PFRS into national and regional policies, RAIPS/NAIPS, ratification of instruments*



Expected Outcomes

Coherent approach and roadmap for creating a conducive and enabling environment for private-sector driven sustainable commercial aquaculture development within the framework of the PFRS and its guidelines.

Five Main Activity Areas:

1. Establish and enabling environment for sustainable aquaculture development
2. Improved service delivery to the sector
3. Capacity building
4. Trans-boundary ecosystem management for aquaculture
5. Innovation (Research and Development)

- Regional Guidelines for the production, transboundary distribution and trade of aquatic animal seed and brood-stock
- *Regional guidelines for the production, transboundary distribution and trade of aqua-feeds, feed ingredients and feed additives*
- Guidelines to support the development of species specific aquaculture value-chains
- *Business models templates to guide the systematic transformation and development of a commercial aquaculture sector and enterprises*
- Guidelines for establishing aquaculture extension service delivery
- *Best practices for aquaculture production systems*
- Regional aquaculture networks (ANAF, WAS-African chapter)
- *Regional frameworks for aquaculture environmental management*
- Guidelines to support the implementation of regional aquaculture management frameworks
- *Regional frameworks for the control of aquatic animal diseases in Africa*
- Regional aquatic animal disease mapping studies
- *ARIS aquatic animal health module*
- Regional centers of Excellence (Ibadan, Cape Coast, ARSTM)

D: CONTINENTAL FRAMEWORK & APPROACH FOR THE CONTROL OF AMR IN THE SECTOR

Primary goals

Surveillance

Improve surveillance of Antimicrobial resistant organisms and Antimicrobial use

Delay Emergence

Better understand practices and barriers and propose solutions to promoting prudent antimicrobial use

Limit Transmission

Advocate for policies and statutes that promote infection prevention and control, biosecurity and husbandry

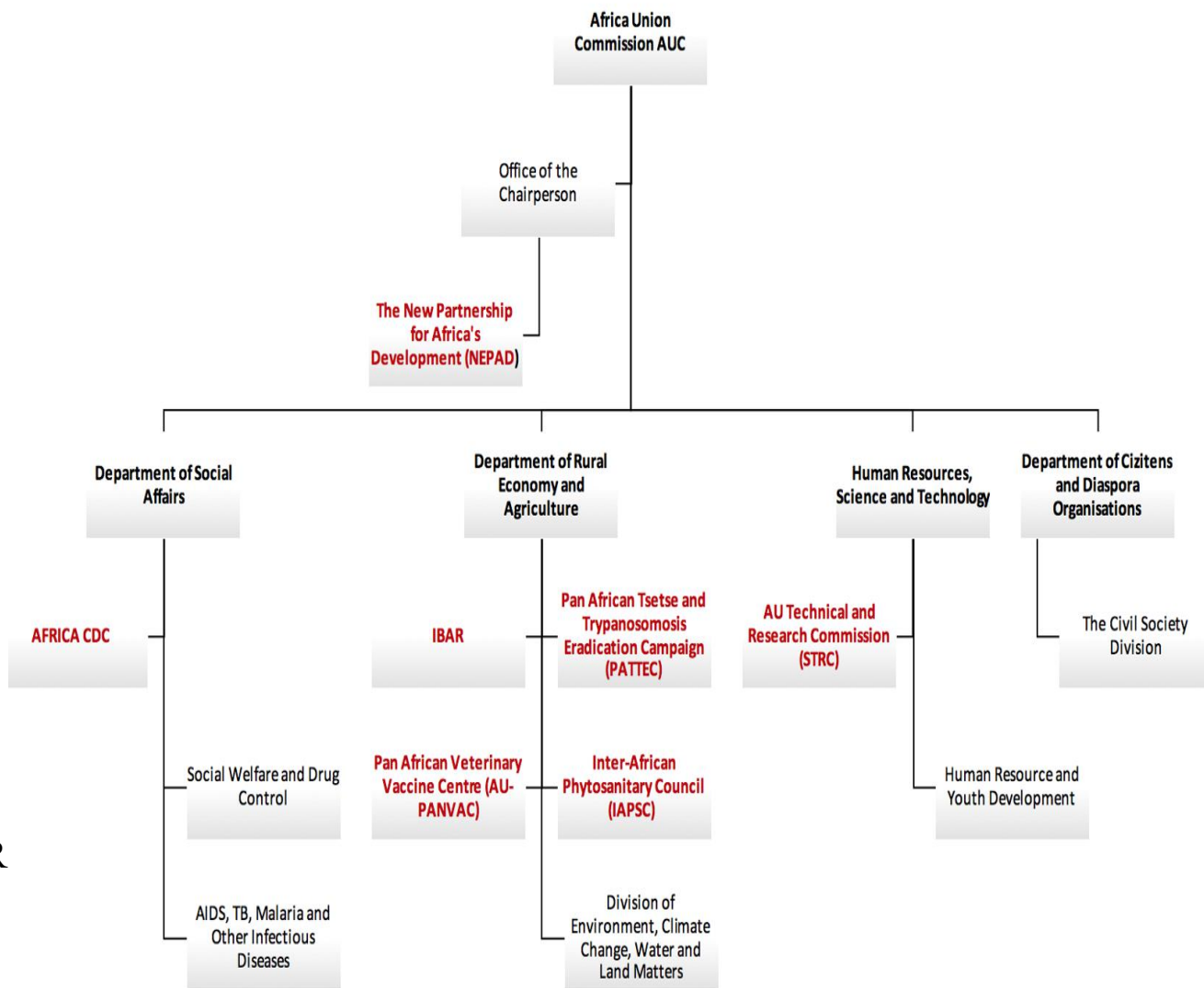
Mitigate Harm

Produce evidence-based guidelines for clinicians, veterinarians and farmers to treat susceptible and resistant infections in animals and humans. Promote access to essential medicines



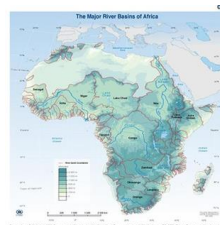
D: AFRICAN UNION TASK FORCE ON AMR

- Coordinates AMR control within the AUC
- Contributes to creation of an environment that facilitates the work of Member States, UN Agencies, development partners, research and academia, industry and other organizations.
- The Task force works with Member States to prioritize continent-wide efforts to increase political commitment, mobilize resources, and promote policies that improve AMR control.



- **CES-AMR project** – raised awareness on One Health and AMR. Unfortunately very little stakeholder awareness was found on aquaculture AMR
- The **African Union One Health Data Alliance Africa Project (AU-OHDAA)** is a two-year initiative by AU-IBAR to enhance digitalized One Health governance and management in Africa, building on previous work on One Health that AU-IBAR has undertaken in the past with partners and in alignment with key continental policy frameworks (*aquaculture specifically not yet integrated but as following below unfold, it will be linked to continental One Health database*)
- *All other initiatives on the sector outline it as indicated below*

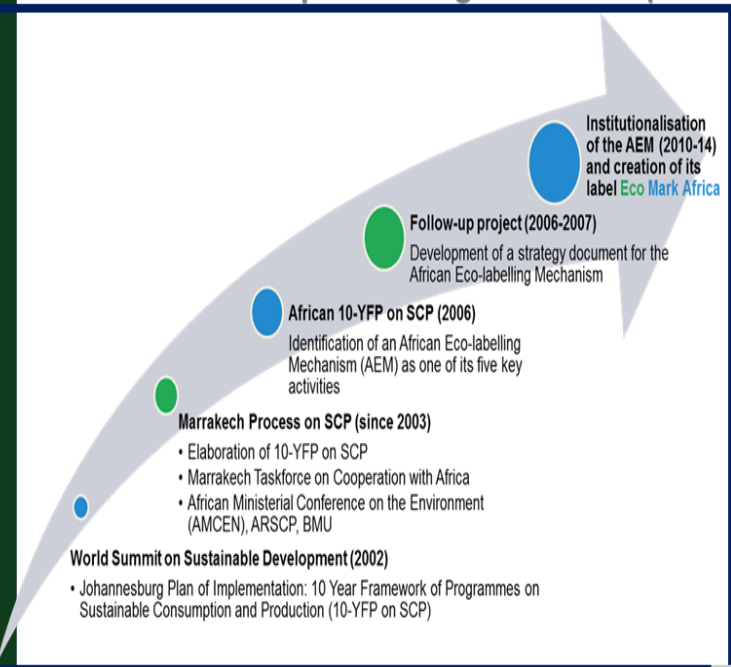
E: Aquatic biosecurity control: The context and rationale



Regional integration => **RECs primary role is to facilitate regional economic integration between member states** (the 1980 Lagos Plan of Action for the Development of Africa and the Abuja Treaty of 1991).

E: Aquatic biosecurity control: The context and rationale

Coherence among stakeholders to meet standards for free equitable regional trade (ARSO)

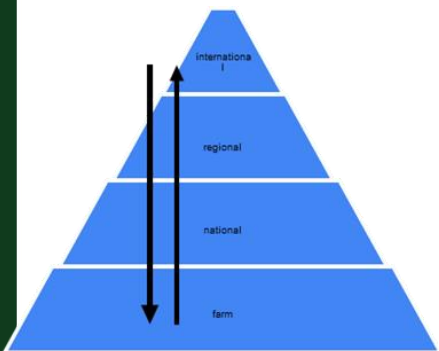


WTO's WOH Standards are Africa's default standard for the production and trade animals and their products

Principles	Agriculture	Fisheries	Forestry	Tourism
Legal Compliance	✓	✓	✓	✓
S & E Management System	✓	✓	✓	✓
Good Social Practices	✓	✓	✓	✓
Conservation of Biodiversity	✓		✓	✓
Stock Management		✓		
Soil Management	✓	✓		
Water Management	✓	✓	✓	✓
Energy Efficiency	✓	✓	✓	
Air and GHG Management	✓	✓	✓	✓
Pesticide Management	✓	✓	✓	
Waste Management	✓	✓	✓	✓
Good Business Practices	✓	✓	✓	✓

FISHGOV 1 drafted ARSO standards for achieving aquatic animal health, biosecurity control, aquaculture environmental sustainability

E: Aquatic biosecurity control: The context and rationale



Continental level policy direction and strategic approaches

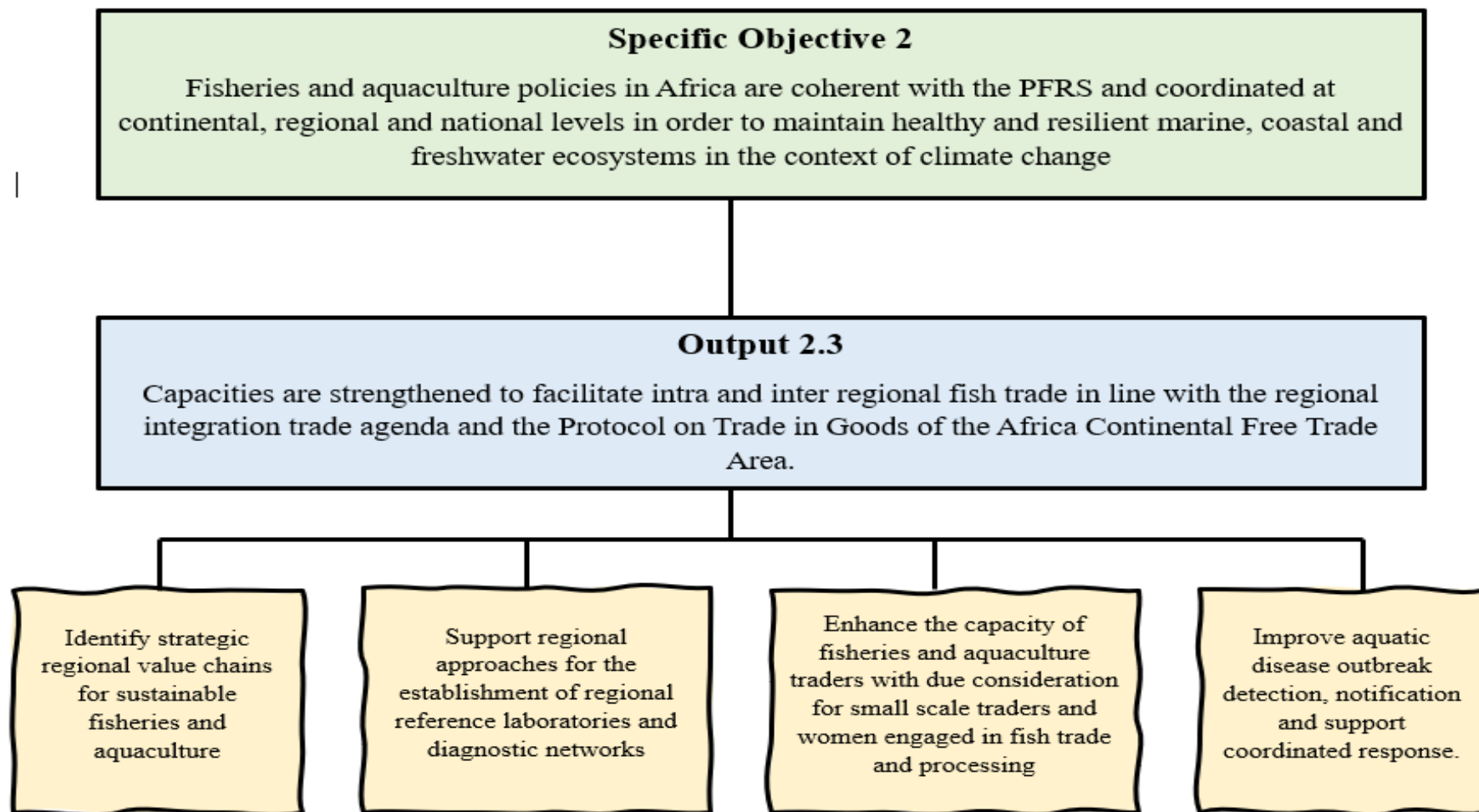
@ implementation AU principle of regional subsidiarity anchored in RECs

Reg/int	Protect industry, rules and mechanisms of trade
<ul style="list-style-type: none"> • Competence levels of governments to implement legislation, surveillance and testing • Compliance to WOA Aquatic Code 	
National	Sanitary status, surveillance
<ul style="list-style-type: none"> • Establish sanitary status and compartments • Develop and implement national biosecurity protocols (trade, production). • response to disease outbreaks 	
Producer	Implementation => BMPs
<ul style="list-style-type: none"> • Develop and implement appropriate SOPs/BMPs 	



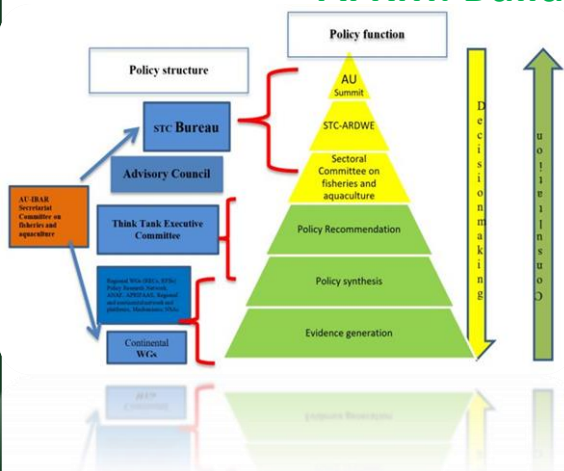
Map showing geographical regions of Africa: North Africa (green), West Africa (yellow), Central Africa (pink), Eastern Africa (blue) and Southern Africa (brown)

Builds upon the outcomes of FishGov 1



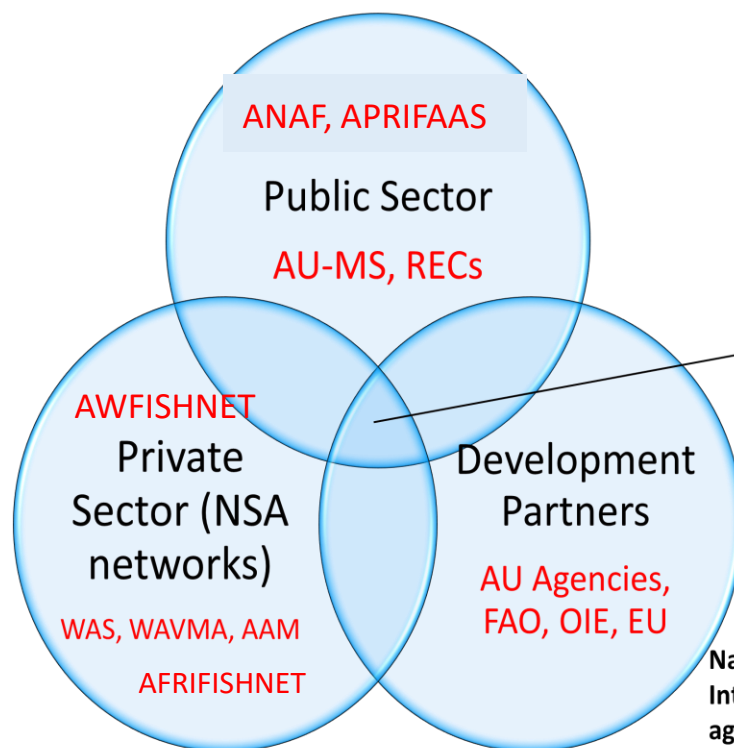
E: Implementation of the PFRS: Actions and Outcomes of FishGov 2 on Aquatic Biosecurity Control

AFRM: Building Linkages, Partnerships & Collaboration



- Global
- Continental
- Regional
- National

Local & international private companies, farmers, academia, practitioners, etc



- Capacity dev't
- Best practices
- Technology
- Knowledge and information sharing

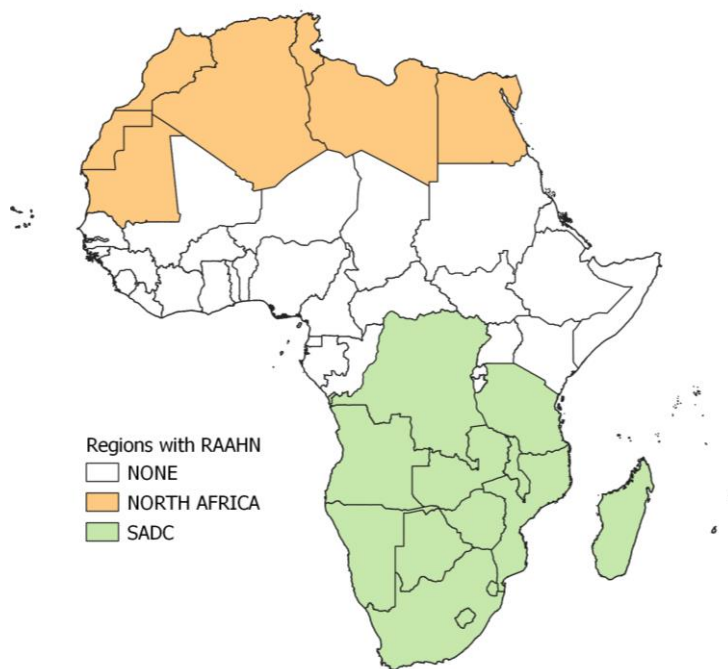
=> Coherence & harmonisation in dev't approaches

National agencies, NGO's, International development agencies, etc

E: Implementation of the PFRS: Actions and Outcomes of FishGov 2 on Aquatic Biosecurity Control

To further establish global coherence, in 2023 to WOAHA Aquatic Animal Health Strategy (2021-2025), AU-IBAR anchored on recommendations of FishGov 1 & AFRM to collaborate with WOAHA to launch:

Africa: Regions with Regional Aquatic Animal Health Networks (RAAHNs)



RAALHN-Africa

Objectives

- Promote and strengthen the establishment of collaborative partnerships and networking between national, regional and international aquatic animal health laboratories and public and private-sector fisheries and aquaculture institutions to support pathogen detection and identification, as well as the delivery of Aquatic Animal Health Services in Africa.
- Improve the capacity for and access to quality of aquatic animal health laboratory services and information in Africa by promoting and supporting the harmonization and standardization of diagnostic techniques, products, services, expertise and regulations in compliance with national, regional and international standards
- Establish a continental AAH laboratory information system and capacity building (training) programs

multistakeholder platforms for sharing of sanitary information

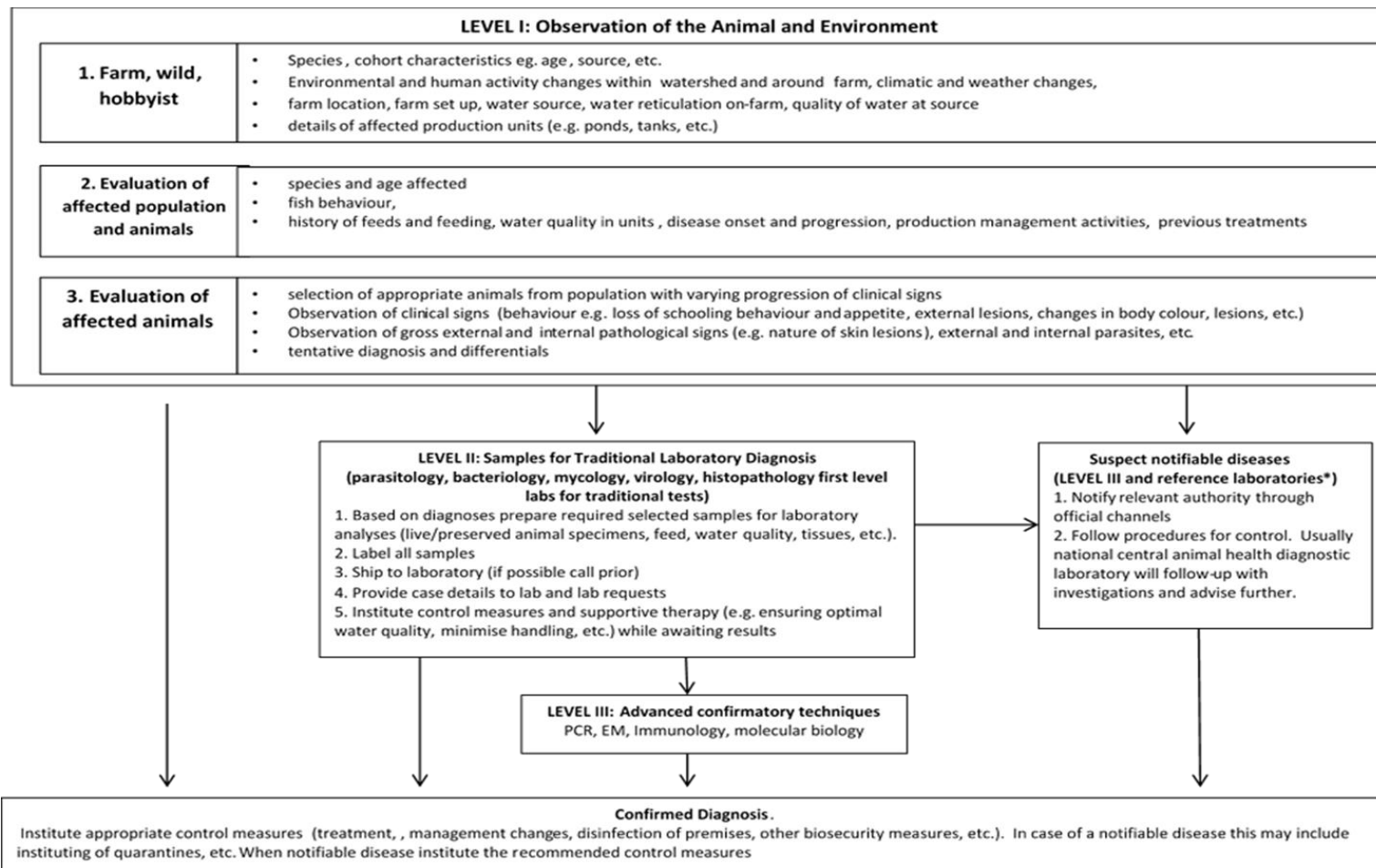
3-Tier Community based mechanism for rapid accurate detection and evidence-based aquatic biosecurity control and environmental management

E: Implementation of the PFRS: Actions and Outcomes of FishGov 2 on Aquatic Biosecurity Control

The key elements of the 3-tier laboratory system (recommendation from FishGov 1):

Enhancing capacities for fish diseases surveillance and control, timely collection, analysis and sharing of accurate sanitary information and strengthen capacities for access to market:

- starts from the point of production.
- The production environment also needs to be monitored
- Community participation & public awareness important especially at level I



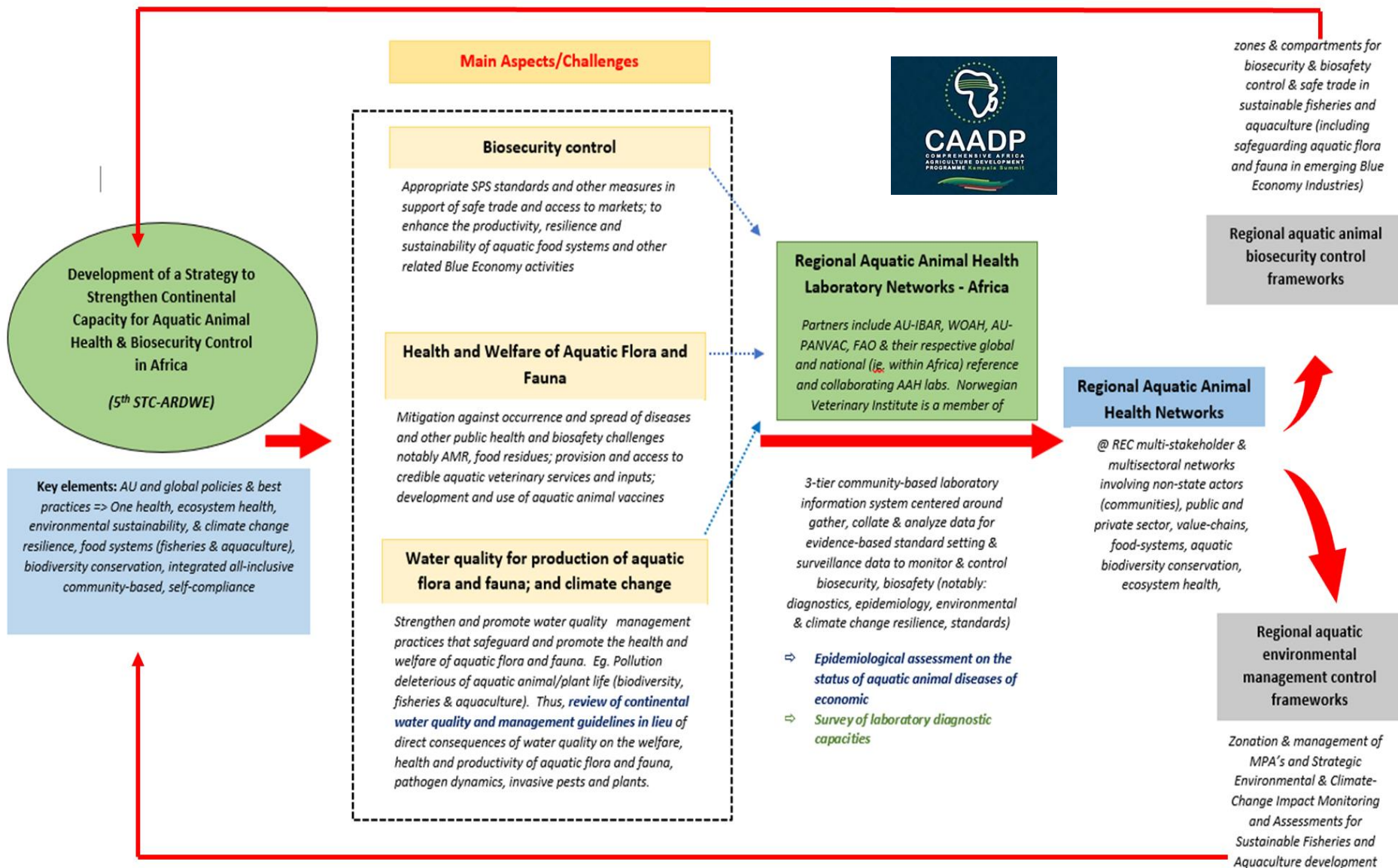
E: Collectively, the RAAHNs and RAAHLNs to facilitate cost-effective & sustainable an all-inclusive risk-based regional aquatic biosecurity control and equitable safe free regional fish trade



	Production systems	Post-harvest	Distribution and marketing	Consumer (human health)	Environment (including indirect impact)
A] SYSTEM LEVEL					
Ecosystem stressors					
Entry points					
hotspots					
drivers					
Transmission pathways					
B] ANIMAL LEVEL					
Animal welfare (5 freedoms domestic & wild)					
Predisposing factors					
Factors influencing susceptibility & establishment					
Preventive & control measures (appropriate alternative production, health management measures)					
C] ONE HEALTH IMPACTS					
Public health (inclusive food-safety, AMR, zoonoses)					
Environmental health					
D] EQUITABLE SOCIO-ECONOMIC DEVELOPMENT					
Food & nutrition security					
Access to markets & safe-regional trade					
Jobs, wealth creation, incomes, national & regional development					

RAAHN's, RAHLN, Regional public & private sector practitioner networks, supported by NEMA's, RFB, RWB, Regional AMR networks, regional & global aquatic biodiversity conservation networks, OH partners, regional & global trading partners (food & non-food) coordinated by RECs will play long-term key roles

E: AUC 5th STC ARDWE DECISION ON STRENGTHENING CONTINENTAL CAPACITY FOR AQUACTIC ANIMAL HEALTH AND BIOSECURITY CONTROL



The 5th Conference of the Specialized Technical Committee (STC) on Agriculture, Rural Development, Water and Environment:

- In order to safe-guard aquatic biodiversity, fisheries and aquaculture production and productivity; improve access to markets, foster aquatic-food safety and public health, aquatic biosecurity and biosafety, aquatic ecosystem health and environmental sustainability

=> develop a biosecurity framework that safeguards aquatic animal production (hence livelihoods), food safety (hence human health) and the environment from problems associated with aquatic diseases, pests and plants.

The 5th Conference of the Specialized Technical Committee (STC) on Agriculture, Rural Development, Water and Environment:

TAKES NOTE of the presentation by AU-IBAR on the need for strengthening capacity, establishing coherence and regional co-operation for the control of aquatic animal diseases, pests and invasive species that highlighted:

- i. The impacts for the sustainability of Africa's fisheries, aquaculture, aquatic biodiversity and aquatic ecosystems
- ii. Need to improve access to markets and capacity for equitable and safe regional trade for fishery and aquaculture produce and products
- iii. Enhance climate change resilience, aquatic environmental management and ecosystem health
- iv. Control the acquisition, transmission and spread of antimicrobial resistance and through aquatic environments and production systems; as well as the control of other fishery and aquaculture associated public health hazards
- v. Put in place supportive policies, governance and institutional frameworks that create a conducive environment for the establishment of collaborative multi-sectoral and multi-disciplinary partnerships for effective aquatic animal health and biosecurity control following the ecosystems and One Health approaches; notably (but not exclusively) between the departments of: fisheries and aquaculture, veterinary services, water and natural resources, departments and environmental management following the ecosystems and One Health approaches

E: AUC 5th STC ARDWE DECISION ON STRENGTHENING CONTINENTAL CAPACITY FOR AQUACTIC ANIMAL HEALTH AND BIOSECURITY CONTROL

The 5th Conference of the Specialized Technical Committee (STC) on Agriculture, Rural Development, Water and Environment:

URGES the Commission to lead, plan, and coordinate all activities related to aquatic animal health in Africa and strengthen continental and regional policy and governance to promote aquatic biosecurity control and improve access to markets; including:

- i. undertaking a continental assessment on the status of transboundary aquatic animal diseases and aquatic antimicrobial resistance on the continent to facilitate evidence-based decision making for their control
- ii. reviewing the current continental water and aquatic environmental management guidelines for strengthening and promoting sustainable fisheries and aquaculture management, aquatic biodiversity and ecosystem health
- iii. developing a continental Aquatic Animal Biosecurity Strategy; (& including on aquatic animal vaccines)

REQUESTS the Commission to mobilize resources for coordinating implementation of aquatic animal health activities in Africa.

Continental aquatic animal health strategy
<https://www.surveymonkey.com/r/KPMG2R3>

"Prospects for strengthening continental aquatic animal laboratory services for the sustainable development of fisheries and aquaculture in Africa"
<https://www.surveymonkey.com/r/R6WDZL8>

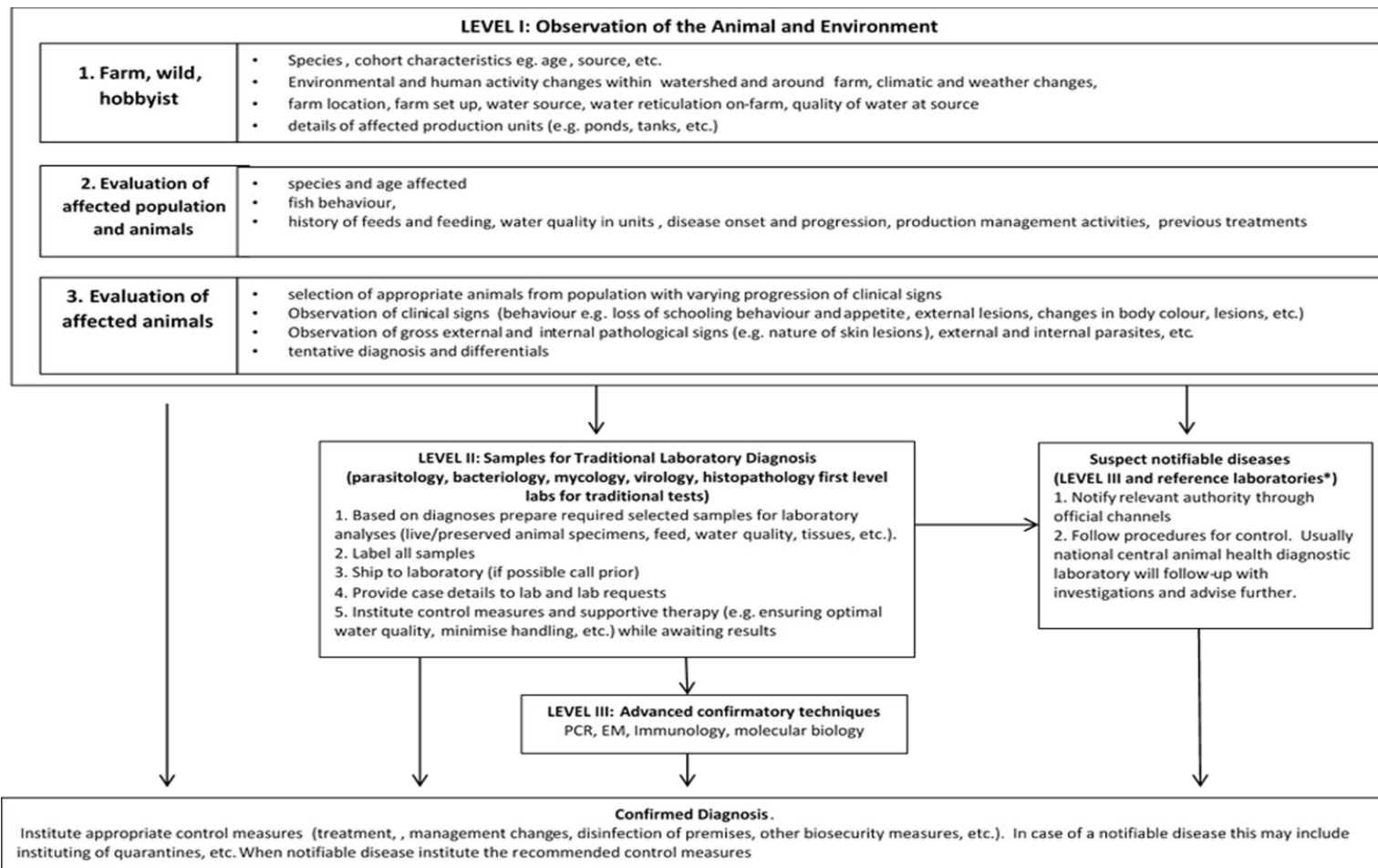
'continental mapping and needs assessment for improving access to safe and effective aquatic animal vaccines in Africa'
<https://www.surveymonkey.com/r/8NCNYL6>

G: RAAHLN – some preliminary findings

The key elements of the 3-tier laboratory system (recommendation from FishGov 1):

Enhancing capacities for fish diseases surveillance and control, timely collection, analysis and sharing of accurate sanitary information and strengthen capacities for access to market:

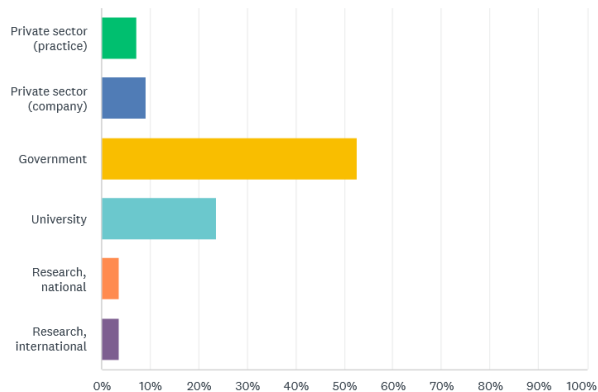
- starts from the point of production.
- The production environment also needs to be monitored
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G: RAAHLN – some preliminary findings

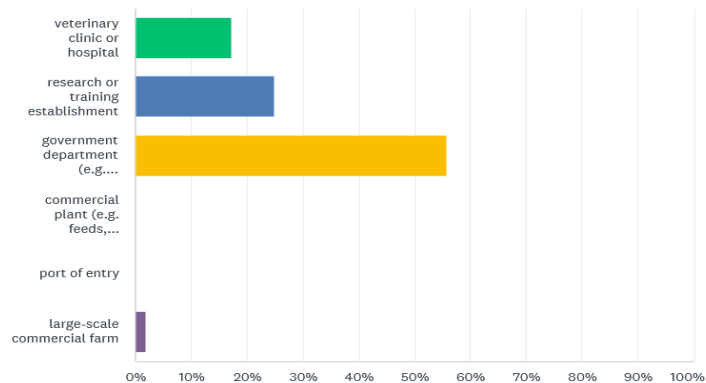
Ownership of laboratory:

Answered: 55 Skipped: 48



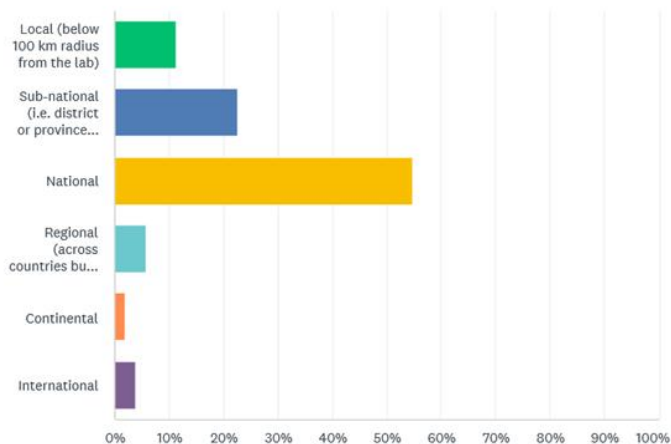
Location of laboratory facility?

Answered: 52 Skipped: 51



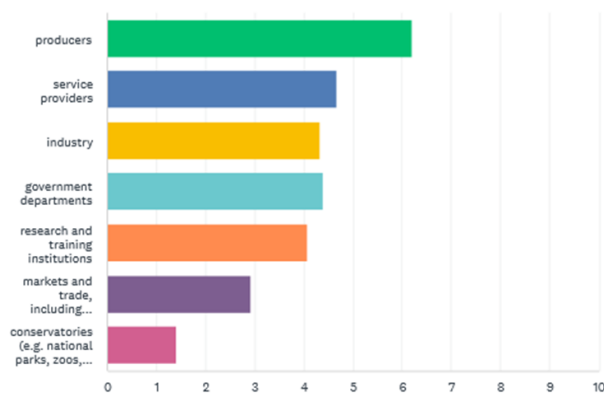
The catchment area within the laboratory provides services?

Answered: 53 Skipped: 50



Who are the laboratories major clients? Rank starting with most important

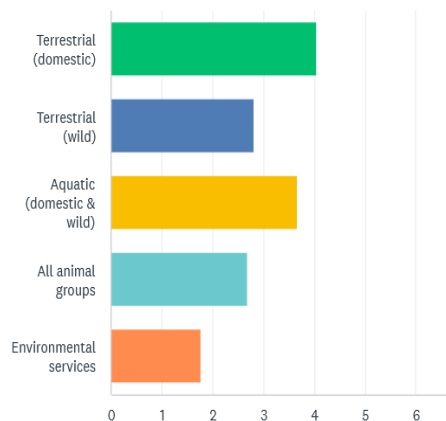
Answered: 60 Skipped: 43



G: RAAHLN – some preliminary findings

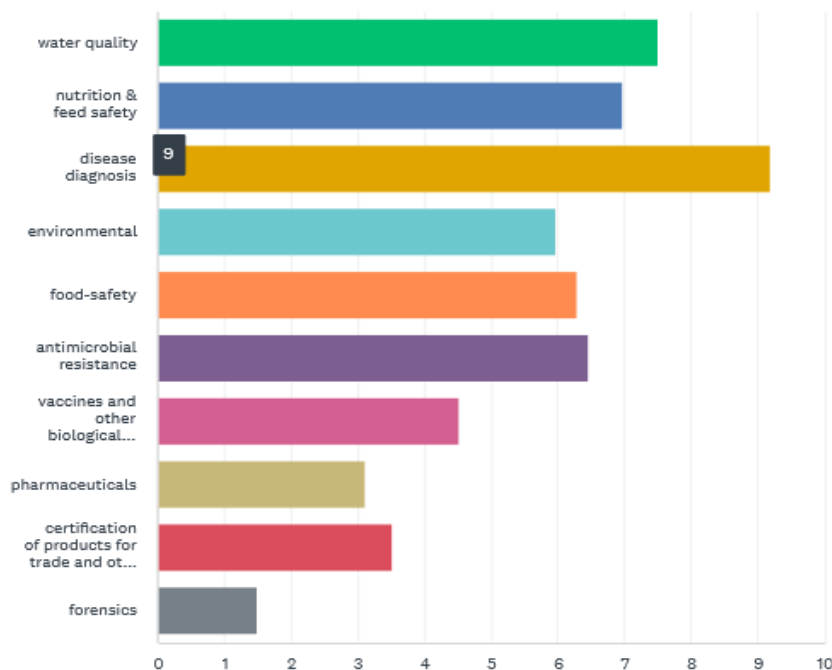
What group of animals does your laboratory offer services for? (Rank with most important)

Answered: 67 Skipped: 36



What specific laboratory services are provided? (Rank starting with most important)

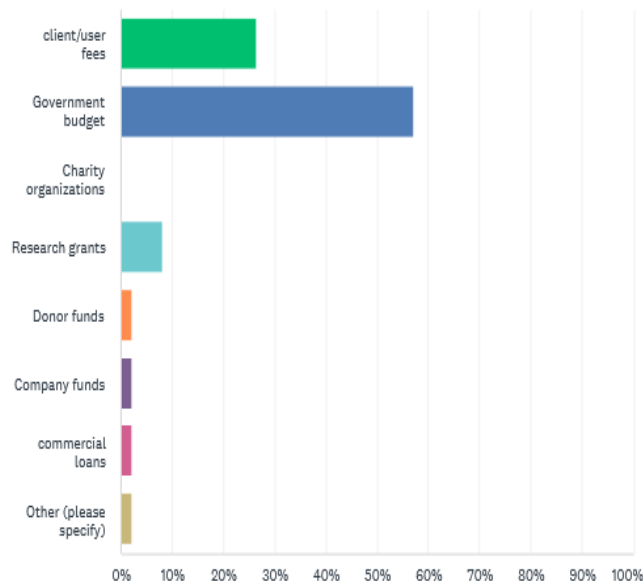
Answered: 65 Skipped: 38



G: RAAHLN – some preliminary findings

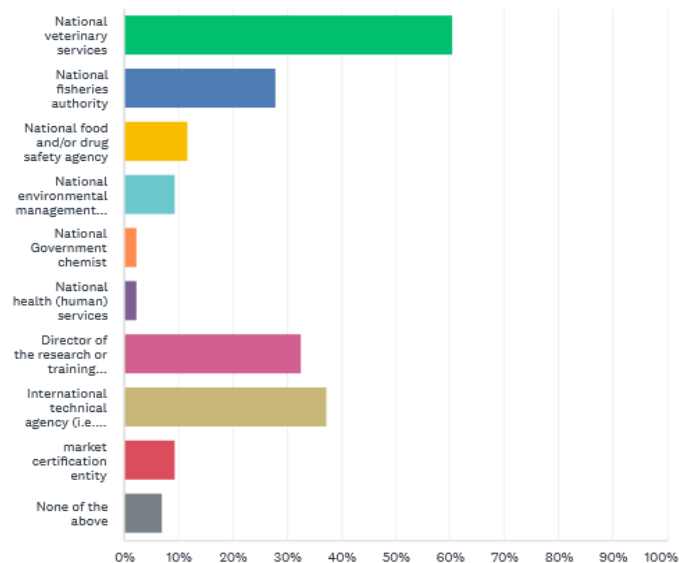
How is the laboratory funded? (Rank starting with most important)

Answered: 49 Skipped: 54



Which entity independently supervises and monitors the quality of service provided by laboratory?

Answered: 43 Skipped: 60



- **STC decision** Put in place supportive polices, governance and institutional frameworks that create a conducive environment for the establishment of **collaborative multi-sectoral and multi-disciplinary partnerships** for effective aquatic animal health and biosecurity control following the ecosystems and One Health approaches; notably (but not exclusively) between the departments of: **fisheries and aquaculture, veterinary services, water and natural resources, departments and environmental management** following the ecosystems and One Health approaches
- WTO WOH measures & standards are Africa's default standard for the production and trade of animals including control, detection and reporting of diseases => AfCTA (Aquatic Code and Manual)

Henceforth,

- The WOA National Aquatic Focal Points are recognized by AU-IBAR given the role of the WOA National Delegate with regard to animal health and safe trade
- The policy developments => NAFP must now begin to deliver on their mandates (TORs)
- Continental drafting of the second aquaculture action plan 2026-2035 will soon commence? Input, information, data
- New continental strategies, role in RAAHN's??? => to achieve the sectors development targets in CAADP 2026-2035

Thank you | Merci | شكراً لك | Obrigado | Gracias | Asante



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