



# AQMENET: The Aquatic Animal Diseases Network in the Middle East

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## AQMENET Considerations and Rationale

- Multifunctional importance of the aquatic and marine species in food production, and the peculiarities of the Aquaculture and fisheries in the Middle East region;
- Increasing demand for Aquatic animals and their products;
- Higher risk of diseases with growing international trade of Aquatic species
- Less knowledge on the pathology and need for specific diagnostic tests and vaccines to better investigate and control the aquatic animal diseases;
- Need to set up a network of laboratories for diseases of Aquaculture was expressed by the OIE Aquatic commission and confirmed by the OIE biological standards commission;
- Importance of the production practices, producing systems and trade as potential risk factors for disease occurrence, spread and transmission;





## AQMENET Objectives

- The main objectives of the network is to assist member countries to develop their aquaculture sector, through the control of aquatic animal diseases.
- Improving scientific and technological capacities in epidemiology and diagnostic of aquatic diseases in the region:
- Promotion of research in fish diseases' epidemiology and pathology;
- Training of member countries staff on surveillance, diagnosis and prevention of specific diseases;
- Contributing to the development, standardization and validation of specific diagnostic methods and reagents for major diseases according to OIE standards and procedures:
- Design and dissemination of specific biosecurity elements in the laboratories for aquaculture. Development and validation of curative products;
- Development and quality control of specific vaccines;



## AQMENET Specific Objectives

- Facilitating collaboration between the national, regional and international institutions and OIE/FAO reference laboratories and collaborating centers for capacity building and exchange of expertise and cooperation;
- Promoting specific studies on aquaculture practices, socio-economics and other risk factors at the marine species-human-environment interface.
- Supporting the implementation of the activities proposed in the workplan on AMR in aquaculture by disseminating knowledge on aquatic diseases' control and aquaculture production best practices to member countries and the international scientific community.





## AQMENET Workplan

- Considerations related to the means of controlling the transmission of aquatic animal diseases and/or pathogens through the production and trade of fishery products.
- Organization of high leveled training programs in all aspects related to fisheries and aquaculture operations.







# AQMENET ESTABLISHMENT AND GOVERNANCE

- **AQMENET to include:**
  - ME Countries bordering: The Mediterranean, the Red sea and the Gulf
  - The activities of the network will be supervised by a Steering Committee (SC) composed of:
    - The Chief Veterinary Officers/OIE delegates of the member countries;
    - The focal points on Aquatic animal diseases in member countries
    - The representatives from OIE (1) and from FAO (1);
    - Consultative ad hoc experts.
  - The SC will meet at least twice a year. Additional meetings can be decided according to the request(s) made by member countries.
  - The work plan, the budget and the financial contributions will be regularly discussed and updated during the meetings of the SC.
  - KSA MEWA Aquaculture department is ready to host the Secretariat of AQMENET in close coordination with the regional GF-TADs permanent secretariat in the Middle East, as well as the managing the establishment of a specific Website.

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## Twinning Project (University of Arizona)

To meet international standards and to enhance diagnostic capabilities, KSA is continuously working with OIE Reference Aquaculture Pathology Laboratory, School of Animal & Cooperative Biological Sciences, University of Arizona (UoA). Twinning project was started to;

- 1) Improve JFHSL capacity and technical expertise on shrimp diseases diagnostics in particular to those listed by OIE.
- 2) Enhance technical abilities of JFHSL staff through secondment/training at UoA laboratory with the procedures in histopathology, molecular diagnostics and microbiology.
- 3) Conduct a regional workshop in KSA to inform the shrimp producers with current status of shrimp diseases, diagnostic procedures, management strategies.
- 4) Design and conduct a farm surveillance program for shrimp farms in KSA.





## Twinning Project

- Kingdom has benefitted from this program and developed early detection and control of shrimp diseases by improving JFHSL diagnostic capacity, surveillance and technical expertise.
- JFHSL has qualified for the Ring Test with University of Arizona (PCR laboratories) 07 times consecutively.
- JFHSL has adopted the OIE standards of diagnostic methods for crustacean/shrimp diseases and will acquire the **Reference Laboratory Status** in the region especially for White Spot disease (WSSV) and Taura Syndrome disease (TSV).
- KSA is ready to share its experience and engage the neighboring countries to develop aquaculture production tools and innovations through AQMENET .
- A recent research **"The effect of Salinity on Enterocytozoon Hepatopenaei Infection In Penaeus Vannamei Under Experimental Conditions"** has been published by MEWA & UoA teams working together under the Twinning Project.



**Thank you**

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