

Key Takeaways / Recommendations of webinar Pakistan Fisheries and Aquaculture: Present Status, Challenges and Future Pathways

Based on the discussions typically emerged from a national seminar on “**Pakistan Fisheries and Aquaculture: Present Status, Challenges and Future Pathways**,” the following recommendations can be directed to the Ministry of Maritime Affairs to strengthen governance, sustainability, and economic growth of the fisheries sector:

a. Combat Illegal, Unreported, and Unregulated Fishing.

- (1) To combat IUU fishing a set of 3 magical international instruments* should be ratified & implemented by the MoMA.
- (2) Introduce vessel monitoring systems (VMS) and satellite tracking for fishing vessels as urgent cases.
- (3) Upgradation of Korangi fish harbor into port for the purpose of Port State Measures Agreement (PSMA).
- (4) Enhance monitoring, control, and surveillance (MCS) mechanisms in Pakistan’s Exclusive Economic Zone.
- (5) Pakistan should implement Conservation & Management Measures (CMM) of the IOTC.
- (6) Strictly enforce regulations against banned fishing nets and destructive fishing practices.

Expected Outcome: Legal, Reported & Regulated (LRR) Fishing, Conservation of fish stocks and protection of marine biodiversity.

b. Transition from Small Scale to Industrial Scale Fisheries. One of the key strategic recommendations emerging from discussions on Pakistan’s fisheries development is the gradual transition from predominantly small-scale, traditional fishing to a more organized and industrialized fisheries sector under the leadership of the Ministry of Maritime Affairs:

- (1) Pakistan’s fisheries sector is currently dominated by small-scale artisanal fishing vessels with outdated gear and limited storage facilities. These vessels have restricted fishing range and low catch efficiency, resulting in underutilization of marine resources in deeper waters.
- (2) Industrial fisheries can enable better resource utilization, higher productivity, and increased export potential. Encourage replacement or

upgrading of traditional wooden boats with fuel-efficient mechanized vessels.

(3) Introduce investment incentives for private sector participation in industrial fisheries.

(4) MoMA should ratify Cape Town Agreement (CTA) setting mandatory safety standards for fishing vessels ≥ 24 meters in length. It covers design, construction, equipment, stability and fire protection to reduce fatalities & improve working conditions for the fishing vessel safety & security.

(5) Maintain sustainable fishing limits to prevent overexploitation.

Expected Outcome: A modern & updated Fishing Fleet of Pakistan with international compliance.

c. **Modernize Fisheries Infrastructure.** Modernizing fisheries infrastructure is not merely a development option it is a necessity for the sustainable growth of Pakistan's fisheries sector. By investing in modern harbors, cold chain systems, processing facilities, and quality control mechanisms, Pakistan can significantly improve seafood quality, enhance exports, and strengthen the livelihoods of coastal communities. Such reforms will also support the country's broader Blue Economy development strategy and ensure the long-term sustainability of marine resources:

a. Modern fish/harbors/ Ports and Landing sites, upgrading fish harbors with hygienic auction halls, ice plants and storage facilities is essential. Important facilities such as Karachi fish harbor, Gwadar fish harbor and Pasni fish harbor require modernization to meet international standards.

b. Development of cold chain setup, establishing cold storage facilities, flake ice plants, refrigerated trucks, and insulated containers will help maintain the quality of seafood from landing sites to processing plants and export markets.

c. Value addition processing facilities, investing in advanced seafood processing units will enable value addition through filleting, packaging, and ready-to-cook seafood products.

d. Improve logistics and transportation infrastructure to reduce post-harvest losses.

e. "Finger jetties" may introduce at Karachi harbor to overcome fishing fleet jamming.

f. Use of AI at auction halls for international buyers.

g. Identify new sites for ports/harbor to operate by private sector specially for squid handling.

h. Modern laboratories are essential for testing seafood quality, detecting contaminants, and ensuring compliance with international food safety regulations.

Expected Outcome: Improved seafood quality and increased export competitiveness.

d. **Traceability: The Key to Success.** A part of measure discussion highlighted “seafood traceability” has become a cornerstone of sustainable fisheries and global seafood trade. For Pakistan, establishing an effective traceability system will not only improve compliance with international regulations but also strengthen the credibility and competitiveness of Pakistani seafood in global markets. By integrating modern technology, strong governance, and stakeholder cooperation, traceability can become a key driver for the growth and sustainability of the country’s fisheries sector and blue economy.

(1) Traceability in fisheries refers to the ability to track seafood products from the point of view to the final consumer. Private sector can do this better & more efficiently.

(2) Introduce digital tracking technologies such as barcoding, QR codes, and blockchain enable efficient monitoring of seafood products from boat to plate.

(3) Introduce certification & Eco-Labeling Programs for customer attraction.

(4) Compliance with international market requirements, for instance the European Commission requires full catch documentation and traceability to ensure compliance with food safety and anti-illegal fishing regulations.

Expected Outcome: Traceability strengthens the credibility, sustainability, and competitiveness of the seafood sector. For Pakistan, adopting a robust seafood traceability system can significantly improve export potential, ensure regulatory compliance, and support sustainable fisheries development. Modern consumers increasingly wanted to know where their food comes from and how it is produced. Traceability builds trust by allowing buyers and consumers to verify the origin and sustainability of seafood products.

e. **Introduce Fisheries Observers on Boats and Field Assistants at Jetty Sites.** To strengthen fisheries governance, improve data collection, and ensure sustainable utilization of marine resources, it is recommended to introduce

“Regional Fisheries Observers” on fishing vessels and “Field Assistants” at fish landing and jetty sites. This initiative can be implemented under the supervision of the Marine Fisheries Department of the Ministry of Maritime Affairs and provincial Govt.

- (1) Accurate and real time collection of fisheries data.
- (2) Catch composition.
- (3) Bycatch information.
- (4) Fishing effort and gear usage.
- (5) Reduction in underreporting or misreporting by fishers.
- (6) Creation of a reliable data set for scientific usage.

Expected Outcome: On board observers act as a compliance for fishing regulations.

f. **Aquaculture: The Future Growth Engine.**

- (1) Inland aquaculture and shrimp farming offer major opportunities for expanding production.
- (2) Large areas of saline and unproductive land can be converted into aquaculture farms.
- (3) Adoption of modern aquaculture technologies can significantly increase productivity.
- (4) International compliance at each level, especially for OIE.

Expected Outcome: Aquaculture can become the fastest-growing segment of Pakistan’s blue economy.

g. **Establish a National Fisheries Data System.** Develop a centralized digital platform to collect and analyze fisheries data including:

- (1) Catch statistics
- (2) Species composition
- (3) Fishing effort
- (4) Vessel registration and activity

(5) Support collaborative research with universities and maritime research institutes.

(6) Conduct stock assessment on regular basis through consultancy

(7) Promote innovation in aquaculture technology and disease management.

Expected Outcome: Evidence-based policymaking and sustainable fisheries management.

h. **Overall Message of the National Webinar cum Seminar.**

(1) Pakistan possesses vast water bodies, including an extensive coastline, rivers, reservoirs, and inland water resources. However, due to limited technical expertise, inadequate training, and outdated infrastructure, the country has not yet been able to fully utilize these resources for fisheries and aquaculture development. Modernization with technical backstopping are essential to unlock the full potential of these valuable water resources.

(2) The Ministry of Maritime Affairs should lead a “Comprehensive Modernization and Sustainability Agenda” for Pakistan’s fisheries sector through improved governance, infrastructure, investment, aquaculture expansion and stronger stakeholder collaboration. “The key to success lies not just in planning, but in the effective implementation of strategies.”

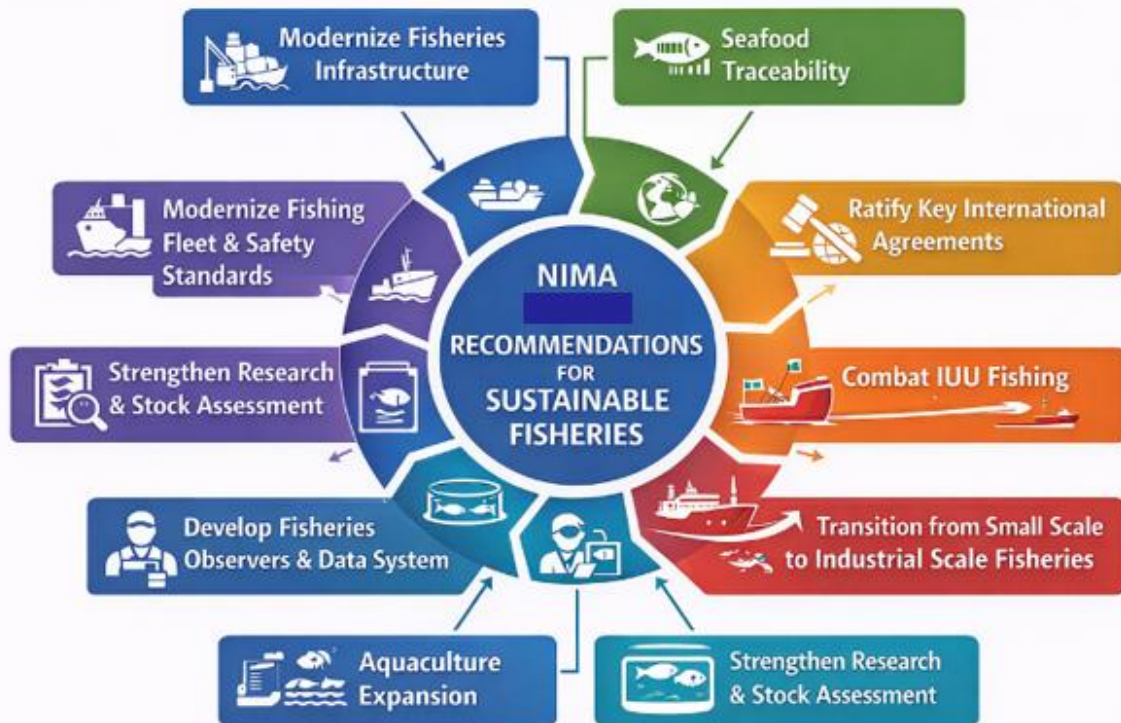


Figure 1: NIMA Recommendations for Pakistan Sustainable Fisheries

MoMA must be aligning national fisheries regulations with international best practices by adopting the FAO led global framework against IUU fishing, which will enhance monitoring, enforcement and international credibility of Pakistan sector.

j. **The Three Key International Instruments.**

(1) **FAO Agreement on Port State Measures (PSMA)**

- (a) Prevents vessels involved in IUU fishing from landing their catch in ports.
- (b) Strengthens inspection and monitoring of foreign fishing vessels.
- (c) Helps block illegal seafood from entering international markets.

(2) **FAO Compliance Agreement**

- (a) Requires countries to control fishing vessels flying their flag.
- (b) Ensures vessels comply with international conservation and management measures.

(3) **UN Fish Stocks Agreement**

- (a) Promotes sustainable management of shared and migratory fish stocks.
- (b) Encourages international cooperation in fisheries conservation.

(4) **Cape Town Agreement (CTA) 2012**

- (a) Improve safety standards.
- (b) Protection of fishermen at sea.

MoMA can use CTA 2012 to develop national safety regulations for fishing vessels.