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CENTRAL ASIAN AND CAUCASUS REGIONAL FISHERIES AND AQUACULTURE COMMISSION

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REPORT ON THE TECHNICAL ADVISORY COMMITTEE (TAC): INTERSESSIONAL ACTIVITIES FOR 2012, RECOMMENDATIONS AND 2013 WORKPLAN

INTRODUCTION

1. The aim of this document is to report on the first activities of Technical Advisory Committee (TAC) which were undertaken during the intersessional period. The document also summarizes the advice, recommendation and conclusions of TAC. The document needs to be read in conjunction with the document CACFish:II/2013/3 (Report on TAC: Recommendations and Workplan for 2013).

ACTIVITIES OF THE TECHNICAL ADVISORY COMMITTEE (TAC)

2. The First Session was organized in Kiev, Ukraine from 20 to 22 November 2012. The Session was attended by 4 Member States: Armenia, Kyrgyzstan, Tajikistan, and Turkey. Participation to the Session also included representatives from 6 non-CACFish Member States, Azerbaijan, Georgia, Kazakhstan, Turkmenistan, Ukraine, and Uzbekistan as well as FAO. The session was the kick start activity of TAC and was the only activity that was conducted during the intersessional period.

RECOMMENDATIONS AND ADVICE OF THE TECHNICAL ADVISORY COMMITTEE (TAC)

3. First session of TAC produced the following recommendations and advice according to the following topics:

Environmental Impact Assessment

- In the development and implementation of EIA, local site and environment conditions should be taken into account,
- In the absence of national EIA, fisheries management should apply a precautionary approach to development and projects of fisheries and aquaculture,

- In the cases where the risks associated with the fisheries and aquaculture development and projects are high, an elaborated EIA should be implemented,
- More EIA consideration should be given to the production systems that have high level of fish stocking density and that are practiced in large production areas (farms, ponds, and reservoirs) where nutrient load empties into natural water bodies through water outlets of the production systems,
- Management rules and regulation set for EIA should be in compliance with the principles of FAO's Code of Conduct for Responsible Fisheries and the Ecosystem Approach to Fisheries, taking into consideration environmental, social and economic issues associated with the fisheries and aquaculture development and projects,
- The EIA process should comprise the internationally recognized principles, including adaptability, efficiency, cost-effectiveness, flexibility, transparency and participatory approach.

Responsible Aquaculture

TAC suggested the following actions:

- Development and implementation of practical and flexible Better Management Practices (BMPs) for aquaculture in Central Asian and Caucasus regions.
- Regular revision of BMPs and standards
- Promotion of more species-specific or production type-specific BMPs, Codes or other types of non-binding better practices, both for inland fisheries and aquaculture in the Central Asian and Caucasus region.

Besides, TAC recommended approval and implementation of Regional Principles for Responsible Aquaculture in Central, which are given in Annex I to this document.

Responsible introductions and transfers of fish in Central Asia and the Caucasus

TAC approved the following actions:

- Promotion of research on the biological and ecological impacts of invasive species; interactions between invasive and native species;
- Development and implementation of methodology for invasive species detections;
- Identification of risky species for introduction to inland fisheries and aquaculture;
- Risk assessment of invasive species;
- Promotion of studies on carrying capacity of water resources within the context of re-stocking;
- Prediction of genetic impacts of invasive species; and control and monitoring.

TAC approved the following recommendations for implementation consideration:

- Development and implementation of a general risk-based regional policy management for use of new fish species in aquaculture and introductions for fishery purposes,

- In the re-stoking of natural water resources the carrying capacity of the resources and possible interactions of the resident species should be considered,
- Development and implementation of effective rules, conditions and management measures for fish introduction and transfers in order to ensure that introductions will not negatively affect the native wild fish stocks, particularly those of endemic and/or endangered,
- Development and implementation of rules and conditions for genetically-modified organisms,
- Prevention of escape from fish farms and hatcheries into the environment,
- Maintain existing biodiversity,
- Maintain the genetic composition of native fish stocks,
- Maintain fish populations through natural reproduction wherever possible,
- Record keeping and monitoring,
- Public awareness and institutional capacity building for management prevention and monitoring of invasive species,
- Undertaking scientific studies for predicting ecological and genetics risks of deliberate and unintentional introductions,
- Development and implementation of risk-based management planning prior to permitting introduction of a new species,
- Development of a regional invasive species database to exchange data and information on alien invasive species.

Data and fisheries information advice

TAC approved the following recommendations for implementation consideration:

- Promotion of systematic collection of fisheries data in compliance with international standards and protocols,
- Development and gradual use of Central Asian and Caucasus Fisheries and Aquaculture Information System (CACFIS),
- Collection on catch and effort data of commercial species,
- Data collection on by-catch, discard, and endangered species, introduced fish species, re-stocking and selection,
- Promotion of effective use and maintenance of logbooks,
- Collection of data on workers by gender,
- Development of a regional database for aquaculture farms and farm production,
- Promotion of timely processing and submission of fisheries and aquaculture data and information,
- Promotion of utilizing fisheries and aquaculture data and information for development planning and management purposes, and

- Collection of data on fish consumption and trade (export and import).

WORK PROGRAMME FOR 2013:

Activity	Time	Place	Estimated budget (USD)
Expert workshop on fish breeding and broodstock management	June 2013	Uzbekistan	35,000
Technical workshop on the management of small-scale fisheries	September 2013	Turkey	35,000
Second Session of TAC	December 2013	Armenia	30,000

4. The activities that were proposed by TAC for 2013 are given in the table above. The terms of reference of TAC 2013 technical activities is given in Annex II.

SUGGESTED ACTION BY THE COMMISSION

5. The Commission is invited to review the activities carried out by TAC during the intersessional period and to provide guidance on next steps. The Commission is also invited to review the activities proposed by TAC as detailed in this report. The Commission may wish to highlight its priorities and to consider budgetary implications in finalising the programme of work for the TAC for 2013.

6. The Commission is also invited to endorse, as appropriate, the scientific and technical advice referred to it by the TAC.

ANNEX I:

Regional Principles for Responsible Aquaculture in Central Asia

1. Aquaculture Farm Siting

- Conduct, when appropriate, an environmental site assessment as part of an Environmental Impact Assessment (EIA) process or project application process
- Avoid sites which are access routes or part of access routes for fishing grounds or that obstruct other resource users.
- Retain buffer zones and habitat corridors between farms and between important habitats and other users.
- Do not use buffer zones to site aquaculture farms.
- Avoid productive agricultural land to site aquaculture farms.
- Develop criteria for site selection and for assessment of carrying capacity
- Take into consideration the local environmental conditions and estimated carrying capacity of aquaculture in the area.
- Avoid sites that are reaching or have already reached its carrying capacity for aquaculture.
- Locate aquaculture farms in locations with suitable soil quality and with access to a water source with suitable water quality.
- Select sites that decrease the possibility of disease outbreaks.
- Obey national and local legislation and planning requirements of natural resource use such as land and water.

2. Aquaculture Farm design

- Design and construct aquaculture farms and other facilities without obstructing natural waterways and flood retention and/or detention areas, and without adversely affecting the local hydrology.
- Design and construct aquaculture farms using appropriate engineering techniques to minimize soil erosion and salination of the surrounding environment.
- Maintain sufficient buffer zones between farms, and the farm and water sources, roads railways and ecologically sensitive habitats.
- Locate inlets and outlets of an individual farm and those of and between adjacent farms at a suitable distance to prevent self-pollution.
- Conserve local biodiversity and compensate any loss of important habitat by re-establishing same.
- Design production units and systems in such a way to ensure that the sites allow optimal culture of the target fish species
- Design production culture systems to minimize possible adverse environmental impacts.
- Design the production systems to use water resources economically and responsibly.
- Design the farm in such a way to protect the cultured fish from predation.
- Design production systems to prevent escape of fish from the culture units, which may negatively impact natural fish stocks and habitats.

3 – Water use

- Do not use groundwater without calculating the allowable extraction amount and do not use excessive or exceed groundwater resources.

- Obey national and local laws and regulations on water use and effluent discharge.
- Ensure discharge water meets agreed water quality standards.
- Actively manage aquaculture effluent to prevent or minimize environmental impacts to receiving waters.
- Minimize/optimize use of water through re-use or recirculating aquaculture systems, where possible.
- Utilize waste management technologies applicable to the culture systems.
- Do not discharge aquaculture effluents into sensitive ecological habitats.
- Maintain and improve the pond environment with optimal water quality

4 – Feed Management

- Use high quality feed that meets the nutritional requirements of the fish species being cultured, ideally from local sources.
- Store feed in a proper manner and under proper conditions to prevent contamination, and excessive wastage.
- Practice efficient and effective feed practices to optimise growth and minimize feed waste
- Observe the feeding responses of the cultured fish and adapt the feeding regime accordingly to optimize performance.
- Take measures to avoid use of fish as feed in cases where the fish is direct food resource of poor and vulnerable groups.

5. Health management

- Adopt disease risk reduction and prevention strategies to prevent and minimize transmission of diseases within the farm and between farms.
- Implement good animal husbandry and management practices for fish health and welfare.
- Use veterinary drugs responsibly with advice from fish health professionals.
- Avoid where possible or minimize use of antibiotics and medicated feeds, and only use on the advice of qualified veterinary professionals.
- Follow proper transportation, quarantine and acclimation practices.
- Minimize stress on fish by avoiding sudden environmental changes and maintaining good handling practices.
- Routinely observe behavior of fish for signs of disease and stress.
- Maintain and update fish health records.

6. ***Broodstock and fish seed supply***

- Select as far as possible local and indigenous species for aquaculture.
- Maintain and use domesticated quality broodstock and captive breeding techniques to produce and supply fish seeds.
- Adopt on-farm quarantine and bio-security measures to prevent or reduce the risk of disease introductions.
- Adopt quality assurance measures for fish seed supply.
- Develop technology that allows broodstock development from domesticated stocks.
- If moving broodstock and fish seed across boundaries within or between countries comply with national, regional and international criteria on trans-boundary movement of aquatic animals.
- Use certified disease-free fish seed.

7. Food safety

- Do not use banned antibiotics, drugs and chemicals or hormones as growth promoters.
- Use authorised antibiotics when only prescribed by a veterinarian/fish health specialist.
- If needed, then use vaccines and anaesthetics according to manufacturer's instructions.
- Prevent contamination with human waste and untreated animal manure
- Apply quality control measures to produce safe high quality aquaculture products, including staff training.
- Establish product traceability by keeping and maintaining proper record keeping of data and information.
- Ensure good sanitary conditions for harvest, handling and transport of aquaculture produce.
- Encourage production, harvesting and marketing of high quality fish and fish products that comply with the respective internationally recognized standards

8. Social responsibility

- Farms should comply with local and national laws and seek legal rights to use the land and water resources.
- Farms should comply with local and national labour laws to assure adequate worker health and safety and provide appropriate facilities and financial compensation.
- Train employees adequately on safety, farm operations and first aid and equip them with necessary protective equipment.
- Make arrangement to seek prompt medical attention, when required.
- Avoid conflicts and maintain good relations with the community to ensure mutual benefits are accrued to both the farm and the community.

ANNEX II:

DRAFT TERMS OF REFERENCE OF TAC 2013 ACTIVITIES

Terms of Reference for the Technical Workshop on the management of Small-sale fisheries

- Identify current problems and challenges of small-scale inland fisheries in the CACFish Area,
- Discuss FAO's International Guidelines on Securing Sustainable Small-Scale Fisheries, and
- Identify technical and scientific issues that need to tabled by the Technical Advisory Committee for further work,
- Formulate key conservation and management recommendations in relation to small-scale inland fisheries.
- Identify follow-up actions that need to be taken in CACFish Area with regard to small-scale inland fisheries

Terms of Reference for the Technical Workshop on Fish Breeding and Broodstock Management

- Review the status of fish breeding and broodstock management in the CACFish Area,
- Identify available techniques for improvement of broodstock in the region,
- Identify possible actions to bridge the gaps for seed production, and
- Formulate guidelines for broodstock and hatchery management in the region.
- Identify follow-up actions that need to be taken in CACFish Area with regard to fish breeding and broodstock management