



WESTERN CENTRAL ATLANTIC FISHERY COMMISSION (WECAFC)

Recommendation WECAFC/XVIII/2022/1 Amendment to Recommendation WECAFC/17/2019/21 “on the sustainability of fisheries using Moored Fish Aggregating Devices (MFADS) in the WECAFC area”

Cover note

The use of Moored Fish Aggregating Devices (MFADs) to facilitate the capture of large oceanic and coastal pelagics in the WECAFC region has increased over the last three decades. This has been particularly the case in the insular Caribbean, where MFADs are being primarily used to improve the revenue and livelihoods of small-scale fishers and food security. Recent estimates point to 3,600+ MFAD units deployed across the region, mainly privately owned by fishers, which are being used by 6,200+ fishers and 2,700+ fishing vessels for commercial and/or subsistence purposes¹. However, the use of MFADs remains largely unregulated across the region, raising challenges in governance and prompting concerns about their impacts on fish stocks and the ecosystem². Challenges in governance include lack of adequate MFAD regulatory frameworks and management plans, potentially leading to conflicts among MFAD users and to the dilution of economic benefits through excessive multiplication of MFADs. Concerns about MFAD impacts on stocks include lack of catch and effort and biological data, disproportionate catches of juvenile tuna and target species considered overexploited (e.g. blue marlin), and the fact that catch per unit effort on MFADs is not a reliable index of stock abundance. Concerns about MFAD impacts on ecosystems include potential accumulation of non-biodegradable marine debris due to MFAD losses and potential incidental entanglement of marine animals.

In response to such concerns, the WECAFC ad hoc Working Group on the Development of Sustainable Development of MFAD fishing in the Lesser Antilles was established in Martinique in 8-10 October 2001 with the main goal of increasing the exchange of information, practices and experiences across the region in the management and exploitation of large pelagics using MFADs.

The second Working Group meeting took place in Guadeloupe in 5-10 July 2004, during which IFREMER shared the results of the DOLPHIN project that described fish aggregations around MFADs in the French Antilles. This meeting led to the later execution of the MAGDELESA project by IFREMER between 2011 and 2014, which generated considerable new knowledge on the MFAD fishery.

Around that same period (2010-2012), JICA and CRFM joined forces to execute a pilot project "*Formulation of a Master Plan on sustainable use of fisheries resources for coastal community development in the Caribbean*" in St Lucia and Dominica. This project sought to build capacity to manage large pelagics fished on MFADs and

¹ Draft Caribbean Regional Management Plan for the Moored Fish Aggregating Device (MFAD) Fishery

increase MFAD productivity by focusing on technical aspects of MFAD design, construction, deployment and maintenance. It also promoted a co-management approach to fisheries in which fishers were expected to increase their participation and responsibility in decision making and provision of fisheries data.

In 2012, during the 14th WECAFC Session Commission in Panama, the decision was made to continue with the Working Group as a Joint Working Group with IFREMER. In 2013, the experience of the JICA-CRFM pilot project led to the execution of the JICA-CRFM Caribbean Fisheries Co-Management (CARIFICO) Project, which over a five-year period sought to further support the development a co-management approach to MFAD fisheries in Dominica, St Lucia, Antigua and Barbuda, St Kitts and Nevis, St Vincent and the Grenadines, and Grenada. This project contributed to the CRFM-JICA CARIFICO/WECAFC-IFREMER MAGDELESA Workshop on FAD Fishery Management in St Vincent in 9-11 December 2013, where it was proposed that the Working Group expand to a Joint Working Group with possible participation of JICA, IFREMER, CRFM and WECAFC.

In 2015, recognizing the need for increased coordination, harmonization, and cooperation across the insular Caribbean on MFAD use, the CRFM led the development of a Sub-regional Management Plan for the MFAD fishery for the Eastern Caribbean.

In April 30th -May 2nd 2019, the Joint JICA, IFREMER, CRFM and WECAFC Working Group on MFADs met for the third time in Puerto Rico; its Terms of Reference (ToR), which were formalized during the Seventeenth Session of WECAFC in July 15-18 2019, included the review of the CRFM Sub-Regional Management Plan to adapt it to the broader WECAFC region. As such, in 2021, with the support of the GCP/SLC/217/EC project “*Support to the Secretariat of WECAFC in implementing targeted actions of the 2019-2020 Workplan on improved regional fisheries governance*”, the WECAFC Secretariat coordinated the drafting of the Regional MFAD fishery Management Plan.

Of further relevance, in April 2017, the ICCAT-IATTC-IOTC Joint Tuna-RFMO FAD Working Group met in Madrid and provided significant technological and scientific insights on the use of FADs in tuna fisheries. In June 2020 ICCAT’s 19-02 recommendation entered into force, which amended the Recommendation on a Multi-annual Conservation and Management Program for Bigeye and Yellowfin tunas, and which binds a number of WECAFC and CRFM members in terms of FAD fisheries by industrial fleets catching these tunas.

WECAFC Members recognize that the implementation of adequate MFAD regulation is necessary for sustainable management of the fish stocks and that this should lead to increased employment opportunities and income for their fishing industry and local communities and to better social outcomes by reducing conflicts, improving equity in access to pelagic resources, and safety at sea.

Reaffirming the need for further action by all interested parties to ensure the long-term sustainable use and management of the offshore pelagic fisheries resources in the region based on an ecosystem approach to fisheries that considers proper dimension of regional MFAD fisheries development under conditions of fully utilized resources availability in the WECAFC region, and

Recalling that the objective of the Commission is to promote the effective conservation, management and development of the living marine resources within the area of competence of the Commission, in accordance with the FAO Code of Conduct for Responsible Fisheries, the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication, and address common problems of fisheries management and development faced by WECAFC members, the following guidance is provided to the Commission.

1. MFAD Fisheries Management

RECOGNIZING that sustainable development of MFAD fisheries in the WECAFC area provides new opportunities for income generation, livelihoods, and contributes to food security;

NOTING the issues on access to resources via MFADs fisheries, and conflict and disagreement among fishers operating around mFADs.;

NOTING that the MFAD fishery in the Lesser Antilles has grown substantially in the last ten years, apparently increasing catches of pelagic species but also catches of vulnerable and already overexploited stocks of species; and adding the need to regulate MFAD numbers and MFAD density to avoid adverse economic consequences;

ACKNOWLEDGING the good efforts of various WECAFC members to license MFADs fishers, prepare legislation for MFAD fishery, ensure disaggregated data collection and analysis in terms of MFAD fishery, encourage best-practice design and training in MFAD construction and use, promote safety-at-sea when fishing with MFADs, reduce conflicts over the use of MFAD, notify maritime authorities of MFADs locations, establish co-management regimes for MFAD fishery and promoting the proper maintenance of MFADs;

REAFFIRMING also its commitment to promote the use of co-management and other participatory approaches involving all affected parties in the development and implementation of relevant policies and programmes;

RECOGNIZING the significant contribution of the CRFM 2015 Sub-regional Management Plan for FAD Fisheries in the Eastern Caribbean and its integration into WECAFC Caribbean Regional Management Plan for the Moored Fish Aggregating Device (MFAD) Fishery, emphasizing on objectives and works necessary to improve MFAD fisheries management in the Caribbean;

RECOGNIZING the need of implementing WECAFC Regional management plan for FAD fisheries with critical considerations on the status of exploitation of the targeted resources as dictated by ICCAT and CFRM resource assessments;

NOTING the economic impact of natural phenomena, such as strong hurricanes, on the destruction of MFADs and the lack of reporting of MFAD numbers, locations, lifespan and replacement;

NOTING the potential of low-cost Information and Communication Technologies (ICT) to improve Monitoring, Control and Surveillance (MCS) in the MFAD fishery.

ADOPTS in conformity with the provision of Article 6 (h) of the Revised Statutes of the WECAFC the RECOMMENDATION that:

- WECAFC MFADs WG is requested to continue the work of finalizing the Regional Management Plan and associated guidance to inform the development of national management plans and legislation. WECAFC members strengthen MFAD stakeholders' participation in both the development process of management plans and their implementation

- WECAFC Members adopt appropriate legislation in support of a sustainable MFAD fishery adhering to the FAO Code of Conduct if insufficient technical and scientific data are available for proper management of MFADs at this time.

- WECAFC secretariat, CRFM, and OSPESCA, support the regional harmonization of national MFAD technologies and fishing protocols that will secure compatible fishery regulations contained in national fishery management plans and related legislation, in accordance with the best available information (including scientific evidence and local and traditional knowledge) and consistent with international best practices, and present the progress made to the respective regular sessions of these RFBs.

2. Data collection and information-sharing for sustainable MFADs fisheries management

NOTING that the exchange of information between researchers, fisheries managers and fishers on MFADs fishery has improved in recent years and needs to be strengthened;

FURTHER RECOGNIZING the need to improve data and information to reduce uncertainties to stock assessment methodologies currently used and to monitor the long-term impacts of these fisheries on the stocks especially recognizing that MFAD catch rates (CPUE) are indicators of biomass aggregation by MFADs, which may not reflect relative abundance of the wild stocks;

NOTING the ongoing effort of the CRFM through its pelagics fisheries Working Group meetings and in collaboration with the CLME+ project, to improve conservation and management of the offshore pelagic resources;

NOTING the concerns of the WECAFC/OSPESCA/CRFM/CFMC Working Group on Recreational Fisheries about the billfish stocks in the Caribbean and the untapped value of this resource in terms of catch-and-release fisheries; and considering the noticeable dominance of blue marlin as the most impacted species in MFAD fisheries in the region;

ACKNOWLEDGING the potential of low-cost Information and Communication Technologies (ICT) to improve fishery data collection and Monitoring, Control and Surveillance (MCS) in the MFAD fishery and the good efforts of various WECAFC members to integrate ICT in their MFAD fisheries

ADOPTS in conformity with the provision of Article 6 (h) of the Revised Statutes of the WECAFC the **RECOMMENDATION** that:

- WECAFC Members aim to collect and analyse biological, ecological, social and economic data and other scientific literature and information to inform decision making processes on MFAD fisheries;
- WECAFC FDS WG in close consultation with the MFADs WG is requested to adapt the WECAFC DCRF regarding data and statistics relevant to MFADs management and to integrate national reports content relating to mFADs fisheries, in the WECAFIS regional database in support of the MFAD research and management objectives. and explore options for integrating the use of ICT systems in fishery statistic systems to facilitate collection and standardization of catch and effort and biological data and, additionally explore validation methods (e.g., observers, cameras etc.) to validate these data.
- WECAFC, CRFM, and OSPESCA, support a regional assessment of the impacts and review of mitigation measures of MFAD fishing in the different regions (within the WECAFC area), and building that regional knowledge into the management decision-making.
- WECAFC support its Members, in the establishment of stakeholder- and public outreach and communication campaigns, in the area including addressing the need to enhance and increase communication of research findings and best practices on MFAD to the fishers and facilitate inputs from stakeholders.

3. Research on MFADs

CONSIDERING the need to conduct more research related to the potential impact of MFADs on the migration patterns, size/age/sex structures and compositions of stocks, change in yields per recruit and other biological effects due to the conspicuous presence of juvenile tuna species in MFADs, as well as on the currently used concept of CPUE for stock assessment and management purposes, co-management options, social and economic aspects, environmental and climate change, fishing techniques and technologies;

CONSIDERING that species diversity associated with MFADs varies according with regions within the WECAFC area as well as seasonality of the catch rates of target and bycatch species²;

NOTING research efforts on FADs in other regions to generate fishery-independent data to help provide a more reliable picture of the abundance and composition of stocks;

CONSIDERING that high rates of losses of current MFAD designs likely constitute a significant source of marine debris;

NOTING the increasing uncertainty surrounding the question of whether MFADs help reduce fishing pressure on coastal resources;

ADOPTS in conformity with the provision of Article 6 (h) of the Revised Statutes of the WECAFC the RECOMMENDATION that:

- The SAG is tasked to define research priorities aiming at addressing the key scientific challenges related to the MFADs and providing a robust scientific basis to support the Commission in managing sustainably MFADs fisheries in the WECAFC region.
- WECAFC members be encouraged to participate in regional research programs to help generate fishery-independent data on key species of interest associated with MFADs;
- WECAFC members be encouraged to partake in research seeking to develop fishing techniques and technologies minimizing impacts on vulnerable and overexploited fish groups;
- WECAFC members be encouraged to partake in research seeking to improve MFAD designs to reduce marine debris, while adhering to minimum standards to reduce entanglement of marine animals;
- WECAFC members be encouraged to partake in research seeing to assess potential links between MFAD fishing and fishing pressure on nearshore/coastal resources.

² Reviewed in CRFM (2015) 2015 Draft Sub-Regional Management Plan for FAD Fisheries in the Eastern Caribbean (Stakeholder Working Document). CRFM Technical & Advisory Document 2015/ 05