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REPORT OF CRFM/CARIFICO REGIONAL WORKSHOP ON FAD MANAGEMENT

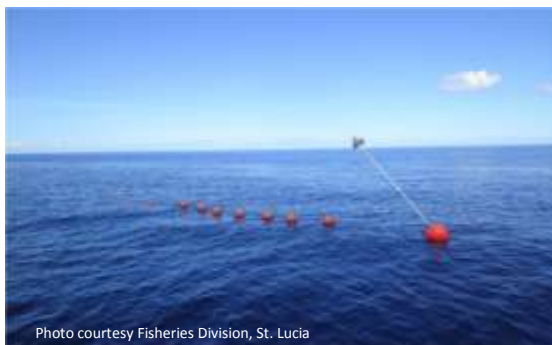


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**Port of Spain, Trinidad and Tobago
05 December 2014**

**CRFM Secretariat
Belize 2014**



CRFM Technical & Advisory Document - Number 2014 / 7

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Report of the CRFM / CARIFICO Regional Workshop on FAD Management, 05 December 2014, Trinidad and Tobago.

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LIST OF ACRONYMS AND ABBREVIATIONS

2WSFC	2 nd World Small-scale Fisheries Congress
BLF	Blackfin Tuna
CANARI	Caribbean Natural Resources Institute
CARICOM	Caribbean Community
CARIFICO	Caribbean Fisheries Co-management project
CERMES	Centre for Resource Management and Environmental Studies
CFO	Chief Fisheries Officer
CFRAMP	CARICOM Fisheries Resource Assessment and Management Programme
CNFO	Caribbean Network of Fisherfolk Organizations
CRFM	Caribbean Regional Fisheries Mechanism
FAD	Fish Aggregating Device
FAO	Food and Agriculture Organization of the United Nations
GCFI	Gulf and Caribbean Fisheries Institute
ICCAT	International Commission for the Conservation of Atlantic Tunas
ICT	Information and Communications Technology
IFREMER	Institut français de Recherche pour l'exploitation de la mer
IUU	Illegal, Unreported and Unregulated fishing
JICA	Japan International Cooperation Agency
MAGDELESA	Moored fish AGgregating Device in the LESser Antilles
NGO	Non Governmental Organization
NJCC	National Joint Coordinating Committee
OECS	Organisation of Eastern Caribbean States
PWG	Pelagic Fisheries Working Group
SSF	Small Scale Fisheries
TOR	Terms of Reference
TT	Trinidad and Tobago
US	United States
UWI	University of the West Indies
WECAFC	Western Central Atlantic Fishery Commission

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INTRODUCTION

The CRFM / CARIFICO Regional Workshop on FAD Management was held on 05 December 2014 in Trinidad and Tobago.

The agenda was reviewed and agreed prior to the Workshop. The agenda is included as *Appendix 1*.

The Workshop was attended by representatives from eleven CRFM Member States, as well as from 5 partner and regional entities/ organizations (CANARI, CNFO, IFREMER, JICA and UWI). The full list of participants is included as *Appendix 2*.

ITEM 1: CARIFICO PROJECT REVIEW.

Item 1 reviewed the CARIFICO Project.

1.1 Regional Review

The presentation of this item was made by Mr. Mitsuhiro Ishida.

Presentation summary

During implementation of the Master Plan, some of the FAD techniques designs were altered. The cost of materials was expensive, hence, cost-effectiveness was necessary. In Dominica, the FAD design was altered by additional buoys to withstand strong currents and the use of sand bags, which allowed the floatation of the FAD in strong currents. If there was a mass production of FADs, sand bags, engine or concrete blocks could be used as anchors. Different designs of the FADs have been introduced to different regions such as in Grenada, St. Vincent and the Grenadines, St. Kitts and Nevis and Antigua and Barbuda. In some regions, tarpaulins were replaced by black straps and different sizes of rope were used. In Dominica the 8mm rope was used, while in other CARIFICO counter-parts 10mm was used. However, if the current was stronger and deeper, the 8mm was recommended.

St. Kitts and Nevis had an estimated 7 FADs on the water and 3 more on land to be deployed. The MAGDELESA FAD was very strong and when re-surfaced, additional material was added. St. Kitts and Nevis began the use of FADs about 3 years ago and the CARIFICO project was an addition. The government of St. Kitts and Nevis and CARIFICO supplied the materials for the construction of the FADs. Fishers were actively involved in the project and the landings included tunas and marlins. Currently, the government of St. Kitts and Nevis has been attempting to amend their fisheries laws to include a user fee for the FADs.

In Antigua and Barbuda, some of the FAD designs were altered by the use of black straps instead of tarpaulin, and the inclusion of the French FAD technique by the fishers. CARIFICO had contributed most of the materials used in the construction of the FADs. Saint Lucia and St. Vincent and the Grenadines had an estimated 5 and 2 FADs, respectively. These countries had included co-management among FADs fishers to maintain and repair the FADs. Grenada was

most impacted by CARIFICO, and had an estimated 5 FADs. The FAD design was altered by additional fenders and pressure buoys to withstand strong currents.

Discussion

It was noted that it was safer to use sand bags as anchors because engines or concrete blocks were heavy anchors and unsafe in the vessel. Sand bags were much easier to deploy and the safety element was important, as 4 lives had been lost in Dominica during FAD deployment.

The need for a regional plan was highlighted and it was noted that Dominica had the most experience to share.

It was noted that some islands used the drop line technique to capture their catch from FADs. This line was modified from the tuna longline fishery, where the modification was each individual line had bait and was free-floating in the current. Bait could either be alive or bits of fish. Alive bait was mainly juveniles that were captured around the FADs in the morning, whereas, bits of fish could either be flyingfish, small tunas or robins. Dominica was currently involved in an artificial bait project with the University of Florida.

In response to a query on “co-management”, it was pointed out that CARIFICO project was not based on technical aspects only but also on other co-management aspects, such as, data reporting. Grenada and Dominica have logbooks. It was noted that co-management of FADs was necessary. The development of consistent co-management by a spectrum of intergovernmental organizations, governments, scientists and fishing industry representatives may assist in developing such a process. Amended fisheries laws and regulations can aid the co-management process. It was important that the fishers were empowered and the more they were, the more they would become involved.

In response to a query on “overfishing by FAD fishers”, it was agreed that data collection from FADs was important. FAD fisheries needed to be monitored to avoid eventual “overfishing”; however, most of the species targeted were migrating pelagic fish. It was important to be cost-effective when developing a fishery and management must be effective. In Dominica, the average age of fishers had changed from aged to mid-30s with the implementation and use of FADs.

1.2 Selected country presentations: Grenada

The presentation of this item was made by Mr. Francis T. Calliste.

Presentation summary

Report on Grenville FAD Fishery “GRENADA”. Grenville was the area where the FAD Project was registered in Grenada. CARIFICO Inception Meeting was held on 25 July 2013, where the project was endorsed by the fishers and nomination of National Joint Coordinating Committee (NJCC). There was a formal registration of the group Grenville FAD Fisher Organization as an NGO. The construction and deployment of FADs were always done in a cooperative way. However, confidentiality existed on the location of the FADs in Grenada. There has been daily management and co-management of FADs via reporting on FADs conditions, changing of

tarpaulin, replacement of buoys, maintenance of strobe lights and FAD head, and replacement of FAD high fly. Management and co-management of FADs included data collection and daily log forms. The aim also included the collection of biological data.

The current monitoring of FADs included daily log reporting system, recording of FAD data, collection of FAD dues, ongoing registration of FAD fishers, ensuring registration fees were charged, weekly committee meetings, issuing of ID cards to FAD fishers and the installation of quick books accounting software, and training of staff. Some of the incentives for the use of FADs were reliance on FAD fishing; less time spent searching for fish, and reduced fuel usage. FAD fishers were also motivated by financial rewards, and security, safety, and sharing of information and knowledge among FAD fishers.

FAD fishers also encountered challenges such as inadequate market support for the sale of fish, inadequate technical and financial support for constructing fibreglass ice boxes, the absence of an echo sounder, the catching of juveniles, reverting to concrete anchors, the cost of deploying FADs, and the legislative laws governing FAD fisheries.

Discussion

It was noted that FADs allowed fishers to have a better quality of life due to the larger quantity of catch landed and the less time spent fishing.

ITEM 2: MAGDELESA PROJECT REVIEW

Item 2 reviewed the MAGDELESA Project.

MAGDELESA Project - Review

The presentation of this item was made by Mr. Lionel Reynal.

Presentation summary

The MAGDELESA Project contributed to stock assessments such as the synthesis of blackfin tuna for the ICCAT manual, genetic study of the BLF population and the BLF reproduction study. There was the need to improve and provide statistics from this project. Fishing selectivity exists around FADs such as the need to reduce, if necessary, the capture of juveniles (tuna for bait); reduce catch of targeted overexploited species; diversify fishing techniques to regularize landings for better marketing and improve fishers' incomes. There was the need to continue the research on new baits as attractive as live baits and to develop new fishing techniques taking into consideration the fishers' security. One of the major challenges of the MAGDELESA Project was the closure because of no funds. Further coordination would be necessary to share the information from the project, to promote best practices and to exchange experiences among international organizations, governments, scientists, conservation organizations, and fishing industry representatives.

Discussion

It was noted that a report from the MAGDELESA Project was required and more collaboration was required on the MAGDELESA Project to move forward.

ITEM 3: UNIVERSITY OF FLORIDA PROJECT REVIEW

Item 3 reviewed the Project of the University of Florida.

University of Florida – Review

The presentation of this item was made by Mr. Andrew Magloire.

Presentation summary

There were two areas of cooperation in support of co-management. They were providing university-based training for fisheries and marine resource professionals, and promoting positive collaborations among fisheries stakeholders. There were four areas of training specialization such as fisheries management and policy, stock assessment, quantitative methods and data analysis, and geographic information systems. Successful candidates were matched with Florida Sea Grant-affiliated faculty members whose expertise aligned with their training interests. The awards of this grant included an approximate \$10,000US, lodging and a monthly stipend of \$2,000US. It was open to marine or fisheries management professionals in CRFM Member States; it was not open to students. A Bachelor's or professional degree was a prerequisite.

Discussion

It was noted that FADs always allowed the aggregation of fish populations and sometimes the capture of an entire aggregation. Hence, there was need for a data collection system to facilitate monitoring of FAD impacts on the biology and ecology of the fish populations affected.

ITEM 4: FAO / UWI ACTIVITY REVIEW

Item 4 reviewed the activity of FAO/UWI.

Workshop on Strengthening organizations and collective action in fisheries: towards the formulation of a capacity development programme

The presentation of this item was made by Dr. Hazel A. Oxenford.

Presentation summary

This workshop was held concurrently with the 67th Gulf and Caribbean Fisheries Institute (GCFI) and was organized by FAO and UWI-CERMES on the 4-6 November 2014, Barbados. The expected objectives of the workshop were to present and discuss the findings of in-depth case studies, to identify lessons and good practices, to develop a programme to strengthen organizations and collective action in Small-scale Fisheries (SSF), and to support

implementation of the Voluntary Guidelines on Small-scale Fisheries. The expected outputs of the workshop were to outline global programme and a road map for implementing the programme. Case studies from around the world were selected by FAO and then researched for presentation at the workshop by their authors. There were 24 participants at the workshop including 6 fisherfolk leaders from CNFO and a CANARI representative.

There were 2 working group sessions: Formulation of a capacity development programme and Designing a road map for global implementation. Other activities of the workshop included a fishers' forum field trip and a fishers' forum panel. It was important that SSF Guidelines were mainstreamed as it was important that fishers have a comprehensive understanding of SSF Guidelines.

A presentation was also made on this item by Dr. Kim Mallalieu.

Presentation summary

It was emphasized that there was need for Information and Communication (ICT) policies and interventions. It has been necessary for multi-stakeholder exchange of knowledge and dialogue for Caribbean social and economic development. One such application of ICT Research Programme was the mFisheries Co-Management Mobile Application in Small Scale Fisheries. The components for the development of mFisheries consisted of research, development, deployment, evaluation, and appraisal of capacity building. mFisheries comprises navigational applications, a virtual marketplace and safety at sea approach. The general objectives of the mFisheries Research Project were:

- a) To promote multi-stakeholder knowledge exchange and dialogue about the potential contribution of ICTs for economic development and poverty alleviation in the Caribbean, with particular emphasis on the small scale fisheries sector.
- b) To develop capacity in the Caribbean to pursue opportunities arising from the provision of innovative mobile-enabled services for its poor communities, and to provide related empirical data and analysis to inform Caribbean policy and regulation.

Discussion

There was no discussion.

ITEM 5: CANARI ACTIVITY REVIEW

Item 5 reviewed the activity of CANARI.

Strengthening Caribbean Fisherfolk to Participate in Governance project

The presentation of this item was made by Mr. Terrence Phillips.

Presentation summary

The presentation from CANARI provided an overview of the *Strengthening Caribbean Fisherfolk to Participate in Governance* project, which is aimed at enhancing the capacity of

fisherfolk organizations to effectively participate in fisheries governance and management of shared living marine resources to improve food security in the Caribbean Community (CARICOM) region. It is a 4 year project (started January 2013), which is funded by the European Union EuropeAid programme (€1,032,099), and is being implemented by 5 project partners (Caribbean Natural Resources Institute (CANARI), Centre for Resource Management and Environmental Studies (CERMES) of the University of the West Indies (UWI), Panos Caribbean, Caribbean Network of Fisherfolk Organizations (CNFO), and Caribbean Regional Fisheries Mechanism (CRFM)). To date, project achievements include identification of the capacity building priorities for fisherfolk organizations in the CARICOM region to participate in fisheries governance and management at the national and regional levels; establishment of the Caribbean Fisherfolk Action Learning Group (comprised of 18 fisherfolk leaders and 3 leaders from national fisheries authorities) as a community of change agents from across the region; establishment of a regional group of mentors to assist fisherfolk organizations in building their capabilities for governance; completion of national fisherfolk workshops in 7 focus countries (Barbados, Dominica, Grenada, Jamaica, Saint Lucia, St. Vincent and the Grenadines and Suriname) to determine the main challenges facing fishers and identify likely solutions; launching of the Fisherfolk Strengthening Fund (small grant facility); and sponsoring of CNFO representatives to the 2WSFC (2nd World Small-scale Fisheries Congress), Mexico, September 2014, Caribbean Week of Agriculture, Suriname, October 2014, and GCFI, Barbados, November 2014.

Discussion

There was no discussion.

ITEM 6: CRFM ACTIVITY REVIEW

Item 6 reviewed the activity of CRFM.

6.1 CRFM Activities in support of FAD Fisheries Management

The presentation of this item was made by Dr. Susan Singh-Renton.

Presentation summary

FAD Management:

CRFM facilitated the CARIFICO Project, via joint coordination with JICA. Several reports were produced in collaboration with JICA such as “*FAD Fishery Management Workshop for OECS Countries (2013)*” and “*Report of CRFM-JICA CARIFICO/WECAFC-IFREMER MAGDELESA Workshop on FAD Fishery Management (2013)*”. It was pointed out that CARIFICO Staff were being housed at the CRFM Secretariat, St. Vincent and the Grenadines.

CRFM’s Pelagic Working Group (PWG):

This PWG’s terms of reference included both scientific and management functions; included all pelagic species, provisions for addressing management of FAD fisheries, and functions pertaining to cooperation with ICCAT. The TORs also specify roles for each party. In 2014, the

PWG conducted a literature review of FAD fisheries statistical management across CRFM Member States, considered findings and recommendations and considered options for startup of FAD fisher log book system. The PWG noted a need for continuous capacity and awareness building.

Discussion

It was noted that logbooks already existed but there was the hope that the updated version would be used regionally.

6.2 The ICCAT Connection

The presentation of this item was made by Dr. Susan Singh-Renton.

Presentation summary

International Commission for Conservation of Atlantic Tunas (ICCAT) was the only fisheries organization with the authority to undertake the range of work required for management of the Atlantic Tuna and Tuna-like fish species. CARICOM / CRFM participation in ICCAT has been in effect since 1991 when CARICOM became an observer at ICCAT. CFRAMP, and later CRFM, as an observer in ICCAT, played a key role in strengthening CARICOM/ CRFM Member State participation in ICCAT. In the period following 1991, 4 CARICOM States have become members of ICCAT with 1 CARICOM State currently holding Cooperating Party status. At the time new ICCAT catch allocation criteria were being negotiated, CFRAMP had prepared a regional position paper on catch allocation criteria, which was presented through the representation provided by Trinidad and Tobago on behalf of the region. In addition, CFRAMP and later the CRFM provided support to countries on national positions and in management negotiations on catch quotas, IUU fishing allegations. In recent years, the CRFM has assisted ICCAT to advance key collaborative activities.

ICCAT has had ongoing concerns regarding the increasing use of FADs by some fisheries, and their impacts, including: high juvenile catches of tropical tunas by surface fleets, changed composition of free swimming schools of tropical tunas, impact on species ecology, high billfish catches reported by artisanal fishers that use FADs, and the bycatches of turtles and sharks, depending on FAD material.

Some of the management measures taken by ICCAT on FADs included: improved reporting of data, establishment of an *ad hoc* working group on FADs, mandatory reporting of FAD fishing activities and introduction of a logbook system, development of a FAD Fisheries Management Plan, and observer programs for the purse seine and baitboat fleets.

Discussion

It was noted that there needed to be education on the different designs of FADs.

It was noted that the engagement of ICCAT was very important.

It was suggested that it was necessary to engage artisanal FAD fishers to submit data, especially in relation to pelagics, and to improve understanding of our fishery situations in order to benefit more from ICCAT participation.

It was suggested that Grenada should become a member of ICCAT.

6.3 CRFM co-operation with other regional fisheries bodies and entities on FAD fisheries management

The presentation of this item was made by Mr. Peter A. Murray.

Presentation summary

Management should always consider biological, economic and ecological aspects and issues. One of the common management questions that arise has been the sustainability of fishers' livelihoods. The CRFM (in the person of the CFO of Dominica) has been convener of the joint WECAFC FAD working group, is charged with finding solutions and specifically with the election of a chair (2014-2016). The working group would: take a multidisciplinary and participatory approach to the sustainable development of moored FAD fishing for pelagics, and contribute to the fulfilment of national and regional management responsibilities for shared pelagic fish stock management under the Code of Conduct for Responsible Fisheries. Specific Terms of Reference for the period 2014 to 2016 were to consider data on FAD fisheries in analyses of pelagic fish resources, to monitor progress in the JICA-CARIFICO Project and provide technical advice and guidance, to collaborate with IFREMER on research of key pelagic species associated with FAD fisheries, and to develop manuals on best practices in the fisheries using FADs.

The role of WECAFC Member States was to develop, implement, monitor and adapt accordingly, national systems for improving the quality of catch and effort data on the fisheries using FADs including historical time series data, to develop, implement, monitor and adapt accordingly, national systems for collecting socio-economic data on fisheries using FADs, to implement inter-sessional activities amongst other activities. The role of the CRFM Secretariat was to assist with coordination of activities of the Working Group, at the regional level, to assist with the procurement of funds, to assist with convening of meetings and to coordinate the formulation and adoption of recommendations. There has been also the critical need to share data regionally.

Discussion

It was noted that JICA-CARIFICO project had an estimated 3.6 years remaining and the way forward had limited time. It should be important to utilize funds efficiently.

It was noted that CNFO had requested to be part of this working group.

ITEM 7: WAY FORWARD

- There was need to recognize and commend the experts from Japan on CARIFICO.
- It was noted that co-management was necessary for the CARIFICO Project.
- It was noted that there was need for a more effective role for capacity building for fisherfolk organizations by organizations and institutions.
- It was noted that the collection of data from CARIFICO Project should be mandatory.
- It was recommended that the ICT tools and interventions from The University of the West Indies be utilized and shared with all stakeholders.
- It was recommended that CARIFICO Project creates a website that will project the countries experiences.

ITEM 8: WORKSHOP CLOSURE

The Executive Director of the CRFM Secretariat; Mr. Milton Haughton, thanked the Chairman of the workshop for so ably guiding the meeting. Mr. Haughton also thanked the participants and partners who were encouraged to continue collaboration/working together. Mr. Haughton noted the project had an estimated 3.5 years before conclusion and workshops were necessary to share and disseminate information. Mr. Haughton thanked JICA for its support, funding, responsiveness and technical support, and looks forward to building the relationship for mutual benefits. He also acknowledged JICA's firm commitment to funding the project at this time when development funds were difficult to source. Finally, Mr. Haughton wished all a Merry Christmas and a Prosperous year in 2015.

APPENDIX 1: AGENDA

CRFM CARIFICO Regional Workshop on FAD management Friday, 5 December 2014			
ITEM 1		CARIFICO Project Review	
1.1		Regional review <i>A 30-minute powerpoint presentation by a regional JICA expert will provide details of the project's aims and achievements to date</i>	0900 – 0930
1.2		Selected country presentations <i>A 5-minute powerpoint presentation by 1-2 country representatives will provide further details of the progress of country-level CARIFICO project activities, achievements and challenges</i>	0930 – 0950
ITEM 2		MAGDELESA Project Review <i>A 20-minute powerpoint presentation by a representative from IFREMER will provide details of the project's aims and achievements</i>	0950 – 1010
ITEM 3		University of Florida Project Review <i>A 20-minute powerpoint presentation by a representative from the University of Florida will provide details of the project's aims and achievements</i>	1010 – 1030
ITEM 4		FAO/ UWI Activity Review <i>A 20-minute powerpoint presentation by a representative from UWI will provide a review of the activity titled 'FAO Workshop on Strengthening Organizations and Collective Action in Fisheries: Towards the Formulation of a Capacity Development Programme'.</i>	1030 – 1050
		COFFEE BREAK	1050 – 1105
ITEM 5		CANARI Activity Review <i>A 20-minute powerpoint presentation by a representative from CANARI will provide a review of CANARI's activities on building the capacity of regional and national fisherfolk organization networks to participate in fisheries governance and management.</i>	1105 - 1125
ITEM 6		CRFM Activity Review	
6.1		CRFM Activities in support of FAD Fisheries Management	1125 – 1145

		<i>A 20-minute presentation by a representative of the CRFM Secretariat will provide a review of CRFM's inputs into the CARIFICO project (administration, regional coordination, PWG activities including support for improved FAD monitoring and logbook development), highlighting achievements and challenges</i>	
6.2		<p>The ICCAT Connection</p> <p><i>A 20-minute presentation by a representative of the CRFM Secretariat will provide a review of the status and recommendations on FAD fisheries management, with emphasis on developments by ICCAT</i></p>	1145 – 1205
6.3		<p>CRFM Cooperation with other regional fisheries bodies and entities on FAD fisheries management</p> <p><i>A 20-minute presentation by a representative of the CRFM Secretariat will provide a review on the status of this activity</i></p>	1205 – 1225
ITEM 7		<p>Way forward</p> <p><i>To formulate agreed conclusions and recommendations on the way forward, the Workshop Chairperson will facilitate general discussions on the presentations received, with emphasis on the participatory (co-management) approach, taking into account the experiences gained so far especially in the area of FAD fisheries management.</i></p>	1225 – 1250
ITEM 8		<p>Workshop Closure</p> <p><i>The Workshop Chairperson will invite any closing remarks</i></p>	1250 – 1300

APPENDIX 2: LIST OF PARTICIPANTS

1.	<u>ANTIGUA and BARBUDA</u> Mr. Hilroy D. A. Simon CARIFICO Project Manager Fisheries Division Ministry of Agriculture, Lands, Housing and the Environment Point Wharf Fisheries Complex Lower North Street, St. John's Tel: 268-462-1372 Fax: 268-462-1372 Email: hilroy_simon@yahoo.com fisheriesantigua@gmail.com	2.	<u>THE BAHAMAS</u> Mr. Michael T. Braynen Director Department of Marine Resources Ministry of Agriculture and Marine Resources P.O. Box N-3028 Nassau N.P. Tel: 242-393-1777 / 393-1014 Fax: 242-393-0238 Email: michaelbraynen@bahamas.gov.bs
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The CRFM is an inter-governmental organisation whose mission is to “Promote and facilitate the responsible utilisation of the region’s fisheries and other aquatic resources for the economic and social benefits of the current and future population of the region”. The CRFM consists of three bodies – the Ministerial Council, the Caribbean Fisheries Forum and the CRFM Secretariat.

CRFM members are Anguilla, Antigua and Barbuda, The Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago and the Turks and Caicos Islands.

