

ANNUAL REPORT 1 April 2015 to 31 March 2016

Towards Sustainable Development of Fisheries for the People of the Caribbean

CRFM Administrative Report

Annual Report 1 April 2015 – 31 March 2016

CRFM Secretariat 2016

CRFM ADMINISTRATIVE REPORT – CRFM Annual Report, 1 April 2015 -31 March 2016

© CRFM 2016 All right reserved.

Reproduction, dissemination and use of material in this publication for educational or noncommercial purposes are authorized without prior written permission of the CRFM, provided the source is fully acknowledged. No part of this publication may be reproduced, disseminated or used for any commercial purposes or resold without the prior written permission of the CRFM.

Correct citation: CRFM. 2016. CRFM Annual Report, 1 April 2015 – 31 March 2016. CRFM Administrative Report. 67 pp.

ISSN# 1995-5294

Published by the Caribbean Regional Fisheries Mechanism Secretariat, Belize



OUR MISSION

To promote and facilitate the responsible utilization of the Region's fisheries and other aquatic resources for the economic and social benefit of the current and future population of the Region.



Table of Contents

FOREWORD	1
EXECUTIVE SUMMARY	2
INTRODUCTION	8
POLICY AND MANAGEMENT	10
The Caribbean Community Common Fisheries Policy Climate Change & Disaster Risk Management Strategy Combating IUU Fishing Strengthening the fisheries SPS framework Reef Fisheries Management Pelagic Fisheries Management Continental Shelf Fisheries Management	
IMPROVING THE EVIDENCE BASE AND ITS USAGE	
CRFM's Fisheries and Aquaculture Research Agenda	
STRENGTHENING THE STAKEHOLDER VOICE	
FISHERFOLK IMPROVE CAPACITY TO PARTICIPATE IN GOVERNANCE	41
TRAINING AND CAPACITY BUILDING	
CRFM-UNU Partnership CRFM - IOI Dalhousie University Partnership CRFM awardees among graduates of IOI course in Ocean Governance Summary of Training Courses and Fellowships	46 49
STRATEGIC ALLIANCES, PARTNERSHIPS, AND INTERNATIONAL RELATIONS	
CARICOM CRFM welcomes CARICOM Secretary-General on Belize visit WECAFC ANCORS CRFM AND UNU-FTP PARTNER TO IMPLEMENT VALUE CHAIN APPROACH TO FISHERIES	51 53 54
OUR VOICES ON THE GLOBAL STAGE	57
CRFM Executive Director on expert team for E15 Initiative CODEX Alimentarius meeting Fisheries and Tourism Linkage	59 60
OUTLOOK FOR 2016-2017 IN BRIEF	64

ANNEXES	A-1 – A-18
Financial Report	A-2 – A-3
CRFM Secretariat Staff	
Events for the Programme Year	A-6 – A11
CRFM Publications	A-13 – A-18
Acronyms	A-19







FOREWORD

The living marine resources in the waters around us have always been a big part of Caribbean economies and social life. Our countries are either surrounded by water or have significant maritime areas adjacent to their coastlines from which we obtain significant nutritional, economic and social benefits. The fisheries and aquaculture resources offer considerable opportunities for further wealth creation, as well as for reducing poverty, achieving food and nutrition security, and providing meaningful employment for our people, including women, and marginalized and vulnerable young men.

Since its establishment in 2002, the CRFM has been at the forefront of regional efforts to promote sustainable development of the fisheries sector through enhanced regional cooperation among Caribbean States. This report on the activities undertaken during the fiscal period from April 2015 to March 2016, highlights some of the key achievements of the CRFM Secretariat, working in collaboration with Member States, stakeholders and key regional and international development partners.



CRFM Executive Director, Milton Haughton

We continue to make good progress on several fronts as we seek to improve the long-term viability of the fisheries sector and improve the contribution it makes to economic growth and development. This report highlights the achievements in strengthening the governance and management of fisheries and aquaculture, combating IUU fishing, improving trade capacity by strengthening sanitary and phytosanitary systems, improving knowledge-base for planning and decision-making, and building human and institutional capacity for conservation, management, trade and development. This includes the empowerment of fishers, families, and local communities to participate in the policy-making process and take decisions to advance their interests and livelihoods.

I thank the many regional and international partners who have worked closely with us over the past year and who made it possible for us to achieve the outputs and outcomes that are highlighted in this report. I have great pleasure in commending this report to you.

Sincerely,

Milton Haughton Executive Director



Executive Summary

On 31 March 2016, the CRFM completed the implementation of the first biennial work plan, inspired by its Second Strategic Plan. In fulfilling the 2014-16 biennial work plan, the CRFM attained notable milestones, including Ministerial-level approval of the following instruments:

(1) The first Sub-Regional Fisheries Management Plan for Flyingfish in the Eastern Caribbean and its associated management resolution calling for countries to parallel develop national management plans, establish national authorized entry systems for the fisheries concerned, as well as other improvements in the national and regional management framework.



The flyingfish has a life-span of less than one year. It spawns as many as 7,000 eggs several times between November and July. It is known to thrive in a zone spanning from Dominica to Trinidad and Tobago.

(2) The St. George's Declaration on the Conservation, Management and Sustainable Use of Caribbean Spiny Lobster (*Panulirus argus*), and its associated resolution, calling upon all stakeholders to implement its provisions.

In addition, the CRFM commissioned a study on the potential of fish farming in the Caribbean. The findings of this study helped to inform the development of a 5-year Plan of Action for the development of the aquaculture subsector which was formally endorsed by national fisheries authorities in April 2016.

Following the Ministerial-level approval of management instruments for lionfish (since 2013) and flyingfish (since 2014), the CRFM Secretariat undertook to review the progress of the implementation of these two key instruments, and to make recommendations for the way forward. Additionally, with the Ministerial-level approval of the spiny lobster declaration, the Secretariat commissioned the formulation of user guidelines, which was drafted in early 2016.



As in previous years, during PY 2015/16, the CRFM Statistics and Information Report, which provides a valuable compilation of the available data and information from our Member States, was updated and published.

During PY 2015/16, the CRFM Secretariat developed a consolidated list of CRFM-approved recommendations and decisions on research needs. It furthermore facilitated an extensive consultative process of reviewing, identifying and prioritizing these needs and the interests of Member States and partner agencies. This effort resulted in the production of the CRFM's first Fisheries and Aquaculture Research Agenda, which is already being used in guiding project planning and negotiations.



CRFM Member States explore the use of fish aggregating devices (FADs) for marine capture fisheries

In June 2015, the CRFM engaged several technical and management experts in the use of Fish Aggregating Devices (FADs) to discuss the production of a manual of best practices for the FAD fisheries, which are fast developing in the Eastern Caribbean. The CRFM-led initiative resulted in the production of two volumes of the manual of best practices to help stakeholders to develop the emerging technologies associated with FAD fishing. <u>Volume I</u> is focused on FAD design, construction and deployment, whereas <u>Volume II</u> is focused on quality management of FAD-caught fish along the value chain.

Closely linked to this activity, the Secretariat completed draft management plans for <u>FADs</u> and the <u>blackfin tuna</u> fishery. These are available on our website (<u>www.crfm.int</u>) as stakeholder reference documents for informing the relevant consultations.

Additionally and very importantly, the CRFM began full implementation of its component of the EU-sponsored SPS project, with data gathering missions and information sharing during national and regional consultations, to support preparation of model legislation, regulations, protocols and guidelines to meet international sanitary standards for fish and fish products, while also catering to the needs of CARIFORUM states (CARICOM and the Dominican Republic).

THE CRFM HAS BEEN WORKING WITH MEMBER STATES TO ENHANCE BLUE GROWTH!



Fish handling techniques are being improved to enable CRFM Member States to more effectively access foreign markets, thereby expanding the region's potential to earn foreign exchange while increasing employment and giving a valuable boost to the regional economy.



Likewise, country data gathering missions and extensive consultations informed a regional assessment of existing environmental monitoring practices supporting fish and fish product handling, and a proposal for strengthening the systems concerned.

In the area of climate change, an assessment of energy usage within the fisheries and aquaculture sector was completed, and the Investment Proposal for the Strategic Programme for Climate Resilience – Caribbean Track was approved, with implementation of the marine component currently being initiated.



Participants at the National Fisherfolk Workshop in Barbados developing a project proposal on social protection for fisherfolk, September to October 2015 (Photo: CANARI)

"We need training if we have to be independent," said participant speaking at the final national fisherfolk workshop in Dominica on November 24, 2015. (Photo: CANARI)

The CRFM also continued to support activities aimed at strengthening fisherfolk capacity to enhance their involvement in fisheries governance through its partnership with the fisherfolk governance project led by Caribbean Natural Resources Institute (CANARI). We also provided administrative support for the involvement of the Caribbean Network of Fisherfolk Organizations (CNFO) in the Eastern Caribbean Marine Managed Areas Network (ECMANN) project, which has been instrumental in providing training in alternative livelihoods and supporting the development of proposals for small grants.

The CRFM, through ongoing Memoranda of Understanding (MOUs) with various development partners, was able to sponsor training in areas such as fisheries management, policy and law.

As in previous years, the CRFM was represented at several regional and international meetings, including *inter alia*: the World Trade Organization (WTO) Third Expert Group Workshop on Oceans, Fisheries and the Trade System; the 34th Session of the CODEX Committee on Fish and Fishery Products; and International Commission for Conservation of Atlantic Tunas. The CRFM's representation has been in a technical support and/or observer capacity.



In January 2016, three Caribbean regional fisheries bodies (RFBs)—the CRFM, the Western Central Atlantic Fishery Commission (WECAFC), and Central American Fisheries and Aquaculture Organization (Organización del Sector Pesquero y Acuícola del Istmo Centroamericano or OSPESCA)—signed a partnership agreement for coordinating fisheries governance approaches across the Caribbean Sea and adjacent marine ecosystems.



At the signing of the MOU, from left to right: Raymon van Anrooy, Secretary of WECAFC; Mario González Recinos, Executive Director of OSPESCA; and Milton Haughton, Executive Director of the CRFM (Photo via CRFM)

This new RFB partnership will be tested over the next few years, and could help to inform negotiations on the best option for achieving a more formal regional arrangement for managing the region's fisheries, many of which involve shared stocks.





INTRODUCTION

The Caribbean Regional Fisheries Mechanism (CRFM) and its 17 Member States are pleased to present our annual report for the Programme Year (PY) 2015-2016. It was an extremely busy and productive year for us, as we pressed ahead with several initiatives geared towards building the capacity of the Caribbean to capitalize on its fisheries wealth, while ensuring sustainability and expanded market access to bolster the economic benefits that buttress communities all across our region.

The Fisheries and Aquaculture sector continues to be critical to our Member States, and during the Programme Year, we began campaigns aimed at harnessing the earnings potential all across the fisheries value chain, and also at maximizing the synergies that exist between fisheries and tourism. These are initiatives which the CRFM will continue to pursue in the region along with our development partners, as you will read later on in this report.

Furthermore, even as access to global markets remains challenging, the CRFM led the sector's reform in integrating international food handling and safety standards with Sanitary and Phytosanitary (SPS) guidelines which are now central to export trade.

The Caribbean region has what it takes to successfully compete on the global front, but even as we join collective hands to the steer the boat to achieve our ambitious objectives, we remain committed to ensuring food security at home, while reducing our import bill for fish and other seafood, and preserving the livelihoods of our fisherfolk who depend on us to manage for sustainability so that the industry can continue to thrive.



Aquaculture: The CRFM is working with Member States to expand aquaculture production as a means of building the economic value of the sector, while ensuring food security.



Tourism and Fisheries: The CRFM is also working with Member States to capitalize on this vital link. (Photo: CRFM case study, Ostin's Fish Fry in Barbados)



SPS Measures: Workers at fish processing plant help to ensure that the proper food handling practices are observed along the value chain.



Point of sale: customer buys fresh reef fish to take back to the USA for her family table.

2015-2016 ANNUAL REPORT



The fishing fleet of CRFM Member States is largely made up of small vessels like this one, less than 12 meters long.

The CRFM is resolute in its belief that fisherfolk must be active in fisheries governance, and so we and our partners continue to engage in initiatives aimed at strengthening the voice of stakeholders and improving their participation in our region-wide management regime.

We continue to work towards building the knowledge base that will enable all of us stakeholders and resource managers alike—to make informed decisions as we press ahead with our mission: "to promote and facilitate the responsible utilization 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, which was inaugurated on March 27, 2003, is now in its 13th year. The Secretariat of the CRFM, headquartered in Belize, is an inter-governmental organization of 17 Member States in the Caribbean. Our work centers on promoting and facilitating the sustainable management and development of the fisheries and aquaculture resources. Towards this end, the CRFM continues to formulate strategies and action plans for the various fisheries that are critical for the region, and it is this year embarking on its latest biennial work plan and budget (2016-2018), which charts the way forward.

Even as we work on the home front, we continue to be active on the regional and global fronts, as active partners, making sure that the voice of the Caribbean is heard in international dialogue on issues that affect the sector. We continue to build strategic alliances towards this end, so that we can leverage the strength which our alliance affords, in order to meet our strategic objectives.

We continue to work towards accomplishing the mandate set out in our 2013-2021 Strategic Plan. This plan aims, among other things, to improve the welfare and sustainable livelihoods of fishing and aquaculture communities in the Caribbean, by providing income and employment opportunities. It also seeks to ensure that, at all times, the Caribbean has sufficient, safe, sumptuous and nutritious fisheries products to meet the dietary needs for an active and healthy Caribbean lifestyle.



POLICY AND MANAGEMENT

The Caribbean Community Common Fisheries Policy

IMPLEMENTATION OF COMMON FISHERIES POLICY

The elaboration of a Common Fisheries Policy and regime for countries across the Caribbean Community (CARICOM) was approved by CARICOM Heads of Government in 2003. Following years of extensive negotiations, an instrument titled "Agreement Establishing the Caribbean Community Common Fisheries Policy" was unanimously endorsed by the CRFM Ministerial Council in 2011. The instrument also successfully obtained the support of the Council for Trade and Economic Development (COTED), a CARICOM body, in 2011 and the Legal Affairs Committee of CARICOM in 2013. It has, therefore, undergone all the required procedures to facilitate its submission to the Conference of Heads of Government of CARICOM for consideration sometime in the future.



At its meeting held in Suriname on 10 October 2014, COTED gave its stamp of approval to the CCCFP and said that the newly authorized policy should be applied by Member States as far as possible. It confirmed the Caribbean Community Common Fisheries Policy as a final policy document for the Community.

At the 4th Special Meeting of the CRFM's Ministerial Council held at the CARICOM Secretariat in Turkeyen, Greater Georgetown, Guyana, on Thursday, October 10, 2013, Caribbean ministers responsible for fisheries urged the expedited implementation of the Caribbean Community Common Fisheries Policy (CCCFP)—a regional treaty on conservation, management and sustainable utilisation of the region's fisheries resources. That same month, the CRFM launched a comprehensive region-wide campaign to promote the new policy across Member States.

In October 2014, at the 51st Special Meeting of COTED, the body comprised of CARICOM Ministers responsible for agriculture, confirmed the CCCFP as a final CARICOM policy



document, endowing a responsibility on the relevant institutions and agencies of CARICOM to implement the policy.

Shortly afterwards, in November 2014, the CRFM convened a workshop on "Investing in Blue Growth," cohosted by the CRFM, CNFO and Technical Centre for Agricultural and Rural Cooperation ACP-EU (CTA), to consolidate and build upon the successes of previous and ongoing initiatives to strengthen public and stakeholder understanding of key policy issues impacting the fisheries sector. As part of this activity, fisheries industry managers and other stakeholders in CRFM Member States considered the best approach for implementing the CCCFP as directed by COTED. Based on the recommendations from those who participated in the Blue Growth Workshop, the CRFM drafted the Plan of Action for implementing the Caribbean Community Common Fisheries Policy (CCCFP POA).

The draft POA was considered by the Forum and Ministerial Council during April-June 2015, and some additional work is required for its finalization, paving the way for putting the policy into practice. Linked to this is the important task of identifying a suitable implementing agency for the CCCFP under the guidance and support of CARICOM.

More recently, at the Twenty-sixth Meeting of the Executive Committee of the Caribbean Fisheries Forum held on 3-4 March 2016 in St. Vincent and the Grenadines, representatives of CRFM Member States discussed the question of which body would be designated as the implementing agency for the CCCFP.

The CRFM's Executive Director noted that the Policy had been approved at all levels, but the Competent Authority had not yet been designated. He clarified that the Forum would need to make a clear recommendation to the Ministerial Council, which would then make a recommendation to COTED.

CRFM's Executive Director reminded the Meeting that based on previous discussions, COTED had the authority to designate the Competent Authority, and could do so at its meeting which should be convened in October 2016 during the Caribbean Week of Agriculture in Cayman. First, though, a recommendation would be made to the Ministerial Council, which is tentatively scheduled to meet this May in Jamaica.

The Chairman of the Forum noted that the next phase of implementation of the CCCFP is implementation of the Regime. The Forum agreed that the designation of the Implementing Agency for the CCCFP must be settled as a priority matter.

The Forum noted that a proposal concept note had been prepared to assist with the CCCFP Plan of Action and with identifying the Implementing Agency. The working document will be used by COTED in its deliberations towards a decision on the Implementing Agency for the CCCFP.



Climate Change & Disaster Risk Management Strategy

PILOT PROGRAMME FOR CLIMATE RESILIENCE (PPCR)

The Caribbean Regional Fisheries Mechanism will be implementing the marine dimension of the Component on Applied Adaptation Initiatives under the Pilot Programme for Climate Resilience (PPCR), which became operational on 1 July 2008, after approval by the Board of Directors of the World Bank, which serves as the Trustee and Administrating Unit of the US\$1.125 billion programme.

The PPCR, being implemented in this region by the Inter-American Development Bank (IDB), is one of the first programs to become operational under the Strategic Climate Fund—one of two funds within the Climate Investment Funds (CIF) framework.





The PPCR aims to pilot and demonstrate ways in which climate risk and resilience may be integrated into core development planning and implementation by providing incentives for scaled-up action and initiating transformational change.

This is the first regional project to specifically address climate change impacts on the fisheries sector. The PPCR addresses specific and general elements of the Regional Strategy and Action Plan for Climate Change Adaptation and Disaster Risk Management in Fisheries and Aquaculture in the CARICOM Region, which the CRFM developed in 2013 in partnership with the UN Food and Agriculture Organization (FAO), WECAFC, the Centre for Resource Management and Environmental Studies at the University of the West Indies (CERMES/UWI) and the Caribbean Disaster and Emergency Management Agency (CDEMA).



The projects under the Marine Subcomponent of the PPCR will assess the ecological and socioeconomic impacts of climate change and climate variability on fisheries in three marine ecosystems: (1) the coral reefs/mangrove/seagrass complex; (2) the pelagic zone; and (3) the continental shelf. Through modeling of possible future climatic scenarios, predictions will be made on the likely changes in distribution, abundance and availability of the resources to the fishing sector. These studies are expected to provide recommendations for building resilience in fisheries production, post-harvest and marketing systems.

An associated Fisheries and Environment Database will be developed for the storage and maintenance of all inputs and outputs to the projects and for continued monitoring of climate change impacts on the sector. Recognizing the increasing risks to fishers' safety, the project will also pilot an Early Warning and Emergency Response System (EWERS) for fishers in four countries: Dominica, St. Lucia, St. Vincent and the Grenadines, and Grenada.

The EWERS will seek to build new linkages—or strengthen existing linkages—among national agencies with responsibility for fisheries management, emergency response, maritime issues, national security, disaster preparedness and management, telecommunications and health.

The system, once established and well-managed, is expected to keep fishers informed of real time and forecasted weather; as well as conditions for sea prudent planning, trip to efficient facilitate search and



rescue responses, to capture information for planning and decision-making, including local ecological knowledge of fishers, and to facilitate the sharing of information on best practices in safety at sea and managing climate related risks.

The marine projects will also facilitate capacity building to enable fisheries authorities to do impact assessments and prediction modeling, to use the Fisheries and Environment Database, and to use and administer the EWERS.



Engagement of stakeholders is also a critical component, aimed mainly at ensuring that the management decisions are informed by operations on the ground and that stakeholders are aware of climate change impacts and how they can improve their resilience to such changes through risk management.

Changes and variation in climate are likely to impact the fisheries sector and the resources on which the sector depends in several ways. Some of the related hazards include increasing sea temperatures, shifts in seasonal timing, ocean acidification, increasing frequency of extreme weather events (e.g. storms and hurricanes), and sea level rise. Some impacts include changes in species ecology and biology (e.g. distributions, feeding, reproduction, growth rates, and calcification), and consequent changes in the occurrence of diseases and invasive alien species, as well as changes in production, species composition, and resource availability to the fisheries sector as a source of food.



PPCR countries like Haiti are using the seven-step PPCR monitoring and reporting process that involves stakeholders every step of the way—from jointly developing criteria, to scoring progress against PPCR core indicators, to validating data, to learning from and adjusting projects. (Photo: Roehrer/CIF)

Socio-economic impacts on the fishing sector and respective communities are also expected with increasing risk to fishing safety and efficiency, coastal infrastructure, risk to assets, increased displacement and conflict, as well as impacts on markets and livelihoods. Although globally and on the scale of large ocean systems, studies have been conducted to quantify the timing and magnitude of some of these ecological and socio-economic impacts, such analyses have not been conducted at a geographic scale that is useful for individual countries or sub-regions in the Caribbean. Consequently, risk management planning and decision-making in the fisheries subsector are not well informed. The PPCR, Marine Subcomponent is seeking to address this challenge.



PROMOTING RENEWABLE ENERGY SOLUTIONS – REETA PROJECT

The CARICOM Secretariat has been collaborating with the German Agency for International Collaboration (GIZ), and the Inter-American Development Bank (IDB) in the implementation of the CARICOM-GIZ Renewable Energy & Energy Efficiency Technical Assistance (REETA) Project. In October 2015, the parties published the baseline report and assessment for the Caribbean Sustainable Energy Roadmap and Strategy (C-SERMS).

The CRFM supports the implementation of the C-SERMS, with a focus on fish processing activities in the Caribbean capture fisheries sector.

What should be achieved for fisheries:

(1) Develop CARICOM policies and regulations to reduce dependence on fossil fuels in the fishing processing sector;

(2) Implement sustainable energy demonstration projects in the fish processing sector with focus on cooling and drying operations in three CARICOM Member States.

In December 2014, the CRFM, CARICOM and GIZ REETA produced a concept note titled, *Improving Energy Efficiency and the Use of Sustainable Energy in the Caribbean Fishing Sector*, which set out a framework for improved energy efficiency in the sector.

The Note explained that REETA, through the CARICOM Secretariat Energy Unit, will conduct a study of the energy needs of the fishing sector, including current supply and costs, and will develop feasible alternatives for improving energy use efficiency and utilizing indigenous renewable energy sources. The study will include a baseline and gap analysis, capacity building of stakeholders and the development of financeable business models.



A **LOGICAL FRAMEWORK** has been developed that expounds on the methodology to achieve the following specific objectives:

a. Developed strategy and action plan to implement policy and regulatory reforms that will be needed to improve energy efficiency and reduce dependence on fossil fuels in the fishing sector.

b. Increased use of indigenous energy resources in the fishing sector. This may include but is not limited to the use of solar, wind, bioenergy, different forms of ocean energy, etc, with a focus on proven and mature technologies.

c. Developed capacity to enable more efficient fishing and fish processing practices.



In looking at energy costs in the Fishing Sector, it was noted that the weighted mean cost of fishing was estimated in a 2010 report to be US\$1,125 per tonne (United Nations Environment Programme 2011). Of this total, the largest cost factor is labour at 39%, followed by fuel cost at 19% (see chart below)—demonstrating that fuel is a significant cost factor in fishing operations.

The Renewable Energy and Energy Efficiency Technical Assistance (REETA) is a four-year project funded by the Government of Germany through the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH with a budget of 4.5 million Euros. (Source: CARICOM Energy Programme) "The result is to provide viable alternatives for reducing the cost of fuel and the cost of energy in the fishing operations. This will include improving the efficiency of fishing practices and transitioning to indigenous, low cost forms of energy as well as alternative propulsion technologies. The implementation of at least two viable business models is also expected."

-- Concept Note, 2014

At the Caribbean and Pacific Agri-food Forum held 03 - 04 November 2015 in Barbados. the CRFM delivered а presentation on Addressing climate change issues in fisheries and aquaculture in CRFM Member States and recent initiatives and opportunities for up-scaling. In that presentation, it also highlighted the need for institutional supporting



structures to promote Renewable Energy and Energy Efficiency in the Caribbean Region (GIZ-REETA-1) and the need for the evaluation of the technology options for bio-energy from Sargassum seaweed in a framework of environmental resource management (GIZ-REETA Sargassum Project).



CRFM'S ROLE IN CC4FISH

The CRFM is a regional partner on the CC4FISH – Climate Change Adaptation in the Eastern Caribbean Fisheries Sector project – a four-year project which was approved in January 2015 with funding by the Global Environment Facility (GEF) through a 5.4 million USD grant under its Special Climate Change Fund (SCCF) and co-financing of 43 million USD. Under CC4FISH, two regional projects will be executed.



CC4Fish project participants at Logframe Workshop in March 2015 (Photo courtesy of the WECAFC Secretariat)

The project will be the first intervention to support the "Strategy and Action Plan for Disaster Risk Management and Climate Change Adaptation in Fisheries and Aquaculture in the CARICOM Region" (2012)—a strategy that has been prepared in a collaborative effort by the Caribbean Community Climate Change Centre (CCCCC), Caribbean Disaster and Emergency Management Agency (CDEMA), Caribbean Regional Fisheries Mechanism (CRFM), University of the West Indies (UWI), the Western Central Atlantic Fishery Commission (WECAFC) and FAO, with support from all Caribbean states and some key environmental NGOs active in the region.

The first CC4FISH project to be implemented will assess the potential of national frameworks to adopt new processing and marketing opportunities, in order to add value and increase economic resilience to climate change. The project, which will use a value chain approach, will be implemented in at least two CRFM countries.

There are key commercial and underutilized species from which the region can derive greater socio-economic benefits through full utilization in the post-harvest sector. Therefore, the project will explore processing methods for fish produce that are not currently being used, as well as constructive ways in which fish waste could be used.



Under the project, business proposals will be developed to facilitate optimum utilization of the respective species.

The second CC4FISH project will develop a protocol to integrate climate change adaptation and disaster risk management in fisheries and aquaculture into Caribbean the Community Common Fisheries Policy. The CRFM's Ministerial Council will be asked to endorse the protocol for regional implementation.

As a regional partner, the CRFM would be collaborating with other project coexecuters, which include the Western Central Atlantic Fishery Commission, the Caribbean Network of Fisherfolk Organizations, the University if the West Indies, CaribSave and The Nature Conservancy, to share best practices in building resilience in the fisheries and aquaculture sectors. The CRFM would also collaborate in identifying and promoting climate change adaptation measures to mitigate the impacts of climate change and climate variability. The project will present an opportunity for our region to mainstream climate change adaptation into our fisheries policy.

> Direct beneficiary countries are Antigua and Barbuda, Dominica, Grenada, St. Kitts & Nevis, St. Lucia, St Vincent & Grenadines, and Trinidad and Tobago.

The main objective of CC4FISH is to increase resilience and reduce vulnerability to climate change impacts through introduction of adaptation measures in fisheries management and capacity building of fishers and aquaculturists.

The project has four components:

(1) Understanding and awareness of climate change impacts and vulnerability. This is to be effected through local, national and regional vulnerability assessments, models describing fish abundance, and sharing and dissemination of the findings;

(2) Increasing fisherfolk, aquaculturists and coastal community resilience to climate change and variability. This is to be effected through strengthened capacity of fishers and the Caribbean Network of Fisherfolk Organizations (CNFO) in the use of ICT as well as business and other related skills, and the introduction of rapid response systems, provision of equipment for efficient boat hauling, fisher exchange programs to promote comanagement and adaptation technologies, as well as the strengthening or development of aquaculture centres, and strengthened capacity of aquaculturists in climate change adaptation measures and technologies.

(3) Mainstreaming of climate change adaptation in multi-level fisheries governance. This to be effected through strengthened national and regional mechanisms for the implementation of adaptation measures and mainstreaming climate change adaptation into policies, plans and processes.

(4) Project management, monitoring and evaluation, information dissemination and communication.



Combating IUU Fishing

A new working group has been created to address the problem of Illegal Unreported and Unregulated (IUU) fishing in the Caribbean.



IUU fishing undermines international efforts to sustainably manage and rebuild fisheries. It creates unfair market competition for fishermen who adhere to strict conservation measures, like those in the United States. IUU fishing can devastate fish populations and their productive marine habitats, threatening food security and economic stability. Independent experts have estimated economic losses worldwide from IUU fishing to be between \$10 billion and \$23 billion annually. (Source: NOAA)

The 15th Session of WECAFC, held in March of 2014, created a special working group to address IUU fishing issues in the Region (the Regional Working Group on IUU fishing or RWG-IUU), with the view of defining and driving national programs to collect information on foreign fishing vessel incursions into the Region's Exclusive Economic Zone (EEZ), and to propose options and courses of practical action that coastal States should take to engage proactively with the Regional relevant Fisheries Management Organizations (RFMOs) and flag States to address and mitigate these forms of incursions.

The primary objective of the RWG-IUU is to improve coordination and cooperation between national organisations and/or institutions responsible for fisheries-related monitoring, control and surveillance (MCS) in support of their common efforts to prevent, deter and eliminate IUU fishing.

Given the CRFM's mandate, pursuant to the "Castries, St Lucia, (2010) Declaration on Illegal, Unreported and Unregulated Fishing (Castries Declaration)", and Resolution WECAFC/15/2014/6 on region-wide support for the implementation of the CRFM Castries Declaration on IUU Fishing, it was agreed that the CFRM Secretariat would act as secretary to this RWG-IUU. In keeping with this role, the CRFM Secretariat collaborated with FAO/WECAFC and obtained a grant to support the inaugural meeting of the RWG-IUU.

"The Regional Working Group on IUU fishing (RWG-IUU) was established by WECAFC 15, convened by CRFM, and received financial support from the US Department of Commerce/NOAA for an inaugural meeting of this RWG-IUU in 2016. Moreover, in most other working groups under WECAFC, IUU issues have been placed on the agenda," reports FAO in its October 2015 review of the WECAFC Work Programme 2014 -2015.



Strengthening the fisheries SPS framework

Under the 10th European Development Fund (EDF) Programme titled "Support to the Forum of Caribbean States in the implementation of the commitments undertaken under the Economic Partnership Agreement (EPA): Sanitary and Phytosanitary (SPS) Measures," aimed at strengthening national and regional sanitary and phytosanitary systems for health and food safety in the fisheries sector, the CRFM worked to (i) strengthen national and regional SPS systems by comprehensive establishing а legislative framework for agricultural health and food safety (AHFS) in the fisheries sector; and (ii) develop and organize an efficient responsive institutional framework and mechanism for coordination of SPS issues at both the national and regional levels.

During 2015, the CRFM Secretariat had engaged two consulting firms, Global Centre for International Law (UK) and Matis Ltd. (Iceland). The CRFM provided technical oversight and supervision to their consulting teams under an initiative to strengthen fisheries SPS legislation and environmental monitoring capacity in the region.

BACKGROUND NOTE ON THE SPS MEASURES PROJECT

The SPS programme is a major intervention approved under the 10th European Development Fund, Caribbean Regional Indicative Programmes (10th EDF CRIP), being implemented by the Inter-American Institute for Cooperation on Agriculture (IICA), in partnership with the CARICOM Community Secretariat and the CRFM. The CRFM is responsible for delivery of the fisheries component.

Overall objective: To create and enhance market opportunities through achieving compliance with Europe's SPS measures, and also through the development of regionally harmonized SPS measures for CARIFORUM States. Activities are aimed at strengthening three components: legislation, national and regional coordination mechanisms, and capacity building at the industry and regulatory levels.

Specific objective: To increase production and trade in agriculture and fisheries which meet international standards while protecting plant, animal and human health, and the environment.

Expected outcomes: Improvement in following three components:

- (1) Legislation, protocols, standards, measures and guidelines in the area of AHFS and fisheries for national and regional SPS regimes: to enhance CARIFORUM Agricultural Health and Food Safety efforts and strengthen enforcement of protocols, standards, measures and guidelines for increased production and marketing in agriculture and fisheries.
- (2) National and regional coordination mechanisms in the support of the SPS regime: to support implementation of the SPS Measures in the CARIFORUM member states.
- (3) National and regional regulatory and industry capacity to meet the SPS requirements of international trade: to support and enhance the institutional capacity of national and/or regional regulatory bodies and industry in the agriculture sector, including the fisheries subsector, to meet the SPS requirements of international trade.



The consultants found that there is a discrepancy between (a) the legislative complexity of SPS rules and the pace of change of international export rules and standards; and (b) the legislative drafting capacities of Member States. They also found that there is the need to resolve difficulties in inter-institutional coordination.

These challenges pointed to the need to develop regulatory approaches at the regional and national levels. In keeping with this, a number of documents were prepared and reviewed at a regional validation workshop and subsequently finalised:

- A set of model **Regional Protocols** with a proposal for institutional and procedural actions to review, develop and adopt such Protocols at the regional level;
- Model **Regulations** designed to implement the Regional Protocols at the national level and to set out related matters (primarily relating to licensing and control), with Guidance built into each model Protocol;

Guidance on developing plans for HACCP (Hazard Analysis and Critical Control Points);

- A model Export Control Act, which could be integrated with (or may possibly replace) a general food safety law;
- A proposal for national and regional coordinating mechanisms in the form of a "Green Paper" (or a CARIFORUM Regional Fisheries SPS Framework), outlining the possible modalities of the regional and national frameworks proposed.

The results were validated by a CARIFORUM Group of fisheries SPS and legal technical experts in August 2015. The CRFM engaged a media and communications specialist, Mr. Julius P. A. Gittens (Barbados), to provide media coverage for the event.



Participants in Regional Validation Workshop on Fisheries SPS Measures at Accra Beach Hotel on 25 August 2015



SUMMARY OF OUTPUTS

- 1) Outputs in the area of legislation included a Final Technical Report containing the following:
 - a. CARIFORUM Regional Fisheries SPS Framework (Green Paper);
 - b. CARIFORUM Protocols on Good Fish and Fishery Product Hygiene Practices
 - i. Chemical Use
 - ii. Equipment Use and Maintenance
 - iii. Packaging
 - iv. Personnel Hygiene
 - v. Pest Control
 - vi. Product Transport
 - vii. Water and Ice Quality
 - viii. Worker Welfare and Safety Protocol;
 - c. CARIFORUM Model Fisheries Export Legislation
 - i. Model Fisheries Export Control Act
 - ii. Model Fisheries Hygiene (Certification, Licensing and Control) Regulations;
 - d. CARIFORUM Guidance on Good Fish and Fishery Product Hygiene Practices
 - i. Guidelines on Developing and Implementing HACCP Plans for Fish and Fishery Products.
- 2) Outputs in the area of fisheries SPS environmental monitoring capacity included a Final Technical Report containing:
 - a. Country assessment reports for seven countries that hosted visits by the consulting team of experts (for The Bahamas, Belize, Dominican Republic, Grenada, Guyana, Jamaica, and Suriname);
 - Regional assessment report of existing fisheries and aquaculture sectors' environmental monitoring programmes related to Sanitary Standards in CARIFORUM States;
 - c. A Proposal on Strengthening National and Regional SPS Monitoring Programmes.

The media coverage intervention yielded the following products, which were released via various media houses in the region and also via the CRFM website and its online social media pages:

- 3) Terminal Report produced containing the following products:
 - a. A media kit that included:
 - i. A feature news article;
 - ii. Online and print versions of each of two infographics (CRFM Safe Seafood SPS Factsheets #1 and #2): a general infographic titled, *How to*



handle...Safe Seafood Standards; and an infographic of a country case study, titled, Grenada: It Pays to Play It 'Safe';

- iii. A media advisory on the material.
- b. Interview and report audio clips, disseminated via CRFM Soundcloud channel (https://soundcloud.com/thecrfm).
- c. One video documentary, titled *Safe Seafood from the Caribbean*.
- d. Live streaming of concluding deliberations during Regional Validation Workshop on SPS Measures.
- e. Other press releases
- f. Dissemination of media products to key media networks, and via CRFM Social Media.

All Final Consultancy Reports have been submitted to stakeholders in Member States and are available as the following publications on the CRFM website.

- CRFM. 2015. Final Technical Report Technical support to develop National and Regional environmental monitoring programmes related to SPS for fishery and aquaculture products in CARIFORUM States. CRFM Technical & Advisory Document 2015/06.129p.
- CRFM. 2015. Final Technical Report Technical support to develop model legislation, protocols, guidelines for health and food safety related to fisheries and aquaculture in CARIFORUM States. CRFM Technical & Advisory Document 2015/07. 368p.
- 3) CRFM. 2015. Terminal Report CRFM SPS Legislation and Environmental Monitoring Media Coverage. CRFM Administrative Report. 108 p.

Reef Fisheries Management

REGIONAL DECLARATION ON SPINY LOBSTER



CRFM Member States adopted the St. George's Declaration on Conservation, Management and Sustainable Use of the Caribbean Spiny Lobster (*Panulirus argus*) in May 2015.

Fisheries Ministers endorsed the declaration at the 9th Meeting of the Ministerial Council of the CRFM, which was held in St. George's, Grenada on 15 May 2015.

The declaration, which is a non-binding roadmap for closer regional collaboration, was signed by the then chairman of the CRFM Ministerial Council – Honourable Roland Bhola, Grenada's Minister of Agriculture, Lands, Forestry, Fisheries and the Environment, who assumed the rotating

chairmanship of the Council on the occasion of the meeting from Honourable Johnson Drigo, Dominica's Minister of Agriculture and Fisheries.

The declaration is in concert with the main objectives of the Caribbean Community Common Fisheries Policy and the Agreement establishing the Caribbean Regional Fisheries Mechanism.

It addresses research, data collection and the sharing of data and information; conservation and management measures; monitoring control and surveillance; and public awareness and education.



Signing (I to r): Hon. Luther Buchanan of Jamaica, Hon. Roland Bhola of Grenada, Hon. Johnson Drigo of Dominica, and CRFM Executive Director Milton Haughton (Photo: CRFM)

The UN Convention on the Law of the Sea and the Revised Treaty of Chaguaramas, establishing the Caribbean Single Market and Economy, enjoin CARICOM Member States to cooperate in all areas necessary to foster regional development and integrated natural resource management.



ellaration an Conservation Managame Rosen Spire Loboter (Furnitive Argue

The St. George's Declaration calls on the 17 CRFM Member States to develop or adapt existing national strategies, plans, programmes or regulations to achieve the



Minister Bhola presents signed declaration to CRFM Executive Director

objective of the Spiny Lobster Declaration.

It also calls for effective implementation of conservation and management measures for the stocks and their habitats based on the best scientific evidence available.

A manual is now being prepared to assist CRFM Member States with the implementation of the declaration.

Each Member State and Associate Member State shall develop measures to prohibit the catch, possession, processing, storage, sale, offer for sale, export or import of Spiny Lobster with spermatophore or tar spot; that is carrying eggs (Berried Lobster); that is moulting; that has been scrubbed or has in any manner other than natural hatching had the eggs removed from the tail; and require that a Spiny Lobster with spermatophore (tar spot) or carrying eggs or moulting is returned to the sea immediately.



STATUS OF IMPLEMENTATION OF THE REGIONAL LIONFISH STRATEGY

In May 2013, at its Seventh Meeting, the CRFM's Ministerial Council endorsed drafts of both the Regional Strategy for the Control of the Invasive Lionfish and the Guide to the Control and Management of the Invasive Lionfish, developed by the International Coral Reef Initiative (ICRI) and the Gulf and Caribbean Fisheries Institute (GCFI), respectively.



Lionfish derby in Barbados

During the previous year, the Ministerial Council urged CRFM Member States to develop and implement national response plans to control the invasive lionfish, consistent with the initiatives of the ICRI and GCFI, and to ensure that such response plans include the active maintenance of statistical sampling and reporting programs that facilitate the review and evaluation of performance of the plans.

Two years after the endorsement of the Regional Lionfish Strategy, the status of its implementation was evaluated. This evaluation was effected through survey questionnaires directed at the Fisheries Divisions (one of several target groups of the Regional Lionfish Strategy). The evaluation focused on the five general objectives of the Regional Lionfish Strategy which address matters related to facilitation of collaboration among a range of stakeholder groups by providing mechanisms for coordinated control efforts; encouraging a coordinated research and monitoring agenda; encouraging review and amendment of relevant legislation and development of new policies and legislation to control lionfish (if required); controlling lionfish populations through regionally coordinated effective methods; and providing education, information and outreach mechanisms to generate public support and foster stewardship in invasive lionfish programs.

The report of the evaluation—to encompass recommendations for improved management of reef fisheries in the sub-region, including the management and control of the invasive lionfish as one component of the reef ecosystem—is to be published as a CRFM Technical and Advisory Document.

The findings of the evaluation are preliminary, as only seven CRFM Member States responded to the survey (Belize, Dominica, Grenada, Montserrat, St. Lucia, St. Vincent and the Grenadines, and Trinidad and Tobago). Among those Member States that did not respond were countries for which reef and slope fisheries are of tremendous socio-economic importance and for which lionfish research has been conducted.



The seven countries listed above have taken some level of action towards controlling the invasive lionfish, demonstrating their commitment towards implementing the Regional Lionfish Strategy. Most have developed national lionfish response/management plans but only the plan for Grenada was officially approved.

Effective national coordination and collaboration to control the lionfish was not always evident. Only Grenada had a functioning national task force for this purpose. In the case of St. Lucia and Belize, coordinating committees established with funding from regional projects ceased to function when the projects ended. Nevertheless, there appeared to be informal mechanisms used by fisheries management agencies for coordinating control measures among direct stakeholders.

Dedicated and sustainable national funding for implementing control measures were not always evident. Several countries sourced funding from regional projects for control efforts. Although concerns have been voiced at various fora regarding the threat of the lionfish, there have been little active, coordinated efforts on the ground among CRFM Member States in the area of lionfish management.

Several regional fora exist for the sharing of information and best practices in lionfish control measures and scientific research but it was not evident that Member States were aware of, or effectively utilizing such fora.

Although a number of universities and the GCFI have conducted lionfish research, the level of coordination of such research and access of resource managers to scientific information for lionfish management could not be ascertained. It was not evident that resource managers were aware of the <u>GCFI's Lionfish web portal</u>.





There was little research on the development of safe harvesting and post-harvesting strategies and testing of lionfish for the occurrence of ciguatera. The most extensive lionfish research in CRFM Member States was conducted by the Bahamas, which focused its research mainly on the economic and ecological impacts of the lionfish invasion, predation on lionfish, lionfish abundance and density, foraging behavior, prey consumption as well as competition, habitat preferences, and control strategies. The weakest area at the national level pertained to monitoring lionfish populations (abundance, density) and monitoring the effectiveness of control measures.

Only Belize and Trinidad and Tobago conducted periodic surveys for this purpose and only Grenada, St. Lucia, and Trinidad and Tobago reported formal processes for the collection of data on lionfish catches and sightings, with standardized data collection/reporting forms. Specific lionfish research activities were prioritized under the CRFM's Fisheries and Aquaculture Research Agenda with the Resource Mobilization Committee charged with the responsibility for sourcing funds to implement the Research Agenda.

In most countries, lionfish control programs appeared to be supported by some combination of policy, legislation and/or regulations. Relevant policies and legislation may, however, extend

beyond the fisheries sector to include the environment and biodiversity, which may be outside the portfolio of resource managers targeted in this study.

Legislation on trade in fish and fish products could be used to control lionfish import and export. Some countries developed regulations to allow the use of specific gear (mainly pole spears/spear guns and SCUBA) by select groups to target lionfish in marine protected areas otherwise closed to fishing (e.g. Belize and St. Lucia). At the regional level, the recently endorsed Regional Plan of Action for Improving the Outlook of Caribbean Coral Reefs includes provisions for the development of policies, legislation and strategies to address the management of risks from invasive species (Australia Caribbean Coral Reef Collaboration, 2014).



A number of control measures were implemented across the respective countries, including the promotion of commercial and recreational fishing of lionfish, promotion of consumption of the species, and culling in marine protected areas (MPAs) and other critical habitat. The pole spear was the most common fishing technology used for culling apart from fish traps used by commercial fishers.



Locations for application of control measures were in most cases prioritized, with coral reefs and MPAs being of highest priority. The main concern, however, is the lack of monitoring to measure the effectiveness of such control measures. Efforts were also focused on training in proper lionfish handling and processing for human consumption but specific details were not available for all countries.

Generally, considerable efforts were deployed for public awareness, education and outreach programmes using a range of communication tools (radio and television programmes; print media such as newspapers, brochures, pamphlets; community meetings and social media). There was also some degree of integration of lionfish issues into school education programmes. The main concern again is the lack of monitoring of the effectiveness of such programs through changes in the knowledge, attitude and practices of the range of stakeholders.

It is uncertain whether the findings of the evaluation accurately reflect the current situation concerning implementation of the Regional Lionfish Strategy in CRFM Member States. For this reason, it is recommended that the survey, with any required modifications, be repeated biennially. This will also facilitate the CRFM's reporting to the CARICOM Secretariat on the work plan of its Agricultural Health and Food Safety Systems Thematic Group, under which progress in implementation of the Regional Lionfish Strategy is to be monitored.
Pelagic Fisheries Management

SUB-REGIONAL MANAGEMENT PLAN FOR EASTERN CARIBBEAN FLYINGFISH

STATUS OF IMPLEMENTATION OF THE SUB-REGIONAL FISHERIES MANAGEMENT PLAN FOR FLYINGFISH IN THE EASTERN CARIBBEAN



At its Eight Meeting in May 2014, the CRFM's Ministerial Council passed a resolution endorsing the Eastern Caribbean Flyingfish Sub-Regional **Fisheries** Management Plan (ECFF-FMP) for immediate implementation. One vear following the endorsement, the status of implementation of the ECFF-FMP at both the national and regional levels was evaluated.

This evaluation was effected through a survey questionnaire directed at the Fisheries Divisions of the relevant CRFM Member States (Barbados, Dominica, Grenada, St. Lucia, St. Vincent and the Grenadines. and Trinidad and Tobago), as well as a review of regional activities and initiatives towards improving the overall management of the flyingfish fisheries and conducting the requisite research.

The evaluation focused on the seven agreed management measures addressing the development and implementation of national flyingfish FMPs and the respective annual reporting on the status of such activities, such as flyingfish catch and effort, the establishment of authorized national entry systems, flyingfish stock assessment, the adoption of a precautionary total annual catch trigger point of 5,000 tonnes, the implementation of a precautionary sub-regional freeze on expansion of flyingfish fishing effort if this trigger point is realized, and the strengthening of national data collection systems.

It also focused on specific directives of the Ministerial Council concerning national adoption and implementation of the ECFF-FMP, and communication of the ECFF-FMP and the resolution to stakeholders. The report of the evaluation, including recommendations for improved management of flyingfish fisheries in the sub-region, is published as CRFM Technical and Advisory Document 2016/01.



Between June 2014 and May 2015, there were negligible efforts at the national level towards the implementation of the ECFF-FMP. Although changes to current fisheries policy, legislation and regulations may be required, which are usually lengthy procedures, at the least it may be expected that countries could demonstrate their national commitment to implementing the ECFF-FMP by first adopting the instrument at a high level of governance. However, none of the countries had adopted the ECFF-FMP within the first year of its endorsement at the regional level, nor had they begun developing national FMPs that were consistent with the ECFF-FMP.

Countries also fell short in their reporting obligations. The current Fisheries Acts of most countries provide the basic requirements to begin implementation of the ECFF-FMP, but it was not apparent that effective and innovative use of existing policy, legislation and regulations were being fully explored to this effect. Of the six countries, Trinidad and Tobago had what may be described as the most outdated legislation. Perhaps the most critical aspect was the lack of attention in addressing the limitations in data collection systems.

Flyingfish catch data, in particular, is directly linked to at least five of the seven management measures. Currently, as a consequence of deficiencies in data collection, analysis and reporting, the region is unable to monitor and evaluate the progress of implementation of the ECFF-FMP against the respective management objectives and indicators agreed upon in order to take appropriate management action.

Due to the relative importance and historical magnitude of the flyingfish fishery in Barbados, Trinidad and Tobago, and Grenada, appreciable advancement in management of the resource cannot be realized without the full support of these countries. Consequently, these countries should be accorded high priority access to regional resources for this purpose.

At the regional level, the Fifth Special Meeting of the Ministerial Council in October 2014 reviewed options for a formalized political arrangement between the CRFM and France to facilitate collaboration in the sustainable use, conservation and management of shared fisheries resources. The Council provided specific directives.

The decisions and directives of the Ministerial Council were endorsed by the 51st Special Meeting of COTED, but further advancement on this initiative is dependent on a general cooperative framework between the CARICOM Secretariat and France, which has not yet been established.

A formal arrangement was established in January 2015 for technical collaboration between the CRFM and the French Research Institute for Exploitation of the Sea in fisheries and aquaculture research and related capacity building. Also, two regional projects were developed and approved for implementation between 2015 and 2020 that would improve the overall



governance and management of the flyingfish fisheries and support the requisite research. One of these projects, the Caribbean Large Marine Ecosystem Project (CLME+), will focus on the application of the Ecosystem Approach to Fisheries for the Eastern Caribbean Flyingfish.



Flyingfish packed in bins for sale Source: www.clmeproject.orgcasestud.html

It is expected that the report of the evaluation, including the respective recommendations, would be used by the Caribbean Fisheries Forum (including the technical and management levels of the Pelagic Fisheries Working Group), the CRFM Ministerial Sub-Committee on Flyingfish and the Ministerial Council, as well as the CRFM/WECAFC Working Group on Flyingfish in the Eastern Caribbean and Western Central Atlantic Fishery Commission (WECAFC), to improve implementation of the ECFF-FMP at the national, sub-regional and regional levels.



FAD FISHERIES MANAGEMENT

Fish Aggregating Devices (FADs) are anchored or free-drifting (natural or artificial) floating objects deliberately placed in the ocean to attract and aggregate fish in order to facilitate their location and capture. Some CRFM Member States have been exploring the use of FAD fishing technology, and more specifically the use of anchored FADs, since the 1990s with the stated management objectives of alleviating fishing pressure on inshore resources, reducing the cost of fishing, increasing fishing efficiency, improving the livelihood of fishers, and strengthening national food security.



The use of FADs in CRFM Member States: The FAD fisheries target coastal and oceanic pelagic fish such as blackfin tuna, dolphinfish, yellowfin tuna and blue marlin.

Internationally, however, FAD fisheries have come under scrutiny by Regional Fisheries Management Organizations (RFMOs) such as the International Commission for the Conservation of Atlantic Tunas (ICCAT), because if they are not properly managed, FAD fisheries



could become unsustainable, catching juveniles of important commercial species as well as species that are considered over-exploited, endangered or threatened; or impacting the biology, ecology and normal migration patterns of the species concerned.

Recognizing the need to balance the viable livelihoods of fishers and national food security with long-term sustainability of the resources, the CRFM produced and/or circulated among its Member States four guiding documents in 2015 to improve the overall management of FAD fisheries:

(1) Sub-regional Management Plan for Blackfin Tuna Fisheries in the Eastern Caribbean (Stakeholder Working Document), herein after referred to as the BLF FMP;

(2) Sub-regional Management Plan for FAD Fisheries in the Eastern Caribbean (Stakeholder Working Document), hereinafter referred to as the FAD Fisheries FMP;

(3) Manual of Best Practices in Fisheries that Use Moored FADs, herein after referred to as the FAD Fisheries Manual; and

(4) Model Logbook for FAD Fisheries in the Eastern Caribbean. These documents are published on the CRFM's website at <u>www.crfm.net</u>.

The BLF FMP was developed in 2013 as a component of the case study on large pelagic fisheries under the first phase of the Caribbean Large Marine Ecosystem (CLME) Project by Consultant Dr. Uwe Teitze and Dr. Susan Singh-Renton, Deputy Executive Director of the CRFM Secretariat, while the FAD Fisheries FMP was developed in 2015 by Consultant Dr. Henri Vallès Rodriguez of the Centre for Resource Management and Environmental Studies (CERMES) of the University of the West Indies, Cave Hill, Barbados Campus.



To the extent possible, both FMPs draw from studies on existing policy, legal and institutional arrangements for the governance and management of large pelagic fisheries in the CLME, stakeholder analyses, and sub-regional analyses on the respective fisheries data, as well as a



review of outputs from regional workshops on FAD fisheries, CRFM Scientific Meetings and regional projects, such as the Caribbean Fisheries Co-management (CARIFICO) Project and the Moored Fish Aggregating Devices in the Lesser Antilles Project. They also incorporate discussions with key members of staff of Fisheries Divisions in CRFM Member States and the CRFM Secretariat.

Both FMPs seek to ensure that the respective stocks are exploited under sustainable biological, economic, environmental and social conditions. They identify the key management issues in the respective fisheries; stipulate management goals, and general and operational management objectives; and identify the management indicators and reference points to be monitored for assessing management performance. Specific management measures to address the range of management issues are proposed. These FMPs are consistent with international best practices in fisheries management, in particular the ecosystem, participatory and precautionary approaches to fisheries management.

Both FMPs were circulated to CRFM Member States in 2015 to facilitate their review through consultation with a broad range of stakeholders. It is expected that these FMPs would be finalized and endorsed for sub-regional implementation through the CRFM's policy-making process in the near future.

In 2015, the CRFM also convened a Writeshop on FAD Fisheries Management to develop a FAD Fisheries Manual. Apart from disseminating information on best practices in FAD fisheries, this activity also served to partially fulfill obligations under the Terms of Reference of the CRFM/WECAFC/JICA (Japanese International Cooperation Agency)/ Ifremer (the French Research Institute for Exploration of the Sea) Working Group on Fisheries that use FADs, on which the CRFM is the lead partner agency.

The FAD Fisheries Manual will be published in five volumes to address interests concerning:

- (1) FAD design, construction and deployment;
- (2) Maintaining good quality of FAD-caught fish;
- (3) Fishing and business strategies for sustainable anchored FAD fisheries;
- (4) Safety and working conditions of FAD fishers; and
- (5) Governance of FAD fisheries.

The first two volumes were published and disseminated to CRFM Member States in 2015. It is expected that the other three volumes would be developed by the Working Group between 2016 and 2018 and that the FAD Fisheries Manual would be used by Member States in their related training sessions with stakeholders.





Thus far, previous sub-regional initiatives on FAD Fisheries within CRFM Member States have focused mainly on capacity building in FAD fishing technology, as well as the construction and deployment of FADs.

It is evident that such efforts should be matched with activities to expand the knowledge-base for FAD fisheries management and decision-making, such as improved data collection to monitor the socio-economic and ecological costs and benefits of the development and expansion of FAD fisheries, to identify suitable management measures and to monitor the performance of such measures against the respective management objectives.

Consequently, in 2015 the CRFM partnered with the CARIFICO Project to develop a model logbook for FAD fisheries. The process of development of the logbook is documented in CRFM Technical and Advisory Document No. 2015/02. This document also provides a number of recommendations for implementation of a logbook system, including the sensitization and training of fishers, the development of supporting legislation and the provision of feedback to stakeholders (fishers and decision-makers).

The data requirements in the model logbook offer an opportunity for tremendous flexibility in management decisions to address a range of issues concerning FAD fisheries. Down-scaling such data requirements must consider the impacts on such flexibility. It is anticipated that the national fisheries authorities of the six countries that are participating in the CARIFICO Project (Antigua and Barbuda, Dominica, Grenada, St. Kits and Nevis, St. Lucia and St. Vincent and the Grenadines) will test and modify the logbook to suit the specific local situations and develop the corresponding computerized database to enable them to store, analyze and report on the data collected, in order to ensure improved sub-regional management of FAD fisheries.



Continental Shelf Fisheries Management

CRFM'S ROLE IN THE REBYC-II LAC PROJECT

The CRFM is an informal regional partner in the REBYC-II LAC Project - *Sustainable Management* of Bycatch in Latin America and Caribbean Trawl Fisheries. Consequently, it will be collaborating with two other Regional Fisheries Bodies, the Western Central Atlantic Fishery Commission (WECAFC) and the Central America Fisheries and Aquaculture Organization (OSPESCA), to strengthen regional collaboration on shrimp/bottom trawl fisheries and bycatch management.

The CRFM's participatory and policy-making processes, facilitated by existing regional instruments such as the Caribbean Community Common Fisheries Policy, the Declaration on Illegal, Unreported and Unregulated Fishing and the Joint CRFM-OSPESCA Declaration and Action Plan, will play a critical role in garnering support at the regional policy level for the changes and improvements envisioned under the REBYC-II LAC. Such changes will include but are not limited to: improved monitoring systems to provide data and information in support of management decision-making; strengthened national multi-sectoral committees; participatory approaches towards co-management of trawl fisheries; and development and implementation of a regional strategy on bycatch management.

The CRFM will also provide regional support to ensure that scientific advice and findings of the Project are promoted and shared with stakeholders, including policy makers and managers. Through its Continental Shelf Fisheries Working Group, the CRFM will provide support for

fisheries assessments and data analyses for its two Member States that are participating in the project, Suriname and Trinidad and Tobago, whilst ensuring that Guyana, another CRFM Member State with important shrimp trawl fisheries which is not a participant in the LAC REBYC-II Project, also benefits from the respective initiatives.

Through its participation in other regional projects such as the Pilot Programme for Climate Resilience, Climate Change Adaptation in the Eastern



Participants at the REBYC-II LAC Project Planning Workshop (Photo courtesy WECAFC Secretariat)



Caribbean Fisheries Sector and the Caribbean Fisheries Co-management Project, several synergistic activities aimed at assessing the socio-economic and ecological impacts of climate change on continental shelf fisheries, supporting business development for full utilization of key commercial and underutilized species, and strengthening fisher organizations in support of co-management, can contribute to the overall goals and outputs of the REBYC-II LAC Project.

The REBYC-II LAC Project is a five-year project which commenced in 2015 with GEF funding. It is being executed by FAO/WECAFC, in partnership with the governments of participating countries: Brazil, Colombia, Costa Rica, Mexico, Suriname and Trinidad and Tobago (the latter two being Member States of the CRFM).

This project builds upon the recommendations of the REBYC-I LAC Project, its predecessor, which was also funded by the GEF and implemented by the FAO between 2002 and 2008. It focused primarily on understanding the impacts of trawl gear on the respective fisheries and environments, and improving trawl fishing technologies in order to reduce the associated bycatch and adverse habitat impacts.

The follow-up REBYC-II LAC Project aims to reduce food loss, enhance biodiversity and support sustainable livelihoods by improving the management of bycatch and minimizing discards and sea-bed damage in order to transform bottom trawl fisheries into responsible fisheries.

It comprises four components which focus on:

(1) improving the collaborative institution and regulatory arrangements for bycatch management;

(2) strengthening management and optimizing utilization of bycatch through the ecosystem approach to fisheries framework;

- (3) promoting and achieving sustainable livelihoods; and
- (4) project monitoring and information dissemination.

The project focuses on improving institutional and regulatory frameworks for shrimp/bottom trawl fisheries and co-management; strengthening bycatch management and responsible trawling practices within an ecosystem approach to fisheries (EAF) framework; and promoting sustainable and equitable livelihoods through enhancement and diversification.



Improving the Evidence Base and Its Usage CRFM's Fisheries and Aquaculture Research Agenda

In keeping with its mandate, the CRFM developed its first formal Fisheries and Aquaculture Research Agenda in 2015-2016. It is to be implemented through several means, including meetings of the CRFM's specific Working Groups and targeted research projects in collaboration with national, regional and international academic and research institutions. Due to the constantly changing circumstances and emerging issues in fisheries and aquaculture, the Research Agenda would be reviewed and updated biennially or at the request of the Caribbean Fisheries Forum (as appropriate). The recently reconstituted CRFM Resource Mobilization Committee is charged with the responsibility for identifying and sourcing of funds to support the implementation of the Research Agenda.

So what's in the Research Agenda?

The major components of the Research Agenda include a list of research activities to be implemented regionally in accordance with the CRFM's Strategic Plan (2013-2021) based on inputs of Member States and the First Special Meeting of the Executive Committee of the Caribbean Fisheries Forum; a list of potential research collaborators and a list of potential funding sources.

Regional projects that are currently being, or are soon to be, implemented and which may contribute to achievement of activities under the Research Agenda, either through technical or financial assistance, are also identified. This Research Agenda is intended to: (1) strengthen the science-policy interface in fisheries and aquaculture in the region; (2) facilitate more strategic and efficient deployment of the resources of the Mechanism; and (3) strengthen the linkages between the Mechanism and academic and research institutions at the national, regional and international levels.

Thirty-four research activities were identified from a list of 182 research recommendations which were consolidated across 36 documents comprising regionally agreed policies, strategies and action plans, reports of the CRFM's Annual Scientific Meetings and reports of regional projects.

Of 34 research activities, 26 were identified as high priority by seven CRFM Member States (Barbados, Belize, Grenada, Montserrat, St. Vincent and the Grenadines, Trinidad and Tobago, and Turks and Caicos Islands) and 8 were highlighted by the Executive Committee of the Caribbean Fisheries Forum pertaining to regional matters currently receiving urgent attention from policy makers.



The 26 high-priority research activities pertain to the broad categories of: invasive alien species; climate change and natural hazards; stock assessment and fisheries analyses; IUU fishing; reef and slope species, fisheries and ecosystems; pelagic species, fisheries and ecosystems; policy, governance and management; and underutilized and unutilized species.

The eight research activities based on the proposals of the Executive Committee pertain to the invasive Sargassum seaweed and aquaculture. Economic valuation of fisheries and aquaculture resources was an underlying high-priority research activity which was inherent in four of the broad categories identified. The guidance of the Caribbean Fisheries Forum will be required to identify specific research requirements in cases where the identified activities are too broad to facilitate implementation.

Fourteen academic and research institutions, regional partners and related agencies were identified as potential collaborators for implementation of the 34 research activities. This will require the CRFM to enter into formal arrangements with these potential collaborators in order to facilitate cooperation in areas of mutual interest and to fully implement the Research Agenda.

Seven academic and research institutions, regional partners and related agencies indicated research areas for which they may be able to provide funding and one donor agency identified the possibility of funding or the willingness to help source funding for the implementation of specific research activities.



Funding, as well as technical assistance, is also available under four regional projects to implement some of the research activities: Caribbean Large Marine Ecosystem Project: Catalysing Implementation of the Strategic Action Programme for the Sustainable Management of Shared Living Marine Resources in the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+ Project – Second Phase); (2) the Pilot Programme for Climate Resilience – Regional Track (PPCR); (3) Climate Change Adaptation in the Eastern Caribbean Fisheries Sector (CC4FISH Project); and (4) Sustainable Management of Bycatch in Latin America and Caribbean Trawl Tisheries (REBYC-II LAC).

The <u>Research Agenda</u> is published online as a CRFM Special Publication and the accompanying document outlining its development is published online as Technical and Advisory Document No. 2015/03. Efforts to implement the Research Agenda have already commenced: a concept note has been prepared for consideration by donor agencies for funds to facilitate a study on the valuation of fisheries and aquaculture in CRFM Member States and key research activities have also been incorporated into the CRFM's biennial work plan for 2016/17 to 2017/18.



Strengthening the Stakeholder Voice

Fisherfolk Improve Capacity to Participate in Governance

During the Programme Year, the CRFM Secretariat, in partnership with CANARI, CERMES and Panos Caribbean, continued with activities geared towards building the capacity of regional and national fisherfolk organisation networks to participate in governance. The activities occurred under the four-year project: Strengthening Fisherfolk to Participate in Governance, which is being funded by the



3rd Regional Caribbean Fisherfolk Action Learning Group Workshop (Photo: CNFO, Instagram)

European Union (EU) Europe Aid programme and implemented by CANARI.

The Final Regional Training of Trainers Workshop for Fisherfolk Mentors was held on 6 - 9 July 2015, in Anguilla. Mentors are mainly volunteers from public and private sector agencies, fisherfolk and civil society organisations. The training was provided for the identified fisherfolk mentors as they seek to develop close working relationships with the mentees (fisherfolk organisations) to provide the sustained and responsive support needed for the development of these organisations.

Mentors from thirteen (13) of the seventeen (17) project countries, were trained. The resource persons involved with the training were from the partner agencies CANARI, CNFO, CRFM and UWI-CERMES. The objectives of the training workshop were for the fisherfolk mentors to: strengthen their capabilities in mentoring and facilitation; advance their capabilities in project development, management and monitoring and evaluation; enhance their understanding of the implications of key policies for sustainable small-scale fisheries development in the Caribbean; and improve their familiarization with the positions of fisherfolk on key fisheries and related policies and how they plan to engage in advocacy and awareness.



The Third Regional Fisherfolk Action Learning Group Workshop was held at the Trade Winds Hotel, in Antigua and Barbuda from 5 - 8 October 2015 (the second was held in the Bahamas from 19 – 25 October 2014). The CRFM participated in all aspects of this workshop, and facilitated an update on the status of the Caribbean Community Common Fisheries Policy. It also assisted with action learning in the community of Parham.

The beneficiaries of the Regional Fisherfolk Action Learning Group Workshop were: fisherfolk leaders from 15 CRFM Member States (The Bahamas and Belize were absent). The Director of Fisheries of St. Vincent and the Grenadines, a representative of the Director of Fisheries of Suriname, a representative of the Director of Fisheries of St. Lucia, and representatives from the partner organizations of CANARI, CNFO, UWI-CERMES and CRFM were also present at the workshop to support and facilitate the workshop.

Fisherfolk shared their experiences on participation in policy and decision-making processes with the rest of the group. The report took the form of a panel discussion. The partners CANARI, UWI-CERMES and CRFM presented updates to the small working groups on other policy and project initiatives in the region (such as the Climate-Resilient Eastern Caribbean Marine Managed Areas Network (ECMMAN) project and CLME+ projects) and the Caribbean Community Common Fisheries Policy. Dr. Patrick McConney of CERMES/UWI provided the group with in-depth training in leadership development. A meeting of the CNFO was also convened.

In September 2014, the fisherfolk governance project issued a call for proposals under the UN's Small Grants Facility (SGF). Under the call, CANARI invited applications from fisherfolk organisations in the 17 CRFM Member States to submit proposals for small grants to strengthen their capacity to participate in fisheries governance and management in the Caribbean. CANARI reports that nine proposals from fisherfolk organisations in eight countries (Anguilla, Belize, Guyana, Haiti, Jamaica, Saint Lucia, Trinidad and Tobago, and Turks and Caicos) have been finalized, grant contracts signed, and the first set of funds disbursed to each organization.

The project also provided funding for two fisherfolk leaders from the CNFO to participate in the 68^{th} Gulf and Caribbean Fisheries Institute Conference convened in Panama from 9 – 13 November 2015. Both fisherfolk leaders participated in the Fishers Forum, on the first day of the Conference, which had as its theme "Financing Fisherfolk".

The project has also supported national fisherfolk workshops on strengthening the capacity of Caribbean fisherfolk to participate in governance. During 2015, such workshops were held in Anguilla, Barbados, Dominica, Jamaica, St. Lucia, St. Vincent and the Grenadines, and Suriname.



SUPPORTING CNFO'S ROLE IN THE ECMMAN PROJECT

The CRFM Secretariat continued to provide support to the work of the CNFO being funded through the Climate-Resilient Eastern Caribbean Marine Managed Areas Network (ECMMAN) project.

The CNFO collaborated with CERMES to plan and facilitate fisher exchanges to help develop the capacities of fisherfolk leaders to successfully manage primary and secondary fisherfolk organisations, including their business operations, in their countries. There was also participation in the FAO-led insurance initiative for the fisheries sector: working with fishers and fishers organisations to introduce the initiative and to encourage completion of a demand survey. The project also supported fisher participation in Antigua and Barbuda's trade mission to Guadeloupe and Martinique by way of (informal) discussions with local fishers with interest in fisheries trade, as well as participation in national discussions.

There was participation in the ongoing sustainable development of the offshore pelagic fishery in Antigua and Barbuda, including a national FAD fishing meeting which considered, *inter alia*, development of fishing guidelines. CNFO's participation in and co-facilitation of CANARI-led meeting of mentors in Anguilla, where the CNFO coordinator shared on CNFO's activities relating to policy influence, including current initiatives and relevant projects being implemented were also noteworthy during the review period.



Training and Capacity Building

In keeping with its mandate to build human and institutional capacity in its Member States, the CRFM, through various collaborative arrangements with international educational institutions, facilitates training opportunities (short courses, as well as longer-term degree programmes) for a number of fisheries personnel each year.

CRFM-UNU Partnership

> Six-month Fellowship Programme

The CRFM has established a long-term relationship with the United Nations University – Fisheries Training Programme (UNU – FTP), Iceland. The UNU offered fellowships to two persons from CRFM Member States: Larique Hackshaw, Fisheries Officer, Antigua and Barbuda received training in company management; and Derrick Theophille, Fisheries Liaison Officer, Dominica, received training in stock assessment.



Larique Hackshaw, Fisheries Officer, Antigua and Barbuda (left); and Derrick Theophille, Fisheries Liaison Officer, Dominica

Mr. Theophille's specialization was in Marine and Inland Waters Resources, Assessment and Monitoring (Stock Assessment), while Mr. Hackshaw focused on fisheries economics with particular emphasis on Fisheries Value Chain.



Mr. Hackshaw and *Mr.* Theophille graduated as members of the 18th cohort of the six-month training in Iceland on Monday, March 7, 2016



> The 2015 Study tour

In April 2015, the UNU-FTP hosted a 12-day study tour in Iceland targeted at high level fisheries policy-makers in partner countries, including the CRFM Member States.



UNU-FTP study tour and workshop participants (Posted April 24, 2015 by UNU-FTP)

Thor Asgeirsson (extreme left) and CRFM Executive Director, Milton Haughton (third in the back row)

The tour included lectures, site visits, and group work. The areas covered included data collection and management, user rights, monitoring control and surveillance, marketing export and logistics, food safety and traceability, byproduct utilization, research-based policy, and creating sustainable aquaculture systems.

Study tour participants had a chance to observe the interface between research, industry, and the process of policy making.

> The MSc/PhD scholarship programme



Ricardo Morris, Fisheries Officer of Jamaica, is scheduled to conclude his Masters of Science degree in Biology this year, under a two-year scholarship (2014-2016) from UNU-FTP in Iceland.

Mr. Morris had previously participated in a 6-month fellowship programme, in which he excelled. This led to his selection for full funding for the MSc program.



CRFM - IOI Dalhousie University Partnership

"The specialized training provided by IOI in marine policy, law and marine management is very important for the Small Island Developing States of the Caribbean that depend heavily on the Caribbean Sea and Atlantic Ocean for economic development. The need for this type of training in the region is great. Through our partnership with IOI, we have been able to gradually build up our capacity to utilize, protect and manage our coastal and marine resources."

-- CRFM Executive Director, Milton Haughton, after the signing of a new MoU

In December 2015, the CRFM and the International Ocean Institute (IOI) signed a new 5-year memorandum of understanding (MoU) to extend their longstanding cooperation towards building the capacity of Caribbean fisheries and marine resource management professionals in ocean governance. The partnership between the CRFM and IOI started in 2004 and it has provided nearly 40 Caribbean nationals access to high-level, specialized training and capacity-building support at IOI-Dalhousie University every year since then.



(Photos via Facebook)

The most recent training awardees from the Caribbean are Nakita Dookie, Fisheries Officer of Guyana (right) and Frederick Arnett II, Assistant Fisheries Officer of The Bahamas (left). From 20 May to 17 July 2015, they received training in Ocean Governance: Policy, Law and Management at Dalhousie University, Halifax, Canada.

Under the Memorandum of Understanding with IOI, the CRFM provides funding to cover the airfares of participants from its member countries.



SCHOLARS' CORNER: TESTIMONIALS BY TRAINEES

Nakita A. Dookie

The role of ocean governance locally, regionally and internationally cannot be understated by any means. It is therefore critical to understand the importance of viewing the ocean as a system with multiple users, often with competing and conflicting uses. The IOI training programme formed the backbone in developing a greater understanding of the interaction between economic development and sustainability, within the realm of a legal framework.

The programme coordinators were able to provide a compact and precise two-month course, delivered by highly qualified lecturers. Along with classroom lectures, participants were also exposed to numerous field visits to reinforce the theoretical aspect. The field trips evoked a sense of excitement and passion for the field. Apart from this, assignments done primarily in groups were a main focus of the programme.

The stimulation exercise was definitely the highlight of the programme. It entailed preparing an Ocean Policy, which required countless hours of research and sometimes

Derrick Theophille

It's been almost six months since I arrived here in Iceland and I'm grateful that I took up the opportunity to come here. I am part of the Stock Assessment line of the UNU-FTP. Here we get a chance to work with national datasets to analyse the fishery of our own countries, applying methods taught throughout the course and guided by experienced and helpful supervisors.

My background is more technical than scientific or academic; therefore, I wasn't the typical stock assessment fellow. However, this programme helped me to improve my technical abilities,



Group discussion with panelist after roundtable presentation of the Ocean Policy

heated discussions. This exercise played a pivotal role in my ability to develop and promote a policy. The IOI programme has made a deep impact on my approach and has broadened my perspectives to varying technology and principles required for management of the ocean. This has translated into more productive contributions to discussions, decision making and policy development.

Special thanks to CFRM and IOI Canada for their contributions towards the promotion of Ocean Governance within Guyana and their continued support in making training opportunities available.

adding a significant arsenal to my bag of data tools. I also gained core skills which complement those technical abilities. I learned the value of research and how to apply research to my work. I learned the importance of stock assessments and how to assess a stock. I learned the value of getting outside of my comfort zone and allowing myself to grow. Ultimately, I got the chance to look at the data gathered from the local fishery and perform some useful analyses that can be helpful for the development of the sector.



Ricardo Morris

My programme at the University of Iceland is the MS Biology, which is a two-year programme inclusive of the equivalent of one semester of coursework and a research thesis over the remaining three semesters. My academic and personal experience here has been good and highly fruitful thus far.

During my coursework, I was able to participate in theoretical and practical studies that have tremendously enhanced my capacity to conduct, evaluate and report on scientific research. In addition, I was fortunate to connect with a very enthusiastic international group of students from whom gained several new perspectives and context for the application of natural resource (fisheries) management. The highlight of this first semester was, however, being able to use these skills, such as ecological analysis spatial and



Group picture of 2015/16 fellows (D. Theophille – front row, 3rd from right)

sustainable policy development, in the production of research papers on the Queen Conch fishery in my country.

Buoyed in part by some of the insights gained during the coursework, I wanted to apply these ideas to my final thesis, and so I did. I began work on my final project roughly around the middle of 2015. Through this project, I aim to produce both descriptive and predictive species distribution models (SDM) for Queen Conch on the Pedro Bank, Jamaica using regression methods and machine learning. The potential benefits of the output of this project, I think, will be tremendous, particularly the predictive habitat maps which will be among the project's more salient outputs.

SDMs are among the most useful and modern techniques available to ecologists for understanding the role of particular species in its community and ecosystem, and the environmental factors that influence its distribution. The project was conceived bearing in mind as well the continued national and regional thrust for more integrated ecosystem-based management, which considers different stakeholders and the three dimensions of sustainability: economy, society and the environment. This project is, of course, geared heavily towards the environmental side but given the increasingly multi-use nature of the Pedro Bank and the need to identify and manage conflict, the spatial output of this project, I believe, can go a far way in helping to guide decisions and actions in addressing these issues.

I hope to complete and submit this thesis by March 2016 and also to submit a shortened version to an appropriate journal for publication. Finally I would like to mention the United Nation University-Fisheries Training Programme and the CRFM, to whom I am grateful for such an enriching academic and professional opportunity.



CRFM awardees among graduates of IOI course in Ocean Governance



Front row (from left to right): Hugh Williamson, Senior Research Fellow (Canada), Richard Florizone, President, Dalhousie University (Canada), Mike Butler, Director & 2015 Course Director (England/Canada), Jennifer Barr, Finance Officer (Canada), Annabel Fuller (Antigua & Barbuda), Peter Wells, Senior Research Fellow (Canada)

Second row: Paul Boudreau, Senior Research Fellow (Canada), Annika van Roy, 2015 Course Co-ordinator (The Netherlands), Chen Ning (China), Cheryl Rita Kaur Dalbir Singh (Malaysia), Nakita Dookie (Guyana), Dysi Polite Dyspriani (Indonesia)

Third row: Madeleine Coffen-Smout, Programme Officer (England), Dirk Werle, Chair, IOI Board (Germany), Gonzalo García de Arboleya de la Quintana (Spain), Xu Wei (China), Frederick Arnett II (Bahamas), Wu Min (China)

Top row: Zhang Wei (China), Ashyr Gurbannyyazov (Turkmenistan), Benedict Kyalo Kiilu (Kenya), Katie Short, IOI Course Assistant & Intern (Canada), David Griffiths, Senior Research Fellow (Canada)

(Photo credit: Bruce Bottomley, Dalhousie University)

Summary of Training Courses and Fellowships

	Short Courses/Worksh	ops
Tra	ining Programme on Ocean Governance: Po	licy, Law and Management
	IOI Dalhousie University, Canada –	May-July 2015
Country	Name	Post
Guyana	Nakita Dookie	Fisheries Officer
The Bahamas	Frederick Arnett II	Assistant Fisheries Officer
Strengthening Caribbean Fisl	herfolk to participate in Governance: Final 1 CRFM, Anguilla – 06-09 Ju	Training of Trainers Workshop for Fisherfolk Mentors
Agency	Name	Post
CRFM Secretariat	June Masters	Statistics and Information Analyst
C	ANARI/CNFO/UWI-CERMES/PANOS/CRFM	Third Regional Fisherfolk
	Action Learning Group Wo	rkshop
	Antigua & Barbuda - 05-08 Oc	tober 2015
Agency	Name	Post
CRFM Secretariat	June Masters	Statistics and Information Analyst
Mee	ting on Strengthening Caribbean Fisherfolk	to participate in Governance
	St. Vincent & the Grenadines – 20-2	1 October 2015
Agency	Name	Post
CRFM Secretariat	June Masters	Statistics and Information Analyst
IOC/IODE/	Ocean Teacher Global Academy: Research	Data Management Training Course
	Dania Beach, Florida, USA – 16-20 I	November 2015
Agency	Name	Post
CRFM Secretariat	June Masters	Statistics and Information Analyst
2015 U	F Ecoism/Ecopath Lionfish Ecosystem Mode	ling and Management Training
Uni	versity of Florida (Sea Grant); Gainesville, Flo	orida, USA – 06-11 July 2015
Agency	Name	Post
CRFM Secretariat	Elizabeth Mohammed	Programme Manager, Research and Resource Assessment
2015 Gulf and Caribbean Fish	eries Training Program: Fellowship for Prof	essional Development and Caribbean-based Fisheries
	Managers and Marine Extensio	n Specialists
	University of Florida; Florida, USA – 15 Aug	ust - 8 December 2015
Country	Name	Post
Antigua and Barbuda	Jamie Herbert	Fisheries Assistant
	University Fellowship	S
	Company Manageme	
	UNU-FTP, Iceland – September 20	15-March 2016
Country	Name	Post
Antigua and Barbuda	Larique Hackshaw	Fisheries Officer
	Stock Assessment	
	UNU-FTP, Iceland - September 202	15-March 2016
Country	Name	Post
Dominica	Derrick Theophille	Fisheries Liaison Officer
	Degree Programmes	3
	MSc. Degree: Biolog	•
	UNU-FTP, Iceland - 2014	2016
Country	Name	Post
Jamaica	Ricardo Morris	Fisheries Officer



Strategic Alliances, Partnerships, and International Relations

CARICOM



Above: CRFM Executive Director (left) and his staff dialogue with Ambassador LaRocque (right)

On Thursday, 7 January 2016, CARICOM Secretary-General, Ambassador Irwin LaRocque, paid a courtesy call on Mr. Milton Haughton, CRFM Executive Director, and his team of dedicated staff who continue to work with member states to secure the region's invaluable fisheries resources.

The Secretary-General spoke with the CRFM Executive Director about strengthening the relationship between the CARICOM Secretariat, based in Guyana, and the CRFM, based in Belize. Haughton and LaRocque both spoke of the importance of building synergies between their Secretariats, as well as between sister CARICOM agencies, in order to maximize on benefits to the region.

The Secretary-General returned to Belize in February, when the country, whose prime minister became the new chair of CARICOM on January 1, 2016, hosted the 27th Inter-Sessional Heads of Government meeting in the seaside village of Placencia, where fisheries is a mainstay of the local economy.



CRFM CONTRIBUTIONS TO CARICOM PLANNING AND GOVERNANCE

Work planning

The CRFM was among the agencies and institutions of CARICOM which played an active role in the formulation of the first ever Strategic Plan for the Community; and it is committed to supporting the future development of the associated operational and work plans.

The Thirty-Fifth Meeting of the Conference of Heads of Government held in July 2014, approved a five-year Strategic Plan for CARICOM: "The Caribbean Community Five-Year Strategic Plan 2015-2019: Repositioning CARICOM".



This Strategic Plan is an effort by CARICOM to become more results-oriented in achieving its regional development agenda. The Plan, which took over a year to formulate, was informed using various data gathering exercises and broad consultations with a range of stakeholders in Member States, CARICOM institutions, and of course, the CARICOM Secretariat itself. The Plan therefore reflects a strategic repositioning of CARICOM and a new approach to achieving a CARICOM development agenda.

Technical Networking Support for CARICOM Management and Decision-making

Aquaculture and Marine Fish were identified as agricultural Priority Commodities by COTED, which agreed in 2014 on a new technical working group arrangement for addressing the key binding constraints identified under the Jagdeo Initiative. This new arrangement saw the establishment of 4 Thematic Groups, covering the following themes: Business Development; Climate Change and Natural Resources Management; Research and Human Resources Development; and Agriculture Health and Food Safety Systems. According to the arrangement, the Agriculture Food and Nutrition Cluster (AFNC), which consists of other agriculture and regional institutions and key stakeholders, is responsible for overseeing and guiding the work of the Thematic Groups.

The CRFM is a member of the AFNC and a member of the Agriculture Health and Food Safety Systems Thematic Group. As CARICOM's only Regional Fisheries Body, the CRFM Secretariat is also expected to report to the AFNC on our progress in addressing the key binding constraints affecting marine fish and aquaculture.

Early in 2016, the AFNC requested the agencies concerned, including the CRFM, to prepare industry development plans for each of the priority commodities under their charge. Consequently, in the immediate future, the CRFM will work to formulate an agreed development plan for the marine fish and aquaculture industries.



WECAFC

Since 2012, the CRFM has been an active partner in several technical/scientific working groups established by FAO's Western Central Atlantic Fishery Commission (WECAFC), including assuming the leadership role for the CRFM/WECAFC Working Group on Flyingfish in the Eastern Caribbean since 2012; the CRFM/WECAFC/IFREMER/JICA-CARIFICO Working Group on Development of Sustainable Moored Fish Aggregating Device (FAD) Fishing in the Lesser Antilles; and the CRFM/WECAFC Working Group on Illegal Unreported and Unregulated Fishing Activities.

During PY 2015/16, CRFM examined country performance in implementing the Ministerialapproved sub-regional management plan for Eastern Caribbean flyingfish, which resulted in the publication of a report on the findings.

Also in PY 2015/16, the CRFM sponsored a special Writeshop for developing a manual of best practices for operators in the fast developing moored FAD fisheries. The experts gathered at the Writeshop identified 5 major areas of operations for documenting best practices, and by the close of the year, the CRFM successfully completed and published 2 volumes of the manual, covering best practices for operations in design, construction and deployment; and quality management of fish and fishery product handling.

In 2016, the CRFM and WECAFC signed a tripartite agreement with another RFM (OSPESCA) for coordinating fisheries governance approaches across the Caribbean Sea and adjacent marine ecosystems. This milestone agreement is being facilitated under the Caribbean Large Marine Ecosystem (CLME+) project.

The implementation of the CLME+ project began in March 2015. It aims to build on the achievements of its predecessor project, the CLME Project titled "Sustainable Management of the Shared Living Marine Resources of the Caribbean Large Marine Ecosystem and Adjacent Regions," which spanned 2009 to 2013 and sought to promote sustainable management of shared living marine resources within the Caribbean through an ecosystem-based approach. The CLME project produced a Strategic Action Programme which serves to guide the activities planned under CLME+ Project, slated to conclude in 2019.



ANCORS

The CRFM continues its collaboration with the Australian National Centre for Ocean Resources and Security (ANCORS) to strengthen capacity for fisheries management across Member States. On 11 October 2012, ANCORS and the CRFM signed a Memorandum of Understanding, geared at fostering research collaboration and strengthening capacity development in the Caribbean region.

The agreement, signed near the conclusion of the 5-week training workshop for the first cohort comprising of 16 officers from nine CARICOM



countries, has set the framework for subsequent training opportunities for CRFM Member States at the University of Wollongong in New South Wales, Australia.

Two years later, ten trainees from the Caribbean attended the 2014 CARICOM Fisheries Law and Management Training Workshop, which was convened from Monday, 1 September to Friday, 3 October 2014. The next CRFM – ANCORS University of Wollongong (UOW) Training is slated to be held in Australia in October and November 2016.

The training, which covers international fisheries and environmental law, marine resource conservation and management, and monitoring, control and surveillance, is carried out under



Seventeen senior fisheries officers (pictured above) from 10 Caribbean nations (Photo: ANCORS)

the Australian Leadership Awards (ALA) fellowship program, funded by the Australian Government and hosted by ANCORS, UOW. It is coordinated by UOW's Professor Warwick Gullett.

In 2009, CARICOM and the Government of Australia signed their first MoU for development cooperation, valued at US\$62 million, focusing on climate change and disaster risk reduction; economic resilience; and peopleto-people and institutional links.



CRFM and UNU-FTP partner to implement value chain approach to fisheries



In group photo: (I-r) Mr. Milton Haughton, Executive Director, CRFM Secretariat; Dr. Thor Dadi Kristofersson, University of Iceland; Dr. Clement Iton, UWI; Dr. Sharon Hutchinson, UWI; Ms. Tullia Ible, CFTDI; Dr Ogmundur Knutsson, University of Akureyri, Iceland; and Mr. Justin Rennie, Chief Fisheries Officer, Fisheries Division, Grenada

The a regional training and capacity building workshop on the Value Chain Approach in Caribbean Fisheries, to be co-sponsored by the CRFM and UNU-FTP, is scheduled to be held in Suriname on 17-22 July 2016. During the upcoming training, Chief or Senior Fisheries Officers and private sector representatives from the 17 CRFM Member States will have an opportunity to expand their knowledge base on this vital topic in presentations to be delivered by the CRFM, UNU-FTP, and the Department of Agricultural Economics and Extension, Faculty of Food and Agriculture, at the University of the West Indies, Trinidad and Tobago campus.

On 7-9 December 2015, personnel from the CRFM, UWI, UNU-FTP, the Caribbean Fisheries Training and Development Institute (CFTDI) in Trinidad and Tobago; the University of Iceland, and the University of Akureyri in Iceland attended a meeting in Grenada to develop the course program and follow-up activities to integrate modern techniques to the value chain approach to fisheries. As a part of this effort, representative case studies, training materials and a manual will be developed for use in the regional training workshop.

The initiative will enable the region's fisheries experts to identify the status of supply and value chains in the region, and discuss the data available to conduct a value chain analysis. The industry-oriented training will be followed by the development of short-term and medium-term



action plans for implementation of the value chain approach in selected pilot studies within CRFM Member States.

The CRFM has a longstanding and successful partnership with the United Nations University – Fisheries Training Programme (UNU – FTP) aimed at building national and regional capacities for fisheries development and management in the region. Under that partnership, a Training Needs Assessment was conducted in October 2013. It highlighted the need for more specialized fisheries training to be done within the region.

In April 2013, the CRFM partnered with UNU-FTP to provide advanced leadership training for senior fisheries officials from Member States.

The cooperation between UNU-FTP and the CRFM Secretariat dates back to 2007, when the first fellows from the CRFM member states attended a 6-month training programme by the UNU-FTP in Iceland. In 2014, 14 fellows from the CRFM Member States who traveled to the UNU in Iceland for training, took five short courses on three topics (leadership, project cycle management, and stock assessment).

THE VALUE CHAIN

- Profitability
- Increased income
- Competitiveness
- Long-term sustainability

An effective value chain will link supply and demand and connect fishers and fish farmers to both domestic and international markets, thus providing them with critical information, support and services and enabling them to achieve economies of scale and enhanced profitability for the whole chain. With an effective value chain and supply chain, buyers and consumers can also be confident of having regular streams of reliable, safe and good quality fish and fishery products.



- More trickle-down effect
- Spread investment risk
- More shared costs
- Expanded markets
- Higher profits

The main beneficiaries of this project will be the fishers, small and medium enterprises in fisheries and aquaculture, national fisheries authorities and economic development agencies in the CRFM Member States.



OUR VOICES ON THE GLOBAL STAGE

CRFM Executive Director on expert team for E15 Initiative



CRFM Executive Director, Milton Haughton, served as commentator at E15 session at which IUU fishing was discussed.

Milton Haughton, CRFM Executive Director (photo above), represented the region at the Third and Final Meeting of E15 Expert Group on Fisheries, Oceans and the Trade System, held on 28 - 29 May 2015, in Geneva,

Switzerland. Group discussions were led by the theme leader U. Rashid Sumaila, Professor and Director, Fisheries Economics Research Unit & Ocean, Canada Partnership Research Director, University of British Columbia.



U. Rashid Sumaila: theme leader

During Session III of the

meeting, at which "Policy options: Trade measures to address IUU fishing" was the central focus, CRFM's Executive Director served as one of the commentators. Mr. Haughton's article titled, *Unilateral trade measures and the fight against IUU fishing*, was also featured on the E15 Initiative's blog in June 2015.



The International Centre for Trade and Sustainable Development (ICTSD) launched the E15 Initiative (E15) in 2011. Since then, ICTSD, the World Economic Forum, and 16 partnering institutions, such as the IDB, World Trade Institute and Climate Strategies, have brought together more than 375 leading international experts in over 80 interactive dialogues.

Under the "fisheries and oceans" theme, experts from around the globe examine the challenges and opportunities from trade and trade policies that may affect or redress the state of the world's oceans and the fisheries and proposes options on how the global trade system or trade elements of other multilateral processes can support a transition towards healthier oceans and sustainable fisheries.

One of the challenges cited is Illegal, unreported and unregulated (IUU) fishing, which the E15 Initiative notes undermines both sustainability efforts and government revenue streams.

The E15 Expert Group on Oceans, Fisheries and the Trade System has examined the challenges and opportunities presented by trade and trade policies that might affect the state of the world's oceans and fisheries; assessed the adequacy of the current global trade system in promoting healthier oceans and fisheries; and proposed options for how the global trade system could support a transition towards healthier oceans and sustainable fisheries.



The attendees discussed the policy options related to addressing IUU fishing reflected in the second draft of the policy options paper. After a short presentation of the relevant elements of the draft, and views from commentators, group members had an opportunity to provide specific comments or express dissenting views to be further reflected in the final version of the policy options paper.



URL: https://youtu.be/TLMCnLYdqbl

In a video produced at the close of the meeting,

Mr. Haughton reflected on its importance for the region. He underscored the importance of fish and seafood to the Caribbean for food security as well as for trade.

He noted that the issues raised at the meeting currently pose challenges for CRFM Member States. Among them are IUU fishing, subsidies and the sustainability of fisheries and how trade policies can contribute to improving these challenges which confront the Caribbean.

The First Expert Group Workshop on Oceans and Fisheries was held 28 - 29 April 2014, and the second was held 12 - 13 November 2014.

(The E15Initiative is jointly implemented by the International Centre for Trade and Sustainable Development and the World Economic Forum)

Unilateral trade measures and the fight against IUU fishing

Author: Milton Haughton Date: June 2015

Excerpt:

[Illegal, unreported, and unregulated] IUU fishing exists, to a great extent, from chronic overcapacity in the fishing industry globally, coupled with inadequate management, including ineffective flag state control, high market demand and dynamic markets for fish and seafood, and of course, greed. When there is progress in addressing these underlying, fundamental issues it will be much easier to prevent, deter, and eliminate the problem.

At present there is no single comprehensive policy or legal regime for IUU fishing....

From the perspective of Caribbean SIDs – and most developing states for that matter – measures to enhance their capacity to manage the problem [of IUU fishing] through the implementation of effective fisheries management regimes are critically important to effectively addressing the IUU problem over the long-term. As noted earlier, unless this fundamental weakness is addressed, progress in preventing, deterring, and eliminating IUU fishing will be limited. Capacity building will require aid, training, and technical support.

For the entire article, visit this URL: <u>http://e15initiative.org/blogs/unilateral-trade-measures-and-the-fight-against-iuu-fishing/</u>



CODEX Alimentarius meeting

The CRFM was represented among the 155 delegates from 49 Member Countries, and the Member organization and Observers from an international organization which attended the Codex Committee on Fish and Fishery Products (CCFFP) at its 34th Session in Ålesund, Norway, from 19 to 24 October 2015. The Work of the Codex Alimentarius Commission and its committees provides one basis upon/around which a number of standards for food products are developed. In this regard, the work of the Committee on Fish and Fishery Products is of direct relevance to the fisheries component of the SPS programme, which is being coordinated by CRFM; given that the continued viability and further development of the fishing industry of the CRFM region faces several challenges, some of which are related to inadequate development of SPS systems to suit the specific needs of fisheries and aquaculture operations.

The outcomes of what is likely to be the last face-to-face meeting of the Codex Committee on Fish and Fishery Products, and the related recommendations are to be disseminated by incorporation into information products produced for/by the programme, as well as through the offices of the Caribbean Fisheries Forum, the CRFM Executive Committee and Ministerial Council. This information will also be shared with several regional organisations (e.g. CARICOM Organisation for Standards and Quality - CROSQ, Caribbean Agricultural Health and Food Safety Agency - CAHFSA, Centre for Resource Management and Environmental Studies - CERMES at the University of the West Indies), as well as stakeholders from the fisheries sector, e.g. Caribbean Network of Fisherfolk Organizations and private companies.

Participation in the meeting by Peter A. Murray, Programme Manager Fisheries Management and Development (officially representing Belize) and Dr. Anand Chotkan from The Ministry of Agriculture, Animal Husbandry and Fisheries of Suriname was supported by the SPS project, which also provided them with the opportunity to interface with other country representatives of the Codex Committee Latin America and the Caribbean (CCLAC) group.

[Guyana and Jamaica were the other CRFM Member States represented at the meeting in the persons of Dr. Joshua Da Silva from the Ministry of Public Health and Dr. Wintorph Marsden from the Ministry of Agriculture and Fisheries, respectively.]



Fisheries and Tourism Linkage

During the 2015-2016 Programme Year, the CRFM heightened its focus on expanding the earning potential of the region's fisheries industry through catalyzing trade with partners in tourism. Tourism brings roughly 30 million visitors to our shores each year, contributing nearly US\$50 billion to the regional economy, but a substantial amount of those earnings leaves our borders to pay for imports of fisheries produce—a trend that must at least be partially reversed to boost stakeholder income and furthermore to strengthen our regional economy.



The CRFM has set up an expert working group to explore the potential synergies that exist between fisheries and tourism. That group met on 17 – 18 March 2016 at Blue Horizon Hotel in Bridgetown, Barbados, to review and validate draft reports for four CRFM Member States.

The CRFM Secretariat has been engaged in a 5-month project funded by the Technical Centre for Agricultural and Rural Cooperation (CTA) to prepare case studies for Antigua and Barbuda, Barbados, Belize and Grenada to explore this vital link between fisheries and tourism-related markets in the Caribbean. The findings of these studies should prove useful for the entire region.

The CRFM emphasizes that if the linkages between fisheries and tourism are nurtured and strengthened, this would lead to more economic opportunities while reducing the region's massive food import bill, keeping more Caribbean dollars at home for the benefit of coastal and rural communities.

The case studies are expected to foster the diversification of the region's economy, expanded value-added products from fisheries, as well as more sustainable trade and employment creation, as they shed light on key institutional and policy bottlenecks that must be addressed to upscale benefits to fisheries and tourism stakeholders.





"High-quality food, every day of the year, is essential to hotels, lodges and resorts. Often, the food purchasing bill of a tourism site is large in the context of the local economy, but surprisingly little is spent locally."

The CRFM on fisheries and tourism linkages

FISHERIES-TOURISM LINKAGES



Vincent Gillett, consultant with expertise in fisheries and coastal zone management, presented the case of Belize. In his report, Gillett noted that, "Linking fisheries with tourism has become an important goal. It has become a major objective of the Caribbean Community Common Fisheries Policy and has been identified as a strategic goal of the 2013-2021 Strategic Plan for the Caribbean Regional Fisheries Mechanism (CRFM, 2013)."

Since there is no strategic marketing arrangement to produce fishery products directly for tourist consumption and no definitive marketing strategy to attract greater participation of the Belizean fishery producers in the tourism economy, he recommends a new project to satisfy the paucity of knowledge about the existing opportunities and how best to take advantage of them.



That project should "assess and monitor volume, value and range of seafood consumed by tourists," Gillett recommended.

He hopes that such an initiative would persuade leaders within the fisheries and tourism sectors to form strategic linkages to capitalize on any opportunity that would further advance their sectors' continued success.

Ian Horsford, Senior Fisheries Officer, Antigua and Barbuda Fisheries Division, presented the case study for his country. In his presentation, he demonstrated how stingrays are already attracting tourism dollars in that jurisdiction.



In the case of Stingray City (Antigua) Limited, located in the village of Seatons, on the northeast coast of Antigua, the ecotourism business offers interactions with southern stingrays in their natural environment. It is currently ranked number one of "things to do in Antigua and Barbuda," Horsford explained.

The FISHERIES-TOURISM Case Studies

The **ANTIGUA** study looked at the connection between lobster production and tourism, as well as the eco-tourism experience offered by Stingray City (Antigua) Limited, which allows primarily cruise tourists to interact with southern stingrays (*Dasyatis americana*) in their natural environment.

The **BARBADOS** study notes that, "Over the last 10 years, the weekend Fish Frys, such as those in Oistins on the south coast and Half Moon Fort (Moon Town) on the West Coast, have emerged as major features in the country's tourism product and attract a large number of visitors who have the opportunity to interact with the many locals that patronize them."

"The contributions of Fisheries and Tourism to the economy of **BELIZE** have been significant. However, little attempt has been made to explore the synergies existing between the two sectors. Growth and development has been pursued separately and policies and institutions have not recognized nor advanced opportunities for cooperation," the Belize study notes.

The **GRENADA** study says that, "Marine fisheries resources now provide significant opportunity for tourism services-providers to earn livelihoods. Dive sites, sightseeing and surface tours are now important factors in the tourism products and services."

Dr. Iris Monnereau, post-doctoral fellow in fisheries governance at the Centre for Resource Management and Environmental Studies/University of the West Indies, documented the case of Barbados, where fish frys and sport fishing play a big role in attracting tourism dollars.



Dr. Monnereau notes that to service the tourist market, local producers need to find profitable and competitive ways to meet tourism industry demands for volume, quality, regularity, traceability, and safety requirements.

Due to niche marketing to the cruise-tourism sector, which reported cruise-ship arrivals averaging 557,666 passengers per year from 2010 to 2014, there was sufficient demand: Barbados.

For Grenada, fisheries expert James Finlay presented on the linkages between fisheries and tourism in that country. He explained that hotels and restaurants are the key tourist services food providers. The fish product is sourced from both local and imported supplies. As a result, hotels and restaurants would reflect the most discriminating tastes of tourists in terms of both quantity and variety of product, and whenever local fish product suppliers are unable to provide for quality and variety, imports are substituted.

In his report, Finlay presents several key findings. In the concluding points, he notes that, "Marine-fisheries resources now provide significant opportunity for tourism services-providers to earn livelihoods. Dive sites, sightseeing and surface tours are now important factors in the trade in the tourism products. They need to be regulated but by non-coercive and collaborative mechanisms."

He recommends a fish food festival to serve as a forum for competitive and open engagements between suppliers and purchasers.





Outlook for 2016-2017 in Brief

The work of the CRFM over the next Programme Year (April 1, 2016 to March 31, 2017) will be centrally guided by the 2016-2018 work plan and budget and the 2013-2021 Strategic Plan, which chart the framework for us to meet the practical needs of our Member States.

The work plan highlights the need to increase attention to the region's small-scale fisheries. It also points to the CRFM's longstanding commitment to strengthen fisherfolk organizations.



Small-scale fisheries continue to support over 200,000 jobs in CRFM Member States

The work plan underscores the need for CRFM and its Member States to continue efforts towards the establishment of vessel registries, the application of the Ecosystem Approach to Fisheries (EAF), the implementation of measures to reduce by-catch, and the design and enforcement of the 2009 FAO Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated (IUU) Fishing. The Second Strategic Plan identifies the following three Strategic Goals:

- Sustainable management and utilization of fisheries and aquaculture resources in the Caribbean region for the benefit of future generations.
- 2 Improve the welfare and sustainable livelihoods of fishing and aquaculture communities in the Caribbean region, by providing income and employment opportunities in fisheries and aquaculture sectors.
- Ensure the Caribbean population has at all times, sufficient safe and nutritious fish that meets the dietary requirements and is needed for an active and healthy life.

The CRFM will continue to promote and facilitate the development of aquaculture as one of the strategies for increasing a sustainable supply.

Our strategic objectives also focus on building our information base on the status and trends in the fisheries and aquaculture sector; and advancing research and development.



The CRFM's work will continue to take into account the need for adaptation to climate change and disaster risk management in fisheries. The CRFM will continue to pursue an initiative to establish risk insurance for fishers with co-financing from the US and Member States. We continue to seek out partnerships to buffer the impacts of climate change and climate variability on fisheries and aquaculture in the Caribbean through the best adaptive measures for our region.

During PY 2016/2017, the CRFM will continue to implement several major activities and projects funded by our core budget, such as activities of CRFM Technical Working Groups, Forum and Ministerial Council meetings, contributions to CARICOM governance (Strategic and Operational Plans for the period 2015-2019), and our participation in ICCAT.

A few donor-funded projects, which began during the previous biennial period, will continue for the second biennial period. Among these are the SPS Measures project and the ECMMAN project. Other donor-funded projects, such as the Strategic Program for Climate Resilience (SPCR) – Climate Change project and the CLME+ projects, have been advanced to the point of project documentation finalization, and early implementation during the first biennial period. The CRFM will therefore pursue full implementation during the second biennial period. For new and pipeline projects, activities will focus on proposal preparation and finalization, including negotiations with donors.

The CRFM's contributions to the SPS Measures project will continue with major technical assignments planned for delivery over the next year such as:

- Continued development of a model legal and regulatory framework for agricultural health and food safety for the fisheries sector, including instructions or guidelines and explanatory notes for national drafters;
- Support for the production of food safety operational manuals for field, laboratory, market and trade (import and export); and
- Development and implementation of a modular fisheries SPS laboratory training programme.

A CARIFORUM-customized fisheries SPS Measures Training Course will be delivered at the start of the new programme year, in April 2016. It will be aimed at capacity building in fisheriesrelated SPS Measures and institutional arrangements required for optimized performance of the fisheries and aquaculture sector. Additionally, the CRFM has secured SPS project resources for two scholarships, each for a 6-month training programme in food quality and safety at the United Nations University- Fisheries Training Programme (UNU-FTP) in Iceland.


The CRFM will continue to lead the WECAFC Working Groups on flyingfish and IUU fishing activities. It will also continue to advance RFB networking through its new partnership agreement with WECAFC and OSPESCA.

None of these objectives could be realized without our continued efforts to build capacity in the region and strengthen the key institutions which serve the sector. Future capacity-building initiatives will



Food safety inspection in Belize (Photo: Belize Agricultural Health Authority)

focus more on catering specifically to the needs of Member States, with more training offered to middle and junior levels of staff in the Fisheries Departments and Divisions.

Furthermore, the CRFM will continue to maintain and build on its MOUs with various development partners in order to fulfill the identified capacity building needs in fisheries management.

At the Secretariat, we will continue to work on maximizing the use of our human and financial resource base to better serve the needs of our Member States, even as they seek to sustain and grow the fisheries and aquaculture sector.



Fisheries Data Summary



Total Marine Capture Fisheries Production

(annual average)

- 150,000 metric tonnes live weight
- 140,000 metric tonnes meat weight

Total estimated production

o US\$420 million

Aquaculture earnings

○ ~ US\$50 million

Employment

- \circ 116,000 direct
- o 225,000 indirect
- o 4.4% of CARICOM workforce

Fleet

> 27,000 vessels





ANNEXES



FINANCIAL REPORT (AUDITED)

CARIBBEAN REGIONAL FISHERIES MECHANISM SECRETARIAT

STATEMENTS OF FINANCIAL POSITION MARCH 31, 2015 AND 2014 (IN EASTERN CARIBBEAN DOLLARS)

	Notes	2015	, 2014
ASSETS			
CURRENT ASSETS: ,			
Cash and bank balances	1g	\$ 955,636	\$ 703,959
Outstanding contributions	1g, 2	3,859,552	3,055,419
Accounts receivables	1g	13,640	3,164
Total current assets		4,828,828	3,762,542
NON-CURRENT ASSETS:			
Land, buildings and equipment	1f, 3	431,890	440,759
Total non-current assets		431,890	440,759
TOTAL ASSETS		\$5,261,217	\$4,203,301
LIABILITIES AND FUND BALANCES			
CURRENT LIABILITIES:		+	
Accounts payable and accruals	1g, 4 5	\$ 244,937	\$ 280,745
Contributions in advance		116,704	69,366
Project payable	1g 1i, 6	881,912	291,269
Total current liabilities		1,243,553	641,380
Total liabilities		1,243,553	641,380
FUND BALANCES:			
Capital fund	7	402,042	402,042
General fund		3,615,123	3,159,879
Total fund balances		4,017,165	3,561,921
TOTAL LIABILITIES AND FUND BALANCES		\$5,260,718	\$4,203,301

The financial statements on pages 3 to 6 were approved and authorized for issue by Management on October 25, 2016 and are signed on its behalf by:

Executive Director CRFM Secretariat

mi

Manager, Finance and Administration CRFM Secretariat

÷.

.

The notes on pages 7 to 25 are an integral part of these financial statements.

1

~A-2 ~

CARIBBEAN REGIONAL FISHERIES MECHANISM SECRETARIAT

.

STATEMENTS OF INCOME AND OTHER COMPREHENSIVE INCOME YEARS ENDED MARCH 31, 2015 AND 2014 (IN EASTERN CARIBBEAN DOLLARS)

Continuing Operations: INCOME	Notes 1h	2015	2014
Member States' contributions	8	\$2,582,016	\$2,582,016
Donor income		=	19,465
		2,582,016	2,601,481
EXPENDITURES		E-CONTRACTOR	
Bank charges		27,140	16,153
Consultants fees and trayel		27,991	11,694
Depreciation expense		14,762	30,871
Hospitality		1,658	1,793
Insurance – furniture and equipment		4,532	3,871
Janitorial supplies and services		10,879	3,871 11,505
Meetings and workshop expenses		289,043	206,800
Office equipment rental		2,491	406
Other expenses		1,005	1.5
Personnel emoluments		1,474,017	1,388,426
Postage and courier services		5,991	7,987
Printing, photocopy services and office supplies		37,820	48,121
Publications and subscription		2,301	9,678
Repairs and maintenance - computers and office equipment		22,621	20,097
Repairs and maintenance - office		11,031	5,600
Repairs and maintenance - vehicle		12,892	12,046
Telephone and fax charges		38,037	45,215
Travel - airfares and living expenses (staff)		123,381	109,609
Utilities - electricity and water		19,180	17,949
		2,126,772	1,947,821
INCOME FOR THE YEAR		455,244	653,660
OTHER COMPREHENSIVE INCOME		<u> </u>	
TOTAL COMPREHENSIVE INCOME		\$	\$653,660

The notes on pages 7 to 25 are an integral part of these financial statements.



CRFM SECRETARIAT STAFF



Milton Haughton, Executive Director



Susan Singh-Renton, DPhil., Deputy Executive Director



Peter A. Murray, Programme Manager, Fisheries Management and Development



Elizabeth Mohammed, Programme Manager, Research and Resource Assessment



Delmar Lanza, Manager, Finance and Administration



Andrew Barnes, Finance Officer



June Masters, Statistics and Information Analyst



Maren Headley, Research Graduate, Research and Resource Assessment (On study leave completing Ph.D degree)



Sherlene Audinett-Lucas, Senior Secretary





Rochelle Staine-Gill, Documentation, Clerk/Typist



Olin Myers, Clerk, Information Technology and Accounts



Pamela Gibson, Administrative Secretary





John Henry Cyrus, Office Assistant/Driver



EVENTS FOR PROGRAMME YEAR

20	16
----	----

Date	Name of Event	Location
28 March - 8 April	1st Meeting of the Preparatory Committee for the	
	development of an international legally binding	
	instrument under UNCLOS on the conservation and	
	sustainable use of marine biological diversity of areas	
	beyond national jurisdiction	
29 February - 3	34th Session of FAO Regional Conference for Latin	Mexico
March	America and the Caribbean	
10 -11 March	4th High-Level Forum on Donor Coordination	Guyana
	(Member States, CARISEC, Institutions and	
	International development Partners)	
8 - 10 March	ECMMAN ACC (Project Steering Committee) Meeting	Grenada
17 - 18 March	Expert Working Group to Review and the Validate	Barbados
	Draft Report on Linkages between Fisheries and	
	Tourism	
18 March	Second Meeting of the Pelagic Working Group on	Electronic
	ICCAT	
15 - 17 March	REBYC -II LAC Data Collection Workshop	Barbados
14 - 15 March	Visit of JICA Mission to CRFM Belize	Belize
9 March	6th Meeting of Consultative Committee on Technical	Guyana
	Cooperation (Member States, CARISEC and	5
	Institutions)	
8 March	7th Meeting of Secretary-General and Heads of	Guyana
	Institutions	5
7 March	Cluster Meetings	Guyana
3 - 4 March	26th Meeting of the Executive Committee of the	St. Vincent and the
	Caribbean Fisheries Forum	Grenadines
March 2016	1st Meeting CRFM / WECAFC Working Group on IUU	Barbados
(tentative)	Fishing	
24 - 26 February	UN Expert Group Meeting on Fisheries Crime	Vienna, Austria
16-17 Feb	Inter-sessional Conference of Heads	Belize
17 Feb	4th Meeting of the Technical Oversight Committee of	electronic
	the 10th EDF SPS Project:	
9 February	SPS Measures Project TAC Meeting	electronic
29 January	Fifth Meeting of the Agricultural Health and Food	Suriname
, ,	Safety Systems Thematic Group Meeting	
26 - 28 January	1st CLME+ Steering Committee Meeting	Cartagena,
, ,	5 5	Colombia
18 - 22 January	WECAFC / FIRMS Statistics Training Workshop	Barbados
19 - 22 January	Regional Planners Forum for Agriculture	Grenada
13 January	Sixtieth Special Meeting of COTED	Guyana
j j	· · · · · · · · · · · · · · · · · · ·	



11 January	Meeting of Officials preparatory to the sixtieth Special	Guyana
	Meeting of COTED	

2015

Date	Name of Event	Location
Dec 14	CRFM/FAO Meeting to Discuss cooperation	BDOS
December	Fisheries & Tourism Work Gp to review Study reports	
	(Postponed to New Year)	
7 - 9 December	Planning Meeting - Training Workshop on Value	Grenada
	Chain Approach on Fisheries in the Region	
3 December	4th SPS Technical Oversight Committee Meeting	Virtual
1 - 2 December	2nd WECAFC Reorientation and Strategic Planning	Trinidad and
	Workshop – EU supported	Tobago
27 - 29 November	Commonwealth Heads Conference	Malta
23-24 Nov	ACS/CSC SYMPOSIUM: Challenges, Dialogue and	Trinidad and
	Cooperation towards the Sustainability of the	Tobago
	Caribbean Sea	
18 - 24 November	Second Round- Informal Consultations on Omnibus	UN HQ, New York
	Resolution on Oceans and the Law of the Sea	
10 - 17 November	Informal Consultations on Resolution on Sustainable	UN HQ, New York
	Fisheries	
10 - 17 November	24th Regular Meeting of the ICCAT Commission	Malta
9 - 13 November	68 Annual GCFI Meeting	Panama City,
		Panama
9 - 11 November	WECAFC / OSPESCA / CRFM / CFMC Working Group	Panama City
	on Recreational Fisheries - 2nd Regional Workshop	Panama
	on Billfish Management and Conservation	
7 - 8 November	WECAFC 7 th session of the Scientific Advisory Group	Panama City,
	(SAG) – FAO supported.	Panama
3 - 6 November	CTA / IICA Agri-business Forum	Barbados
26 - 28 October	CLME PEG / SAP Interim Coordinating meeting	Miami, USA
October	WECAFC / OSPESCA (CRFM?) Working Group on	Port of Spain,
	Sharks management and conservation – CITES	Trinidad and
	supported.	Tobago
23 October	25th Meeting of the Executive Committee of the	via GoToMeeting
	Caribbean Fisheries Forum	0
19-24 Oct	CODEX Committee Meeting on Fish and Fish Products	Alesund, Norway
15 - 16 Oct 2015	Pew Fellows Program in Marine Conservation	Puerto Rico
14-16 Oct	SIDs Food security and nutrition conference	Milan, Italy
12 Oct - 27 Nov	Commission on the Limits of the Continental Shelf –	UN HQ,, New York
	39th session	-
19-23 Oct	Visit of Grenada Minster, PS, CFO to Belize re MPA	Belize
	management and meeting with the CRFM	
8 - 9 Oct	Project launch workshop: Investment Plan for the	Kingston, Jamaica



	Caribbean Regional Track of the Pilot Program for Climate Resilience (Postponed)	
9 Oct	59th Special Meeting of COTED	Georgetown, Guyana
8 Oct	59th Special Meeting of COTED – Agriculture (Ministerial Meeting)	Georgetown, Guyana
6 Oct	59th Special Meeting of COTED-Agriculture (Officials Meeting)	Georgetown, Guyana
5 - 8 Oct	Third Regional Caribbean Fisherfolk Action Learning Group Workshop	Antigua and Barbuda
30 Sept	Meeting of CCS Agriculture Planners Forum	Virtual
29 Sept - 1 Oct	Commonwealth and UNCTAD Ad Hoc Expert Meeting on Trade in Sustainable Fisheries (AHEM)	Geneva, Switzerland
28 Sept - 2 Oct	First round- Informal consultations on omnibus resolution on oceans and the law of the sea	UN HQ,, New York
28 Sept - 2 Oct	Meeting of the Standing Committee on Research and Statistics	Madrid, Spain
24 Sept	First Meeting of the Consortium on Billfish Management and Conservation (CBMC)	Via Skype
21 - 25 Sept	SCRS Species Groups Meetings (SC Statistics 21 - 22)	Madrid, Spain
16 Sept	SPS TAC meeting (virtual)	Virtual
14 Sept	1st Special Meeting of the Executive Committee of the Caribbean Fisheries Forum	Via GoTo Meeting
15-18 Sept	FAO/WECAFC/CRFM Statistics Workshop	Barbados
14-15 Sept	Meeting of the Secretary General and Heads of Community Institutions, and 2015 Donor Coordinator Meeting	Georgetown, Guyana
8 - 11 Sept	Sixth Meeting - Ad Hoc Working Group of the Whole on the Regular Process for global reporting and assessment of the state of marine environment, including socio-economic aspects	UN HQ, New York
9-12 Sept	REBYC-II LAC Project Implementation Inception Workshop	Barbados
7-8 Sept	FAO/WECAFC/IDB/CRFM/IFREMER Workshop Investing in ecosystem-based shrimp and groundfish fisheries management of the Guianas -Brazil Shelf	Barbados
1-3 Sept	FAO/WECAFC Expert Meeting to Assess RFMO Arrangements & 1 day meeting to discuss fisheries coordinating mechanism for CLME Project.	Barbados
24 - 25 Aug.	Regional Validation Workshop, Fisheries Component of the EU Funded SPS Measures Project	Barbados
27 - 31 July	Blue Shark Stock Assessment Meeting	Lisbon, Portugal
20 Jul - 4 Sept.	Commission on the Limits of the Continental Shelf – 38th session	UN HQ, New York
23-24 July	8th CARICOM-UN meeting	Guyana



20 - 21 July (Officials) 22 - 23 July (Ministerial)	4th Meeting of ACP Ministers in Charge of Fisheries and Aquaculture	Brussels
13 - 17 Jul	Bigeye Stock Assessment Meeting	Lisbon, Portugal
6 - 24 Jul	21 st Session of the International Seabed Authority	UN HQ, New York
6 -11 July	2015 UF Ecosim/Ecopath Lionfish Modelling and Management Training	USA
9 -10 July	Seminar on laws to protect oceans and seas	Panama
6 - 9 Jul	Final Regional Training of Trainers Workshop for Fisherfolk Mentors	Anguilla
2 July (8.00-12.00)	Jamaica national Consultation on Fisheries Risk Insurance Initiative	Virtual
2 -4 Jul	36th Regular Meeting of Heads of Government	Barbados
June (date TBD)	WECAFC Regional workshop on fisheries data collection, analysis, sharing and reporting –EU supported	Bridgetown, Barbados
29 June - 3 July	Field Mission under the SPS Environmental Consultancy	Belize
22 - 26 June	Dialogue between Scientists and Managers Working Group/WG Fisheries Managers and Scientist in support of the Western Bluefin Stock Assessment	-
September 2015 – March 2016	UNU-FTP Fisheries Training Programme - 6 month fellowship	Iceland
23 - 25 June	FAD Fisheries Management Write-shop	St. Vincent and the Grenadines
16 - 18 June 2015	10th EDF SPS Project - Fourth Meeting of the Technical Advisory & Technical Oversight Committee Meetings	Barbados
11 - 16 June	Field Mission under the SPS Environmental Consultancy	Suriname
11 - 12 June	16th OECS Ministerial Meeting on Sustainable Use of Living Marine Resources	Antigua
10 - 13 June	Small Tunas Species Group Intersessional Meeting, SCRS	Madrid, Spain
8 - 12 June	25 th Meeting of States Parties to the 1982 United Nations Convention on the Law of the Sea	UN HQ,, New York
9-11 June	ITLOS Case 21 Follow-up Workshop	Dakar, Senegal
8 - 12 June	Sub-Committee On Ecosystems Intersessional Meeting	Madrid, Spain
8 June	World Oceans Day	
7 - 11 June	Field Mission under the SPS Environmental Consultancy	Grenada
3 - 6 June	CARICOMP-2 Meeting	Miami
2 June	First CARICOM-India Joint Commission Meeting	Georgetown, Guyana



31 May - 4 June	Field Mission under the SPS Environmental Consultancy	Guyana
28-29 May	Final Meeting of E15 Expert Group on Fisheries Oceans and trade System	Geneva
20 May - 17 Jul	Training Programme on Ocean Governance: Policy, Law and Management	Nova Scotia, Canada
18 - 22 May	Convention Amendment Working Group, COM	Miami, USA
15 May	9th Meeting of the CRFM Ministerial Council	St. George's, Grenada
13 - 15 May	CARPHA / PAHO / IICA Regional Foodborne Diseases Surveillance and Food Safety Workshop	Trinidad and Tobago
11 - 13 May	Fisheries Legal Component - EU-sponsored Sanitary and Phytosanitary Measures (SPS) Programme in the CARIFORUM Region - in-country legal mission	Dominican Republic
11 - 12 May	1st Meeting of the Ad Hoc Working Group on FADs	Madrid, Spain
7 - 9 May	Fisheries Legal Component - EU-sponsored Sanitary and Phytosanitary Measures (SPS) Programme in the CARIFORUM Region - in-country legal mission	Haiti
4 - 8 May	Bigeye Data Preparatory Meeting	Madrid, Spain
4 - 5 May	Fisheries Legal Component - EU-sponsored Sanitary and Phytosanitary Measures (SPS) Programme in the CARIFORUM Region - in-country legal mission	Belize
29 April - 1 May	Fisheries Legal Component - EU-sponsored Sanitary and Phytosanitary Measures (SPS) Programme in the CARIFORUM Region - in-country legal mission	Jamaica
27 Apr - 1 May	Group of Experts of the Regular Process for global reporting and assessment of the state of marine environment, including socioeconomic aspects	UN HQ, New York
24 - 27 April	Fisheries Legal Component - EU-sponsored Sanitary and Phytosanitary Measures (SPS) Programme in the CARIFORUM Region - in-country legal mission	The Bahamas
April	WECAFC/CRFM/OSPESCA/CFMC Working Group on Recreational Fisheries – 2 nd meeting on billfish management and conservation planning + WECAFC/FAO Project inception workshop of the Caribbean Billfish project (component of the Ocean Partnerships For Sustainable Fisheries And Biodiversity Conservation – Models For Innovation And Reform), –World Bank supported.	Barbados or Miami
April	FAO/WECAFC Inception workshop project "Sustainable management of bycatch in Latin America and Caribbean trawl fisheries " – GEF IW supported	-
April	WECAFC/CRFM/IFREMER Working Group on Shrimp and Groundfish -1st Regional shrimp and groundfish fisheries management investment planning workshop	Paramaribo, Suriname



	(Suriname, April 2015, dates TBD) –IDB supported.	
9 or 10 April	SPS TAC Meeting (electronic)	virtual
6 - 10 April	16 th Meeting of the United Nations Open-ended Informal	UN HQ, New York
	Consultative Process on Oceans and the Law of the Sea	
2 April	Delivery of ITLOS Advisory opinion in Case 21 on IUU	Hamburg, Germany
	Fishing	





CRFM PUBLICATIONS

DOCUMENTS

CRFM, 2016. Promoting Regional Trade and Agribusiness Development in the Caribbean: Case Studies on Linking Fisheries to Tourism-Related Markets. *CRFM Technical & Advisory Document, No* 2016 / 3. Belize City. pp102.

CRFM, 2015. Cost Benefit Analysis for the Integration of Curaçao as an Associate Member of the CRFM. *CRFM Technical & Advisory Document*, No. 2015 / 1. 23p.

Mohammed, E. 2015. Developing a Model Logbook for the FAD Fisheries in the Eastern Caribbean. *CRFM Technical & Advisory Document* No. 2015 / 02. 66p.

Mohammed, E. 2015. Developing the CRFM's Fisheries and Aquaculture Research Agenda. *CRFM Technical & Advisory Document* No. 2015 / 03. 110p.

CRFM 2015. Report of the Write-shop on FAD Fisheries Management, Kingstown. St. Vincent and the Grenadines, 23-25 June 2015. *CRFM Technical & Advisory Document* No. 2015 / 04. 24p.

CRFM 2015. 2015 Draft Sub-Regional Management Plan for FAD Fisheries in the Eastern Caribbean (Stakeholder Working Document). *CRFM Technical & Advisory Document* No. 2015 / 05. 94p.

CRFM 2015. Final Technical Report – Technical support to develop National and Regional Environmental Monitoring Programmes related to SPS for fishery and aquaculture products in the CARIFORUM States. *CRFM Technical & Advisory Document* No. 2015 / 06. 129 p.

CRFM. 2015. Final Technical Report – Technical support to develop model legislation, protocols, guidelines for health and food safety related to fisheries and aquaculture in CARIFORUM States. *CRFM Technical & Advisory Document* No. 2015/07.368p

CRFM. 2015. Report of the Regional Validation Workshop

for the Fisheries Component of the 10th EDF funded Sanitary and Phyto-sanitary Measures Project. *CRFM Technical & Advisory Document* No. 2015/ 08. 111p.





CRFM. 2015. Terminal Report – CRFM SPS Legislation and Environmental Monitoring Media Coverage. *CRFM Administrative Report*. 108 p.

Mohammed, E. 2016. Implementation Report (2014 – 2015): Sub-regional Fisheries Management Plan for Flyingfish in the Eastern Caribbean. *CRFM Technical & Advisory Document*, No. 2016/01. 29p +6



Mohammed, E. 2016. Implementation Report: Regional Strategy for the Control of the Invasive Lionfish in CRFM Member States. *CRFM Technical & Advisory Document*, No. 201X/XX. XXp. (In Progress)

CRFM. 2015. CRFM Statistics and Information Report – 2014

CRFM. 2015. CRFM Working Groups: Terms of Reference. *CRFM Special Publication* No. 3. 41p.

CRFM. 2015. FAD Fishery Model Logbook. *CRFM Special Publication* No. 4. 21p.

CRFM. 2015. The CRFM's Fisheries and Aquaculture Research Agenda (Provisional). *CRFM Special Publication*, No. 5. 51 pp.

Gervain, P., Reynal, L., Defoe, J., Ishida, M., and Mohammed, E. 2015. Manual of Best Practices in Fisheries that use Fish Aggregating Devices: FAD Design, Construction and Deployment. *CRFM Special Publication* No. 6. Vol. I. 52 pp

Eugene S., Andrews, C., Dromer, C., Ishida, M. and Mohammed, E. 2015. Manual of Best Practices in Fisheries that use Fish Aggregating Devices: Maintaining Good Quality of FAD-Caught Fish: From the point of capture to the point of sale. *CRFM Special Publication* No. 6, Vol. II. 21pp.

CRFM 2015. Draft Report and Proceedings of the Thirteenth Meeting of the Caribbean Fisheries Forum, St. George's, Grenada, 30 – 31 March 2015. Volume 1. *CRFM Management Report* – PY 2015 / 16. 136 pp.

CRFM 2015. Report and Proceedings of the Thirteenth Meeting of the Caribbean Fisheries Forum – National Report, St. George's, Grenada, 30 – 31 March 2015. Volume 1 – Supplement 1. *CRFM Management Report* – PY 2015 / 16. 75 pp.

CRFM 2015. Report and Proceedings of the First Special Meeting of the Executive Committee of the Caribbean



Fisheries Forum, 14 September 2015. Volume 1 – Supplement 2. CRFM Management Report – PY2015/16.16p.

CRFM 2015. Report and Proceedings of the Twenty-fifth Meeting of the Executive Committee of the Caribbean Fisheries Forum (Electronic Meeting), 23 October, 2015. Volume 1 – Supplement 3. CRFM Management Report – PY 2015/16. 34 p.

CRFM 2015. Report and Proceedings of the Twenty-fifth Meeting of the Executive Committee of the Caribbean Fisheries Forum, 3 – 4 March 2016, St. Vincent and the Grenadines. Volume 1 – Supplement 4. CRFM Management Report – PY 2015 / 16

CRFM 2015. Report and Proceedings of the Ninth Meeting of the Ministerial Council of the Caribbean Regional Fisheries Mechanism, Flamboyant Hotel, St. George's, Grenada, 15 May 2015. Volume 2. *CRFM Management Report* – PY 2015 / 16. 93p

CRFM. 2015. Terminal Report – CRFM SPS Legislation and Environmental Monitoring Media Coverage. *CRFM Administrative Report.* 108 p

CRFM. 2015. CRFM Annual Report, 1 April 2014 – 31 March 2015. CRFM Administrative Report



INFOGRAPHICS

The following *infographics* were produced for the "Safe Seafood"/SPS campaign in August 2015:



~A-15 ~



DOCUMENTARIES



CRFM NEWSLETTER

CRFM News - Management Issue, August 2015



CRFM News - Scientific Issue, September 2015





Calendar

The CRFM produced a full-color 19" by 13" calendar with semi-gloss backdrop and 12 monthly sheets to promote the Caribbean Community Common Fisheries Policy.

1,000 copies were printed for regional dissemination.





FISHERIES NEWS

PRESS RELEASE LIST

Wednesday, 16 March 2016: *Seafood, sun and sand - CRFM seeks to strengthen the linkages between Fisheries and Tourism*

Tuesday, 15 March 2016: CRFM and Japan experts discuss impact of fisheries co-management project

Wednesday, 27 January 2016: *MOU Signed to Improve Coordination for Sustainable Fisheries in the Western Central Atlantic*

Friday, 08 January 2016: CRFM receives CARICOM Secretary-General on Belize visit

Tuesday, 29 December 2015: *CRFM and IOI sign 5-year MoU to build the Caribbean's capacity in Ocean Governance*

Wednesday, 16 December 2015: *CRFM and partners to unlock the full potential of Caribbean fisheries through value chain approach*

Thursday, 27 August 2015: Caribbean fishing industry ends meeting on upgrading food safety systems

Tuesday, 11 August 2015: CRFM Feature: Caribbean Fishing Industry Moves to Close Food Safety Gaps, Expands Markets

Monday, 29 June 2015: Anna Ramirez, fisher lady of Punta Gorda, recognized as Fisher of the Year

Thursday, 25 June 2015: First Fisherman's Day in Belize

Thursday, 25 June 2015: *Belize examines environmental quality control in fisheries and aquaculture*

Wednesday, 10 June 2015: *The Caribbean Community Common Fisheries Policy: Breaking the cycle of poverty in fishing communities*

Monday, 18 May 2015: Caribbean Fisheries Ministers Ink Regional Spiny Lobster Declaration

Wednesday, 13 May 2015: *High-level meeting of Caribbean Fisheries Ministers to be held in Grenada*

Wednesday, 01 April 2015: Caribbean urged to reverse decline in aquaculture



WIEP - Canbibean Environment Programme

ale Line Page

Anna Rammez, sustainable fisher lady of Punta Gorda, Belize, recognized as Fisher of the Yeart Read more: http://citm.intindex.php.......



Anna Ramirez, fisher lady of Punta Gorda, recognized as Fisher of the Year Store was 7 year of Anna Ramenz, new 53, has been futing with the larity of the staat of Beize's southermost district - Totalo, but, commun. I watche commencements





ACRONYMS

AFNC	Agriculture Food and Nutrition Cluster
AHFS	Agricultural Health and Food Safety
ALA	Australian Leadership Awards
ANCORS	Australian National Centre for Ocean Resources and Security
BLF FMP	Sub-regional Management Plan for Blackfin Tuna Fisheries in the Eastern Caribbean
CAHFSA	Caribbean Agricultural Health and Food Safety Agency
CANARI	Caribbean Natural Resources Institute
CARICOM	Caribbean Community
CARIFICO	Caribbean Fisheries Co-management
CARIFORUM	Caribbean Forum
CCCFP	Caribbean Community Common Fisheries Policy
CC4FISH	Climate Change Adaptation in the Eastern Caribbean Fisheries Sector
CCLAC	Codex Committee Latin America and the Caribbean
CDEMA	Caribbean Disaster and Emergency Management Agency
CERMES	Centre for Resource Management and Environmental Studies
CIF	Climate Investment Funds
CLME+	Caribbean Large Marine Ecosystem Project
CNFO	Caribbean Network of Fisherfolk Organizations
COTED	Council for Trade and Economic Development
CRFM	Caribbean Regional Fisheries Mechanism
CRIP	Caribbean Regional Indicative Programmes
CROSQ	CARICOM Organisation for Standards and Quality
C-SERMS	Caribbean Sustainable Energy Roadmap and Strategy
СТА	Technical Centre for Agricultural and Rural Co-operation, ACP-EU
CFTDI	Caribbean Fisheries Training and Development Institute
EAF	Ecosystem approach to fisheries
ECFF-FMP	Eastern Caribbean Flyingfish Sub-Regional Fisheries Management Plan
ECMANN	Eastern Caribbean Marine Managed Areas Network
EEZ	Exclusive Economic Zone
EDF	European Development Fund,
EPA	Economic Partnership Agreement
EWERS	Early Warning and Emergency Response System
FAD	Fish Aggregating Device
FAO	UN Food and Agriculture Organization
FMP	Fishery Management Plan
GCFI	Gulf and Caribbean Fisheries Institute
GEF	Global Environment Facility
GIZ	German Agency for International Collaboration
	(Deutsche Gesellschaft für Internationale Zusammenarbeit)
HACCP	Hazard Analysis and Critical Control Points
ICCAT	International Commission for the Conservation of Atlantic Tunas
ICRI	International Coral Reef Initiative
IDB	Inter-American Development Bank



Ifremer	French Research Institute for Exploration of the Sea
IICA	Inter-American Institute for Cooperation on Agriculture
101	International Ocean Institute
IUU	Illegal Unreported and Unregulated
JICA	Japanese International Cooperation Agency
MCS	Monitoring, control and surveillance
MPAs	Marine protected areas
MOUs	Memoranda of Understanding
NOAA	National Oceanic and Atmospheric Administration
OSPESCA	Central American Fisheries and Aquaculture Organization
	(Organización del Sector Pesquero y Acuícola del Istmo Centroamericano, Spanish)
POA	Plan of Action
PPCR	Pilot Programme for Climate Resilience
REBYCII LAC	Sustainable Management of Bycatch in Latin America and Caribbean Trawl Fisheries
REETA	Renewable Energy & Energy Efficiency Technical Assistance
RFB	Regional Fisheries Body
RFMOs	Regional Fisheries Management Organizations
RWG-IUU	Regional Working Group on IUU fishing
SCCF	Special Climate Change Fund
SDM	Species distribution models
SGF	Small Grants Facility
SPCR	Strategic Program for Climate Resilience
SPS	Sanitary and Phytosanitary
UF	University of Florida
UN	United Nations
UNU-FTP	United Nations University – Fisheries Training Programme
UOW	University of Wollongong
UWI	University of the West Indies
WECAFC	Western Central Atlantic Fishery Commission
WTO	World Trade Organization





Caribbean Regional Fisheries Mechanism

CRFM Secretariat

Headquarters Princess Margaret Drive P.O. Box 642 Belize City Belize

Tel: (501) 223-4443 Fax: (501) 223-4446 E-mail: secretariat@crfm.int Eastern Caribbean Office Third Floor, Corea's Building Halifax & Hillsborough Streets Kingstown St. Vincent & the Grenadines

> Tel: (784) 457-3474 Fax: (784) 457-3475 Email: crfmsvg@crfm.int

Our social media pages: http://www.youtube.com/TheCRFM http://www.facebook.com/CarFisheries

https://twitter.com/CaribFisheries