

ANNUAL REPORT



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CRFM Administrative Report

Annual Report 1 April 2014 – 31 March 2015



CRFM Secretariat 2015

CRFM ADMINISTRATIVE REPORT – CRFM Annual Report, 1 April 2014 - 31 March 2015

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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.







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Message from the Executive Director

This Annual Report provides an overview of the activities and accomplishments of the Caribbean Regional Fisheries Mechanism (CRFM), working in collaboration with regional and international development partners, during the fiscal year, April 2014 to March 2015—the first year of the Second CRFM Strategic Plan (2013 -2021) and the Biennial Work Plan for 2014 to 2016. It has been a busy year with several important developments of strategic importance for the fisheries and aquaculture sector in the region.



The Second Strategic Plan establishes seven strategic objectives, representing the priority areas of work of the CRFM during the year. These are:

Objective A: Information on status and trends in the fisheries and aquaculture sector

Objective B: Research & development

Objective C: Sustainable management of fisheries
Objective D: Sustainable use of fisheries resources
Objective E: Sustainable development of aquaculture

Objective F: Adaptation to climate change and disaster risk management in fisheries

Objective G: Capacity-building and institutional strengthening

The following are some of the major achievements:

- Implementation of the Castries Declaration on IVU Fishing through the adoption of a Regional Strategy on MCS and manuals for Prosecution and Standard Operating Procedures for enforcement personnel;
- Adoption of the first Sub-regional Fishery Management Plan for the Flyingfish Fishery;
- Adoption of the Regional Plan of Action 2014-2019 on Improving the Outlook for Caribbean Coral Reefs;
- Development of the Regional Declaration on the Conservation, Management and Sustainable Use of the Caribbean Spiny Lobster;
- Review of aquaculture and preparation of a Five-Year Plan of Action for the Development of Aquaculture in the CARIFORUM States;
- Institutional capacity development and training of fisheries personnel including:



- Second CRFM/ANCORS, University of Wollongong Training Workshop on Fisheries Law and Management in New South Wales, Australia;
- CRFM/UNU-FTP Fellowship Programme and Study Tour in Iceland;
- CRFM/IOI collaborative training course on marine law and policy at Dalhousie University;
- The CRFM/ University of Florida Sea Grant capacity-building programme.
- Strengthening of the CRFM's knowledge management capacity through the Knowledge Platform Project funded by Technical Centre for Agricultural and Rural Cooperation ACP-EU (CTA);
- Conducting research, and sharing data and information and management recommendations on key commercial species through the Annual Scientific Meeting and joint working groups with WECAFC;
- Confirmation by COTED in October 2014 that the Caribbean Community Common Fisheries Policy is the official policy of the region and should be implemented by Member States.

The CRFM Secretariat looks forward to strengthening collaboration with Member States, the private sector, and regional and international development partners in the coming years to transform the fisheries and aquaculture sector into a more modern, sustainable and internationally competitive one.

Milton Haughton, Executive Director



Executive Summary

During the fiscal year April 2014 to March 2015, the CRFM repositioned itself to become a more effective mechanism through the commencement of implementation of its Second Strategic Plan. This involved refocusing of priorities within the Biennial Work Plan for the period April 2014 to March 2016; effecting organizational changes such as the reconfiguration of its working groups to become more results-oriented, and initiatives to improve cost effectiveness and enhance the delivery of tangible outputs and benefits to Member States and other stakeholders.

This annual report for the period April 2014-March 2015 highlights several milestone achievements of the CRFM: among them the formal adoption of the Caribbean Community Common Fisheries Policy as the official fisheries policy of CARICOM by the Council for Trade and Economic Development (COTED) of CARICOM to now be applied by those States. The CRFM has already initiated the preparation of a Plan of Action for the implementation of the policy.

The importance of the fisheries and aquaculture sector to food security and economic activity is underscored by the fact that in 2014, the sector provided steady employment for nearly 350,000 persons across the 17 Member States of the CRFM, as well as produced an estimated 137,831 mt of fish valued at US\$420 million (ex-vessel price from the catch of the domestic fleet¹) with nearly US\$270 million in foreign exchange earnings from exports of fish.

The CRFM Member States also completed and formally adopted the 1st Sub-regional Management Plan for the Eastern Caribbean Flyingfish. This plan is particularly important to guide actions for conservation, management and development of the industry in Barbados, Dominica, Grenada, St. Vincent and the Grenadines, and Trinidad and Tobago, where it is the basis of important fisheries and fish processing activities.

The CRFM Member States also made significant strides in developing a regional agreement for cooperative actions by States, stakeholders and development partners to ensure conservation, management and long-term sustainable use of the Caribbean Spiny Lobster resources and protection of their habitats.

Member States of the CRFM are today armed with a newly endorsed Coral Reef Action Plan (2014-2019) – a vital working tool to protect and preserve an asset worth as much as US\$5 billion to the region. The plan is a roadmap for the sustainable management of coral reefs even as efforts are being made to combat the adverse impacts of climate change and the unintended negative effects caused by human activities. Coral reefs are vital not just for tourism but also for fisheries, and both these sectors benefit from measures to protect and preserve their health.

During the Programme Year, the concept of the Blue Economy, which looks to healthy ocean ecosystems to support productive and sustainable ocean-based economies, was also highlighted. The CRFM Secretariat, with support from the CTA, convened a regional workshop involving representatives from

1

¹ These statistics do not include catches and earnings generated by vessels flying the flags of CRFM Member States but operating on the high seas or in the waters of third States under licensing arrangements.

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governments, private sector, academia and civil society on the opportunities for marine-based economic development that leads to improved human well-being and social equity, while protecting marine biodiversity and ecosystems in the region. The resources of the Caribbean Sea and Atlantic Ocean provide vast potential for development to realize sustainable economic growth. In this regard, participants agreed on actions to address multiple challenges such as climate change and ocean acidification through scientific research and cooperation; as well as combat illegal, unreported and unregulated fishing; prevent and significantly reduce marine pollution of all kinds; sustainably manage and protect coastal ecosystems and achieve healthy and productive oceans; develop aquaculture; develop fisheries value chains; and in this regard, implement the Caribbean Community Common Fisheries Policy.

As part of the CRFM's mandate to build the human resource and institutional capacities of the region, we have been working to expand the professional capacity of fisheries staff across Member States to manage the fisheries and aquaculture sector. During the Programme Year, nearly 40 persons from the region received the opportunity to take up training opportunities, ranging from short-term sessions to degree programs, through the collaboration which the CRFM has established with its international partners such as United Nations University Fisheries Training Programme in Iceland, IOI/Dalhousie University, Canada, University of Florida, USA, and the University of Wollongong, New South Wales, Australia.

In the area of improving seafood safety and strengthening trade capacity for fish and seafood, the CRFM entered into an agreement with the Inter-American Institute for Cooperation and Agriculture (IICA), under which harmonised sanitary and phytosanitary (SPS) policies and measures will be developed and implemented, as a part of a EU-funded SPS Measures Project which seeks to improve food-safety standards in fisheries and aquaculture production, and expand the export capacity of CARIFORUM States. The objectives of the fisheries component of the SPS Measures Project are to:

- Increase production and trade in fish and seafood that meet international standards;
- Establish sound and comprehensive national and regional legal and regulatory framework for fish and seafood, including related environmental and residue monitoring; and
- Develop efficient institutional mechanisms for coordination of SPS issues at both national and regional levels, including the development of information systems to underpin the coordination process.

In December 2014, CARICOM and Japan celebrated 20 years of cooperation in fisheries with a regional seminar in Trinidad and Tobago to review the milestones of their partnership, following a series of incountry workshops in 6 CARICOM States. The CRFM recognized the generous contributions made by Japan, through funding and technical assistance, in promoting the sustainable use of the region's marine resources, even as the partners reflected on their special bond of friendship.

Japan, through the Caribbean Fisheries Co-management (CARIFICO) Project, continued to help the region to explore the development, use and management of Fish Aggregating Devices (FADs) in the pelagic fisheries, as well as co-management regimes to develop and use the large pelagic and other marine living resources in a more efficient and sustainable manner. The region has also received support from the University of Florida to explore the sustainable use of FADs, as part of a research-based initiative to sustainably develop the offshore pelagic fisheries.



The CRFM continued to empower and strengthen stakeholder organizations to effectively engage policy development and resource management in the region. Fisherfolk were among the fisheries stakeholders who were targeted through a new CTA-funded initiative to strengthen our knowledge sharing network through the development of an array of multimedia tools. These included a series of brochures, policy briefs, issue papers, press releases, videos and technical and advisory documents aimed at improving the visibility of the CRFM and building public awareness of the challenges and opportunities in the fisheries sector.

The CRFM also partnered with the Nature Conservancy and the Caribbean Network of Fisherfolk Organisations (CNFO) to facilitate the implementation of the "Climate-Resilient Eastern Caribbean Marine Managed Areas Network (ECMMAN) Project" in the Eastern Caribbean. In a similar manner, the CRFM partnered with the Caribbean Natural Resource Institute (CANARI) to implement the project "Strengthening Caribbean Fisherfolk to Participate in Governance" in the region.

During the Programme Year, the CRFM undertook public education efforts to help Member States cope with the anomalous Sargassum invasion, including the production of publicity materials discussing the phenomenon and detailing proposed counter-measures to minimize negative impacts on ecosystems and socioeconomic activities in coastal communities.

With support from the CTA, the CRFM conducted a Study on the Potential of Fish Farming in the Caribbean and prepared a 5-year Work Plan for aquaculture development in the region. The CRFM also issued a call upon Member States to take proactive measures to further develop and expand aquaculture, including mariculture, to create employment opportunities, improve food and nutrition security, and expand regional and international trade. The year 2014 saw a slight increase in aquaculture production from 8,552 mt to 8,567 mt; however, the overall ex-factory value declined from \$56 million to \$50 million.

Although the marine capture fishery continues to be dominant, with production valued at nearly US\$370 million (ex-vessel value)—in contrast to US\$50 million from aquaculture—the year 2014 saw an overall decline in production of roughly 10%.

In Guyana, where the decline was particularly pronounced, it was partly attributed to the Sargassum seaweed invasion, adverse weather conditions, and dredging activities which caused siltation of fishing grounds.

There is much to build on during the year 2015-2016. The CRFM will continue to lead efforts to advance aquaculture, strengthen knowledge-sharing, implement the Coral Reef Action Plan, improve SPS measures, strengthen stakeholder voice, and harmonise regional management initiatives for shared stocks such as the flyingfish resources. Also among its priority actions is the development of a regional fisheries and aquaculture research agenda in line with the CCCFP, which will serve as the driving force for the region's fisheries agenda in the years ahead.

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Introduction





Hon. Dr. Kenneth Darroux, Dominica's Minister of the Environment, Natural Resources, Physical Planning and Fisheries, served as Chairman of the CRFM Ministerial Council from May to December 2014. He was succeeded by Hon. Johnson Drigo, Minister of Agriculture and Fisheries, after elections last December led to the swearing-in of a new Cabinet team in Dominica.

(Photos: Kairi FM and Facebook)

THE CRFM's MISSION

The mission of the CRFM is to promote and facilitate the responsible utilisation of the region's fisheries and other aquatic resources for the economic and social benefits of the current and future population of the region.

The CRFM's OBJECTIVES

To establish, within the context of Revised Treaty Chaguaramas, conservation, management, sustainable utilisation and development of fisheries resources and related ecosystems; the building of capacity amongst fishers and the optimisation of the social and economic returns from their fisheries; and the promotion of competitive trade and stable market conditions.

The CRFM celebrated its 12th year of existence on 27 March 2015, near the close of this Programme Year. The CRFM, headquartered in Belize, came into existence in 2003, following the signing of the "Agreement Establishing the CRFM," dated 4 February 2002.

As an inter-governmental organisation of 17 Member States in the Caribbean, the CRFM's work centers on promoting and facilitating the sustainable management and development of fisheries and aquaculture resources of its Member States for economic and social development.

The CRFM's New Strategic Plan

The CRFM, which is comprised of the Ministerial Council, the Caribbean Fisheries Forum and the Secretariat, has completed the implementation of its First Strategic Plan (2003-2011), and it is now in the process of implementing its Second Strategic Plan (2013-2021).

The Strategic Plan identifies 3 goals:

- 1) Sustainable management and utilisation of fisheries and aquaculture resources in the Caribbean region for the benefit of future generations.
- 2) Improvement in the welfare and sustainable livelihoods of fishing and aquaculture communities in the Caribbean region, by providing income and employment opportunities in the fisheries and aquaculture sector.
- 3) Ensuring that the Caribbean has, at all times, sufficient safe and nutritious fish to meet the dietary requirements and the needs of an active and healthy life.

Our Biennial Workplan

The CRFM's work during the 2014-2015 Programme Year was guided by the 2014-2016 Biennial Work Plan and Budget, which was developed to begin implementation of the 2nd Strategic Plan. The CRFM continues to achieve several major outputs.



It has been working on expanding the information base on the status and trends in the fisheries and aquaculture sector through coordinated initiatives to strengthen capacities in data collection, analysis, and knowledgesharing platforms.

Our staff has also been working on updating the CRFM Statistics and Information Report, covering all key fisheries.

During the Programme Year, the CRFM made progress in improving interaction between Government and fisherfolk and the understanding of sustainable management and livelihood issues, as well as strengthening fisherfolk capacity to advocate for better resource management.

The CRFM has advanced its work towards formalising the region's adaptation to climate change and disaster risk management in fisheries, as well as building the capacity of Member States to adapt and respond.

During the Programme Year, the CRFM advanced efforts towards improving governance arrangements, including the quality and effectiveness of meetings, and transparency and accountability of the Caribbean Fisheries Forum, the Executive Committee, the Secretariat, the CRFM's Ministerial Council and Member States.

The Forum and the Council meet regularly to review and extensively discuss a wide range of topics and provide policy direction to the CRFM. The 12thMeeting of the Caribbean Fisheries Forum, the 8th and 5th Special Meetings of the CRFM Ministerial Council, held in 2014, have recognised the need to improve the organisation of their meetings.

The CRFM Secretariat has consequently presented proposals to enhance its role and functions in a manner that would ensure the more effective organisation and execution of meetings of the Forum and the Council.



June Masters, CRFM's Statistics and Information Analyst, updating the CRFM annual statistics and information report.

THE CRFM'S VISION

Effective cooperation and collaboration among Participating Parties in the conservation, management and sustainable utilisation of the fisheries resources and related ecosystems in the Caribbean region, in order to secure the maximum benefits from those resources for the Caribbean peoples and for the Caribbean region as a whole.

THE CRFM'S GOAL

To establish, within the context of the Revised Treaty, appropriate measures for the conservation, management, sustainable utilisation and development of fisheries resources and related ecosystems; the building of capacity amongst fishers and the optimisation of the social and economic returns from their fisheries; and the promotion of competitive trade and stable market conditions.



Institutional Arrangements

As a part of its core mandate, the CRFM is also advancing work to solidify and enhance institutional arrangements to improve implementation and accountability.

During the course of the Programme Year, the CRFM Secretariat drafted a proposal to establish a steering committee and a technical committee that would help to give effect to the Joint Action Plan which the CRFM and the Organisation of the Fisheries and Aquaculture Sector of Central America (Spanish acronym, OSPESCA) had agreed back in September 2012, when they held their first joint meeting in Belize. Terms of references have been created for both committees.

The Steering Committee is to be composed of those CRFM and OSPESCA countries that hold the chairmanship of the policy-making organ of each organisation. Its purpose is to monitor and report on progress with the Action Plan, using each organisation's agreed official reporting mechanisms. On the other hand, the Technical Committee, supported by the Directors or Regional Secretaries of the OSPESCA and CRFM Secretariats, will be responsible for coordinating the implementation of the Action Plan, as well as monitoring and reporting on such activities, including oversight and analysis of proposals for inclusion in the Action Plan.

During the 2014-2015 Programme Year, the CRFM also began restructuring and reforming its technical and scientific working groups. In 2014, the Ministerial Council adopted a new configuration of CRFM resource technical working groups, with expanded terms of reference to address not only science but also resource management concerns. New ICT tools available to the CRFM will help offset constraints imposed by funding limitations by allowing for greater electronic networking. The new working group meeting arrangement being implemented will utilize these ICT tools to a greater extent than in the past.

In line with the changes, specific target-oriented Working Group Meetings will now be convened each year, instead of a general annual scientific meeting. On-site meetings are to be convened only when necessary for supporting completion of identified targets. The availability of funds is also to be considered.



STRUCTURE OF THE CRFM

The Ministerial Council, which is made up of the Ministers responsible for fisheries, charts the policies of the CRFM. It is also responsible for providing leadership to the CRFM in the areas of research; fisheries management and conservation; and approval of strategic plans and policy positions, work plans and budgets, fisheries cooperative agreements, and donor projects.

The Caribbean Fisheries Forum (hereinafter the Forum) is made up of one representative from each Member State, each Associate Member and Observers. The Forum is responsible for making recommendations to the Ministerial Council of arrangements for sustainable fisheries management and development in Member States, based on the best available technical and scientific data and information.



The Executive Committee consists of representatives of 6 CRFM Member States. The membership of the committee is drawn from the Caribbean Fisheries Forum. The Committee holds inter-sessional meetings at least twice a year between sittings of the Caribbean Fisheries Forum, as its principal mission is to advance the Forum's work between formal Forum meetings.

The CRFM Working Groups: In April of 2014, the CRFM accepted recommendations to revise the structure of its permanent working groups. It means that the number of working groups has now been reduced from 8 to 5, with the merger of some of the working groups which had previously existed. The new working groups are:

- (1) The **Pelagic Fisheries Working Group** (PWG), which now comprises small coastal pelagics, including Flyingfish and large pelagic species. This working group has also assumed the mandate of the Working Group on ICCAT (WGI).
- (2) The **Reef and Slope Fisheries Working Group** (RSWG), which now comprises reef fish, lobster and conch.
- (3) The **Continental Shelf Fisheries Working Group** (CSWG), which now comprises shrimp and groundfish.
- (4) The **Data Methods and Training Working Group** (DMTWG), which remains unchanged.
- (5) The Working Group on Aquaculture (WGA), which also remains unchanged.



These changes are in addition to previous changes to the joint working groups with regional partner organisations on which the CRFM sits. At the Fifteenth Session of the Western Central Atlantic Fishery Commission (WECAFC), which was held in Port of Spain, Trinidad and Tobago from 26 to 28 March 2014, the joint working groups were updated.

Five working groups were retained:

- 1. OSPESCA/WECAFC/CRFM/CFMC Working Group on Spiny Lobster;
- 2. CFMC/OSPESCA/WECAFC/CRFM Working Group on Queen Conch;
- 3. CRFM/WECAFC Working Group on Flyingfish in the Eastern Caribbean;
- 4. WECAFC Working Group on the management of deep-sea fisheries;
- 5. CFMC/WECAFC/OSPESCA/CRFM Working Group on Spawning Aggregations;

A new working group was established:

6. OSPESCA/WECAFC Working Group on Sharks;

Three working groups were reconfigured with new and additional partnerships:

- 7. Regional Working Group on Illegal, Unreported and Unregulated Fishing;
- 8. CRFM/WECAFC/JICA/IFREMER Working Group on Fisheries using Fish Aggregating Devices; and
- 9. WECAFC/OSPESCA/CRFM/CFMC/IGFA Working Group on Recreational Fisheries;

One working group was re-activated:

10. WECAFC/CRFM/IFREMER Working Group on Shrimp and Groundfish of the North-Brazil Guianas Shelf.



Strengthening Policy, Management & Planning



The Caribbean Community Common Fisheries Policy

The strong regional fisheries policy supports the welfare of all Caribbean people.



The Caribbean Community Common Fisheries Policy (CCCFP), a regional agreement for the conservation, management and sustainable utilisation of fisheries and aquaculture resources, was unanimously endorsed by the 4th Meeting of the Ministerial Council of the CRFM on 20 May 2011. It was supported by the 38th Special Meeting of the Council for Trade and Economic Development (COTED) on 14 October 2011 and eventually approved by the 18thmeeting of the Legal Affairs Committee of CARICOM on 29 November 2013.

During the 52nd Special Meeting of the COTED of CARICOM held on 10 October 2014 in Suriname, COTED approved the CCCFP as the official fisheries policy for CARICOM and called for the policy to be applied by Member States. The Caribbean Court of Justice (CCJ) has said that CARICOM policies, once authorized by COTED, are binding on the countries.

Pursuant to COTED's decision, the relevant institutions and agencies of CARICOM now have a responsibility to move towards the implementation of the CCCFP.

The Caribbean Community Common Fisheries Policy aims to create new opportunities for economic growth and prosperity, and to bring greater security and hope to the tens of thousands of people who depend upon the region's living aquatic resources for their livelihoods. It also provides for the elaboration of Protocols for detailed rules and other operational guidelines, as required, for implementation of the Policy and development of the proposed associated regime.

The CCCFP Plan of Action 2015-2019 identifies key actions for the successful implementation of the Policy, making a distinction between those actions currently being undertaken by CARICOM's primary regional fisheries body, CRFM, and those actions that still need to be addressed.

Included in the Plan of Action is a detailed implementation plan covering all 28 Articles of the CCCFP. The implementation scheme includes the prioritization of specific activities, areas of responsibilities, funding organisations, collaborators, and timelines for action to achieve the CCCFP's goals and objectives.

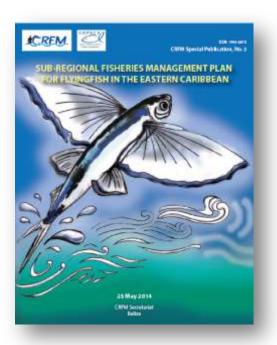


During the Programme Year, the CRFM worked on the CCCFP Plan of Action (PoA) for 2015-2019. The PoA was reviewed and refined by the Caribbean Fisheries Forum in its March 2015 meeting held in Grenada.

1st Sub-Regional Management Plan for Eastern Caribbean Flyingfish



Four-winged Flyingfish - *Hirundicthys Affinis* (Photo: CLME)



Cover of the Sub-Regional Fisheries Management Plan for Flyingfish in the Eastern Caribbean

The 2014-2015 Programme Year saw the completion of the Sub-Regional Fisheries Management Plan (FMP) for Flyingfish in the Eastern Caribbean – the first plan of its kind for the region, and particularly for CRFM



Chairman of Caribbean
Fisheries Forum, 2014-2015:
Andrew Magloire, Chief
Fisheries Officer of Dominica
(Retired at the start of 20152016 fiscal year)

Member States such as St. Lucia, Dominica and St. Vincent and the Grenadines, which treasure this shared resource.

The plan, which is necessary for long-term sustainability of the fisheries for flyingfish, was formally endorsed for regional implementation through resolution by the CRFM Ministerial Council at its 8th meeting held on 23 May 2014 in Roseau, Commonwealth of Dominica.

Demonstrating the power of true regional collaboration, the development of this Sub-Regional Flyingfish FMP was initiated in 2001 by the WECAFC Ad Hoc Working Group on Flyingfish in the Eastern Caribbean, which provided inputs based on a regional stock assessment done in 2008. The FMP was subsequently refined and formally endorsed at various levels within the CRFM.

A number of developments within the CRFM—including the Ministerial Council's endorsement of the Common Fisheries Policy for CARICOM States; the establishment of a CRFM Ministerial Sub-committee on Flyingfish; and the establishment of a joint CRFM/WECAFC Working Group on



Flyingfish in the Eastern Caribbean, along with scientific meetings and studies supported by the CRFM, WECAFC, CERMES/UWI and the CLME Project—served to further shape and refine the content of the FMP. Among these studies was the Global Environment Facility-funded Project on Sustainable Management of the Shared Living Marine Resources of the Caribbean Large Marine Ecosystem (CLME) and Adjacent Region.

In addition, the preparation and finalisation of the Sub-Regional Flyingfish FMP benefitted from a consultative process which included stakeholders at the national and regional levels, including public hearings, national and regional workshops, and reviews by national Fisheries Advisories Committees (FACs).

This consultative approach, which is to continue through all stages of implementation of the Sub-Regional Flyingfish FMP, demonstrates the commitment of the CRFM and the Eastern Caribbean sub-region to the conservation of their shared fisheries resources and related ecosystems for the long-term sustainability of the resources and the enhancement of socio-economic benefits.



CRFM Executive Director, Milton Haughton (left), and Deputy
Executive Director, Susan Singh-Renton (right), look on as then chair
of the Ministerial Council, Dr. Kenneth Darroux, Dominica's Minister
of the Environment, Natural Resources, Physical Planning and
Fisheries, signs FMP

The aforementioned resolution of the CRFM Ministerial Council "calls upon CRFM Member States, participating in the flyingfish fisheries, to take all necessary action to adopt the Sub-Regional Fisheries Management Plan for Flyingfish in the Eastern Caribbean and proactively pursue its implementation."

CRFM Member States are to develop and implement national management plans consistent with the Sub-Regional Flyingfish FMP by the 2015/2016 flyingfish season, or as soon as

practically possible. They are also to establish authorized national entry systems for licenses and permits for the flyingfish fisheries within the same timeline. The national data collection systems should also be strengthened to improve assessment and management of the resource.

It is furthermore expected that through regional collaboration, CRFM Member States can more adequately assess the stock abundance of flyingfish prior to any significant development in the fishery, and adopt a precautionary sub-regional total annual catch trigger point of 5,000 tonnes.

The Ministerial Resolution on Flyingfish also calls for the implementation of national programmes to build stakeholder awareness on the management measures to be implemented, as well as related legislation and enforcement measures to strengthen their participation in the management process.

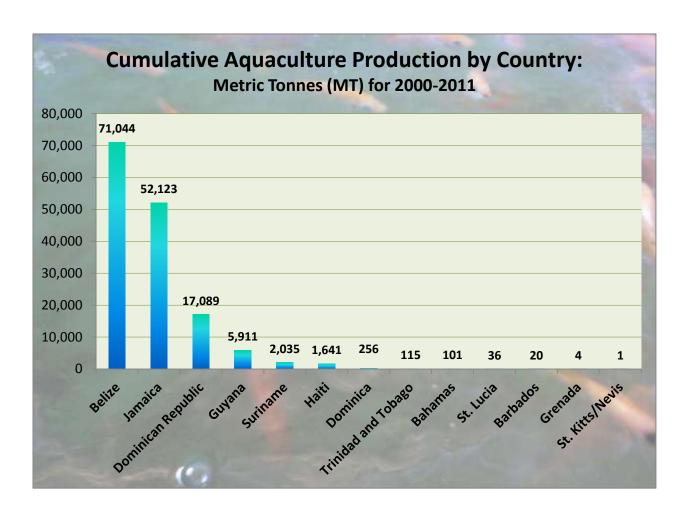


Advancing Aquaculture

Commercial aquaculture production in the CRFM Member States was estimated at 8,567 mt in 2014. Production declined during the recent economic crisis but is beginning to recover in most countries. At the 13th Meeting of the Forum held in Grenada in March 2015, CRFM Executive Director Milton Haughton emphasised the need for Member States to reverse the decline in aquaculture production.

"Commercial aquaculture began in the region in the late 1970s and production steadily grew to just under 19,000 metric tons in 2004/2005. But since the global economic crisis, aquaculture declined dramatically in the region to about 8,000 metric tons in 2012, with the main reduction coming from the collapse of the industry in Jamaica, which fell from 5,000 to 6,000 metric tons to just about 500 metric tons in 2012."

-- CRFM Executive Director, Milton Haughton





The CRFM Executive Director has underscored the need for the establishment of the necessary legislative and regulatory framework, and policy support and incentives to Caribbean fish farmers and private sector investors, so that they can grow the sector and increase production, not only for local consumption but also for export, to earn foreign exchange, to generate employment opportunities, and to create wealth for Caribbean people. This is the philosophy that guided the work of the CRFM during the Programme Year.



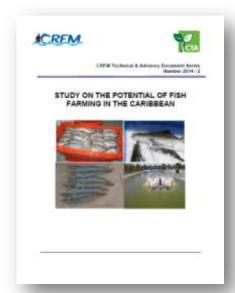
Aquaponics: the farming of fish and vegetables (Belize)

Fisheries Officers, scientists and aquaculture focal points from CRFM Member States, fish farmers, and agencies/institutions with an interest in aquaculture participated in the launch of the Working Group to Promote Sustainable Aquaculture Development (WGA), which was held at the Grand Coastal Hotel in Georgetown, Guyana from 31 July to 1 August 2014. At the launch, stakeholders also reviewed the draft report of the Study on the Potential for Fish Farming in the Caribbean. The study focussed on the opportunities for aquaculture development in the region as well as the drivers that would be necessary for moving the region forward in its commitment to developing aquaculture.

The study, which is part of an ACP-wide project supported by the European Union (EU), has since been finalised. It indicates that the sustainable development of aquaculture requires the implementation of effective responses to address the ecological challenges of sustainability at the broad sector and national levels. It recognizes the need for effective responses to address the

social aspects of sustainability, as well as the economic aspects of aquaculture. The aquaculture study also emphasised the need to focus on capacity-building through business skills development.

Specific interventions were defined in a 5-year action plan to develop the sector, strengthen current positive experiences, and upscale successes. The study posits that these interventions can be accomplished through greater involvement of the private sector, strengthened partnerships and cooperation between the CARIFORUM Member States and its international development partners, as well as improved inter-regional cooperation among ACP regions; with CARIFORUM Governments providing in-country logistical support and personnel presence while the international partners are to provide technical and capital assistance.





To provide the requisite support for the action plan over the next 5 years, the report identifies the need for:

- (1) Strengthening of governance frameworks;
- (2) Building of capacity at various levels across a range of stakeholder groups;
- (3) Strengthening of data gathering and information exchange in regards to the performance of the sector:
- (4) Assisting with aquaculture suitability surveys;
- (5) Strengthening credit regimes to assist small and medium-scale producers;
- (6) Improving regional production and access to lower cost, good quality feeds;
- (7) Reducing energy cost, cost of land and access to land for aquaculture;
- (8) Improving marketing, including access to regional and international markets; and
- (9) Improving fish health and food safety systems.

The wider ACP study incorporated a case-study approach in which six case studies were prepared (two for each ACP region). They were chosen to illustrate different scales and types of commercial and group-related aquaculture production systems, as well as a novel government-based aquaculture training facility.

The study underscored the following points:

- (1) Access to affordable quality feed and seed (fingerlings, juveniles) is crucial for aquaculture to develop in any country.
- (2) Hatchery production and supply of fingerlings should be the sole remit for the private sector not the government.
- (3) For smaller island states, producing and selling to niche markets can be key. This needs to be recognized at the planning stage, to avoid the production of species or products which can be produced or collected elsewhere at lower prices.
- (4) For effective and sustainable group aquaculture projects and enterprises, the groups and individuals involved have to be carefully chosen.
- (5) Effective, hands-on aquaculture training needs to be provided by governments through means other than conventional Fisheries Department extension services.



Coral Reef Action Plan

The Ministerial Council endorsed the Regional Coral Reef Action Plan (2014-2019) (Coral Reef PoA) when it met in Dominica in May 2014.

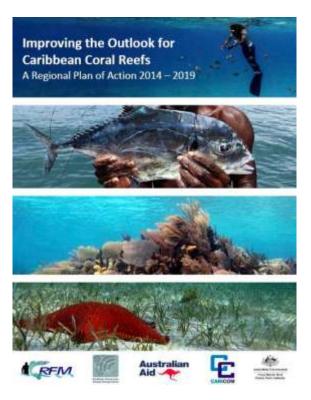
The Coral Reef PoA highlights the unique importance of coral reefs to our region. It notes that Caribbean coral reefs are an important natural asset, providing benefits estimated at \$3.1-\$4.6 annually. They provide billion shoreline protection, habitat for healthy fisheries and the infrastructure natural that supports economically vital tourism sector. Additionally, Caribbean coral reefs, which make up about 10% of the world's reef area, are internationally significant for their unique biodiversity. However, reefs are under unprecedented pressure and there is evidence of dramatic declines of key coral species. More than 75% of Caribbean reefs are affected by local threats and as reef systems grow weaker, disease and climate change worsen the situation.

One of the emerging threats to the health of Caribbean coral reefs is the invasion of Sargassum seaweed – a region-wide phenomenon which has been adversely impacting both the fisheries and tourism sectors since 2011. Warming sea temperatures, one of the features of climate change, is said to be a contributing factor to proliferation of the seaweed along Caribbean coasts, and this kind of excessive growth, in turn, adversely impacts the health of our reef. The CRFM discusses measures to combat this phenomenon in the brochure, *Sargassum Seaweed Invasion - What, Why and What we can do?*—featured on page 42 of this report.

The Coral Reef PoA is a roadmap for sustainable management of coral reefs in the face of threats from increasing human impacts and climate change. The Action Plan is grounded in the 2009 CARICOM Regional Framework for Achieving



Coral reefs support tourism as well as fisheries





Development Resilient to Climate Change; the CRFM's Regional Strategy, Action Plan, and Programme Proposal on Disaster Risk Management, Climate Change Adaptation and Fisheries and Aquaculture in the CARICOM Region; the CLME Strategic Action Programme; as well as the 2012 Report Card for the Mesoamerican Reef.

The PoA was developed through a participatory process that included regional consultations with leaders, government officials, stakeholders, and scientific experts. The development process was also a collaborative one, involving the Caribbean Community Climate Change Centre (5Cs or CCCCC) with support from AusAid under the umbrella of the Australia-Caribbean Coral Reef Collaboration.

Priority requirements and recommendations are grouped under four goals:

- (1) Improving health and resilience of Caribbean coral reefs;
- (2) Strengthening adaptive capacity of communities;
- (3) Building foundations for regional action; and
- (4) Advocating globally for stronger action on climate change.

With specific regard to fisheries, the Coral Reef PoA includes strategies to:

- (1) Develop legislative and regulatory framework that promotes sustainable extractive use of marine resources:
- (2) Develop/enhance and implement compliance & enforcement measures;
- (3) Promote sustainable fishing practices;
- (4) Develop fish stock rehabilitation strategies and programmes; and
- (5) Develop policy to support management of invasive species and mitigation of new introductions.

It is envisaged that the CCCCC and the CRFM will take a collaborative approach to securing the resources required for the implementation of the PoA, which would be coordinated by the CRFM Secretariat.

At its Dominica meeting last year, the CRFM Ministerial Council directed the CRFM Secretariat to coordinate the implementation of the PoA in collaboration with the 5Cs, while calling on that agency to assist with the mobilization of resources for the effective implementation of the Plan of Action.



Healthy coral reefs are important for sustainable fisheries



Combating IUU Fishing – Update on Case 21

While the CRFM's work is primarily targeted at Member States, the Mechanism has also had the opportunity to participate in a major development in international fisheries law. In September 2014, it presented oral arguments as a part of the ongoing deliberations by the International Tribunal on the Laws of the Seas (ITLOS) in Hamburg, Germany, to clarify international law on matters such as flag State responsibility and liability in the fight against Illegal, Unreported and Unregulated (IUU) fishing.



Professor Pieter Bekker (Photo: Dundee Univ.)

Legal counsel for the Pieter CRFM, Professor Bekker ofDundee University, Scotland, presented oral arguments to the full Tribunal of 21 judges on 5 September 2014.



The 21 judges of ITLOS (Photo: UN)

The submission was well received and noted by the international tribunal, which includes two judges from the Caribbean: Judge Dolliver Nelson of Grenada and Judge Anthony Amos Lucky of Trinidad and Tobago.

Bekker joined representatives of nine (9) countries, the Sub-regional Fisheries Commission (SRFC), the European Union (EU), and the International Union for the Conservation of Nature and Natural Resources (IUCN) in presenting oral arguments.

Milton Haughton, Executive Director of the CRFM, believes that, "The hearing is as important to the Caribbean as it is to the States that have sought advice, as it could set significant precedents for the way illegal fishing is dealt with in the future, particularly regarding the liability of flag States for IUU fishing conducted by their vessels."

The case was initiated on 28 March 2013, when the Sub-regional Fisheries Commission (SRFC), representing seven African States, sought the Tribunal's assistance regarding IUU fishing by vessels registered in foreign States within waters under the national jurisdiction or control of its members and on the High Seas. The SRFC includes Cape Verde, Guinea, Guinea-Bissau, Mauritania, Senegal, Sierra Leone, and the Gambia.





IUU fishing is a scourge that costs billions in losses each year.

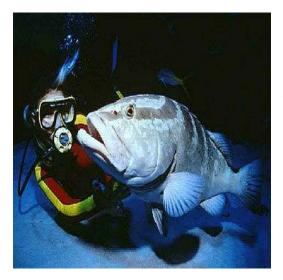
(Photo: President of the Bahamas Fishery Union)

The questions raised in the review are:

- What are the obligations of the flag State in cases where illegal, unreported and unregulated (IUU) fishing activities are conducted within the Exclusive Economic Zone of third party States?
- To what extent shall the flag State be held liable for IUU fishing activities conducted by vessels sailing under its flag?
- Where a fishing license is issued to a vessel within the framework of an international agreement with the flag State or with an international agency, shall the State or international agency be held liable for the violation of the fisheries legislation of the coastal State by the vessel in question?
- What are the rights and obligations of the coastal State in ensuring the sustainable management of shared stocks and stocks of common interest, especially the small pelagic species and tuna?



Status of Nassau grouper



Diver with Nassau grouper (Photo: US Geological Survey/UFL)

To inform NOAA's decision on the matter, the National Marine Fisheries Service (NMFS) compiled a biological report that summarizes information on the biology and ecology of the species, as well as information on fisheries, management and conservation efforts, and threats to the species. The NMFS concluded that while the species does not meet the definition of a threatened species and is not currently in danger of extinction throughout a significant portion of its range, it is likely to achieve such status in the future due to overfishing and inadequate management measures. This is evidenced by the significant reduction in the number of spawning aggregations for the species.

In keeping with due process, NOAA, in September 2014, requested responses from relevant stakeholders on the proposed listing to inform its decision. Given the socioeconomic importance of the Nassau grouper

The Nassau grouper (Epinephelus striatus) is one of the Caribbean's commercially important fish species, helping to secure livelihoods and to ensure food security of the Caribbean people, as well as the health of the marine ecosystem. The Nassau grouper has been the subject of a 2012 petition by a US-based nongovernmental organization (NGO) to the National Oceanic and Atmospheric Administration (NOAA) to have the species, along with several other groupers, listed as threatened or endangered under the US Endangered Species Act (ESA). The petition noted that threats to habitat or range, overutilisation of the species, inadequate regulatory mechanisms, and other natural or manmade factors are impacting the successful existence of the species. The NGO furthermore petitioned that critical habitat be designated for the species.

to the region, the CRFM surmised that its response would be critical to the interest of its Member States. As a consequence, its stakeholders were engaged in specific discussions under the policy and governance session of the CRFM's workshop on "Investing in Blue Economic Growth," held in Grenada in November 2014. These discussions, along with a recent report on the status of Nassau grouper in the Caribbean, informed the CRFM's position on the matter. This position was formally communicated to NOAA in December 2014.

Essentially, the CRFM's response recognized the current status of the Nassau grouper, and it highlighted the socio-economic importance of the species to the region. It recommended regionally coordinated and effective action to prevent the species from becoming endangered; and to protect and rehabilitate critical habitats and rebuild stocks.



Specific recommendations included:

- (1) Development of a regional fisheries management plan;
- (2) Regional harmonisation of management regulations;
- (3) Improved regional enforcement and national monitoring programmes;
- (4) Additional research on the biology and ecology of the species and regional stock assessment;
- (5) Development of a regional database;
- (6) Implementation of stakeholder awareness and outreach programmes; and
- (7) Regulation of trade, including certification of catches as derived from sustainable sources and protection of critical habitat.

addition, **CRFM** In the recommended formal cooperation agreement between the US and range states to address national capacity-building and other effective. support coordinated regionally management of the Nassau grouper fisheries. As an immediate step, the CRFM proposed regional a conference, perhaps under the of the auspices Western Central Atlantic Fishery Commission (WECAFC), to agree on a comprehensive regional strategy to address conservation the and management needs of the Nassau grouper.



"DWINDLING FISH POPULATIONS—Fishermen have long sought Nassau groupers, which live among coral reefs in the Caribbean Sea, from Central America to the Bahamas and Bermuda. In recent decades, 80 to 90 percent of grouper populations have been lost to overfishing:" Woods Hole Oceanographic Institution (WHOI)

Illustration: Jack Cook/WHOI Graphic Services



Update on Queen Conch petition:USA authorities agree with CRFM that Queen Conch is not endangered

After a two-year comprehensive status review of the commercially important queen conch (*Strombus gigas*) by US authorities, compelled by a petition and legal action by a US-based NGO to list the queen conch as endangered or threatened, they decided that it was not necessary to list the conch at this time. The National Marine Fisheries Services (NMFS) of the US Department of Commerce concluded in its decision on 3 November 2014 that the "queen conch is not currently in danger of extinction throughout all or a significant portion of its range, nor is it likely to become so within the foreseeable future."



Queen Conch (Strombus gigas)

The CRFM Secretariat had worked closely with Member States to oppose the petition, which, if successful, would have resulted in significant dislocation, loss of jobs and economic harm to thousands of fishers and their families in the countries across the region. Countries and stakeholders across the region invested time and effort in working with the CRFM Secretariat to provide the detailed scientific and resource management information that assisted the United States authorities in arriving at their determination that the species is neither threatened nor endangered.



CRFM The had maintained from the beginning that the petition was unjustified as it was based on outdated and erroneous information and at variance with reality of the the fisheries in the Caribbean States which are the main source of the commodity exported the US and to European markets.



Regional Agreement on Spiny Lobster



Spiny Lobster (Panulirus argus)

The 4th and 5th Special Meetings of the Ministerial Council of the CRFM had issued decisions in 2013 and 2014 in support of the conservation and management of the spiny lobster, which has been threatened by illegal, unreported and unregulated fishing, inadequate conservation and management of the resource and its habitats, and climate change and related risks. The CRFM



Participants at the CRFM/CNFO/CTA Workshop on Investing in Blue Growth

Secretariat developed a Draft Agreement on the Conservation, Management and Sustainable Use of the Caribbean Spiny Lobster, which was reviewed by the Forum and Ministerial Council in April and May 2014 respectively.

In November 2014, stakeholders from 14 Caribbean states, including the French Caribbean, met in Grenada to discuss ways of improving economic growth and development by investing in "Blue Economic Growth," and among the initiatives discussed was the draft lobster declaration.

2014-2015 ANNUAL REPORT



The 13th meeting of the Forum held in March 2015 in Grenada, reviewed and finalised the regional lobster declaration and recommended it for approval at the May 2015 meeting of the CRFM Ministerial Council.

The objective of the declaration is "to ensure the long-term sustainable use of the spiny lobster (*Panulirus argus*) resources through effective implementation of conservation and management measures for the stocks and their habitats based on the best scientific evidence available."

This is an agreement to promote harmonised regional actions to ensure the sustainability and conservation of spiny lobster resources, and to protect its habitats and ecosystems from the threats of irresponsible fishing, habitat degradation, and climate change and related adverse impacts.

The Spiny Lobster Declaration calls on the 17 CRFM Member States to develop or adapt existing national strategies, plans, programmes or regulations to achieve the objective of the Spiny Lobster Declaration, which underscores the need for regional management initiatives to take into account the interests of small-scale and subsistence fishers and promote their participation in the decision-making processes that affect their livelihoods.

The Spiny Lobster Declaration recognizes the trans-boundary nature of the species and the interconnectedness of the marine ecosystems in which they live, and it highlights the need for Member States to cooperate and coordinate actions.

The declaration—which addresses research, data collection and the sharing of data and information; conservation and management measures; monitoring control and surveillance; and public awareness and education—is also in concert with the main objectives of the CARICOM Common Fisheries Policy and the Agreement establishing the Caribbean Regional Fisheries Mechanism.

The declaration calls on Member States and Associate Members to collect and share scientific, technical, and statistical spiny lobster data with each other and with other competent organisations and stakeholders including but not limited to the CRFM, OSPESCA, WECAFC and their relevant Working Groups responsible for lobster assessment and management, fisherfolk organisations, and educational institutions.



Improving the Evidence Base and Its Usage



FISHERIES AND AQUACULTURE SECTOR PERFORMANCE

The fisheries and aquaculture sector continues to be a significant employer across CRFM Member States with roughly 116,000 persons directly employed and over 225,000 indirectly employed. This means that an estimated 340,000 persons (or 4.4% of the workforce of CRFM Member States) are involved in fisheries or fisheries-related jobs, including fishers, processors and those who supply goods and services to primary producers.

The local fisheries is also a major economic contributor to domestic markets of the Caribbean, having netted almost US\$420 million (at the first point of sale) during 2014 from marine capture fisheries and aquaculture across the 17 CRFM Member States.

Provisional data supplied to the Secretariat by official sources within CRFM Member States indicate that overall fisheries production fell by about 3% for 2014, and marine capture fisheries production possibly by 10% for the same period.

Although there continues to be increasing employment and fleet expansion, the production of marine capture fisheries declined for 2014, due to a sharp decline in marine fish production in Guyana. Aquaculture production, after a welcomed 13% increase in 2013, continues to hold strain with production of 8,567 mt in 2014.

EMPLOYMENT

The total number of persons employed in the fisheries sector of the CRFM region was estimated at 341,391 for 2013/2014. This represents an increase of approximately 1% over 2011, when 338,835 people were reportedly employed in the sector.



US\$420 million in production (ex-vessel)



Over 145,000 mt produced



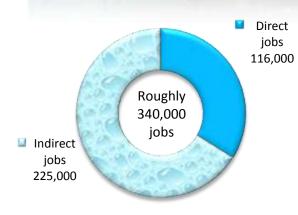
US\$269 million in exports



US\$270 million in imports



Fisheries Jobs





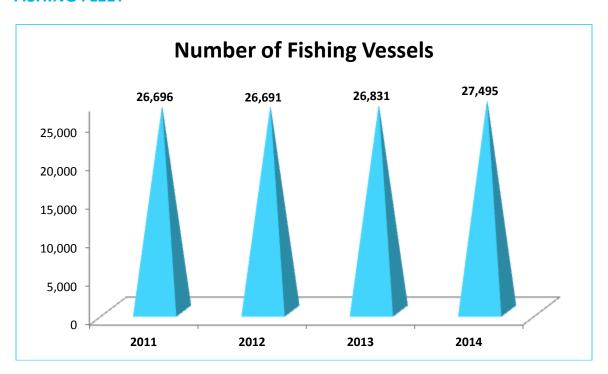
The Sector provided direct jobs to 115,988 people (112,281 in the marine capture fisheries and 3,707 in aquaculture), including those working full-time and part-time as fishers, harvesters and farmers engaged in artisanal/subsistence and commercial activities.

This represents a 2.3% increase over the 2011 figure, when 113,412 persons were directly employed (110,818 persons in the marine capture fisheries and 2,594 in aquaculture).

Those indirectly employed in other fisheries-related jobs, such as fish processing or supplying goods and services to the primary producers, numbered 225,403.

Jamaica, Haiti and Barbados are the top three employers among CRFM Member States, accounting for 73% of the fisheries and fisheries-related jobs.

FISHING FLEET



The size of fishing fleet in CRFM Member States continues to gradually expand. Preliminary estimates indicate that there were 27,495 vessels engaged in fishing during 2014, up from 26,831 in 2013. However, it should be noted that some Member States have been unable to remove defunct vessels from the registers, while others need to conduct vessel censuses to determine the exact number of vessels operating in the fishing fleet.

Most of the CRFM Member States described their commercial capture fishery fleets as artisanal fleets, and an analysis of fishing vessels from ten Member States (a total of 18,057 vessels) showed that approximately 92% of the fishing vessels in those Member States were under 12



metres in length and were often traditional fishing vessels such as canoes (small dugout and planked canoes), dories, pirogues and fiberglass launches. Approximately 8% of the vessels were between 12 m and 35.9 m, and 0.01% (two vessels) were over 36 m in length.

PRODUCTION

The value of the marine capture fisheries production plus the aquaculture production of the region (at the point of first sale) fell by US\$14 million, from US\$433 million in 2013 to US\$419 million in 2014. The vast majority of the production (88%) comes from the marine capture fisheries, where the bulk of the decline was also registered.

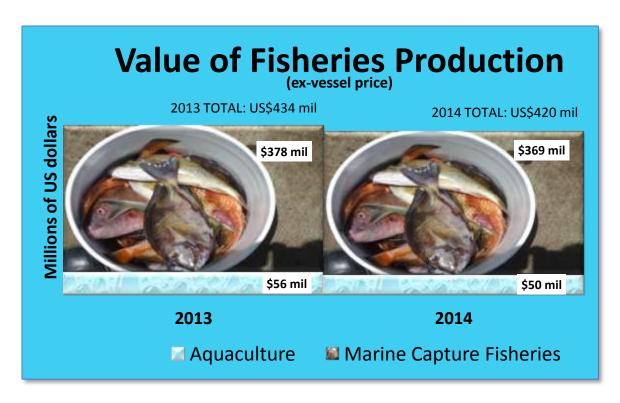
Marine Capture Fisheries

Preliminary data suggest that the total marine fish production of the CRFM Member States decreased from 153,843 metric tonnes (mt) of meat weight in 2013 (valued at US\$378 million) to 137,831 mt in 2014 (valued at US\$369 million). This is a decrease of about 10.4% in the quantity produced.

Early indications are that a drop in regional marine capture fisheries production by some 16,000 mt (or a fall in value by about \$9 million), arose largely from a decline of 12,630 mt in production in Guyana, which is among the top producing CRFM States. The Fisheries Division of Guyana believes this fall in production could be linked to the following possible causes:

- The effects of Sargassum seaweed in Guyana's waters. This weed was caught in the nets of both artisanal and trawl fishers, causing damage to gear and a reduction in catch.
- The weather conditions in the ocean were, at times, not favourable, due to some strong winds and the fishermen complained about "slime" in the waters, which happens when there is lack of rain.
- In Berbice, fisherfolk complained of the dredging of the Berbice River mouth, which has been silting up their fishing grounds and causing a reduction in catch.





Aquaculture

Growth in aquaculture was sustained in 2014, with production valued at just under US\$50 million across CRFM Member States. Although this represents a fall of US\$6 million from the previous year's production value, more produce was put on the market, rising from 8,552 mt in 2013 to 8,567 mt in 2014. This added to the remarkable 13% increase in aquaculture production reported in 2013 over 2012 production, which stood at 7401.6 mt.

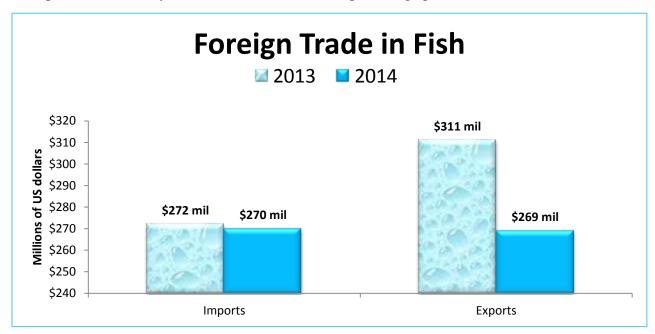
The two main species produced in the region for 2013-2014 were whiteleg shrimp (*Litopenaeus vannamei*), also known as Pacific white shrimp, which accounted for about 82% of the production and red tilapia (*Oreochromis spp.*) which accounted for 17% of the production. Various finfish species such as tambaqui (*Colossoma macropomun*), brown hoplo (*Hoplosternum littorale*), locally called "hassar," Mullet (*Mugil cephalus*), Queriman (*Mugil liza*), Flathead catfish (*Pylodictis olivaris*), locally called "bashaw," and Sea-moss accounted for the other 1% of production.

Belize was the largest aquaculture producer over the period, with US\$40 million worth in production reported by that Member State. Guyana, Jamaica and Haiti were the other top producers. Together, these four countries accounted for 98.5% of aquaculture production across CRFM Member States.



FOREIGN TRADE IN FISHERIES

CRFM Member States trade fish for food, bait and ornamental purposes. During 2014, the region saw a decline in trade, with the value of exports down by US\$42 million or 13.5% and the value of imports also down by US\$2 million or less than a percentage point.



Exports

Exports of fisheries produce for food, bait and ornamental purposes from CRFM Member States declined from US\$311 million in 2013 to US\$269 million in 2014.

The Bahamas was the biggest export earner in 2013 and 2014, earning over US\$82 million from the sale of 2,573 mt of mostly lobster and conch in 2014. Suriname exported the largest quantities from the region, which was 35,909 mt of mostly finfish and shrimp valued at US\$33.4 million.

Imports

The region spent US\$272 million in 2013 and US\$270 million in 2014 on fish imports, including fish imported for food, bait and ornamental purposes.

Jamaica was the largest importer, both in terms of value and weight of fisheries produce imported.



Status of Fish Stocks: Fisheries Updates

The CRFM Secretariat hosted the 10th Annual Scientific Meeting from 10-17 June 2014. Thirteen CRFM Member States—Anguilla, Belize, Grenada, Dominica, Guyana, Jamaica, Montserrat, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, The Bahamas, Trinidad and Tobago, and Turks and Caicos Islands—participated in the meeting.



Participants who attended the CRFM's 10th Annual Scientific Meeting

The meeting benefitted from technical support of Professor John Hoenig, consultant based at the Virginia Institute of Marine Science; Ms. Nancie Cummings, Fisheries Expert, US National Marine Fisheries Service; Professor Hazel Oxenford from the Centre for Resource Management and Environmental Studies, UWI, Cave Hill campus; and Dr. Paul Medley, International Fisheries Consultant from the UK.



Plenary for the 10th Annual Scientific Meeting



The Annual Scientific Meetings provide a forum for extensive discussions on the status of the region's fisheries stocks. Detailed technical reports are provided by the various CRFM working groups to facilitate the expansion of the region's knowledge base on its fisheries.

Data, Methods and Training Working Group (DMTWG)

In its effort to build regional capacity in statistical analysis of fisheries data, so as to improve on the information base available for informed fisheries management and decision-making, the CRFM Secretariat facilitated the training of twelve persons in the use of the R-Statistical Software under the activities of the DMTWG.





Participants at the training session on fisheries statistical analyses (left). CRFM consultant and trainer, Professor John Hoenig, delivers certificate of completion to Ms. Patricia Hubert-Medar of St. Lucia (right).

The working group initiated efforts to identify and agree upon the 10 most important commercial fisheries in the region to be analysed or assessed in the future and for which the management performance will be monitored and evaluated on a regular basis. It committed to updating national fisheries sampling plans to improve the quality of data available for fisheries analyses and stock assessments in the coming years and provided recommendations for further training and use of available ICT tools, to share information on best practices in the use of statistical software for fisheries analyses.

The DMTWG also recommended that the CRFM officially recognises the utility of this software for analysing data for regional fisheries and that the officers who were trained share their knowledge with other members of staff in their respective departments.



Pelagic Fisheries Working Group (PWG)

Under the auspices of the PWG, data were analysed for the scad fishery in Dominica, the dolphinfish fishery in St. Lucia, the large pelagic fishery in Grenada and St. Vincent and the Grenadines, the pelagic fishery in St. Kitts and Nevis, and the longline fishery in Trinidad and Tobago. These analyses focused on examination of basic trends in the data using the R-Statistical Software rather than an assessment of the respective stocks. The recommendations for the respective fisheries follow.

Scad fishery: Dominica

Greater emphasis should be placed on improving fisheries statistics. Prior to scientific meetings, more attention should be given to cleaning up the data, reviewing its completeness and further investigation of outliers. There is also a need for the implementation of stricter data quality control. A data sampling plan should be



Round scad (*Decapterus punctatus*). (Photo: FishBase)

developed and data collectors trained accordingly. In terms of research, additional data that may describe the state of the fishery (environmental, demographics, socio-economics, etc.) need to be acquired where available and utilised for a more comprehensive analysis of the fishery. There is also a need to explicitly state the management objective for this fishery.



Yellowfin tuna is an important pelagic fishery resource

Large pelagic fishery: Grenada

A realistic data collection and management plan should be developed which actively involves the use of the industry to collect and report critical data. The effort should be supported by an awareness programme for the industry on the importance of data collection. Also, consideration should be given to the use of legislative instruments, such as licensing and concessions, to enhance data collection and reporting. Attention should be given to training programmes (in-house and external) for data personnel and to promoting existing trained staff to function as data collectors.

The pelagic fishery: St. Kitts and Nevis

Data collectors should capture data for all required fields on the data collection sheet and data should be sorted and cleaned prior to the scientific meeting. Data collectors should also be trained to collect biological data and the overall sampling strategy in St. Kitts and Nevis should be assessed and updated.



The dolphinfish fishery: St. Lucia

The price per unit weight of the species should be reviewed and corrected accordingly and a comparative analysis should be conducted of data for all boats involved in the fishery and those that actually caught the species.

The large pelagic fishery: St. Vincent and the Grenadines

Greater preparation is required in the cleaning of data sets prior to scientific meetings. Also, staff should be appropriately trained to use various statistical packages and stock assessment methodologies to facilitate the cleaning and analysis of data. The collection of length data for fish caught around FADs is also recommended.

The non-artisanal longline fleet: Trinidad and Tobago

Biological data and data for development of conversion factors should continue to be collected and the country should aim to improve its contribution to International Commission for the Conservation of Atlantic Tunas (ICCAT) assessments through consistent submission of biological data and catch rate analyses on the target species of this fleet.



DOLPHINFISH, mahi-mahi or dorado. (Photo: FLAWKA/FLICKR/ http://www.uncommoncaribbean.com)



Longline vessel (Photo: Fisheries Division Trinidad/FAO)

Reef and Slope Fisheries Working Group (RSWG)

The RSWG developed specific weight conversion factors for the queen conch in The Bahamas to fulfill trade requirements under the Convention on International Trade in Endangered Species (CITES) of Wild Fauna and Flora, and it intends to conduct further analyses during the intersessional period. It also reviewed and endorsed the 2013 assessment of the Pedro Bank (Jamaica) queen conch fishery and the respective, estimated total allowable catch. The RSWG also provided scientific inputs for a draft regional declaration for the management, conservation and sustainable use of the spiny lobster.



Flat needlefish (Photo: Hamid Badar Osmany/Fishbase)



In addition, the RSWG provided recommendations for improved implementation of the regional strategy for the control of the invasive lionfish among CRFM Member States. The RSWG analysed data for the reef fishery in Anguilla, the needlefish fishery in Montserrat, the mutton snapper fishery in Belize and the queen conch fishery in the Turks and Caicos Islands. Most analyses focused on examination of basic trends in the data using the R-Statistical Software rather than an assessment of the respective stocks, except for the queen conch fishery in the Turks and Caicos Islands. The recommendations for the respective fisheries follow.

The reef fishery: Anguilla

Although the status of the fishery remains unknown, management should ensure that future fish catches do not decline and that the stock status is improved as far as possible so as to maintain the livelihood of the fishers. Emphasis should be placed on obtaining quality data for the fishery.

The mutton snapper: Belize (Gladden Spit Spawning Aggregation)

Since fishing has continued at the Gladden Spit site—even though it has been declared a marine protected area and an important spawning aggregation site—effective management measures should be implemented which recognize the need to maintain fishing culture and tradition, as well as the integrity of the spawning site. Emphasis should be placed on monitoring fishing activities at the spawning site and launching a public awareness campaign.

The queen conch fishery: Turks and Caicos Islands

Application of a production model to examine catch and effort data for 1974 to 2012 yielded inconclusive results on stock status while analysis of visual survey data identified specific habitat preferences for various life history stages of the queen conch. Additional visual survey data need to be collected in order to provide an independent estimate of conch biomass.

Continental Shelf Fisheries Working Group (CSWG)

In support of Guyana's attempts to boost trade through 'sustainable fishery certification' by the Marine Stewardship Council, the Continental Shelf Fisheries Working Group reviewed and endorsed the rules developed for management of the Guyana seabob fishery. The Group considered specific measures to improve data collection and monitoring of the fishery as well as to address issues of by-catch in trawl gear.

Working Groups Activities between Meetings

Data collection, quality control, data preparation for analysis, and analytical methods were general areas highlighted for attention during the inter-sessional period. Specific priority areas include:



- 1. Improving the quality of regional data for the blackfin tuna in support of the CRFM's contribution to the 2015 stock assessment to be conducted by ICCAT;
- 2. Improving data collection systems to facilitate implementation of the Sub-regional Fisheries Management Plan for the Eastern Caribbean Flyingfish;
- 3. Developing a data collection and information system for fisheries that use FADs; and
- 4. Collecting and analysing data on the lionfish.

Training of data collectors, improvements in national data collection programmes and stakeholder awareness-building on the importance of data collection were other critical areas identified for attention.



Strengthening Our Knowledge-Sharing Network

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The CRFM made several achievements during the 2014-2015 Programme Year in strengthening the knowledge-sharing network. Key among the initiatives was an extensive programme to develop an array of multimedia tools, including key publications, to help raise awareness on issues vital to stakeholders in the fishing industry.

Through a CTA-funded initiative executed by the CRFM, a new knowledge-sharing platform is in place. The platform has enabled stakeholders, including fishers, to tap into the ICT tools that are now widely available across the region.

The CRFM continued to directly interface with its partners and key stakeholders in the fisheries and aquaculture sector.

Caribbean Week of Agriculture 2014 presented an invaluable opportunity for us to achieve this end. One of our main priorities on that occasion was to bolster stakeholder participation in key policy advisory meetings. We also hosted a display booth and open discussions on fisheries related issues such as climate change adaptation.

A New Knowledge Platform in Place

A CTA-supported regional study in 2003/2004 examined the organisational needs and operational strengths and weaknesses of existing national and primary community-based Caribbean fisherfolk organisations. This led to a CTA project to support the development of the Caribbean Network of Fisherfolk Organisations (CNFO). The CTA policy group has also focused on the discussion of fisheries issues, most recently at the Brussels Briefings on Aquaculture but also through a series of resilience discussions, which have supported the policy debate on the Blue Economy.

The development of the knowledge platform is intended to support the continuation of both initiatives in a policy dialogue, supported electronically across the Caribbean region and linked to resilience discussions across small island economies in the ACP and with the Brussels debate through the 'capacity4dev' platform.

Given the spread of the member countries, the needs of the fisheries sector and the range of products and stakeholder groups, CRFM's Public Awareness and Education (PAE) needs to consider tools and products that will work on a variety of media solutions. Products should be designed/developed so that they can be converted and shared without the need for specialised equipment. Also, whilst there is an obvious need for technocrats, scientists and fisheries officers to speak amongst themselves, there is also the need to integrate other stakeholders into the discussions. This helps to drive the discussion and the use of the platform. Some groups are, however, not equipped to participate for several reasons, and if they are to be included in the process, enough time must be given to devise ways of reaching them.



The outputs of this initiative were targeted at fishery policymakers, fisherfolk and their organisations, fisheries departments and extension officers, CRFM Secretariat personnel, as well as non-fishery sector stakeholders whose activities use the same space as the fisheries and aquaculture sector. It built on the previous work done to utilise internet-based communications and awareness tools for information dissemination and sharing.

Some of the most notable outputs were the policy briefs, issues papers, video documentaries and technical report, as exemplified below.

- Brochure: Sargassum Seaweed Invasion What, Why and What we can do?
- Private Sector Brief: Sub-regional Fisheries Management Plan of the Flyingfish in the Eastern Caribbean
- Brochure and Booklet: Improving the Outlook for Caribbean Coral Reefs: A Regional Action Plan
- Policy Briefs: on Caribbean Common Fisheries Policy and IUU Fishing

KRIM







Video documentaries: A three-part *Fishing with Data* mini-documentary series was produced:







Technical Reports: (i) Workbench Meeting Report and (ii) Blue Growth Workshop Report

Included in the platform development process was a "workbench," where stakeholders were asked questions about their primary audiences, the communication tools best suited to their communities, and the senders and receivers of their messages in an effort to determine the various target audiences in message-building, the overall message, and how the messages should be communicated among the groups. The meeting called for an overall revision of the manner in which the fishing industry is treated and described; noting that the labels are having a negative impact on the perceptions of those on the outside and the morale of the stakeholders.

The stakeholders agreed that awareness activities and outputs should promote and encourage appreciation for the contributions the sector makes to the socio-economics of a country; the importance of the sector to food security; and the impact of the industry's contribution to the economy. Additionally, activities should be developed to attract youth and keep them in the sector, and to stimulate research and activities at the tertiary levels.

During the consultancy, a specialist worked with support staff in the CRFM Secretariat, Belize office, to improve their understanding of the various features of the social media tools, link the functions of the existing tools to improve efficiencies and familiarise them with the features of the proposed solutions. In one of these sessions, templates were also created to standardise the design of specific products.

To facilitate this, the initiative created *Today's News*. Editions were produced as follows: (i) Conch, (ii) Conch Update, (iii) Aquaculture and (iv) Lobster Declaration.

Posters: (i) JICA, CRFM Year of Fisheries. (Poster was created with PowerPoint. Staff were taught the techniques to do the same.)



Press releases: (i) Communications/ICT Consultant Joins CRFM, (ii) CARICOM Fisheries Officers in Australia, (iii) Nassau Grouper Considered for Listing by US Authorities, (iv) Ministerial Comments on Grouper Petition, (v) COTED Decision Common Fisheries Policy for the Caribbean, (vi) ITLOS Deliberation - Region Gives Oral Arguments to ITLOS, (vii) US Conch Decision on Queen Conch Petition and (viii) Workbench & Other Meetings.



CRFM Raises Public Awareness at CWA 2014



The CRFM participated in Caribbean Week of Agriculture 2014, held 4-12 October 2014 in Paramaribo, Suriname. The CRFM invested a notable amount of its own resources to allow a range of fisheries stakeholders to participate in key policy advisory meetings. It also hosted a display booth to increase public awareness of the fisheries sector.

The CRFM and the Caribbean Agricultural Research and Development Institute (CARDI) delivered presentations in the workshop on *Improving Climate Change Resilience in the Small Ruminants and Fisheries Industries in the Caribbean*, contributing to a very important dialogue on the region's need to adapt in the face of mounting challenges.

The presentations—which were delivered to stakeholder groups, including representatives of fisherfolk and their organisations, and representatives of national fisheries administrations—noted that the impact of climate change will be seen in the lowering productivity of rain-fed crops, forages and fisheries; reduced water availability and water shortages; changes in severity and distribution of livestock and crop diseases; and change in biodiversity.

Workshop participants noted that both land-based and sea-based fisheries operations occur in shared spaces, that the performance of such operations is affected by human activity and environmental changes occurring in such spaces, and that these effects are being exacerbated by the added impacts of climate change.

There were a number of recommendations highlighted. Some of the technical recommendations are:

1. Documenting and sharing of farmer/fisher innovation and traditional knowledge, through direct farmer/fisher interactions;



- 2. Training and dissemination of information to stakeholders using ICT-led innovation; and
- 3. Accelerating the implementation of proven climate resilient technologies, like drought resistant forages.

Climate change policy recommendations include:

- Recommending that Member States and development partners give attention to the systems and resources for the successful implementation of the agreed Strategy, Action Plans and Programme Proposals on Disaster Risk Management and Climate Change Adaptation in CARICOM and the wider Caribbean; and
- Supporting the introduction of insurance and risk management systems and the ecosystem approach to fisheries.

Workshop participants recommended that Member States and development partners give attention to the systems and resources—among them financial resources and resources to facilitate stakeholder participation and capacity-building. These resources, they said, need to be made available for the successful implementation of the agreed Strategy, Action Plan and Programme Proposal on Disaster Risk Management, Climate Change Adaptation in Fisheries and Aquaculture in CARICOM and the wider Caribbean.

On the sidelines of the Caribbean Week of Agriculture, two important meetings were held which advanced efforts for the region-wide implementation of the Caribbean Community Common Fisheries Policy (CCCFP).

The CRFM Ministerial Council held its 5th Special Meeting on 9 October 2014 in Paramaribo, Suriname. At that meeting, the Council agreed to submit the CCCFP to COTED with a recommendation that it accepts the regional policy on fisheries as a final policy document. At its meeting held on 10 October 2014, COTED confirmed the CCCFP as final policy, paving the way for its implementation by CRFM Member States.

Apart from its endorsement of the CCCFP, COTED also endorsed the decision of the Ministerial Council to strengthen cooperation between CARICOM/CRFM States and the French Départements Outre-Mer (DOMs) in the Caribbean, particularly Martinique, Guadeloupe and French Guiana.



Sharing the Evidence for Investing in Blue Growth

The fisheries sector in CRFM Member States provides a range of benefits to the region, including employment, poverty alleviation, food security, and foreign exchange earnings. Some of these benefits are not sufficiently understood and valued. Additionally, fisheries issues are usually managed under the general portfolio of agriculture but are often marginalised, and as a consequence, attract low investment. This low investment has stifled the advancement of statistics, research, and development for supporting resource management, technological developments and marketing and trade.

The concept of a "Blue Economy" emphasizes conservation and sustainable management, based on the premise that healthy ocean ecosystems are more productive and a must for sustainable oceanbased economies. marine environment offers space for companies and entrepreneurs that create more from less. Blue Economy supports these innovations offers them a platform.



The marine environment offers space for companies and entrepreneurs that create more from less: the Blue Economy.

Blue Growth is the long-term strategy to support sustainable growth in the marine and maritime sectors as a whole. At present, land and marine space use and planning do not reflect holistic considerations of the various sectoral needs, and low priority is given to fisheries and aquaculture needs. This creates a challenge, particularly with regard to the capacity for "climate smarting"—those activities that ensure that fishers will continue to enjoy their livelihoods even while experiencing climate change and that adaptation measures are in place to ensure that their economic activities do not prevent them from making a living from the fisheries.

The development of opportunities in aquaculture are doubly challenged by these factors as well as limited land and coastal marine space, environmental concerns, and issues relating to economic viability—all of which are exacerbated by the limited promotion and understanding of the sector's potential and its actual contributions to socio-economic development in the Caribbean.



Blue Growth looks to further harness the potential of oceans, seas and coasts to:

- 1. Eliminate harmful fishing practices and overfishing and instead incentivise approaches which promote growth;
- 2. Improve conservation, build sustainable fisheries and end IUU fishing;
- 3. Ensure tailor-made measures that foster cooperation between countries; and
- 4. Act as a catalyst for policy development, investment and innovation in support of food security, poverty reduction, and the sustainable management of aquatic resources.

FAO posits that the vision for implementing Blue Growth rests upon four premises:

- 1. **Aquaculture**: Promote policies and good practices for farming of fish, shellfish and marine plants in a responsible and sustainable manner;
- 2. **Capture fisheries**: Support implementation of the Code of Conduct for Responsible Fisheries (CCRF) and related instruments to restore fish stocks, combat IUU fishing and promote good fish production practices and growth in a sustainable manner;
- 3. Seafood systems: Promote efficient seafood value chains and improved livelihoods; and
- 4. **Ecosystem services**: Promote regulatory regimes and approaches to restore vital coastal habitats, biodiversity and ecosystem services (including carbon capture, storm and wave defenses, tourism, etc).



(L to R): Hon. Roland Bhola, Grenada's Minister of Agriculture, Lands, Forestry, Fisheries and the Environment, greeted by Mr. Milton Haughton, CRFM Executive Director

From 20 – 21 November 2014, a workshop entitled "Investing in Blue Growth" was organised by the CRFM Secretariat in collaboration with the Caribbean Network of Fisherfolk Organisation (CNFO) and with funding support from the CTA. It was hosted by the Government of Grenada in St. George's, the capital of Grenada.

The purpose of the workshop was to facilitate continuous engagement of fisherfolk organisations to familiarize them with policy development processes and the steps decision-makers use in the implementation of key regional agreements on fisheries.



The workshop brought together stakeholders from the fisheries sector, alongside the media, to deepen their understanding of the "Blue Growth" concept.

It is expected that the media will help to deepen the understanding of the issues facing the sector by raising public awareness about Blue Growth in the Caribbean, while fisherfolk will benefit through a deepening of the knowledge and a greater understanding of the issues surrounding Blue Growth and that all stakeholders would benefit through the expansion of the capacity of the primary industry stakeholders, through more effective positioning and participation in fisheries policy-making and management actions.



Participants at the opening of the Caribbean Blue Growth Workshop in Grenada, October 2014

The two-day workshop also provided participants with the opportunity to contribute to the formulation of policies, strategies and guidelines; to provide feedback and guidance on the proposed actions to be undertaken for the management of fisheries on a regional level; and to influence the policies being developed at the national level.

Participants deliberated on several topics: Governance and Policy, including the Agreement establishing the Caribbean Community Common Fisheries Policy; Illegal, Unreported and Unregulated (IUU) Fishing; the Sustainable Use, Conservation and Management of Regional Fisheries Resources; as well as Access to Market and Trade and the Value Chain Approach to Fisheries in the Caribbean.

In addition to providing information, the presentations mapped the timelines of recent policy processes and provided historical overviews and information on the actions taken in the development of:

- (1) The Declaration on Lobster Fisheries,
- (2) The Flyingfish Management Plan, and
- (3) The Caribbean Community Common Fisheries Policy.

In working group sessions, the participants were also provided with the opportunity to contribute to planning the way forward on several issues of interest to the region, particularly the comanagement of regional resources, data collection, conservation and protection. In addition,





Participants in working group sessions

participants were given up-to-date information on the status of various activities being undertaken by the CRFM and the wider fisheries community. They were updated on issues of concern to the region, such as the proposal to US authorities to list the Nassau grouper as a threatened species, and the favourable outcome of the attempts by a US-based NGO to have the queen conch listed as endangered or threatened.

Participants were also briefed on the relevance of the recently adopted FAO Voluntary Guidelines for Securing Sustainable Small-scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines) to the region, and the enforcement of rules to prevent IUU fishing.

Extensive discussions were held on the potential for and the challenges of developing aquaculture in the region, and on potential areas for collaboration in research and development. Participants also noted the absence of relevant information regarding the successes and failures in the industry and the availability of information to guide potential investors. Many saw the aquaculture sub-sector as open for exploitation, against the backdrop of FAO's predictions that the production of farmed aquatic products will overtake wild catches in the years ahead, but are cautious about this—particularly in light of the challenges posed by the absence of supporting legislation and structures.



NEW COLUMN TO THE PARTY OF THE





Fish fillet

Pharmaceuticals from fish

Aquaculture

Fish leather



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

Two major workshops were convened in 2013: The Regional Fisherfolk Action Learning Group Workshop (Trinidad and Tobago, 18 - 23 August 2013) and The Regional Training of Trainers Workshop for Fisherfolk Mentors (St. Lucia, 19 - 22 November 2013). Follow-up sessions to these meetings were scheduled for 2014.

The second Regional Fisherfolk Action Learning Group Workshop was held in The Bahamas from 19-25 October 2014, but the second Regional Training of Trainers Workshop for Fisherfolk Mentors has been postponed for a date to be announced.

The beneficiaries of the regional Fisherfolk Action Learning Group Workshop were: one fisherfolk leader from each of the 17 CRFM Member States and the Chief Fisheries Officers from Dominica, St. Vincent and the Grenadines, and Suriname. Representatives from the partner organizations—CANARI, CNFO, UWI-CERMES, PANOS and CRFM—were also present at the workshop.

The highlight of the workshop was the introduction and reinforcement of the Action Learning methodology, which uses a series of questions to assist the interviewee in identifying solutions to a problem.

At the second regional Fisherfolk Action Learning Group Workshop held in The Bahamas, participants also developed a participatory video with local fishing communities in The Bahamas on "IUU fishing and its impact on The Bahamas fisheries and fishers."



The participants spent two days in the field learning how to use the technology (cameras and recording machines), interviewing each other (to capture the regional perspective), and interviewing Bahamian fishers. The participatory video was edited in The Bahamas with the help of a local consultant and collaboration from the group.

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. Suitable fisherfolk organisations in Anguilla, Antigua and Barbuda, The Bahamas, Barbados,

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Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, Saint Lucia, St. Kitts and Nevis, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, and Turks and Caicos Islands were eligible to apply.

The project also provided funding for two fisherfolk leaders from the CNFO to participate in the Second World Small-scale Fisheries Congress, held in Merida, Mexico, from the 21-25 September 2014, and the 67th Annual Meeting of the Gulf and Caribbean Fisheries Institute, held in Barbados from 3-7 November 2014.



Supporting CNFO's role in the ECMMAN Project

The Climate-Resilient Eastern Caribbean Marine Managed Areas Network (ECMMAN) project is a €4.2 million project funded by the German Government through the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety. The project is being implemented by The Nature Conservancy (TNC) in collaboration with the Commission of the Organisation of Eastern Caribbean States (OECS), which leads the sustainable livelihoods activities component, which provides support to the Fisher's Livelihoods Working Group (FLWG) in Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines.

The CRFM Secretariat channels the funding to the CNFO under Work Package #2 of the project: "Strong constituencies for sustainable livelihoods and ocean use are built." This work package is to be carried out through several activities such as regional and country specific outreach campaigns, and other activities to empower fisher communities at a regional scale through collaboration with the CNFO.

Those specific activities are:

- **♣ Activity 2.3:** Support the establishment and operation of an Eastern Caribbean committee within the CNFO to ensure active and consistent participation and engagement of fisherfolk in the ECMMAN project.
- ♣ Activity 2.4: Include fishers' issues and knowledge in marine managed areas (MMA) and marine resource conservation outreach and education, while targeting marine resource users and policy makers by working with the CNFO Eastern Caribbean Fishers Committee and other relevant partners.
- ♣ Activity 2.5: Outreach and education for fishers on fisheries management, improved fishing methods, replenishment of fish stocks, small business skills/management, marketing skills, safety-at-sea and sustainable fishing practices.

Accomplishments achieved under this work package are as follows:

- ✓ Workplan finalised and agreed upon by CNFO Eastern Caribbean Committee;
- ✓ CNFO Coordinator and Assistant for project administration/operations, project management and implementation identified and contracted;
- ✓ CRFM provides office space in Belize for the CNFO Assistant to facilitate CNFO activities and operation;
- ✓ The CNFO Eastern Caribbean Committee for ECMMAN project (fisher advisory group) established, committee members appointed and a number of meetings held;



- ✓ CNFO provided guidance to the national fishers' cooperatives in Grenada and St. Vincent in drafting and submitting project proposals to the ECMMAN Small Grants Livelihood Fund. Primary fisherfolk organisations in Antigua and Barbuda were also assisted with developing concept proposals for livelihood diversification;
- ✓ The CNFO staff have also participated in relevant partnership activities which promote the objectives of the ECMMAN project, namely:
 - > 2ndCaribbean Fisherfolk Action Learning Group Workshop;
 - ➤ Workshop on strengthening organizations and collective action in fisheries: Towards the Formulation of a Capacity Development Programme;
 - MPA's as a tool for responsible fisheries and sustainable livelihoods in the Caribbean.
- ✓ Development of draft flyer describing Antigua and Barbuda's ECMMAN Small Grant project with notes on fishers' concerns;
- ✓ Development of Draft CNFO newsletter;
- ✓ Assistance to fisherfolk organisations in relation to ECMMAN Livelihood Support Fund and the development of grant proposals.



CARIFICO Project helps to improve FAD technology



Fishers' consultation held in St. Vincent in April 2014 under the CARIFICO project

Through the CRFM's cooperation with the Japan International Cooperation Agency (JICA), Japan has committed over US\$3.26 million to improving the contribution of fisheries sector of the CARICOM States by way of the Caribbean Fisheries Co-management (CARIFICO) Project. The project seeks to promote sustainable use of fisheries and aquaculture resources by development, management and conservation of these resources, in collaboration with stakeholders.

CARIFICO—a joint collaboration between 6 CRFM member countries (Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines), the CRFM Secretariat and JICA—will span 5 years. It was initiated on 1 May 2013, to establish concrete examples of fisheries co-management regimes.

Fish Aggregating Devises (FADs) were selected for the pilot activities. The use of FADs requires cooperation among fishers, as different personalities and groups of fishers (pelagic and demersal) use the FADs.

During 2014, pilot activities were carried out in the 6 Eastern Caribbean countries where the project operates and the outputs of the pilot activities will be disseminated across the region.

During the Programme Year, the project initiated activities geared towards the building of consensus on fishing rules around FADs and their maintenance, licensing of FAD fishers



participating in co-management, as well as cost sharing for maintenance and replacement of the FADs.

The activities have been classified into two types:

- (1) Activities that directly support co-management such as consultation, gathering of data and information, issuing fisher IDs, and formulation of fishery management plans; and
- (2) Activities that indirectly contribute to co-management such as building a trusting relationship among fishers through collaborative work organised by CARIFICO.

The CRFM Secretariat carried out the following activities with regard to the development of a FAD Fisher Logbook:



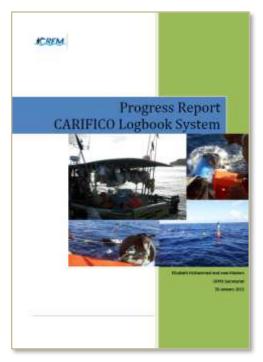
FAD deployed in St. Vincent (Photo: MAGDELESA)

The CRFM Secretariat, working with Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines, developed a suite of FAD fishery data and information collection tools. The tools

were developed with the aim of providing the respective Member States with a FAD fishery data

and information system, in order to inform FAD fishery management plans and the decision-making process. The tools developed included:

- I. **Draft FAD fisher logbook:** This logbook was developed so that each country could adapt the logbook to the national circumstances.
- II. Guidelines for fishers' completion of logsheet: PowerPoint presentation to facilitate training of the fishers in completion of the logbook.
- III. Model Excel Workbook for recording FAD Logbook data (Excel file, 2010 version): Excel spreadsheets into which logbook data can be entered.



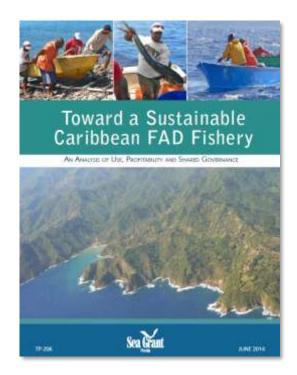


- IV. **Notes for Model Excel Workbook for recording FAD Logbook Data:** Guidelines for using the Model Excel Workbook for recording FAD Logbook data.
- V. **Reporting Template for FAD Logbook System:** Gives the format for reporting/feedback to CRFM Secretariat.

Under this project, a fishers' consultation was held in St. Vincent and the Grenadines in April 2014, which had the participation of a team of stakeholders and Japanese experts – Nariaki Mikuni and Mitsuhiro Ishida. Travon Ferary, Fisheries Assistant, welcomed the group of about twelve fishermen and introduced Ishida, who made a presentation on the construction of the FAD, materials to be used and methods of deployment, illustrated by colour photographs and diagrams.



Achieving Sustainable FAD Fisheries in the Caribbean



Through collaboration with the University of Florida (UF), research aimed at achieving sustainable FAD fisheries in the Caribbean was conducted. This research was funded by the University of Florida's Sea Grant Project and focused on FAD fisheries in Dominica and St. Vincent and the Grenadines, with support from the respective Fisheries Departments and the CRFM Secretariat. Two publications were produced from the research focusing on two components.

The first component of the research, which was conducted in both Dominica and St. Vincent and the Grenadines, investigated governance arrangements pertaining to FADs that were deployed privately by small groups or by the government. It sought to identify those governance arrangements that were most profitable and provided input to stakeholder meetings with fishers to identify best practices for sustainably using and co-managing FADs.

Analysis of fishing trip data showed that catch and profitability were higher when FADs are managed privately or by small groups and access to the aggregated fisheries resources was somewhat restricted.

An engagement strategy that introduced an activity planner as a best practice to increase information sharing helped strengthen the rapport between government and fisheries stakeholders.

The results of this study are helping to shape regional implementation of policy which favours FADs co-managed by fishers and government, but which can also benefit from positive aspects of FADs managed privately or by small groups.

The second component of the research, which was conducted only in Dominica, tested the effectiveness of lures as an addition or replacement to the use of bait in Caribbean artisanal FAD fisheries.

This component sought to examine whether the use of lures was a practical solution to two key fishery management issues that impact the profitability and sustainability of pelagic FAD fishing:





- (1) The capture of pelagic bait fish which requires additional effort from the fishermen and reduces the abundance of smaller fish aggregated around FADs that are believed to play a role in attracting larger species and individuals to the FADs; and
- (2) Access and use arrangements for FADs that often lead to sub-optimal harvest of aggregated fish and to conflict among fishers.

Analyses of fishing trip data revealed that Dominican offshore fishers use a variety of bait types to target three main types of fish at FADs: dolphinfish (mahi-mahi), tunas and marlin. The results also revealed that small to medium-sized lures were effective in catching smaller species and juvenile target fish at FADs, thereby potentially generating overall efficiency gains in harvesting without, however, reducing the removal of smaller pelagic fish from FADs.

Generally, larger lures were less effective than bait in catching larger pelagic fish at FADs, although one lure type appeared to be comparable to bait in the capture of dolphinfish, a most preferred target fish.

The results suggested that although lures can be effective auxiliary gear in the Caribbean FAD fisheries, they are not likely to replace the use of bait. Lures also provided an opportunity for fishing while transiting to and from FADs and served as a back-up for continued fishing when baitfish, normally caught at FADs, could not be secured.



Youth Interns Produce New Feature Video

During the summer of 2014, the CRFM engaged a team of youth interns to help build awareness among their peers of the value of the fishing industry and also to encourage young people to consider future employment at various levels in the industry.

The interns were Asher Canto and Kayla Enriquez, students of St. John's College Junior College in Belize City, Belize; and Phillip Haughton, a student of Lee University, Tennessee, USA. They were engaged for a week (from 26 June to 2 July 2014), to interview young people and put together a video, which is now available on the CRFM's YouTube channel (http://www.youtube.com/user/TheCRFM). Here are snippets of what the interns wrote about their experience:



"My experience as an intern at CRFM was quite informative as it required me to learn more about the fishing industry, such as the socio-economic impacts of the fishing industry, new careers that can be found in the fishing industry and the many benefits of eating fish. Who knew the many benefits of consuming fish?"

-- Asher Canto, St. John's College Junior College, Belize City, Belize



"My time interning with the CRFM Secretariat was a very good experience. While there I was able to learn more about the work that they do at the CRFM and how it makes a difference throughout the CARICOM member countries."

-- Phillip Haughton, Lee University, Tennessee, USA



"This was a very interesting and eye-opening experience for me, because I was closed-minded to this industry, unaware of how much fishes impact our lives. After this experience, I will definitely try my very best to improve my health and eat fish more often."

-- Kayla Enriquez, St. John's College Junior College, Belize City, Belize

The videos are available in parts 1 and 2:









Building Human Resource and Institutional Capacities



Improving Sanitary and Phyto-Sanitary Standards

A multi-million-dollar project to help improve the standards of fisheries production and export products in the Caribbean began to be implemented towards the end of the Programme Year, following the 2 March 2015 signing of a technical cooperation agreement between the CRFM and the Inter-American Institute for Cooperation on Agriculture (IICA).

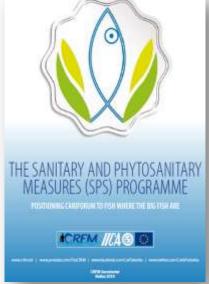
The funds will be used to assist participating CARIFORUM states, which are among the countries of the African, Caribbean and Pacific (ACP) group, to develop more harmonised sanitary and phytosanitary (SPS) measures, as well as to comply with SPS measures enforced by the European Union (EU) to ensure high health standards that make exports more marketable globally.

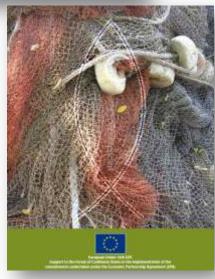
The specific objective of the SPS programme is to increase production and trade in agriculture and fisheries at international standards while protecting plant, animal and human health and the environment.

The SPS measures—highlighted in the new publication: *The Sanitary & Phytosanitary Measures (SPS) Programme: Positioning CARIFORUM to Fish Where the Big Fish Are*—help to ensure that the region's fisheries and agriculture sector is better able to combat threats which pests pose to plant and animal life, prevent food borne illnesses as well as the transfer of microorganisms from plants and animals to humans.

A central part of the project, to span 6 months, will entail an extensive review of the legislative framework in the Caribbean, and the upgrading of the relevant legislation – an exercise which will see the modernization of laws which are in some cases nearly a century old.









The other two areas of emphasis under the SPS project are national and regional coordination measures and capacity-building for a more efficient and responsive institutional framework and regional SPS mechanism. The project will also focus on environmental monitoring standards at aquaculture farms.

The financing, provided by the EU through the SPS Project: Support to the Caribbean Forum of ACP States for the Implementation of Measures under the Economic Partnership Agreement, is for the implementation of key strategies.



The initiative is being implemented through the 10th European Development Fund (EDF), under which funds are provided for the implementation of the CARIFORUM-EU Economic Partnership Agreement, to support the region's integration into the global economy.

The project falls under a wider SPS programme for the Caribbean, first implemented in 2013, and is financed to the tune of Euro 11.7 million (or US\$13 million).

The 15 beneficiary countries are Antigua and Barbuda, Barbados, Belize, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, The Bahamas, and Trinidad and Tobago.

More about the project

Specifically, in the context of the fisheries components being implemented by the CRFM Secretariat, the project seeks to:

- Develop, adapt and validate model legislation, protocols, standards, measures and guidelines
 for agricultural health and food safety (AHFS) in fisheries. This would include regional and
 national level review, as well as the customization and/or upgrading of existing guidelines or
 draft guidelines for sanitary standards for marine products for human consumption, sanitary
 standards for marine products, and legislation.
- Develop effective national and regional coordination mechanisms for the fisheries and aquaculture component and for its incorporation into the overall SPS regime;
- Develop/strengthen the national and/or regional regulatory and industry capacity in fisheries
 and aquaculture to meet the SPS requirements of international trade, in areas such as
 inspection, import/export certification, diagnostics, risk assessment, surveillance, reporting,
 (e.g. HACCP Hazard Analysis and Critical Control Points, GAP Good Agricultural
 Practices, GMP Good Manufacturing Practices); and



• Coordinate and implement relevant visibility, public awareness and outreach activities.

In the first 6 months of implementation, it is expected that the project would:

- Determine the status of existing fisheries legislation, protocols, regulations and guidelines through national consultations hosted in CARIFORUM countries, and develop model versions for future use;
- Determine the level of coordination of the fisheries sub-sector at the national and regional levels;
- Determine the status of national and regional environmental monitoring demands and existing programmes;
- Develop proposals for establishing national and regional environmental monitoring programmes that are equivalent to international 'best practice' principles and standards; and,
- Conduct a review and analysis of national and regional aquaculture farm level residue monitoring programs, then prepare a proposal for establishing and/or strengthening these programmes as appropriate, in line with international 'best practice' principles and standards.

Already, the IICA/CRFM project has supported the development and printing of a communications brief to raise awareness and preparedness by the private sector for improved success of the fisheries components of the project. Terms of References (TORs) have been prepared and consultants sought to:

- Strengthen national and regional SPS systems by establishing a comprehensive legislative framework for agricultural health and food safety (AHFS) in the fisheries sector; and
- Develop and organize an efficient responsive institutional framework and mechanism for coordination of SPS issues at both the national and regional levels.

Another set of TORs have been prepared and consultants sought to strengthen and/or establish national and regional monitoring programmes related to health and food safety in the fisheries and aquaculture sectors of CARIFORUM States, to meet domestic needs and international standards.

Meanwhile, a third set of TORs are being prepared to provide media coverage and social networking services using traditional channels (television, newspaper, etc.) and other social media tools, including ICT tools, for the sharing of information, to facilitate promoting the work and image of the CRFM during the legislation and environmental monitoring programme activities.



Training Needs Assessment for CRFM Member States

During the Programme Year, the Secretariat produced a Training Needs Assessment of the Fisheries Divisions of the Caribbean Regional Fisheries Mechanism (CRFM) Member States, prepared by Thor Asgeirsson of the United Nations University – Fisheries Training Programme,

in Iceland, who was attached to the CRFM Secretariat in Belize City between July and September 2014 as an international fisheries expert.

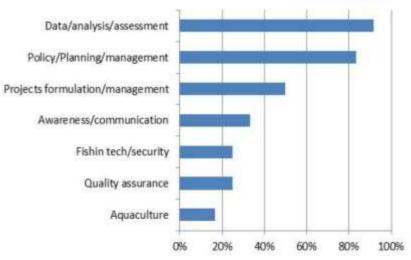
The 2014 Training Needs Assessment is part of CRFM's effort to better understand the needs of its Member States for training of their fisheries division personnel to provide more efficient quality support in enhancing the capacity of the fisheries divisions in the region.

Asgeirsson noted that although several training opportunities exist in the Caribbean for people seeking education in the area of natural sciences, no institute in the region has the mandate to offer training for fisheries personnel, and for that reason there is no systematic training available in fisheries for professionals.

He said that some of the work in fisheries is very specialized and there should be a regional institute that conducts regular training for professional development. No training strategy is available for fisheries professional in the region, only ad hoc courses associated with externally funded projects.

He pointed out that less than 20% of fisheries officers have a first degree—a situation which, he said, needs to change since the role of the Fisheries Officer





Self-assessed training needs

2014-2015 ANNUAL REPORT



(FO) has and is changing from being collectors of information to becoming analysts of both data and situations. Also noteworthy is that very few have a doctoral degree.

The survey asked about training received for the past three years. The results indicate that either Chief Fisheries Officers (CFOs) do not see short courses as part of the professional development of their staff or they do not keep track of the training their staff receives.

The assessment concluded that the region's tertiary education institutions did not provide the full suite of training that was required to satisfy the training needs of staff of fisheries divisions and departments. Several important recommendations emerged from the assessment:

- National fisheries divisions and departments were urged to prepare national training strategies that could better inform the organisation and delivery of CRFM capacitybuilding opportunities.
- At the regional level, the CRFM was urged to consider creating a post for managing capacity-building, and to be more strategic in supporting training commensurate with country priority needs.
- Tertiary education and research were highlighted for stronger attention, with establishment of special funds to support successful implementation of agreed training strategies.
- In addition, given that aquaculture and value-addition of raw material were identified as having the most potential for growth of the fisheries sector in the region, this called for establishment and support of centres of excellence in these two subject areas.
- More serious investment in the development of skills in statistics and information was also emphasized, as these were recognized as specialized technical skills, without which policy formulation would remain weak.

The report of the workshop is published as CRFM Technical and Advisory Document No. 2014/1 and the report of the Training Needs Assessment is published as CRFM Technical and Advisory Document No. 2014/2.



2014 Scholars Corner



CRFM-UNU Partnership

Six-month Fellowship Programme



Cylena Andrews, Jullan Defoe and Kimberlee Cooke-Panton

"Through their training in Iceland, UNU-FTP fellows tackle issues of pressing importance to their home countries, and are well positioned to take on leadership roles when they return home."

-- UNU-FTP

The CRFM has established a long-term relationship with the United Nations University – Fisheries Training Programme (UNU-FTP), Iceland. The UNU offered fellowships to three persons from CRFM Member States: Julian Defoe, Fisheries Officer of Dominica, who participated in the fellowship from September 2014 to March 2015, and received training in Quality Management of Fish Handling and Processing; Kimberlee Cooke-Panton, Senior Fisheries Officer of Jamaica, who received training in Marine and Inland Water Resources, Assessment and Monitoring (Stock Assessment); and Cylena Andrews, Fisheries Officer of St. Vincent and the Grenadines, who received training in Quality Management of Fish Handling and Processing. A wide array of individual research projects in these areas were undertaken by the fellows.



On Monday, March 23, 2015, the UNU-FTP celebrated the graduation of the 17thcohort of the six-month training in Iceland.



■ The 2014 Study Tour of Icelandic Fisheries

In March 2014, the UNU-FTP hosted a 10-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 at Promens in Dalvik, 2014 (Photo: UNU-FTP)

Denzil Roberts, Chief Fisheries Officer of Guyana (fourth from left in the photo above), and Justin Rennie, Chief Fisheries Officer of Grenada (third from left), were among 15 participants from 6 partner countries (which also included Vietnam, Kenya, Namibia, and Nigeria) that took part in this tour. It provided an opportunity for participants to observe the interface between research, industry, and the process of policy-making.

The participants had lectures on the Icelandic fisheries management system and stock assessment, as well as discussions with representatives of the private sector on marketing a diversity of products. The group also visited the University of Akureyri where they attended a lecture on the value-chain in fisheries. They toured a number of companies in North Iceland, including Samherji, where they saw both white fish and dried fish processing; Promens industrial tub manufacturing, Seigla boat builders, Atlantic Leather, and Ektafiskur. They were also introduced to research on aquaculture in Iceland during a visit to Hólar University College.

■ The MSc/PhD scholarship programme



Ricardo Morris, Fisheries Officer of Jamaica, was awarded a two-year scholarship to obtain his Masters of Science degree in Biology from UNU-FTP in Iceland for the period 2014-2016.

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 initiative for UN General Assembly to recognize UNU-FTP

The CRFM led an initiative to recognize the contribution of UNU-FTP at the 69th Session of the UN General Assembly, within the context of the resolution on Sustainable Fisheries, under the category of capacity-building.

The resolution, adopted on 9 December 2014, officially recognizes the work of the UNU-FTP and its contribution to fisheries training in the Caribbean, as well as developing states in other parts of the world.

The resolution specifically "Recognizes... the work of the United Nations University Fisheries Training Programme in Iceland, which has contributed for 15 years to capacity-building in this field in developing countries, graduated 280 fellows from 47 countries and, in addition, held 36 short courses in 12 countries."

CRFM - IOI Dalhousie University Partnership



L to R: Yvonne Edwin of St. Lucia, Mauro Gongora of Belize, and Reshevski Jack of St. Vincent and the Grenadines

Three Caribbean fisheries personnel—Mauro Gongora of Belize, Yvonne Edwin of St. Lucia and Reshevski Jack of St. Vincent and the Grenadines—received training on Ocean Governance: Policy, Law and Management. The course was conducted at Dalhousie University, Halifax, Canada from 21 May to 18 July 2014.

The training was made possible through a 2004 partnership agreement between the CRFM and the International Ocean Institute (IOI). Under the Memorandum of Understanding with IOI, the CRFM provides funding to cover the airfares of participants from its Member States.



CRFM – ANCORS University of Wollongong Training

During the months of September and October 2014, 17 fisheries personnel from 10 CRFM Member States participated in an Australian Leadership Awards (ALA) fellowship titled, Fisheries Law and Management Training Workshop, at the University of Wollongong (UOW) in Australia under an MOU signed between the CRFM and the university in 2012. The fellowship offered participants a five-week professional development program at UOW's Australian National Centre for Ocean Resources and Security (ANCORS).



Caribbean Fisheries professionals visiting New South Wales, Australia for Training in Fisheries Law and management (Photo: UOW)

Apart from receiving instruction in international marine environmental law, and economics and biology of fisheries management, the officers visited Jervis Bay Marine Park to observe marine conservation management in action.

This was a joint initiative between CRFM and ANCORS. The project proposal was submitted to the Government of Australia for funding under the Australia Leadership Awards (ALA) Programme, funded by the Australian Government and hosted by ANCORS, UOW.

"Caribbean nations often do not have the monitoring, control and surveillance resources to enforce fishing zones," Professor Alistair McIlgorm, from ANCORS, said. "Better cooperation through the Caribbean Regional Fisheries Mechanism (CRFM) and harmonisation of rules between these nations will go some way toward maintaining fisheries for future generations."



University of Florida Sea Grant

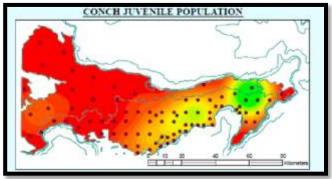


Anginette Murray completed her four-month stay at the University of Florida as the second participant in the Gulf and Caribbean Fisheries Exchange Program (Photo: UF Sea Grant)

Anginette Murray, Fisheries Officer of the Jamaica Fisheries Division, participated in a 4-month training program under the CRFM's partnership with the Florida Sea Grant programme, University of Florida.

Murray was the 2014 recipient of the Gulf and Caribbean Fisheries Training Program Award.

She completed a graduate-level course in the application of geographic information systems (GIS) technologies using the ArcGIS platform.



Source: Billfish Magazine, 2014, Vol. 2

Anginette looked at the spatial distribution of conch stock abundance relative to fishing pressure on Jamaica's Pedro Bank. She also mapped government-owned gear sheds and fishers' cooperatives.

Statistics Training

Fifteen fisheries personnel from 13 CRFM Member States received training in R-Statistical Software in June 2014, in a session held in St. Vincent and the Grenadines. (See page 34 of this report for details.)



Summary of Training Courses and Fellowships

Short Courses			
Training Programme on Ocean Governance: Policy, Law and Management			
IOI Dalhousie University, Canada – May-July 2014			
Country	Name	Post	
Belize	Mauro GONGORA	Fisheries Officer	
St. Lucia	Yvonne EDWIN	Fisheries Assistant IV	
St. Vincent & the Grenadines	Reshevski JACK	Fisheries Officer	
	R Statistical Software		
	CRFM, St. Vincent – 10-12 June 201		
Country	Name	Post	
Anguilla	Remone Johnson		
Belize	Ramon Carcamo		
Dominica	Derrick Theophille		
Grenada	Crafton Isaac	Fisheries Officer II	
Guyana	Seion Richardson		
Guyana	Dawn Maison		
Jamaica	Ricardo Morris	Fisheries Officer	
Montserrat	Alwyn Ponteen		
St. Kitts & Nevis	Karim Saddler		
St. Lucia	Hubert-Medar		
St. Vincent & the Grenadines	Cheryl Jardine-Jackson		
Trinidad & Tobago	Louanna Martin	Fisheries Officer	
Turks & Caicos Islands	Luc Clerveaux	Environmental Officer	
CRFM Secretariat	Elizabeth Mohammed	CRFM Programme Manager	
St. Vincent & the Grenadines	Lucille Grant	(Absent; Declined Offer)	
	ship: Fisheries Law and Management Tra		
	ersity of Wollongong, Australia – Sept-		
Country	Name	Post	
Antigua & Barbuda	Trecia Lovell	Senior Fisheries Officer	
Belize	Vivian Belisle-Ramnarace	Fisheries Officer	
Belize	Rigoberto Quintana	Fisheries Officer	
Dominican Republic	Jeannette Mateo	Director of Fisheries	
Dominican Republic	Aramis Aybar	Commanding Officer	
Grenada	Casimir McDonald	Fisheries Officer II	
Grenada	Francis Calliste	Fisheries Officer II	
Guyana	Ingrid Peters	Senior Fisheries Officer	
Guyana	Denzil Roberts	Chief Fisheries Officer	
Jamaica	Junior Squire	Senior Fisheries Officer	
Jamaica	Gary Isaacs	Chief Fisheries Instructor	
St. Kitts & Nevis	Samuel Heyliger	Fisheries Officer	
St. Kitts & Nevis	Clive Wilkinson	Fisheries Assistant	
St. Lucia	Thomas Nelson	Fisheries Biologist II	
St. Lucia	Vaughn Serieux	Fisheries Officer I	
St. Vincent & the Grenadines	Kris Isaacs	Fisheries Officer	



St. Vincent & the Grenadines	Cheryl Jardine-Jackson	Senior Fisheries Assistant/Data	
Suriname	Zojindra ARJUNE	Senior Policy Advisor	
	University Fellowships		
Qua	lity Management of Fish Handling and Pr		
	UNU-FTP, Iceland – Sept 2014-Mar 2	015	
Country	Name	Post	
Dominica	Jullan Defoe	Fisheries Officer	
Marine and Inland Waters Resources, Assessment and Monitoring (Stock Assessment)			
UNU-FTP, Iceland - Sept 2014-Mar 2015			
Country	Name	Post	
Jamaica	Kimberlee Cooke-Panton	Senior Fisheries Officer	
Qua	lity Management of Fish Handling and Pr		
	UNU-FTP, Iceland - Sept 2014-Mar 2		
Country	Name	Post	
St. Vincent & the Grenadines	Cylena Andrews	Fisheries Officer	
Application of	GIS: Gulf and Caribbean Fisheries Traini	ng Program Award	
	UF Sea Grant, 2014		
Country	Name	Post	
Jamaica	Anginette Murray	Fisheries Officer	
Degree Programmes			
MSc. Degree: Biology			
UNU-FTP, Iceland - 2014-2016			
Country	Name	Post	
Jamaica	Ricardo Morris	Fisheries Officer	



Strategic Alliances, Partnerships, and International Relations



CARICOM – Japan Friendship Year Celebration



(L-R) Mr. Sookram Ali, Trinidad and Tobago Ministry of Land and Marine Resources; Ambassador Yoshimasa Tezuka (Japan); Honourable Jairam Seemungal, Minister of Land and Marine Resources; Mr. Milton Haughton, Executive Director, CRFM; and Ms. Christine Chan A Shing, Director of Fisheries

The CRFM promoted and coordinated a series of activities to commemorate 20 years of friendship and cooperation between CARICOM and Japan.

CARICOM-Japan relations over the past 20 years were initiated with the first consultation in 1993. Over this period, 16 joint CARICOM-Japan consultations and 4 ministerial meetings have been held.

Japan has supported the region with assistance for restoration from hurricane damage, infrastructure development, the supply of equipment, the advancement of fishing technology, improvement in data and information management, and training and capacity-building, among other areas.

This work has been done primarily through the Japan International Cooperation Agency (JICA), which has been working in the region to enhance Japan's partnerships with CARICOM countries through a number of cooperation activities in the fisheries sector. These range from infrastructure development, the dispatch of fisheries experts and Japan Overseas Cooperation Volunteers (JOCV)/Senior Volunteers (SV), as well as the provision of training in Japan. Training attachments of fisheries officers in Japan, as well as the attachment of Japanese technical experts, have made a significant positive contribution to fisheries development in CARICOM.

Japanese assistance also helped to enable the export of tuna from Grenada. The construction of a fresh fish market and attendant facilities in St. Vincent and the Grenadines is considered exemplary; as is the construction of a similar storage facility for frozen fish in St. Lucia.



An "iconic" Technical Co-operation Project (TCP) between the Government of Trinidad and Tobago and Japan/JICA was initiated in 1995, implementing the Caribbean Fisheries Training and Development Institute (CFTDI), which assisted in strengthening institutional capacity through training in the maintenance of marine engines, fish processing, and quality control of fishing technologies.

In 2000, CARICOM governments and Japan signed a partnership agreement entitled "A New Framework for Japan-CARICOM Cooperation for the Twenty-first Century." Under this agreement, the Government of Japan provided funding and technical assistance to CARICOM for socio-economic development. It focused on trade and investment, education and human resource development, disaster risk reduction, environment and climate change, integration in the global economy, and fisheries and agriculture.

In 2002, a CARICOM Training Course was held in Japan where 14 Chief and Senior Fisheries Officers were trained in Fisheries Resource Management. A regional project spanning 2009-2012 was executed with the benefit of a baseline survey and a master plan for the sustainable use of fisheries and aquaculture resources in the Caribbean, with a focus on small-scale operators in coastal communities, to aid the transfer of technology and knowledge of the institutions to Member States.

Another joint project was initiated between CRFM Member States and JICA in May 2013: The Caribbean Fisheries Co-management Project (CARIFICO) seeks to implement some of the recommendations contained in the regional master plan, including the establishment of fisheries co-management and capacity-building among stakeholders, and the continuous work with pelagic species and Fish Aggregating Devices (FADs).

During this 20-year partnership, many workshops were held and technical reports were published. Futuristically, the next steps are to identify areas of common interest based on studies and priority areas identified by states in the CARICOM Strategic Plan, the Common Fisheries Policy and the master plan.

By way of celebrating the 20-year cooperation in fisheries, the CRFM Secretariat, in collaboration with the Government of Japan, with support from the CARIFICO project, held a series of in-country, half-day seminars, which discussed national level interventions with presentations on the successes as well as the challenges. Discussions also addressed recommendations for future national level interventions.





Opening of the regional symposium in Trinidad and Tobago

The series was rounded off with a regional symposium on 4 December 2014, hosted by the Government of Trinidad and Tobago, which tied together the in-country seminars. During this symposium, participants reviewed national and regional levels of cooperation and interventions; identified successes and challenges related to previous interventions; reviewed the results of the CARIFICO project to date and recommendations for ways forward; and made proposals for future interventions, especially against the backdrop of the recently approved Caribbean Community Common Fisheries Policy and the CARICOM Strategic Plan.

Workshop participants also thanked the Government and People of Japan for their assistance to the fisheries sector over the past 20 years and look forward to strengthening and deepening cooperation between CARICOM States and Japan for advancing the sustainable use and management of living marine resources for the benefit of the Governments and people of CARICOM States and Japan.

The roadmap for the way forward was captured in a "Statement on the issue of cooperation in fisheries, identifying broad areas for future cooperation." Additionally, it was thought that there is need for a JICA Alumnus arrangement and better communication to exchange technical and fisher experience. It is also felt that there is the need for JICA / Japan to expand their facilities and support to other CARICOM countries, which currently do not receive such support. It was proposed and agreed that there is a need to support the strengthening of fisherfolk organisations and training courses.



Our Voices on the Global Stage

Opportunities for sharing of best practices across the African Caribbean Pacific (ACP) regions

In 2014, the CRFM and the New Partnership for Africa's Development (NEPAD), through an EU-sponsored ACP collaboration, worked together to facilitate information and knowledge sharing on approaches in fisheries and aquaculture, using two opportunities to allow technical experts to share lessons learned and knowledge gained of best practices in sustainable fisheries development for their respective regions.

In the first opportunity, NEPAD's Dr. Sloans Chimatiro addressed the Caribbean Fisheries Forum at its 12th Meeting via teleconference from South Africa. He spoke of the problems of the sector and its failing fisheries management systems, and posited that the initial solutions lay in the areas of policy and governance. Dr. Chimatiro also highlighted the importance of applying a wealth-based approach to managing fisheries supported by the application of economic theory. He suggested that fisheries resource wealth should be placed at the heart of any fisheries policy. In this regard, Dr. Chimatiro advised CRFM States to generate estimates of the economic value of their national fisheries resources. He also pointed out that a focus on secure user rights proved to be a way to improve fisheries performance.

The second opportunity arose when, at the invitation of NEPAD, CRFM Secretariat's Dr. Susan Singh-Renton was able to address a Technical Meeting of Experts and Directors of Fisheries and Aquaculture of the African Union on the occasion of the Second Conference of Ministers of Fisheries and Aquaculture in Africa (CAMFA 2), which was held in Addis Ababa, Ethiopia from 28 April to 2 May 2014.

Dr. Singh-Renton gave a brief history of both CARICOM and CRFM, and then spoke about CRFM lessons and best practices in the areas of governance, including development of the CCCFP, efforts to combat IUU fishing, fisherfolk cooperation/partnership, human resource development, communication and networking. She emphasized that the CRFM structure and process is a good model of regional governance and cooperation, which affords regular review and update of the management planning process.

CAMFA 2 was particularly important as the African Union Assembly of Heads of State and Government had also declared the year 2014 to be the Year of Agriculture and Food Security in Africa. The Conference reviewed progress made under the 10-year Comprehensive Africa Agriculture Development Programme (CAADP), and adopted the Policy Framework and Reform Strategy for Fisheries and Aquaculture in Africa (PF&RSFA). NEPAD had been the driving force for both CAADP and the PF&RSFA, just as the CRFM had been the driving force behind the CCCFP, the Castries Declaration, and the CRFM-OSPESCA Joint Action Plan.



UN debate benefits from CRFM regional perspective on the role of seafood in global food security

Dr. Susan Singh-Renton also participated in the Fifteenth Meeting of the United Nations Openended Informal Consultative Process on Oceans and the Law of the Sea held on 27 May 2014, in which she was invited to serve as a panelist to share the CRFM regional perspective on the opportunities for, and the challenges to, the future role of seafood in global food security.

In her panel presentation, Dr. Singh-Renton provided a general overview of the characteristics of CRFM fisheries, and then went on to highlight key challenges and opportunities facing the seafood industry in the CRFM region. She highlighted that policy coherence across economic sectors has been insufficient for full realisation of the role of seafood in achieving food security. As a consequence, the seafood industry has been suffering from low investment generally, and linked to this, low priority was being given to fisheries and aquaculture needs in the overall national economic development planning process.

In terms of opportunities to address these challenges both generally and specifically, Dr. Singh-Renton pointed out that CARICOM's Regional Food and Nutrition Security Policy (RFNSP) and the CCCFP were key umbrella policy instruments that gave due recognition to achieving policy coherence and the contribution of fisheries to the four aspects of food security embraced in the RFNSP. Additionally, she noted that the CRFM, pursuant to its mandate, was already engaged in a range of activities to address some specific challenges.

These activities involved: combating IUU fishing; managing the seafood industry's response to disaster risk and climate change; strengthening of fisherfolk capacity for participatory fisheries management; development of technical capacity and testing of models of governance suitable for implementing the ecosystem approach to fisheries; development of improved capacity for managing seafood safety and quality standards; and facilitating aquaculture development exploration.



CRFM's Outlook for 2015-2016



Advancing aquaculture

Strengthening governance frameworks through the preparation or revision of national aquaculture plans and policies, as well as capacity-building, strengthening of data management and knowledge sharing systems for aquaculture and carrying out aquaculture suitability surveys are all thematic areas that are envisaged to commence during the coming year as part of the implementation of the 5-year action plan for aquaculture.

Additionally, the Government of Cuba has agreed to provide technical assistance to CRFM Member States in intensive farming of tilapia and Chinese carps, including administration of farming systems, production of fingerlings for farmers, and development of a comprehensive system of Aquaculture Sanitary and Biosafety standards.

Strengthening knowledge sharing

The CRFM will seek to improve web-based systems and related communications approaches as well as continuing to develop mechanisms for improved targeting of our clients. This will include (but not be limited to) rationalizing our DGroups and other mechanisms for integrating knowledge exchange. Given the spread of the member countries, the needs of the fisheries sector and the range of products and stakeholder groups, CRFM's Public Awareness and Education (PAE) needs to consider tools and products that will work on a variety of media solutions. Utilisation of recently developed information products will be facilitated in conjunction with a review of the needs of each group of stakeholders to find a combination of tools that is best suited for their communication and outreach needs. New products will be designed so that they can be converted and shared without the need for specialised equipment, mindful that segregation or separation of stakeholders will optimise the reach of messages and guarantee that there is efficiency in the development of PAE material.

Coral Reef Action Plan

The CRFM will continue in its efforts to coordinate and enhance sub-regional/regional and national efforts to conserve the biodiversity of reef and associated habitats. In this regard, efforts towards the further development of a project proposal for Mainstreaming Coral Restoration and Reef Resilience will continue.

In the context of the ecosystem approach to fisheries management, the CRFM will initiate or contribute to efforts to develop data reporting templates to encourage data contributions for review based on agreed regional lionfish strategy objectives, as well as the review and analysis of any submitted lionfish data to facilitate more detailed evaluation of national programmes.

Improving SPS

Activities under the fisheries component of the 10th EDF project: Support to the Caribbean Forum of ACP States in the implementation of the commitments undertaken under the Economic Partnership Agreement (EPA): Sanitary and Phyto-Sanitary (SPS) Measures will be fully rolled out during the coming year. This will see efforts to develop model legislation, protocols, standards, measures and guidelines for agricultural health and food safety (AHFS) in fisheries. This will possibly be achieved through regional and national level review, customization,



upgrading and/or updating of existing draft or model legislation, regulations or guidelines for sanitary standards for marine products for human consumption. The development of effective national and regional coordination mechanisms for the fisheries and aquaculture component and for its incorporation into the overall SPS regime is also in the pipeline, as is the development or strengthening of national and regional regulatory and industry capacity in fisheries and aquaculture to meet the SPS requirements of international trade, in areas such as inspection, import/export certification, diagnostics, risk assessment, surveillance and reporting.

Strengthening stakeholder voice

It is a *sine non qua* that CRFM will continue to provide support to the CNFO, not only within the context of the ECMMAN project, but also in recognising the important role that it has to play in advancing the sustainable management of the use of fisheries and aquaculture resources of the region.

Resource mobilisation

The CRFM Secretariat has been developing, or collaborating in the development of, a number of projects, programmes and initiatives geared towards mobilizing resources in support of its work. The Secretariat will proactively seek to mobilize additional resources wherever possible; under the guidance, and with the advice and support, of the Resource Mobilisation Committee. This includes initiatives to promote the integration of Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR) in the coastal zone fishing/aquaculture sub-sectors following an ecosystem-based approach; to promote resilient and inclusive value chain market and skills development for men, women and youth engaged in the Fisheries Sector; to improve technical collaboration and knowledge exchange; to contribute to the adoption of co-management models for fisheries management; to support improvement of fisheries information systems; and to provide support to CRFM working groups.

Additionally, the CRFM will support the implementation of the Caribbean Sustainable Energy Roadmap and Strategy (C-SERMS) with a focus on fish processing activities in the Caribbean capture fisheries sector in collaboration with the German agency, GIZ Renewable Energy and Energy Efficiency Technical Assistance (REETA), under the project: Supporting Institutional Structures to Promote Renewable Energy and Energy Efficiency in the Caribbean. This project supports the Energy Unit in the CARICOM Secretariat in developing and implementing the C-SERMS in member countries, by developing CARICOM policies and regulations to reduce dependence on fossil fuels in the fish processing sector; and implementing sustainable energy demonstration projects in the fish processing sector with a focus on cooling and drying operations in three CARICOM Member States.

Strengthening and harmonizing regional management measures for shared stocks

In 2015, the CRFM continues its efforts to strengthen and harmonize regional management measures for shared stocks with the objectives of maintaining long-term sustainability of the resources and optimizing socio-economic benefits to the people of the region. Implementation of the regionally endorsed Sub-regional Fisheries Management Plan for Flyingfish in the Eastern Caribbean will be evaluated to identify areas of success to be shared regionally as best practices,



as well as to identify critical gaps or problem areas requiring priority and focused attention to advance management efforts. Similar efforts to evaluate the implementation of the Regional Strategy for the Control of the Invasive Lionfish would also be undertaken. In collaboration with the Caribbean Large Marine Ecosystem (CLME) Project, which is seeking to catalyze implementation of the regionally agreed Strategic Action Programme for the Sustainable Management of Shared Living Marine Resources of the Caribbean and North Brazil Shelf Large Marine Ecosystems, specific attention will be given to improving the governance arrangements for the flyingfish, shrimp and groundfish, and spiny lobster stocks in the region.

The CRFM will also be working with the Western Central Atlantic Fishery Commission to formulate a set of regional management measures for the spiny lobster, queen conch and shrimp and groundfish stocks. At the same time, the CRFM will be seeking to have a declaration endorsed among its Member States for collaboration in the conservation, management and sustainable use of the spiny lobster stocks.

With regards to the pelagic fisheries that target species such as tunas, mackerels, dolphinfish and billfish, although the management of these species falls within the purview of the International Commission for the Conservation of Atlantic Tunas, the CRFM will be seeking to make specific advancements in the management of the blackfin tuna as well as fisheries that use FADs.

A draft Sub-regional Fisheries Management Plan for the Blackfin Tuna Fisheries of the Eastern Caribbean will be disseminated among stakeholders for review and feedback and a draft Sub-regional Fisheries Management Plan for FAD Fisheries, as well as a manual on best practices in FAD fisheries management will be developed. Focus will also be given to strengthening the scientific and management inputs of the CRFM to the ICCAT's management process and to strengthening the CRFM's voice and negotiating power at the ICCAT commission meetings.

Developing a research agenda to support implementation of regional fisheries and aquaculture policies, strategies and action plans

During 2015, the CRFM will be developing a Regional Fisheries and Aquaculture Research Agenda in accordance with the CCCFP and the CRFM's Strategic Plan for 2013-2021. This research agenda is based on activities identified and will provide scientific support for implementation of a number of regionally endorsed policies, strategies and action plans including (1) the Caribbean Community Common Fisheries Policy; (2) the 2010 Castries Declaration on Illegal, Unreported and Unregulated Fishing; (3) the Caribbean Regional Food and Nutrition Security Policy; (4) the Caribbean Coral Reefs Regional Plan of Action (2014-2019); (5) the Strategy and Action Plan for Climate Change Adaptation and Disaster Risk Management in Fisheries and Aquaculture in the Caribbean Region; (6) the Regional Strategy on Monitoring, Control and Surveillance to Combat Illegal, Unreported and Unregulated Fishing in the CARICOM/CARIFORUM Region; (7) the Regional Strategy for the Control of Invasive Lionfish in the Wider Caribbean; (8) the CRFM-OSPESCA Joint Action Plan; (9) the Sub-Regional Fisheries Management Plan for Flyingfish in the Eastern Caribbean; (10) the Work Plan for Aquaculture Development and (11) the Strategic Action Programme for the Sustainable



Management of the Shared Living Marine Resources of the Caribbean and North Brazil Shelf Large Marine Ecosystems.

While Member States will provide inputs to identify and prioritize research activities at the regional level, academic and research institutions will identify areas for potential collaboration. Implementation of the research agenda will serve to strengthen the science-policy interface, facilitate more strategic and efficient deployment of the resources of the CRFM and strengthen the linkages between the CRFM and academic and research institutions. The agenda, due to the dynamic nature of fisheries and aquaculture, will have to be updated periodically to address emerging issues and to keep current with new or updated policies, strategies and action plans.

Improving the data and information-base in support of fisheries assessment and management

Through the activities of the CRFM's Data, Methods and Training Working Group, at least 12 CRFM Member States will be seeking to update existing new national fisheries sampling plans or develop new ones in 2015. This effort is intended to improve the temporal and spatial coverage of data collection systems and consequently the quality of data to facilitate more robust fisheries analyses and stock assessments, so as to improve the quality of management advice. Specific effort will also be made to improve the quality of data collected on fisheries that use FADs in collaboration with the CARIFICO, through implementation of a logbook programme.







ANNEXES







FINANCIAL REPORT

(UNAUDITED)

STATEMENTS OF FINANCIAL POSITION

MARCH 31, 2015 AND 2014 (IN EASTERN CARIBBEAN DOLLARS)

	<u>2015</u>	<u>2014</u>
ASSETS		
CURRENT ASSETS: Cash and bank balances	¢ 507 557	¢ 702.050
Outstanding contributions	\$ 597,557 2,606,425	\$ 703,959 3,055,419
Accounts receivables	22,831	3,164
Total current assets	3,226,813	3,762,542
NON-CURRENT ASSETS:		
Land, buildings and equipment	468,309	440,759
Total non-current assets	468,309	440,759
TOTAL ASSETS	\$ <u>3,695,122</u>	\$ <u>4,203,301</u>
LIABILITIES AND FUND BALANCES		
CURRENT LIABILITIES:		
Accounts payable and accruals	\$ 260,347	\$ 280,745
Contributions in advance	71,383	69,366
Project payable Total current liabilities	494,177	<u>291,269</u>
Total current nabilities	<u>825,908</u>	641,380
Total liabilities	825,908	641,380
FUND BALANCES:		
Capital fund	402,042	402,042
General fund	<u>2,467,172</u>	<u>3,159,879</u>
Total fund balances	<u>2,869,214</u>	<u>3,561,921</u>
TOTAL LIABILITIES AND FUND BALANCES	\$ <u>3,695,122</u>	\$ <u>4,203,301</u>
)		
) Executive Director,		
) CRFM Secretariat		
) 		
) Manager, Finance and Ad	lministration	
) CRFM Secretariat		



(UNAUDITED)

YEARS ENDED MARCH 31, 2015 AND 2014 (IN EASTERN CARIBBEAN DOLLARS)

Continuing Operations:	<u>2015</u>	<u>2014</u>
INCOME		
Member States' contributions	\$2,582,016	\$2,582,016
Donor income	\$131,444	19,465
	\$2,713,460	<u>2,601,481</u>
EXPENDITURES		
Bank charges	\$16,837	16,153
Consultants fees and travel	\$22,508	11,694
Depreciation expense *	\$43,025	30,871
Hospitality	\$1,442	1,793
Insurance – furniture and equipment	\$3,871	3,871
Janitorial supplies and services	\$11,084	11,505
Meetings and workshop expenses	\$186,310	206,800
Office equipment rental	\$431	406
Other expenses	\$1,205	-
Personnel emoluments	\$1,456,426	1,388,426
Postage and courier services	\$7,394	7,987
Printing, photocopy services and office supplies	\$34,953	48,121
Publications and subscription	\$6,293	9,678
Repairs and maintenance - computers and office		
equipment	\$10,555	20,097
Repairs and maintenance – office	\$6,569	5,600
Repairs and maintenance – vehicle	\$20,458	12,046
Telephone and fax charges	\$48,486	45,215
Travel – airfares and living expenses (staff)	\$128,238	109,609
Utilities – electricity and water	\$19,115	<u>17,949</u>
	<u>\$2,025,200</u>	<u>1,947,821</u>
INCOME FOR THE YEAR	\$688,260	653,660
OTHER COMPREHENSIVE INCOME		
TOTAL COMPREHENSIVE INCOME	\$ <u>688,260</u>	\$ <u>653,660</u>



CRFM STAFF LIST



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Susan Singh-Renton, DPhil., *Deputy Executive Director*



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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*



Mikhail Francis, Admin Assistant – CARIFICO Project



Zelma Baizar-Nicholas, *Office Attendant*



Pearlina Williams, *Office Assistant*



John Henry Cyrus,
Office Assistant/Driver



EVENTS LIST

2015

Date	Name of Event	Location
30-31 March	13th Meeting of the Caribbean Fisheries Forum	St. George's, Grenada
23-27 March	Blue Shark Data Preparatory Meeting	Madrid, Spain
23-27 February	Meeting of the Global Record Informal Open-Ended Technical and Advisory Working Group; FAO Headquarters	Rome, Italy
23-27 February	Inter-sessional Meeting of the Panel 2/10th Meeting of the IMM Working Group	Madrid, Spain
23-24 February	Caribbean Green Economy Conference	Kingston, Jamaica
25-26 February	Regional Consultation to formulate a Plan of Action for Invasive Species for the OECS	Rodney Bay, St. Lucia
16-17 March	11th Round of Informal consultations of States Parties to the United Nations Fish Stocks Agreement	UN HQ, New York, USA
16-18 March	Expert Group Meeting on Enhancing the Science-Policy Interface in SIDS	St. Lucia
17-18 March	7th Caribbean International Food Safety and Security Conference	Montego Bay, Jamaica
17-19 March	FAO/WECAFC Logical Framework/Project Design Workshop of Project "Climate Change Adaptation in the Eastern Caribbean Fisheries Sector"	Bridgetown, Barbados
11-13 March	CRFM/UF SG meeting & Presentation on CRFM to faculty and staff	Florida, USA
10-13 March	Strategy Meeting for Action on Blue Growth and Food Security	St. George's, Grenada
6 March	Agriculture Food and Nutrition Cluster Meeting	(Electronic)
5 March	CARICOM Thematic Group - Agricultural Health and Food Safety Systems (AHFSS)	Suriname
19–20 February	24th Meeting of the Executive Committee of the Caribbean Fisheries Forum	Kingstown, St. Vincent and the Grenadines
10–12 February	Caribbean Water Information Generator Second and Final Stakeholder Consultation Workshop	Bridgetown, Barbados
5–6 February	Meeting of the Senior Maritime Administrators of the Caribbean	Port of Spain, Trinidad and Tobago
5–6 February	53 rd Special Meeting of the Council for Trade and Economic Development (COTED) – Environment and Sustainable	Georgetown, Guyana
2 February-20 March	Commission on the Limits of the Continental Shelf - 37th Session	UN HQ, New York, USA
21 January	CARICOM-Japan Friendship Year: JICA Seminar	Kingston, Jamaica
20-23 January	Ad Hoc Open-ended Informal Working Group to study issues relating to the conservation and sustainable use of marine biological diversity beyond area of national jurisdiction	UN HQ, New York, USA
14 January	Meeting of the Secretary-General, Ambassador / Change Drivers and Heads of Community Institutions to Consider the Implementation Plan for Community Strategic Plan	Georgetown, Guyana



2017		T::1 10 T 1
5 December	CRFM/CARIFICO Workshop	Trinidad & Tobago
3-5 December	CARICOM/Japan Friendship Year Workshop	Trinidad & Tobago
3 December	FAO/CRFM/OSPESCA/NOAA Lobster Workshop	Panama
25-29 August	Caribbean Marine Atlas Kick-off Meeting	Miami, Florida
24-29 November	UNEP-CAR/RCU, Secretariat of the Convention for the	
	Protection and Development of the Marine Environment of the	
	Wider Caribbean Regional Intergovernmental Meetings	
20-21 November	CRFM/CTA Fisheries Workshop: Investing in Blue Growth	Grenada
19-25 November	First round—Informal Consultation on Omnibus Resolution on	UNHQ, New York
	Ocean and the Law of the Sea	
18-20 November	CFMC/WECAFC/OSPESCA/CRFM Queen Conch Working	Panama
	Group Meeting	
11-18 November	Informal Consultation on Sustainable Fisheries	UNHQ, New York
10-17 November	19th Special Meeting of the ICCAT Commission	Fiera di Genova, Italy
6-8 November	Regional Workshop on Marine Protected Areas as a Tool for	Barbados
	Responsible Fisheries and Sustainable Livelihoods in the	
	Caribbean	
4-6 November	FAO/UWI-CERMES Workshop on strengthening organizations	Barbados
	and collective action in fisheries: towards the formulation of a	
	capacity development programme	
3-7 November	67th Annual GCFI Meeting	Barbados
30 October	Second Meeting of CARIFICO Project Directors	Antigua & Barbuda
27-28 October	CTA / ACP Brussels Briefing IUU Fishing / Aqua Project follow	Brussels
	up meeting	
27-29 October	How to Combat the Invasive Lionfish in the Central American	Belize
	Caribbean	
21-24 October	First Meeting of the OSPECA/WECAFC/CRFM/CFMC Working	Panama
	Group on Spiny Lobster	
20-24 October	Regional IMO Training Course for the Implementation of the	Belize
	Cape Town Agreement	
20-24 October	CANARI/CNFO/UWI-CERMES/PANOS/CRFM: Strengthening	The Bahamas
	Fisherfolk to Participate in Governance Second Regional	
	Caribbean Fisherfolk Action Learning Group Workshop	
6-12 October	Caribbean Week of Agriculture	Suriname
30 September-2	Technical Workshop on Bottom Fisheries in the High Seas	Barbados
October	Areas of the Western Central Atlantic	Barbadoo
29 September-3	First round—Informal Consultations on Ominbus Resolution on	UNHQ, New York
October	Oceans and the Law of the Sea	Ortho, New York
22-26 September	ICCAT SCRS Species Group Meetings	Madrid, Spain
21-25 September	World Small-Scale Fisheries Congress	Merida, Mexico
8-12 September	4th ACP Fisheries Ministers Meeting	Namibia
1-4 September		
1-4 September	7 th World Recreational Fishing Conference United Nations Third International Conference on Small Island	Sao Paulo, Brazil
1-4 September		Apia, Samoa
1 Contomber 2	Developing States	Australia
1 September-3	Second CRFM/ANCORS Fisheries Law and Management	Australia
October	Training Course	



September 2014-	UNU–Fisheries Training Programme (6 month course)	Iceland
March 2015		
31 July	Aquaculture Working Group Meeting	Georgetown, Guyana
25 July	SPS Technical Advisory Committee Meeting	Barbados
24 July	SPS Technical Advisory Committee Meeting	Barbados
21 July	ACP Fish Fisheries Meeting	Brussels
10 June	Tenth CRFM Annual Scientific Meeting	Kingstown, St. Vincent and
		the Grenadines
23 May	Eighth Meeting of the CRFM Ministerial Council Meeting	Roseau, Dominica
21 May	Training Program on Ocean Governance: Policy, Law and	Dalhousie University,
	Management	Canada
23 April	Twelfth Meeting of the Caribbean Fisheries Forum	Roseau, Dominica



PUBLICATIONS

REPORTS

CRFM 2014. Report of the Tenth Annual CRFM Scientific Meeting, Kingstown, St. Vincent and the Grenadines, 10 – 17 June 2014. CRFM Fishery Report – 2014, Volume 1. 179p.

Report of the Tenth Annual CRFM Scientific Meeting, Kingstown, St. Vincent and the Grenadines, 10 - 17 June 2014 - National Reports, CRFM Fishery Report - 2014, Volume 1, Suppl.1. 48p.

Report of the Tenth Annual CRFM Scientific Meeting, Kingstown, St. Vincent and the Grenadines, 10-17 June 2014-Report of the 3rd Joint Meeting of the CRFM Small Coastal Pelagic Fish Resource Working Group and the CRFM/WECAFC Working Group on Flyingfish in the Eastern Caribbean. CRFM Fishery Report -2014, Volume 1. Suppl. 2. 135p.

CRFM, 2014. Report of Workshop to Develop Strategy to Strengthen Capacity in CRFM States in the Area of Fisheries Statistics and Information, 10-12 February 2014, St. Vincent and the Grenadines

CRFM Technical & Advisory Document No. 2014/1

Asgeirsson, T. 2014. Training Needs Assessment of the Fisheries Divisions of the Caribbean Regional Fisheries Mechanism (CRFM) Member States. CRFM Technical & Advisory Document, No. 2014/2

CRFM 2014. Study on the Potential of Fish Farming in the Caribbean. CRFM Technical & Advisory Document No. 2014/3

Over the years, the Caribbean Regional Fisheries Mechanism (CRFM) Secretariat has produced numerous publications under its various projects. The CRFM Secretariat regards documentation of outputs as an important component of a sustainable fisheries management Documentation is further mechanism. seen as an important means of promoting communication between individuals and organizations involved in fisheries, and creating/adding value through generation of information products.



CRFM 2014. The Sanitary and Phytosanitary Measures (SPS) Programme: Positioning CARIFORUM to Fish where the big fish are. CRFM Technical and Advisory Document No. 2014/4



CRFM response to the Notice of a 12-Month Finding on petition to list the Nassau grouper (*Epinephelus striatus*) as Threatened or Endangered Under the Endangered Species Act (ESA)

CRFM 2014. Report of the CRFM / CNFO / CTA Regional Fisheries Workshop: Investing in Blue Growth, St. George's, Grenada on 20 - 21 November 2014. CRFM Technical & Advisory Document, No. 2014/5

CRFM, 2014. Report of the CRFM / CARICOM/ JICA Friendship Year: Regional Fisheries Workshop, 04 – 05 December 2014, Trinidad and Tobago. CRFM Technical & Advisory Document, No. 2014/6

Barnwell, S. 2014. Review of Fisheries Data Collection Systems in Selected CRFM Member States and Recommendations for Integrating FAD Fisheries. CRFM Technical & Advisory Document No. 2014/7. 23p.

CRFM, 2014. Sub-Regional Fisheries Management Plan for Flyingfish in the Eastern Caribbean. CRFM Special Publication No. 2

CRFM, 2014. Report of the CRFM/CNFO/CTA ICT Consultancy on the Development of the Caribbean the Caribbean Fisheries Knowledge Platform Project. CRFM Technical & Advisory Document No. 2014/8

CRFM, 2014.Report of Inaugural Meeting of the Working Group to Promote Sustainable Aquaculture Development Grand Coastal Hotel, Georgetown, Guyana, 31 July to 1 August 2014. CRFM Technical & Advisory Document

CRFM, 2014.Report and Proceedings of the Twelfth Meeting of the Caribbean Fisheries Forum, Roseau, Dominica, 23 - 25 April 2014.Volume 1.CRFM Management Report – PY 2014/15. 138p

CRFM, 2014. Report and Proceedings of the Eighth Meeting of the Ministerial Council of the Caribbean Regional Fisheries Mechanism, Fort Young Hotel, Roseau, Dominica, 23 May 2014. Volume 2.CRFM Management Report – PY 2014 / 15.86p; CRFM Management Report – PY 2014 / 15, Volume 2.

CRFM 2014. Report and Proceedings of the Fifth Special Meeting of the Ministerial Council of the Caribbean Regional Fisheries Mechanism, Paramaribo, Suriname, 09 October 2014. CRFM Management Report – PY 2014 / 15, Volume 2 – Supplement 1. 74p.

Mohammed, E., Theophile, D., Magloire, A., Hubert-Medar, P., Williams, M., Saddler, K., Isaac, C. and St. Louis, J. 2014. Report of the Caribbean Regional Fisheries Mechanism (CRFM) on Behalf of CARICOM. In: ICCAT, 2014. Report for biennial period 2013-2014. Part I (2013). Vol. 3.Annual Reports. (in press) ICCAT publication – Biennial Report

ISSUE PAPERS/POLICY BRIEFS

- 1. Policy Brief #4: Value Chain Approaches in Fisheries Planning
- 2. Issue Paper #4: Opportunities and Challenges for Trade in Fish and Seafood (2014)



- 3. Issue Paper #5: The CARICOM Common Fisheries Policy and the S.A.M.O.A. Pathway: Connecting the Dots (2014)
- 4. Issue Paper #6: Efforts Implemented to Prevent, Deter and Eliminate Illegal Unreported and Unregulated Fishing in the Caribbean (2014)

Communication Brief

1. Sargassum Seaweed Invasion: What, Why and What can we do? (2014)

Booklet

1. Improving the Outlook for Caribbean Coral Reefs (A Regional Plan of Action 2014-2019): Guiding Actions for Fisherfolk (2014)

Brochures

- Improving the Outlook for Caribbean Coral Reefs (A Regional Plan of Action 2014-2019): Guiding Actions for Fisherfolk (2014)
- 2. Eastern Caribbean Flyingfish Management Plan: A Private Sector Brief (2014)
- 3. Sub-regional Fisheries Management Plan of the Flyingfish in the Eastern Caribbean (2014)
- 4. Sargassum Seaweed Invasion: What, Why and What can we do? (2014)
- 5. Lionfish Control and the Private Sector (2014)
- 6. Action Plan for Climate Change in the Fishing Industry (2014)
- 7. What You Need to Know about Aquaculture! (2014)
- 8. Fishing with Data: Building Partnership for Data and Information in Fisheries Management

DOCUMENTARIES: AUDIOS/VIDEOS

- 1. Sea Change: The Caribbean Fisheries Forum at Work
- 2. Sea Change: A New Chapter in Fisheries Management



3. Fishing with Data: What's the Catch

4. Fishing with Data: The Information Net

5. Fishing with Data: Best Practices

CRFM NEWSLETTER

CRFM News Scientific Issue, August 2014





PRESS RELEASE LIST

Thursday, 19 February 2015: 24th Meeting of the Executive Committee of the Caribbean Fisheries Forum to be convened in St. Vincent

Tuesday, 03 February 2015: CARICOM acknowledges successes from a 20-Year CARICOM and Japan relationship

Friday, 05 December 2014: Ensuring Blue Economic Growth in the Caribbean

Friday, 05 December 2014: Fostering Great Relations – CARICOM and Japan

Monday, 01 December 2014: *CARICOM and Japan celebrate 20* years of cooperation in fisheries

Friday, 21 November 2014: Investing in Blue Economic Growth

Wednesday, 19 November 2014: Supporting Smart and Sustainable Growth in Fisheries

Monday, 03 November 2014: USA rejects petition to list Queen Conch as endangered species

Wednesday, 15 October 2014: Common Fisheries Policy for Caribbean authorized for implementation, amid move to strengthen regional cooperation

Tuesday, 07 October 2014: Toward a Sustainable Caribbean FAD Fishery (An Analysis of Use, Profitability and Shared Governance)

Monday, 28 July 2014: Government of Montserrat initiative leads the way in Marine Resource Management

Friday, 27 June 2014: Fresh Strategy for Negotiations on Fisheries Needed: CRFM

Friday, 27 June 2014: Focus on Conch, Spiny Lobster as Caribbean Fisheries Forum Opens











Thursday, 26 June 2014: Caribbean fisheries managers focus on innovation and cooperation at 12th Forum Meeting in Dominica

Wednesday, 25 June 2014: Achievements of the 10th Annual Scientific Meeting of the Caribbean Regional Fisheries Mechanism

Friday, 13 June 2014: Fisherfolk in St. Vincent and the Grenadines benefit from Fish Aggregating Device (FAD)

Tuesday, 27 May 2014: Action plan to save the region's 'five-billion-dollar' coral reefs

Tuesday, 27 May 2014: Flyingfish management plan for Eastern Caribbean endorsed by Fisheries ministers

Thursday, 22 May 2014: Fisheries ministers to meet in Dominica

Sunday, 06 April 2014: *Taking real lessons learned from Caribbean fisheries to advance best practices*





ACRONYMS

ACP African Caribbean and Pacific States
AHFS Agricultural Health and Food Safety

AHFSSS Agricultural Health and Food Safety Systems

ALA Australian Leadership Awards

ANCORS Australian National Centre for Ocean Resources & Security

AusAID Australian Agency for International Development

CAADP Comprehensive Africa Agriculture Development Programme
CAMFA Conference of Ministers of Fisheries and Aquaculture in Africa

CANARI Caribbean Natural Resources Institute

CARDI Caribbean Agricultural Research and Development Institute

CARICOM Caribbean Community

CARIFICO Caribbean Fisheries Co-management project

CARIFORUM Caribbean Forum of African, Caribbean and Pacific (ACP) States

CCA Climate Change Adaptation

CCCCC Caribbean Community Climate Change Centre (or 5Cs)
CCCFP Caribbean Community Common Fisheries Policy

CCJ Caribbean Court of Justice

CCRF Code of Conduct for Responsible Fisheries

CERMES Centre for Resource Management and Environmental Studies

CFO Chief Fisheries Officer

CFTDI Caribbean Fisheries Training and Development Institute

CITES Convention on International Trade in Endangered Species of Wild Fauna and Flora

CLME Caribbean Large Marine Ecosystem (project)
CNFO Caribbean Network of Fisherfolk Organisations

COTED The Council for Trade and Economic Development, CARICOM

CRFM Caribbean Regional Fisheries Mechanism

C-SERMS Caribbean Sustainable Energy Roadmap and Strategy

CSWG Continental Shelf Fisheries Working Group

CTA Technical Centre for Agricultural and Rural Cooperation ACP-EU

CWA Caribbean Week of Agriculture

DMTWG Data, Methods and Training Working Group

DOMs The French Départements Outre-Mer

DRR Disaster Risk Reduction

ECMMAN Eastern Caribbean Marine Managed Areas Network

EDF European Development Fund EPA Economic Partnership Agreement

ESA Endangered Species Act

EU European Union

FAC Fisheries Advisories Committees

FAD Fish Aggregating Devices

FAO Food and Agriculture Organisation FLWG Fisher's Livelihoods Working Group

2014-2015 ANNUAL REPORT



FMP Fisheries Management Plan

FO Fisheries Officer

GAP Good Agricultural Practices

GCFI Gulf and Caribbean Fisheries Institute

GIZ Deutsche Gesellschaft für Internationale Zusammenarbeit

GMP Good Manufacturing Practices

HACCP Hazard Analysis and Critical Control Points

ICCAT International Commission for Conservation of Atlantic Tunas

ICT Information and Communications Technology

IFERMER French Research Institute for Exploitation of the Sea

IGFA International Game Fish Association

IICA Inter-American Institute for Cooperation on Agriculture

IOI International Ocean Institute

ITLOS The International Tribunal on the Law of the Sea
IUCN International Union for the Conservation of Nature
IUU Illegal, Unreported and Unregulated (fishing)

JICA Japanese International Cooperation Agency
JOCV Japan Overseas Cooperation Volunteers

MAGDELESA Moored fish Aggregating DEvice in the LESser Antilles

MMA Marine Managed Areas

NEPAD New Partnership for Africa's Development

NGO Non-Governmental Organization
NMFS National Marine Fisheries Service

NOAA National Oceanic and Atmospheric Administration

OECS Organisation of Eastern Caribbean States

OSPESCA Organisation of the Fisheries and Aquaculture Sector of Central America*

PAE Public Awareness and Education

PF&RSFA Policy Framework and Reform Strategy for Fisheries and Aquaculture in Africa

PoA Plan of Action

PWG Pelagic Fisheries Working Group

RFNSP Regional Food and Nutrition Security Policy

REETA Renewable Energy and Energy Efficiency Technical Assistance

RSWG The Reef and Slope Fish Resource Working Group S.A.M.O.A. SIDS Accelerated Modalities of Action [Pathway]

SGF Small Grant Facility

SPS Sanitary and Phytosanitary

SRFC The Sub-regional Fisheries Commission (Africa)

SSF Small-scale Fisheries SV Senior Volunteers

TCP Technical Co-operation Project

TNC The Nature Conservancy
TOR Terms of Reference
UF University of Florida
UN United Nations

UNEP-CAR/RCU United Nations Environment Programme-Caribbean Regional Coordinating Unit





UNU-FTP United Nations University Fisheries Training Programme

UOW University of Wollongong
UWI University of the West Indies

WECAFC Western Central Atlantic Fishery Commission

WGA The Working Group on Aquaculture

^{*} Spanish acronym





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