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REPORT OF CRFM CARIFICO SEMINAR:

STRENGTHENING FISHERIES CO-MANAGEMENT IN THE REGION



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Report of CRFM / CARIFICO Seminar: Strengthening Fisheries Co-management in the Region

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CRFM Secretariat

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Report of CRFM / CARIFICO Seminar: Strengthening Fisheries Co-management in the Region

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LIST OF ACRONYMS AND ABBREVIATIONS

CARICOM	Caribbean Community
CNFO	Caribbean Network of Fisherfolk Organisations
CRFM	Caribbean Regional Fisheries Mechanism
ECD	Eastern Caribbean Dollars
FADs	Fish Aggregating Devices
FAO	Food and Agriculture Organization of the United Nations
GFFO	Grenville FAD Fishers Organization
HACCP	Hazard Analysis and Critical Control Point
ICCAT	International Commission for Conservation of Atlantic Tunas
IFERMER	Institut Francais de Recher pour l' Exploitation de la MER
JICA	Japan International Cooperation Agency
JOCV	Japanese Overseas Cooperation Volunteers
MAGDELESA	Moored Fish Aggregating Devices in the Lesser Antilles
MPA	Marine Protected Area
NAFCOOP	National Association of Fisherfolk Cooperative, Dominica
NGO	Non-Governmental Organization
OECS	Organization of Eastern Caribbean States
RDD-JICA	Rural Development Department - Japan International Cooperation Agency
SKNFFA	St. Kitts and Nevis FAD Fishers Association
WECAFC	Western Central Atlantic Fishery Commission

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EXECUTIVE SUMMARY

The Report presents the outputs and the critical recommendations for the way forward for fisheries co-management emerging from the CARICOM countries during the Regional CRFM-CARIFICO Seminar held in Saint Lucia from November 30 to December 1, 2017. It captures the achievements of the six target countries over the 5 years of the CARIFICO Project implemented by the National Fisheries Authorities in collaboration with fishers, and supported by JICA experts, CRFM and other regional partners.

Chapters 1 and 2 provide a brief introduction and a summary developed from excerpts from the presentations in the Opening Ceremony. In this respect, recognition was given to the work of the CRFM to promote and facilitate a continuing process to enhance the regional and national and local programs in the Caribbean States for sustainable development of the fisheries. Recognition was also given to the significant contribution and sustained commitment of the Government of Japan to the sustainable development of fisheries throughout the Caribbean, a contribution which also extended to the sustainable development in other natural resources and in energy. Governments in the host countries of the target countries and their participating agencies and the fishing communities were also recognized for the commitment and hard work towards the achievements in the fisheries co-management activities. There was general satisfaction expressed that through the Project the stakeholders were provided with experiences, knowledge and capacity building sufficient to promote the fisheries co-management practice beyond the life of the Project.

The achievements of the CARIFICO Project were also recognized within the broader context of sustainable development due to the potential for positive impacts on poverty reduction, food security, livelihoods and employment in fisheries and rural communities. In this context, the Project was viewed as of relevance to the principles that govern and generate indicators of social acceptability, economic feasibility and environmental sustainability. It was felt that through CARIFICO enhanced opportunity exists to continue to work towards the implementation of a set of principles and guidelines to mitigate against negative impacts of climate change and overexploitation in the fisheries and minimize changes in the marine ecosystem that could reduce resilience in the fisheries or increase dependency on fish imports.

In view of the foregoing, the Minister for Physical Planning in Saint Lucia, Honourable Herod Stanislas urged the undertaking of future actions for enhanced collaboration and cooperation by all stakeholders for sustainable development. Such actions should be clear and evidenced in political will and reinforced by adequate and timely resource allocations. He highlighted that there should efforts to encourage members of FADs Organizations to build on gains through collaboration and sharing of knowledge. Enhanced collaboration and cooperation would also require a functional FADs governance structure to support adequate management of the resources.

Against this background the Minister proposed the following considerations for the way forward: (1) broadening the consultation base to include all resource users; (2) better preparedness by both the implementing agencies, fisheries management and the participating communities through a multi-faceted approach; (3) more studies to address the socio-economic issues in fisheries; (4) increased community participatory approach to fisheries management and agriculture activities near the coast; (5) visible adoption of a people-centric approach to fisheries management; and (6) rules that are organized and enforced through penalties.

In closing, host country to the Seminar Saint Lucia, took the opportunity to reiterate its continued commitment to the local fisheries sector and to the goals of the wider CARICOM Region. Gratitude was also expressed to the JICA Saint Lucia Office and the Technical Team for its commitment to CARIFICO and to the Department of Fisheries. Similar sentiments were expressed for role of CRFM and the six target states for demonstrating the multi-functional character of fisheries co-management.

Chapter 3 is an overview of the origin of the Project. CARIFICO arose from a Technical Cooperation Agreement among the CARICOM, CRFM and the Government of Japan, which produced a Master Plan on the Sustainable Use of Fisheries Resources for Coastal Community Development in the Caribbean. The Master Plan made several recommendations including: (1) the establishment of practical co-management models for sustainable use and management of the fisheries resources; (2) promotion of participatory resource management and development towards co-management; and (3) strengthening of a regional network by sharing of local experiences and lessons learnt among the countries. The purpose of the Project includes: (1) development of fisheries co-management suited for each of the six target countries; (2) technical exchange of the knowledge and experiences gained in fisheries co-management at the OECS level; and (3) sharing of information with other countries in the region. A brief summary of the Project achievements in the OECS sub region is provided, including the outcome of the collaboration with the Florida Sea Grant, University of Florida on the socio-economic impact of fisheries co-management in the six countries.

Chapters 4-6 provide summaries of specific fisheries co-management experiences and achievements in the 8 FADs activities and outputs in the six target countries, as well as distinct co-management activities for conch fishing in Saint Lucia and the pot fishery in Antigua and Barbuda.

Chapter 7 is the conclusion from a socio-economic survey conducted to: provide indicators on livelihood in fisheries before and with CARIFICO; characterize FADs deployment and use; provide a perception of satisfaction with co-management; and to gather information about factors that may deter or encourage co-management. For the purpose of this Report the focus was more on fisheries co-management experiences during the 5 years of the Project. While some findings were inconclusive for some aspects, there were positive directions reported in others. For example, fishers' perceptions are that natural and financial assets are declining but that there is more social networking and physical assets, and in terms of the social assets, those fishers using FADs were deriving higher benefits.

Chapter 8 is focused on the details of technical outputs through prepared manuals, posters and video as well as oral presentations. The material covers areas such as regional recommendations for use of FADs, manuals of best practices, FAD fishery model logbook and a regional basic fisher training course manual in 6 modules, all of which can be accessed at <http://www.crfm.int>.

Chapter 9 reports on the discussion emerging from presentations at Chapters 6, 7, and 8. These included broader discussions such as the linkages between CARIFICO and other on-going programs and projects in the region under the CRFM umbrella; the reasons for the success of the Project, lessons learnt; and how this approach might be transferred to other countries in the region. The Chapter provides much information on fishermen's perspective on the reasons for the success as well as areas where more work needs to be done, such as, in regulations and licencing for access to the FADs, particularly in relation to sports fishing and recreational fishing. Other areas that carried the discussion included how to manage fisher friendly methods of recording high quality catch data; designing and construction of FADs; and the cost of deployment. There was also discussion on how FADs organizations could benefit from the OECS harmonized legislation that gives powers to groups to become involved in the writing of regulations and legislation that could influence amendments to the harmonized legislation. Also dominating the discussions was whether or not the fisheries around the FADs would result in decline in the stocks

targeted and whether the number of fishers operating around each FAD should be limited. There was also concern on the matter of ICCAT reporting, and the fishers indicated that the relevant data arising from successful fisheries co-management continues to be passed on to the governments and the CRFM for submission to ICCAT.

Chapters 10 and 11 introduce the Human Resource Directory which will be attached to the document titled “Facilitating Co managed Fisheries in the Caribbean Region: Good Practices and Guidance from the CARIFICO Experience”. Information is also provided on opportunities to strengthen co-management in Caribbean offshore FAD fisheries resulting from the Project achievements. The Human Resource Directory carries names, contacts and area of expertise. Areas range from consultation to FAD maintenance, post-harvest handling, and HACCP for improved fish marketing among other important fisheries co-management information. During this session two fishermen were recognized for their contribution to the technical exchange program in the OECS. There was also a presentation on the guidelines for opportunities to strengthen fisheries co-management which had been previously determined through workshop sessions. These sessions had assisted participants to characterize the two-way partnership along a continuum of a responsibility-sharing arrangement, starting with government controlled arrangements through five steps towards a fisher controlled arrangement. Four key areas and five broad opportunities were identified, described and presented as having the potential to improve fisheries co-management in Caribbean offshore fisheries.

Chapters 12, 13 and 14 provide: (1) an overview of draft guidelines for fisheries co-management which would become available in February 2018; (2) describe country specific activities for continuation after CARIFICO; (3) insights on participants’ comments and discussion on fisheries co-management experiences subsequent to the information provided at Chapter 10 and; (4) the outcome of the review of the CRFM-CARIFICO Joint Statement on Fisheries Co-Management. In respect of the guidelines, clarification and definitions were provided on terminologies and methodologies used in fisheries co-management. These included terms such as co-management, resource management and economic benefits and consultations. FAD fishers were urged to use the human and technical resource directory which will be available at www.crfm.int.

There were issues and concerns that are worthy of note because of likely negative impacts on fisheries co-management and Caribbean fisheries in general. Firstly, the implication of the Draft Billfish Management and Conservation Plan coming out of the recent WECAFC billfish project due to its potential to minimize the benefits of the fishery resource for livelihoods and food security in Caribbean countries. Secondly, the need for Caribbean Governments to read and agree on a strategy to benefit from the CRFM Draft FAD Fishing Management Plan which needs to be fast tracked in view of the WECAFC document. Thirdly, the urgent need to consider action to determine the social, economic and environmental impact of hurricanes of the magnitude of Hurricane Maria on the fisheries around Dominica, and what lessons can be learnt to inform the development of the CARICOM Emergency Assistance Strategy and Action Plan for the Agriculture Sector, and the Model National Disaster Management Plan for Fisheries and Aquaculture, to prepare for the return of similar climate events and the likely impact on OECS fisheries in particular, and Caribbean fisheries in general by building resilience and adaptive capacities.

Emerging from the foregoing there were broader discussions on readiness of the Caribbean for negotiating positions to counter the Agenda of Non-State actors on issues of conservation, at one level and building adaptive capacities for climate change and climate variability at another level, both aimed at ensuring sustainability that includes fisheries co-management practices in the OECS sub-region and CARICOM fisheries in general.



1. INTRODUCTION

The Report presents the outputs and the critical recommendations for the way forward for introducing and strengthening co-management in regional fisheries which emerged from the CRFM-CARIFICO Regional Seminar held in Saint Lucia. The report captures the achievements of the six target countries during the 5 years of the CARIFICO Project which was executed by national fisheries administrations in collaboration with fishers and support from JICA, the CRFM and other organizations. The one-and-a-half-day Seminar had a packed Agenda necessitated by the volume and depth of the achievements of the Project. The intention of the Seminar was to share the lessons learnt from implementation of activities in the target (pilot) countries with other CARICOM countries. There were also broader discussions on the implications of issues such as readiness for negotiating regional fisheries positions to counter the Agenda of Non-State actors; adaptation to climate change; and sustainable fisheries co-management practices in Caribbean fisheries to provide food security and support livelihoods.

2. OPENING CEREMONY

The Opening Ceremony was chaired by the Mr. John Calixte, Permanent Secretary in the Department of Agriculture, Fisheries, Natural Resources and Cooperatives in Saint Lucia. Delegates included Honourable Herod Stanislaus, Minister in the Ministry of Agriculture, Fisheries, Physical Planning, Natural Resources and Cooperatives in Saint Lucia; Mr. Milton Haughton Executive Director of the Caribbean Regional Fisheries Mechanism Secretariat and his Team; Mr. Ichiro Mimura, Director, Rural Development Department, JICA and his Team; partners from the Florida Sea Grant, University of Florida; Mrs. Sarita Williams-Peter, Chief Fisheries Officer in Saint Lucia; OECS delegates from the six participating countries in the CARIFICO Project (project directors,

managers and fishers); representatives of the Caribbean Network of Fisherfolk Organization (CNFO); Mr. Andre Kong, Chairman of the Caribbean Fisheries Forum, and Chief Fisheries Officer in Jamaica; representatives from Barbados, Guyana, Haiti, Montserrat, Suriname; and key partners from CFTDI in Trinidad and Tobago.

The Permanent Secretary expressed appreciation for the important achievements of the CARIFICO Project. He emphasized the contributions of the Project towards avoiding overexploitation of the fisheries; enhancing the sustainable development of the resources in the six participating OECS States; strengthening capacities to formulate policies and to organize a governance structure for FADs co-management; and improving access to fiscal resources at the national levels for sustainable financing of FADs Organizations.

Equally, appreciation and recognition were given to the work of the CRFM in promoting and facilitating the enhancement of regional and national and local programs in the Caribbean States for sustainable development of the fisheries. He made specific mention of the following initiatives: harnessing income generation through improved fisheries value chains; addressing the challenges of Illegal, Unreported and Unregulated (IUU) Fishing; accessing financial resources to improve fisheries management; and promoting fisheries co-management as an effective approach to small-scale fisheries management.

Specific to the CRFM/CARIFICO Project, the Permanent Secretary drew attention to the already evident role and contribution of the co-management approach in: fisheries diversification for sustainable livelihoods; employment generation; and for finding the balance in roles and responsibilities between the Fish Aggregating Devices (FADs) Organizations and the respective Governments as represented by the Departments of Fisheries or Department of Marine Resources as appropriate. References were also made to the integration of standards for certification in fish marketing; food and nutrition security and the important role of fish in the diet; and the potential for stronger linkages of fisheries to the tourism sector. The parties were encouraged to stay engaged in order to ensure that the current gains in fisheries management and development could be capitalized on in the future for continued sustainable development of fisheries in the Caribbean



Milton Haughton, Executive Director - CRFM

Mr. Milton Haughton, Executive Director of the CRFM, also extended a warm welcome to all the delegates as already mentioned and thanked the Government of Saint Lucia for hosting the Event. Special reference was made to partners from Japan including representatives from the Embassy of Japan in Trinidad and Tobago. The Executive Director highlighted the significant contribution of the Government of Japan to the sustainable development of Fisheries throughout the Caribbean and noted that it also extended to the sustainable development in other natural resources and in energy. He also recognized the bond of partnership and common interest shared by CARICOM countries and Japan both at the bilateral and regional level in the Caribbean.

Delegates were reminded that the goal of CARIFICO was to develop fisheries co-management in the six OECS countries. The specific objectives were to build capacity in the development and management of FAD fisheries for pelagic species in order to improve income levels, food security and alleviate poverty. It was recommended that countries should use their fisheries resources in a more strategic manner to achieve sustainable development in the Caribbean. The fact that a lot that could be learnt from Japan given its well developed and regulated fisheries was also highlighted. It was also recommended that CRFM and the region should continue to strengthen the bonds of friendship and cooperation with Japan to enhance the development process of the fisheries. The Executive Director advised that the results and lessons learnt from the CARIFICO project would be used to determine the way forward in fisheries co-management and increasing fisheries resilience.

Mr. Ichiro Mimura, Director (RDD-JICA), expressed his appreciation to the six countries for their dedicated contribution to the Project. He indicated that the origin of the Project and the final results would be explained by the Evaluation Team during the course of the Seminar. He expressed his satisfaction with the project and noted that the stakeholders had been provided with the relevant experiences, knowledge and capacity to promote and strengthen the fisheries co-management approach.



Delegates at the Opening Ceremony of the CRFM-CARIFICO Seminar: Strengthening Fisheries Co-Management in the Region



Ichiro Mimura, Director-RDD-JICA



Minister the Honourable Herod Stanislas

Minister, The Honourable Stanislas also welcomed the delegates and recognized the contributions of the CARIFICO Project within the broader context of sustainable development. He listed the positive impacts of the Project on poverty reduction; food security; livelihoods; and employment needs of the present and future generations. He also recognized that the achievements of the Project were relevant to the principles that govern and generate indicators of social acceptability, economic feasibility and environmental sustainability. Of specific significance was his attention to current and projected negative impacts that could reduce resilience of fisheries to internal and external shocks. He stated that there was a need to implement a set of principles and guidelines to mitigate against potential negative impacts of climate change and overexploitation in the fisheries. He suggested that there must be concerted efforts to minimize any changes in the marine ecosystem that could reduce resilience in the fisheries and increase dependency on fish imports.

The Minister recognized the contribution of the CARIFICO project to institutional strengthening among the stakeholders; improvements in livelihoods; employment generation; inputs towards strengthened policy and legislative frameworks; and attention to the governance structure for FADs. Participatory approaches and low cost methodologies for conflict resolution were other areas that the Minister thought could further benefit from CARIFICO.

Given the Minister's view of the fisheries as an irreplaceable resource for the islands, he recommended that collaboration and cooperation with all stakeholders should be enhanced through demonstration of political will and resource allocations; encouragement of FAD Organization members to build on gains through collaboration and sharing of knowledge; and existence of a FADs governance structure to support adequate management of the resources.

Proposed considerations for the way forward included the following: (1) broadening the consultation base to include all resource users; (2) better preparedness by both the implementing agencies, fisheries management and the participating communities through a multi-faceted approach; (3) more studies to address the socio-economic

issues in fisheries; (4) increased community participatory approaches to fisheries management and agriculture activities near the coast; (5) visible adoption of a people-centric approach to fisheries management and; (6) rules that are organized and enforced through penalties.

Chief Fisheries Officer, in Saint Lucia, Mrs. Sarita



Left to right: Minister Herod Stanislas, Mr. Milton Haughton, Executive Director CRFM, Mrs. Sarita Williams-Peter, Chief Fisheries Officer Saint Lucia, Mr. Ichiro Mimura, Director, RDD-JICA, Mr. Tesuhiro Ike, JICA Representative Saint Lucia

William-Peter in her vote of thanks acknowledged the contribution of the CARIFICO Project to the six participating OECS member States. She also used the opportunity to reiterate the commitment of the Government of Saint Lucia to the fisheries sector in the country and to the goals of the wider CARICOM Region. There was recognition of the benefits of the Project and of JICA's demonstration of commitment to the institutionalization of co-management in the fisheries in general. She also expressed gratitude to the JICA Saint Lucia Office and the support of the Technical Team. Similar sentiments were expressed for the role of CRFM and the six states for demonstrating the multi-functional character of fisheries co-management.

3. OVERVIEW OF CARIFICO

3.1. Presentation summary

The CARIFICO Project, the technical cooperation of Japan International Cooperation Agency (JICA), is a 5-year project which commenced in May 2013 and will terminate in April 2018. The project activities have been implemented in the following target countries: Antigua and Barbuda, the Commonwealth of Dominica, Grenada, Saint Lucia, St. Kitts and Nevis and St. Vincent and the Grenadines. Implementation was undertaken through shared responsibilities with FADs fishers in each of the target countries, the Department of Marine Resources in St Kitts and Nevis, the Department of Fisheries in Saint Lucia and Fisheries Division in other four countries.

The purpose of the Project was to develop suitable fisheries co-management for each of the six target countries, with technical exchange in the knowledge and experiences gained at the OECS level, and information sharing at the regional level. Approaches to fisheries co-management were demonstrated in pilot projects with FADs fishers in the six target countries; with Conch fishers in Saint Lucia; and with fish pot fishers in Antigua and Barbuda.

The full complement of fisheries co-management activities included:

1. Fisher consultations to reach consensus on fisheries co-management and planning the CARIFICO activities;
2. Establishment of fisher organizations;

3. Training in techniques to improve technical skills for construction and deployment of FADs;
4. Development of user rules for FADs;
5. Collection of FAD catch data and analysis to ensure sustainable management of the fisheries resource;
6. Development of a FAD financial mechanism for self- sustaining operations;
7. Improving fish quality for sales and marketing through the use of ice boxes;
8. FAD maintenance.

Details of the workshops as well as of the manuals prepared during the Project are all available at the CRFM website at www.crfm.int.

4. ACTIVITIES AND OUTPUTS OF CARIFICO CO-MANAGEMENT OF FAD FISHERIES

4.1 St. Kitts and Nevis Report

This presentation was delivered by Mr. Kharim Saddler.

4.1.1 Presentation summary

The Project has been implemented country wide with 25 FADs fishers. These fishers have used various gears and targeted different species in the past including: longline; spear gun; trolling; dropline; traps for reef and slope species; and FADs for pelagic species. Problems experienced included fishers not being actively involved in the management and maintenance of the FADs. Co-management benefits included improved organization resulting in the creation of the St. Kitts and Nevis FADs Association, a not for profit organization and FAD rules which are still voluntary but the members do act in compliance with the regulations.

Success stories include the introduction of sandbag anchors; collection of catch and effort data using logbooks; and the adoption of the CARIFICO data sheet for pelagic species data collection. In addition, the legislation has been updated to include draft regulations for fisheries co-management. There has been a fisher exchange to Grenada.

The main lesson learnt was that stakeholders are likely to be less receptive and active where there is not full understanding of fisheries co-management. Fishers were unsure of what could be accomplished by the practice and so were not ready for the full implementation of co-management. It is therefore necessary to establish levels of co-management based on a proper assessment of stakeholder readiness to undertake the process.

4.1.2 Discussion

There was discussion regarding a fisher's concern from St. Kitts and Nevis about the number of juveniles around the FADs and the need to regulate their catches. CRFM advised that there are draft regulations for minimum size of dolphinfish but this should be done for other species as well. CRFM further advised the participants that transitioning to co-management is a process which includes behavioral changes and requires time. The representative from Dominica indicated that it was commendable for a fisherman to have raised concern about juvenile catches around FADs and this was a strong indicator of the benefits of responsibility-sharing resulting from fisheries co-management.

4.2 Antigua and Barbuda Report

This report was delivered by Mr. Hilroy Simon.

4.2.1 Presentation summary

The Project area was the entire country with 35 FAD fishers operating in the near shores targeting demersal fish, conch and lobster and deep slope targeting snappers using traps, gill nets, hand line and diving. Major problems in the FAD fishery before CARIFICO were overcrowding due to low efforts to diversify and the absence of internal rules or regulations to manage the FADs. Under CARIFICO, the Antigua and Barbuda Fishers Organization was created, fully constituted and registered under the Friendly Societies Act and there were consultations to select the best locations for deploying the FADs. Fishers in the organization have received training in construction and



deployment of FADs; recording catch data in FAD logbooks; modifying and distributing data collection sheets to capture FAD data; sharing skills and experiences among experienced fishers including exchange with fishers in Barbuda, Montserrat and Grenada. The Fisheries Legislation (2013) includes regulations for fisheries co-management and there are some rules embedded in the constitution of the FADs Organization. Fish marketing has improved with the promotion of different types fish cuisine and with a sea food exposition.

Success stories include: (1) progress in diversification of the fishery from the near shore area with the introduction of FADs and an alternate source of income from Queen Conch; (2) improvements in relationships between fishers and the Department of Fisheries in particular a willingness to share information and a high rate of participation of FAD fishers; (4) creation of FAD Fisher-folk Organizations; (5) fishers now showing a level of innovation for example modifying gears to target other species and designs to reduce accidental catch of non-target species; and (6) improved post-harvest handling of fish and in particular processing is increasing the incomes from sale of a higher value fish product.

Among the lessons learnt include: (1) the acceptance of an understanding that successful fisheries co-management requires respect between Fisheries Management authorities and stakeholders; (2) that the continued support and empowerment of fisher's organization is necessary; (3) that fishers must play an active role in the development of policies that affect their livelihoods and; (4) that local knowledge provided by fisherfolk should be given consideration in the interpretation of scientific data.

4.2.2 Discussion

There was further discussion on the issue of juvenile catches around FADs and management of this. The St Kitts and Nevis fisher indicated that the higher incidence of juvenile dolphinfish was linked to the invasion of the sargassum seaweed which also acts as a FAD. The CRFM reiterated that it was clear that juvenile dolphin is an

issue with the use of FADs and there is a need for regulations to minimize the catch of juveniles in general. The CRFM also indicated that there was a need for clarification on the management juvenile catches around FADs.

4.3 Dominica Report

This report was delivered by Mr. Julian Defoe

4.3.1 Presentation summary

The CARIFICO Project in Dominica has island wide coverage. The traditional fishing grounds are the near shore, reef and off shore fisheries using nets, pots and private FADs. Prior to CARIFICO the main problems were user conflicts and weak information to evaluate performance of FADs.



The consultation process under CARIFICO included FAD Workshops and a Basic Training Course, fisher consultation on fisheries co-management and meetings with the Fisheries Division under the umbrella of the National Fishers' Cooperative.

Agreement was reached to participate in the Project and to undertake necessary restructuring required for co-management activities to include the establishment of a FADs organization, rules, user fees and licensing to reduce user conflicts around the FADs and to start a revolving fund to ensure sustainability of the organization.

Consideration was given to the introduction of a log book for FAD catch and effort. Compliance is currently voluntary but there are Draft FAD Fisheries Regulations developed for construction and the placing of FADs, user licenses and for the recognition of NAFCOOP as the Management Authority for FADs.

Through the training received, several areas were positively affected. For example: FAD design was improved and modified for safety; there was improvement in access to fish marketing outlets with compliance to HACCP guidelines in fisheries; and promotion of fish cuisine. Data collected through the local network show that FADs currently account for about 70 percent of total catch.

Success stories included: (1) National data collection system in place with capability to evaluate the contribution of the CARIFICO FADs Project. Improved data collection and management system to monitor the FAD fishery, achieved through introduction of codes to reduce human errors on the collection form and the integration of CRFM minimum sizes in data collection requirement; (2) Introduction of a Grid Map to help determine fishing areas and codes for specific catches; (3) Migration from separate licensing and catch databases to unified fisheries data base; (4) Data analysis that supports FAD development has increased predictability and profitability (larger catch and reduced use of fuels) in the fisheries; (5) Evidence of improved livelihoods for FAD fishers and more youth entering the fishery; (6) Growing confidence in a robust data collection system and; (7) Fair expectation

that there will be greater compliance in fisheries co-management in the Roseau area, reduction in user conflicts and the potential for inclusion of other type of fisheries.



4.3.2 Discussion

The discussion was related to the number of fishermen currently involved in FADs fishing, the level of cooperation by fishers providing data and the influence of fishing culture on behavioral change in Dominica. The presenter indicated that Dominica has a history of over 20 years of data collection in different localities and so fishermen are accustomed to cooperating and providing data which is made easier especially now with the code system. In respect of numbers of fishers, it is estimated

that between 85 and 90 percent of the 1400 fishers in Dominica practice FADs fishing and there is an increasing trend towards FADs licensing.

4.4. Saint Lucia Report

This presentation was delivered by Mr. Seon Ferrari.

4.4.1 Presentation summary

There are five fishing communities in Saint Lucia and 200 FAD fishers operating in the near shore, reef and offshore areas using trolling, fish traps, gillnets, and beach seines. Before the CARIFICO Project there were user conflicts around the FADs and loss of FADs.

The activities under CARIFICO included consultations engaging the four registered fisheries cooperatives. Currently not all fishers are members of a cooperative and not all FAD members are cooperative members. Meetings are held when necessary. Training techniques included design and construction of submerged FADs and exposure to other ways of fishing such as drop and drift lines. FADs user rules were developed, compiled and distributed in fishing communities.

The success stories reported on include: (1) design, construction and deployment of submerged FADs with marker buoys on the surface with the technical assistance of the Department of Fisheries; (2) FADs fishing rules covering the FADs deployed by the Department of Fisheries and commercial fishers as well as measures to prevent or reduce areas of conflict such as the covering of lights, removal or adding of buoys, pulling of the FADs line or community claim of ownership of FADs. These user rules were printed and distributed island wide.

Among the conclusions reached by the presenter was that fisheries co-management was not new to fishers. However, for enhanced sustainability the process must start with consultations for information sharing in order to find the balance between fishers and implementers in responsibility sharing.



4.4.2 Discussion

The question asked was in respect of the right to fish around the FADs and the value of being licensed in order to be considered eligible as a FADs user. The response provided was that traditionally the Government would deploy the FADs, including covering the cost of construction and deployment of the FADs and anyone had the right to fish around the FADs. In view of this, the issue of licenses and how they function and affect the FADs users will need to be explored.

4.5 St. Vincent and the Grenadines Report

This presentation was delivered made by Mr. Trovan Ferary.

4.5.1 Presentation summary

The target sites for fishing were five communities including: Kingstown; Clare Valley; Barrouallie; Calliaqua; and the Grenadines with a total of 150 fishers. Before CARIFICO, the fishing grounds were the near shore, reef, offshore and inshore, and targets included pelagics, conch and lobster. Fishers practice drop lines, pot fishing and diving. The major problems were that fishers had to travel great distances to fish and this required more fuel. CARIFICO introduced the consultative process through about 53 sessions that resulted in the formation of the St Vincent and the Grenadines FADs Fisheries Cooperative Society Limited (2016) with 20 members registered, however fishers were unwilling to pay fees. FADs techniques under fisheries co-management included design, construction and deployment of FADs and also involvement in fisher exchange to Grenada. User rules included compliance with the Department of Maritime Resources requirements for approval to deploy based on the information provided for the dropline and FADs coordinates. Upon compliance, the FADs fishers were given the go ahead to construct and deploy FADs. Internal rules were updated, set and submitted to Cabinet.

Success stories include: (1) Fishers are able to design, construct and deploy FADs; (2) Peak season catches are larger reaching up to 6,000 pounds per week; (3) Increase in the number of active vessels and fishers around FADs; (4) Catch weight and size of offshore Pelagic fish have increased, particularly Yellowfin, Tuna and Blue Marlin; (5) Fishers are now requesting that more FADs be deployed and the Fisheries Division is working with the fishers to support membership in the FADs organization.

In concluding the Project Manager confirmed that fisheries co-management has resulted in fishers working together better; there is improvement in livelihoods; and improved cooperation between the Fisheries Division

and the FADs Fisheries Cooperative Society Limited. There is also wider awareness at country level of the importance of the fisheries industry for livelihoods and food security.

4.5.2 Discussion

Clarification was sought as to whether or not the catch of 6,000 pounds was from one FADs fisher and it was clarified this was the total catch over five days for 8 fishers around one FAD. Another benefit of the FADs which was highlighted is that the higher productivity enabled has allowed the fisherman to spend a shorter time at sea and diversify their livelihoods.

4.6 Grenada Report

This presentation was delivered by Mr. Francis Calliste.

4.6.1 Presentation summary

The target area for Grenada is the east coast. Prior to CARIFICO there was a National Joint Coordination Committee, that experienced a number of problems. These included no baseline information on the single FAD deployed at the time, high juvenile catches and no evidence of ownership or responsibility for maintenance of the FAD. In addition, the fisheries catches were on the decline, there was the existing problem with the Sargassum weed and the fishermen were taking all available catch irrespective of size.

The CARIFICO fisheries co-management Project started in 2013 with the first step being information gathering provided through a well-developed baseline study to assess the state of the fisheries industry and to establish the basis for decision-making on how to move forward.

Subsequent CARIFICO consultations held resulted in organized meetings and the formation of the Grenada Fisherfolk FADs Organization (GFFO) with 117 registered members and a fully constituted Board holding weekly meetings. Training was provided in the design, construction and deployment of FADs, and there was formal registration and internal user rules were set by the GFFO. The FAD rules are detailed and are focused on safety in the waters around the FADs, protection of juveniles and the prevention of tampering with the FADs.

Activities reported on included a change in the FADs heads for increased resilience to the strong currents of the east coast fishery, and exposure of fishers to hands on training in making droplines. Fish catch data included length and weight frequency to determine whether or not catches were decreasing in size, and FADs fishers' daily log forms with details of catch and incomes. Currently the quality of the data is sufficient for a FAD fisher to present to a local financing institution to request a loan or to support any business arrangement for his fishing venture.



There were good improvements in the marketing of fish resulting from catches of the larger fish species caught around the FADs. Quality of fish was maintained through the use of ice boxes introduced under the Project and resulted in Grenville being able to supply fresh fish to the entire country.

GFFO now has a FADs maintenance team in place and there is daily reporting as the team integrates this undertaking with their normal business of catch for the day. Maintenance procedures include daily reporting on the conditions of the FADs and scheduling of the necessary corrective actions.

Success stories include sharing of practices through fisher exchange to St Vincent and the Grenadines for hands on training to make droplines and to deploy FADs. The fisher exchange program also resulted in the preparation of a FADs Management Plan for Carriacou and fisher exchange sharing with three of the other islands: Petit Martinique of Grenada, and Union Island and Mayreau of St Vincent and the Grenadines.

The main outcomes of the Project for Grenada were: (1) Positive change in the socio-economic status of the fishers and higher productivity as FAD fishing requires less time to earn an income; (2) Conflicts have been reduced around the FADs from better organization and communication; and (3) Grenville has been transformed and by extension Grenada through the obvious benefits of higher productivity of the FADs.

For sustainability, continued attention will be given to Fisheries Officers becoming more involved in information dissemination and provision of opportunities for knowledge sharing. In the future, the role of mentors will be integrated in the program and there will be consistent practices of accountability.



5. ACTIVITIES AND OUTPUTS FROM CARIFICO: CO- MANAGEMENT OF THE FISH POT FISHERY

5.1 Antigua and Barbuda Report

This presentation was delivered by Mr. George Looby.

5.1.1 Presentation summary

The target area for the co-management in the fish pot fishery is country wide. Problems before CARIFICO included ghost fishing and insufficient data to validate the spiny lobster fishery and justify a no take area.

The activities undertaken to address the three problems included: (1) Research to find bio-degradable materials for panels in fish pots, establish baseline data for an MPA, design juvenile escape gaps (an opening large enough to allow small fish to get out of the trap but not large ones), and to validate spiny lobster catch data; (2) Consultations to agree on trap design, the escape panels and frequency of trap removal; (3) Multiple demonstrations of designs and locations of bio-degradable panels on traditional fishing pots; (4) Preparation of a Draft Implementation Plan to deliver good fishing practices including training in basic fishermen practices and improving knowledge and understanding of the regulations.

In respect of success there is as yet no decision on the most suitable biodegradable material for the fish pots, however the fishers are embracing the principle of co-management. Also, more fishers are using bio-degradable panels for fish pots and the core group members are training other fishers on how to install bio-degradable panels. A Handbook describing how to install biodegradable panel was also prepared. The main lesson learnt was that success in co-management requires continuous communication between stakeholders.

5.1.2 Discussion

Clarification was sought from Antigua and Barbuda on the use of the expression “participants are embracing co-management”. The explanation given was that formerly the fishers were not participating in the process. However, at this time, fishers are active participants, voluntarily providing data and information and also teaching others about co-management. Fishers are also actively involved and collaborating with the Fisheries Division to determine the most appropriate biodegradable material. A major finding of the biodegradable panels experiments was that the type of material chosen and its durability is influenced by the marine environment (currents, waves and depth).

6. ACTIVITIES AND OUTPUTS FROM CARIFICO: CO-MANAGEMENT OF CONCH FISHERIES

This presentation was made by Ms. Allena Joseph

6.1 Presentation summary

The target site for the activity was Gros Islet, Saint Lucia where 12 conch fishers and 24 crew members are involved in conch fishing. The main problems encountered were that: (1) there was no biological data for the conch fishery; (2) there were no nationally derived conversion factors and; (3) information on habitat types associated with conch was non-existent.

Under CARIFICO, six consultations were conducted and there is now an informal organization of conch fishers. Research was undertaken: (1) to support the development of a national plan to improve conch management; (2) to develop and adopt conversion factors to standardize data; (3) to encourage co-management approach to fisheries and; (4) to promote the socioeconomic value of the conch fishery.

Activities undertaken included the collection of conch samples for morphological data statistical analyses and training by the Department of Fisheries in basic fisheries management.

Success stories and lessons learnt included willingness of the conch fishers to participate in a co-management approach in comparison to former method of self-regulation, and fishing ground rotation in order to avoid juveniles. This willingness to participate began to emerge as the Project implementers learnt that fishers will collaborate when co-management includes: considerations such as convenient scheduling of meetings that do not interfere with the time needed to conduct their livelihood; places value on traditional knowledge and application of fishers' experience; and implementers are willing to listen and to share the information and findings.

6.2 Discussion

Further information was sought on whether information on conch habitat was in fact non-existent and if there was evidence of habitat preferences by different conch life stages. The response given by Saint Lucia was that data on the various life stages and habitats were not adequate and data collected in the area was not specific to the conch fishery. However, over time conch fishers have shown more interest in participating in data collection on habitat types used by conch during their various life stages.

7. SOCIO-ECONOMIC ANALYSIS OF OFF OFFSHORE FISHERS

This presentation was delivered by Dr. Nancy Montes- Florida Sea Grant, University of Florida

7.1 Presentation summary

Surveys were conducted in all the six target countries to determine (a) livelihood in offshore fisheries before and with CARIFICO; (b) characterize FADs deployment; (c) provide a perception of satisfaction with co-management; and (d) gather information about factors that may deter or encourage co-management.

The survey data covered demography, livelihood- income from fishers, training, management techniques and attitudes towards public and private FADs. In addition, the survey conducted in Dominica also provided training in data collection for persons participating in the Project.

For the purpose of this Report the results are focused on the analysis of fisher livelihoods and the extent to which fishing activities had changed the circumstances of fishers relative to assets. These assets ranged from benefits of social networking through physical (lands, FADs, boats); human (skills, knowledge, saving); education and training and resources; financial (income from fishing and general income); and loans taken in the last 5 years and before CARIFICO. Consideration was also given to indicators of natural assets which was measured in fish abundance.

Based on the foregoing there was a focus on experiences and impact during the five years of the Project. Data collection and information of relevance to the analyses were those to do with income from fishing as well as other sources, changes in savings, loans taken, participation in training from Government or elsewhere, registration in fisher cooperative and the perception of any decline in the fishery.



The findings presented on the areas as selected above were as follows:

- (1) There was a perception among fishers that the fish abundance seems to be on the decline and that they did better 5 years ago but it was unclear if this was a reflection of more fishers entering the system.
- (2) Fishers had more material assets, they were taking less loans but had less disposable incomes and were making less money.
- (3) Sea food marketing was an active tool for increasing livelihoods
- (4) Fishers benefitted from the training but only 66 percent of the total number of fishers had been exposed to the CARIFICO courses. However, 96 percent of those who received training agreed that they benefitted, hence there is an opportunity to continue to provide training so as to reach more fishers.
- (5) There were more private FADs 5 years ago than now.

Regarding assets, the results showed that: (1) Natural and financial assets have declined but there is more social networking and physical assets; (2) In Saint Lucia FAD fishers felt that the extent of decline in natural assets was more than in the other three countries; (3) Relative to the social component, those fishers using FADs had a higher score than those not using FADs; and (4) FADs fishers also had a higher capacity and more physical assets through memberships in cooperatives and similar FADs organization.

In spite of the generally positive outcomes above there were some areas which were identified as requiring further work. Of priority is the real situation with what is happening in the fish population around the FADs. Specifically, whether there are declines in the resources or limitations on capacity carrying around FADs. Also, the dynamics between less disposable incomes and less loans being taken accompanied by increased material assets needs to be disaggregated and defined in terms of sustainable welfare. Overall, there was agreement that the contributions of the CARIFICO Project are valuable to the Governments as well as to individual fishers.

8. COMMON TECHNICAL OUTPUTS FROM CARIFICO

This presentation was delivered by Mr. Mitsuhiro Ishida

8.1 Presentation summary

This session was effectively a list of selected technical manuals prepared under the CARIFICO Project. The presentation included a brief description on the technical content of 12 manuals, 7 posters, 6 oral presentations and one video manual as provided below:

Regional recommendations on use of FADs:

These recommendations covered areas such as gears selection, regulations, management and data collection and safety, communications and radio at sea.

Best practices in fisheries that use moored FADs:

The manual is in five series from design, construction and deployment to governance of FAD fisheries and was the outcome of a workshop completed under the CRFM-JICA-CARIFICO-WECAFC-IFREMER- MAGDELESA joint working group.

Manual of best practices in two volumes.

This manual is presented in two volumes. Volume I covers designs, construction and deployment while Volume II covers maintenance and quality control of the FAD catch from point of capture to point of sale.

FAD fishery model logbook:

This logbook covers data collection and data format.

Ice box manual:

The ice box manual covers instructions for construction and use of an ice box for fresh fish and quality control from catch to the local market destinations.

Regional Basic Fisher Training Course:

This manual prepared in 6 Modules provides an overview of the fisheries sector, fisheries, introduction to small business in fisheries management, food safety, marine safety and radio communication at sea.

Report of socio-economic analysis in CARIFICO countries:

The report covers the guidelines for fisheries co-management in the Caribbean region and good practices of CARIFICO practicing countries.

The oral presentations and posters prepared by the Project covered several areas including among others:

- a) Data and analysis and CARIFICO activities;
- b) Economic activities that strengthen social cohesion among fishers and promote co-management;
- c) Indirect input challenges toward strengthening fisher cohesion during co-management;
- d) Alternative fishing strategies to strengthen co-management;
- e) Use of market research for co-management of FADs activities in Dominica;
- f) Characterizing co-management of Caribbean offshore FAD fisheries: The CARIFICO Experience;
- g) Perceived impact of FAD development program on the livelihood of Caribbean offshore fishers.

Several posters including key areas such as instructions for cost and benefit analyses in FAD fishing can be accessed at <http://www-crfm.int>.

9. DISCUSSIONS ABOUT THE OUTPUTS FROM CARIFICO

The comments, questions and responses from Sections 6, 7 and 8 above are included in this first general discussion section. The session was effectively one of free-flowing questions and answers and where possible the section has placed related questions and answers under one subheading. Priority was placed on the outcome of the discussion and its relevance to shared lessons learnt from fisheries co-management among the six target countries and with the wider CARICOM and emerging implications for the CARICOM fisheries.

Collaboration with CNFO: In general, there seemed to have been some concern by the CFNO that as a key partner in the CRFM process the Organization was left out of the Project. Hence clarification was sought from a CNFO delegate on the level of collaboration between the CNFO and fisheries co-management under CARIFICO during the implementation of the Project. Relative to the concerns on the seemingly low involvement of CNFO with the CARIFICO process the delegate from St Vincent and the Grenadines indicated that CNFO members in that country were in fact working together with the FAD fishers and were in fact encouraging the FADs fishers to be part of the CNFO of the region.

Linkages between FAO-IFERMER Project on FADs and the CARIFICO Project:

There was some discussion about the IFERMER-FAO Project and the linkages with the CARIFICO project. It was agreed that while both projects sought to address FAD fisheries and management, there was a greater focus on co-management under CARIFICO,



Compliance with respect to rights to fish around the FADs: This discussion was primarily about how to ensure compliance with the boundaries around the FADs in the absence of regulations. On this issue CFNO drew the participants' attention to the fact that in the absence of binding regulations on fishing around FADs compliance with the FAD rules was only voluntary. It was therefore necessary that all non-FADs fishers respected the rights of FADs users by operating at least two miles away from the boundary, even though this compliance is voluntary. Information provided by Dominica on this matter was that regulations governing compliance with rules for fishing around the FADs will be given attention in 2018.

Another issue raised on compliance and fishing rights around FADs was whether FAD users in general were trained to conduct this type of fishing responsibly. In response to a specific question asked to Antigua and Barbuda on ability of conch fishers and lobster fishers to fish around the FADs responsibly, the meeting was advised by the delegate from that country that from time to time these types of fishers would go out with FADs fishers and had learnt enough about FADs fishing to act responsibly around the FADs.

Some of the challenges with regulations and compliance around the FADs were clarified by the Executive Director of CRFM. He noted that all presentations identified internal rules for the FADs and agreed that these internal rules are necessary for proper operation. He however reminded the meeting that the challenges with everyone being able to fish around the FAD has been around for some time, and even before CARIFICO. It continues to be an important issue and reaching a determination on compliance will very much depend on how the laws are worded. In essence fishers have a legal right to fish anywhere at this time. Hence while the FADs groups can agree internally on the rules governing the conduct of members of the group around the FADs, these rules are just voluntary guidelines and would not bind non-members. The solution is that the fisheries laws and regulations would need to be amended to regulate use of FADs or give special powers to the fisheries cooperatives or associations to make rules governing the use of the FADs.

A related issue is public versus private FADs as in some of the countries all FADs are public as the laws do not recognize private (e.g. Saint Lucia). In the case of private FADs there is an issue of who should be granted access. The occurrence of submerged FADs further complicates the issue of access. In Saint Lucia, there has been a shift to submerged FADs and this could be the case with Grenada because of the strong currents. It was agreed that the issue of how to treat submerged FADs and the whole matter of private versus public ownership of FADs needs to be discussed and may have to be addressed through policy and legislative measures.

Internal rules of the FADs organizations recommend a two-mile radius in which non-FAD fishers should not enter, however it is unofficial. It was recognized that compliance with this rule would need to be voluntary. The issue of zonation of activities around the FAD was also raised and it was agreed that the region should investigate how this has been addressed in other countries since it presents challenges in managing these fisheries.

FADs fishers licensing in Dominica: Results of socio-economic study indicated that nearly half of the FAD fishers in Dominica are not licensed, and a question was posed by Saint Lucia to Dominica on the implications of this relative to fishing around the FADs. The response from Dominica was that currently the licensed fishers do their own policing and actively encourage all fishers to become licensed. The FAD fees go directly to maintenance and management which need to be undertaken in order to lengthen the life of the FADs. In addition to self-policing of the FADs, the coast guard also carries out monitoring and surveillance.

Co-management approach: There was a query from the Jamaica representative about the strategies used to get the fishers to provide information. The response came from a fisherman from Dominica who offered three possible explanations: (1) Fishers were committed to the co-management approach because they saw early practical benefits such as the training to design and deploy FADs; (2) Fishers realized that it was cheaper for one to run a FAD deployment within a group and; (3) The practice of fishermen sharing information with fishermen contributed to the level of efficiency achieved. The fisherman further indicated that there were social benefits with fisheries co-management approaches with improved trust levels among different types of fishers.

Notwithstanding the reasons given for the camaraderie developed and in particular the willingness to exchange information among the organizations, JICA did remind the participants that since each country is different it is difficult to say how co-management will evolve or grow overtime, and the definition could change with more experience on how and why co-management works.

Ghost fishing research: Regarding ghost fishing research in Antigua and Barbuda, Saint Lucia was interested in knowing whether or not the work being undertaken was different from that being undertaken in Dominica on simulating a trap that was lost. The explanation given by Antigua and Barbuda was that simulation on a trap that was lost and returned was also being undertaken in Antigua and Barbuda. He further explained that in conducting research on bio-degradable material in fisheries one has to take into consideration the conditions within the specific area of the study meaning that in essence the findings of the two studies would be area specific. So far, the findings in Antigua and Barbuda involved a number of tests on different types of materials to determine suitability of bio-degradable material for the fisheries in the waters of Antigua and Barbuda.

Data collection and perceived impact of FADs fishing in the resource in Grenville: The question posed was how is data collected and managed in Grenada and was there evidence of impact on the resource. It was indicated that data is collected all across the island with regular catch data and the FADs data being compiled by the Fisheries Division. Specific to GFFO FADs the data is collected differently from the regular catch data and the organization keeps copies of the FADs data. This is easily managed as all the GFFO fishers comes to one landing site where the catch is weighed. Biological sampling is random and includes weight, length and frequency.

In respect of impact of FADs fishing on the fishery for local as well as for export, only Tuna caught on long lines are exported. On the other hand, all the catch by the small-scale fishers from the FADs remain on the island and to date the increase in the number of boats has not affected the fishery. Furthermore, to date there has been no increase observed in amounts exported. It was indicated that prior to CARIFICO, the appearance of the Sargassum weed had resulted in a decrease in dolphin catch, but FAD fishing has compensated for the decrease in dolphin catch. As a result, CARIFICO has served to mitigate the potential problem from the Sargassum weed and at this time there is no evidence of decline in the fishery.

General FAD information: Participants also sought general information on FADs such as: (1) costs, maintenance, deployment; (2) life span of FADs; (3) the reason for the shift from sand bags to concrete for weighing down FADs in Saint Lucia; and (4) strategies to modify and deploy FADs so that juveniles would not be attracted.



Relative to cost and life span of the FAD, JICA indicated that the cost of a model FAD would vary from ECD 4000.00 to ECD 5000.00. The life span of the FAD is normally dependent on the quality of maintenance and the marine ecosystem conditions. However, assuming the FAD is not deployed around the traffic area or nearshore and there is good quality maintenance the expectation is that the FAD could last 3-5 years.

Further information provided by the fishers was that total costs could be country specific and with variations based on sites. In the case of Dominica, the information provided was that the maintenance cost is usually country specific and that it depends on the conditions of the sea. Additionally, FAD construction cost varies depending on the depth at which it being deployed. For example, in Dominica the length of the rope could vary from 3000 meters to 4000 meters, depending on which side of the island the FADs were being deployed. In the case of St Kitts and Nevis the depth could be as low as 2000 feet on one side of the island. There are also possible hazards depending on the material used for example, the rope could snap under pressure depending its quality leading to FAD loss.

Regarding the shift from sandbags to concrete, the Saint Lucia representative indicated that this was measure to deal with the damages to sand bags caused by the rocky nature of the sea bottom which could lead to FAD loss. It was therefore much safer to use concrete. In respect of the possibility of incidental catch, fishers in Saint Lucia were using droplines to avoid such problems.

Fisheries co-management and ICCAT: The discussions also included the level of consideration that was given to the implications of fisheries co-management activities and aspects of the international market for example ICCAT rules on fish export. In the case of Grenada, it was felt that this consideration did not apply as the small-scale fishers do export and that data is collected for reporting to ICCAT through CRFM. Antigua and Barbuda and Dominica, reported that neither of these countries export fish and that also specific to Antigua and Barbuda, the country is not a member of ICCAT.

Perceptions versus reality in decline in the fisheries since CARIFICO: The delegate from Jamaica sought better clarification as to whether or not there was a decline in the fisheries around the FADs or was this a perception of the fishers in the socio-economic survey. The response was that since it was a questionnaire survey, it was insufficient to make any such determination on the fish population. However, based on the discussion there was a conclusion that the FADs are doing well but that there are more fishers around the FADs and so there is now a situation of capacity limitations around the FADs. This would suggest that further work will have to be undertaken to set baselines and indicators regarding the abundance of resources and optimum fishing effort around FADs.

In closing this discussion, the Chair made reference to the OECS harmonized legislation which gives power to organizations to create by-laws and new rules with fines attached, giving ownership to the stakeholders. The Executive Director of CRFM also raised the issue of the broader co-management explaining that the practice extends beyond just consultations to implementation and monitoring, accountability and making decisions that can be implemented. He also drew attention to the fact that Belize has many legal agreements in place where power is delegated to local organizations to manage the resources in specific geographic areas. He noted that there has been good progress under the CARIFICO project, however there is still a long way to go. For example, the research on bio-degradable material in trap fishing will continue towards a final design. He also drew attention to the fact that there are a lot of questions to be answered some of which are outside of the scope CARIFICO Project.

10 RESOURCE PERSONS DATABASE AND APPRECIATION FOR MASTER FISHER

10.1 Presentation and summary

The outputs of the Project include a Human Resource Directory which will be attached to the Guidelines for Fisheries Co-Management. The Directory carries names, contact information and areas of expertise available in the nine activity areas ranging from consultation processes, to FAD maintenance, post-harvest handling, and HACCP for improved fish marketing. There is also information on ghost fishing. Other products include the manuals from the Basic Fisherman's Training Course and the Fisherman's ID Card. Two Master Fishermen were given recognition for their leadership demonstrated under the Project. The title of Master Fisherman was conferred on Mr. Rayan Isaacs, President of the GFFO in Grenada and Mr. Bertley Carrette, FAD Fisher in Dominica.

Mr. Rayan Isaacs, President of the GFFO Inc. has excelled in his leadership and FAD training in all eight activities in Grenville as well as in the OECS sub-regional fisheries co-management activities.

During the life of the Project Mr. Isaacs conducted a total 117 fisher consultations, contributed to the complete elimination of conflicts around FADS in Grenville and the achievement of 100 percent in GFFO data collection. He



Rayan Isaacs, Master Fisherman

other fishers in a way that impacted their livelihoods and thanked JICA and CRFM for their support.

Bertley Carrette also conducted workshops in drop line fishing techniques in the six target countries resulting in fishers being able to change from targeting from small to large pelagics. He is involved in expanding fish outlet marketing activities in Dominica and is the owner of a fish outlet.

was also actively engaged in the introduction of ice boxes to improve fish quality. Under his leadership the GFFO prepared national draft FADs fisher regulations and a fish marketing development plan. He also mobilized fishers and increased the GFFO membership from 40 to 117 fishers with a financial standing of ECD 40, 000.

Mr. Isaacs in a gracious response described that he was happy for the opportunity to share his knowledge with



Bertley Carrette, Master Fisherman

The support and commitment of the Departments/Divisions of Fisheries and the Department of Marine Resources to fisheries co-management through materials for the workshops was recognized by JICA. In general, it was felt that fishers collaborated because of the livelihood benefits and because of the new and productive relationships established with wider communities through fish marketing and donations. The better improved relationships with the Government implementing agencies gave fishers felt a sense of belonging. The expectation is that the resource persons listed in the Human Resource Directory will continue to contribute towards sustainable fisheries at the local and regional levels.

11. OPPORTUNITIES TO STRENGTHEN CO- MANAGEMENT OF CARIBBEAN OFFSHORE FAD FISHERIES

This presentation was delivered by Dr. Charles Sidman – Florida Sea Grant, University of Florida.

11.1 Presentation summary

The opportunities to strengthen co-management which were determined in a Workshop designed to characterize co-management of Caribbean offshore FAD fisheries was presented. The process involved sessions that characterized partnerships along a continuum of responsibility-sharing, starting with government controlled arrangements through five steps towards a fisher controlled arrangement. The expected results would be that fishers would arrive at a final stage of a state of readiness to participate in management decisions at the level of the respective Governments.

In order to agree on the state of readiness the fishers were taken through three stages during the Workshop sessions. This involved: (1) identification of common interests for co-management in order to enhance collaboration and cooperation; (2) measures towards greater accountability and for transparency in decisions-making; and (3) motivated organization and participation in decision making.

The outcomes of the Workshop were as follows: (1) fishers' recognition that during the five years of the Project there was a shift in co-management arrangement that over time had moved responsibility-sharing towards fishers making decisions and informing governments; (2) the degree of responsibility-sharing in favour of fishers was slow except for Grenada; and (3) progress towards this shift is not only slow in general, but it also varied from country to country with some countries having a relatively long way to go compared to Grenada. Notwithstanding the slowness of uptake, there is a desire of the FADs organizations to move in this direction.

On the basis of the above, fishers in the Workshop identified four key areas that would provide the framework within which they would identify the critical actions towards responsibility-sharing arrangements in the FAD fishery. The four areas identified to shape the way forward were: (1) Knowledge of and adherence to rules and deployment and maintenance of FADs; (2) Quality of landing sites facilities and services; (3) Increased fisher participation and benefits; and (4) Stability of public FAD programs, particularly in the absence of government or donor funds.

Subsequently, five broad opportunities were identified as having the potential to impact the four areas of improvement selected above. These included:

- (1) Legitimize traditional knowledge transfer in the process of affirming formal and informal FAD rules.
- (2) Develop leadership skills among fishers including capacity to interact with stakeholders as well as government.
- (3) Enforce accountability, particularly formalizing responsibilities in areas such as use of landing sites, sustainable leadership skills, management practices and levels of participation.

- (4) Expand education beyond simply maintaining capacity but offering more by the way of engagement with fishers, stakeholders, and government.
- (5) Promote flexible management by exploring public/private partnerships for the deployment of FADs and encourage purchase of licenses to sustain FADs programs and projects in the future.

11.2 Discussion

In response to a question from the floor on the degree of responsibility-sharing, the answer given was that the Workshop participants were in favour of some measure of Government involvement in the co-management arrangement.

12. GUIDELINES FOR FISHERIES CO-MANAGEMENT

This presentation was delivered by Mr. Minoru Tamura, JICA Expert

12.1 Summary of the presentation.

The presentation introduced the important considerations taken into account in the preparation of the guidelines for fisheries co-management for each of the countries. These considerations were the differences in the country characteristics particularly in areas such as history, ecology and in capacity for co-management and the need for a clear appreciation of the terminologies and definitions used in the guidelines. The main purpose of the presentation was to briefly provide clarification on some of these terminologies and methodologies, some of which are explained below.

Co-management: An understanding and application of the definition of co-management necessitates knowledge of who are the critical partners (fishers, government, fisheries stakeholders, coastal stakeholders and external agencies) and which other partners could add value to the process. In this case, the tourism sector was identified for consideration in the partnership. The goal of co-management should be fairness, sustainability of the fishery resource and shared governance. Accountability and transparency are essential elements of co-management and monitoring tools must be in place.

Arrangement of co-management: Some critical inputs to the process include: strong social and political structures, fishing communities and government that have the capacity to undertake the shared roles, and open access to data. It will also be necessary to know how many fisheries and communities are available and willing to participate in the program. Also, activities need to be set within an established timeframe.

Consultations and data collection: In respect of consultations, efforts should be made to listen and to involve fishers and also to have less meetings and more real activities that benefit the fishers. Data collection should start with a community approach or with a core group and training. In this regard, the participants were reminded to be guided by the results of the socio-economic analysis which showed that 96 percent of fishers trained agreed that they benefitted from the training received. Furthermore, it is an essential part of co-management to involve

local and technical knowledge in training and decision making. In respect of data collection for FAD catch and effort, the recommendation was to start using a simple method.

Other areas to consider: Other areas to consider carefully are the following: sufficiency of information to set the right direction in consultations; selecting or finding the right leaders and or core group; ensuring that training is effective and affordable; FAD user rules are respected, conflicts are avoided and the input of traditional knowledge and ecology is promoted. Attention should also be given to putting in place a sound financial mechanism; ensuring maintenance of the FADs; and marketing of the fish including public awareness to promote fish in the diet.

Sustainability: In terms of sustainability FAD fishers should endeavor to use the regional network and the Human Resource Directory for technical collaborations. Fisher exchange should be encouraged as fishers like to listen to fishers. In addition, the CARIFICO manuals, posters and publications and the CRFM YouTube channel should be accessed at www.crfm.int.

13. CONTINUATION AND FUTURE ACTIVITIES OF FISHERIES CO-MANAGEMENT.

This section provides information on the future goals and activities of the Project Managers for the period (2018-2020).

13.1 St Kitts and Nevis

13.1.1 Presentation summary



The two main activities selected were fisher consultations and strengthening the fisher organization.

Fisher consultation and strengthening of the fisher organization:

The intention is to develop a better relationship with FADs fishers through the 2016 Fisheries, Aquaculture and Marine Act. In order for this to happen the FAD fishers will need to be better prepared to benefit from the 2016 Act. The process described by St. Kitts and Nevis included:

- (a) Consultations for better communication with the FADs fishers in order to determine what is it that they are willing to accept in co-management and what capacity exists to undertake the necessary tasks. This will require the conduct of a needs assessment of capacity or co-management.
- (b) The St. Kitts and Nevis FADs Association will be strengthened through the development of a constitution and by-laws which can also act as the internal rules or code of conduct for the organization.
- (c) Capacity building will give attention to support FAD training and for the development of a Management Plan for the organization. The management plan will be the tool that will guide the level of co-management undertaken by the St Kitts and Nevis FADs Association.

13.1.2 Discussion

CNFO made an observation that based on the presentation it would appear that the St Kitts and Nevis FAD Association was stepping away from consultation and more into improved participation of fishers, thereby requiring a need for a definition of better participation vis a vis consultation. The explanation provided was that in the past there was an attempt to place more responsibility- sharing on the fishers than they could accept. The intention is to conduct a process that will better identify capacity within the St Kitts and Nevis FAD Association, to match that with the level of desired collaboration with the government and stakeholders.

In response to a question on financial sustainability of the Association it was explained that the St Kitts and Nevis FAD Association intends to register under the Department of Cooperatives as a step towards financial sustainability.

CNFO in another intervention endorsed the Project but drew attention to the possibility that non-FAD fishers could be left out of partnerships aimed to improve FAD fisheries. It was pointed out that that FADs have positive and negative attributes and it will necessary for all fisher folk to establish a partnership for enhanced sustainability of all resources and sustainable development in the future.

Subsequent comments were also made about the need to determine whether the Project after 5 years was going forward as a consultative process or a participatory process. It was felt that with this situation it might be useful for the Project Manager and the fishers to engage in discussions with the Department of Marine Resources to assure a common understanding of the support for fisheries co- management in the country. The St Kitts and Nevis FADs Association agreed that there would be need for assistance in this process, in order to ensure a positive outcome.

13.2 Antigua and Barbuda

13.2.1 Presentation summary

The two focus areas selected by Antigua and Barbuda were FAD User Rules and FAD User Fees.

FAD User Rules: The plan presented expects to achieve a level of compliance with the internal FAD rules by at least 85 percent of total fishers in the country and 100 percent from the membership of the FAD Association. Efforts will also be made to encourage members of the Association to become more involved in self-policing of the FADs and in encouraging non-members to become registered users of the FADs. The Association plans to

implement new measures to improve the FAD regulations. In this regard, the 100 meters buffer around the FADs will also be reviewed and the designation of a Government vessel to provide oversight of the FADs will be sought. In addition, members of the Association will be encouraged to report illegal use of the FADs and a series of meetings will be held to familiarize members with the Constitution and ensure that they understand it.

FAD User Fees: The plan in place is to increase the membership base, encourage members to make their payments and also to get members to advocate to users of the FADs the importance of making payments and its role in supporting FAD maintenance. The Association also plans to maintain good records as well as to put in place measures to identify delinquent members and to encourage them to play their roles.

The Association also plans to encourage sports fishers to become paying members of the Association, as they already have the right to catch an amount of 20 pounds around the FADs. Sports fishers not wishing to join will still be encouraged to make the payments in support of the financial needs of the FADs Association. This was considered the best option as restriction to free-riders around the FADs will require legislation and enforcement.

13.2.2 Discussions

The Grenada participant indicated that these future actions had implications for adequate human resource and office space and financing. He asked if the Association was prepared to address these issues.

In response Antigua and Barbuda indicated that the expectation is that the Fisheries Division would continue to provide technical support and office space as fishers would find it difficult to undertake these tasks and to find the financial resources without support. The Fisheries Division would also provide the necessary support services for good financial records and reporting on use of the funds in order to encourage all FAD users to make payments.

Another question from Grenada was whether or not there is a conflict in giving sports fishing access to the FADs. The response given was that the tourists were weekend fishers and indeed were good fishers. Furthermore, there is bag limit of 20 pounds which fishers are not allowed to sell or trade. He pointed out that the recreational fishers are also not considered a threat in any way as they no longer go across droplines and they too have a bag limit of 20 pounds. Recreational fishers who take more than 20 pounds to the landing sites are required to release the additional weight of the catch.

CRFM drew attention to the fact that conflicts from sports fishing was also raised in the previous sessions. Specifically, the concern around the Billfish Fisheries Management Plan in the Wider Caribbean. The billfishes are targeted by sports and recreational fishers as well as small-scale fishers as a source of income and food for local communities. Hence there is potential for conflict between sport fishers and local small-scale fishers. Attention was therefore drawn to the 2017 Draft Caribbean Billfish Management Plan which will be presented for endorsement at the next WECAFC Commission Meeting sometime in 2018. In view of the potential for negative consequences for the Caribbean, the Governments of the region should carefully review the Draft Fisheries Management Plan to ensure that the interests of local small-scale fishers and the food security and livelihoods of fishing communities are not jeopardized.

13.3 Dominica

13.3.1 Presentation summary

The two main activities selected were development of the data collection system; and expansion of fish marketing for both the domestic and export chains.

Data collection system: In terms of the data collection system, the FAD organization is looking towards introducing improved methodologies for better data analysis. These will include analytical models that can be transferred to all fishers along with strengthening the fisher engagement and participation in data collection.

Marketing expansion: In respect of marketing expansion, the intention is to provide training that includes post-harvest handling and certification for improved fish quality, and value added processes to satisfy both export and domestic markets. The aim is to increase income generation through value added processes so as not to put more pressure on the fishery. It is possible that the focus will be on the Diamond Back Squid. However, there will be some delays in implementation of the plans due to the fact that the Fisheries Facility was completely destroyed during the passage of Hurricane Maria in September, 2017.

13.3.2 Discussion

No discussion followed the presentation.

13.4 Saint Lucia

13.4.1 Presentation summary

The two main activities selected were fisher techniques; and working toward a FAD Fund Mechanism.

Fisher techniques: With regard to fisher techniques the focus will be on information sharing and training on the Atlantic side. Activities will include deployment of ten FADs with under water lights and with aggregation devices placed from top to bottom with a focus on Tuna catch. A series of workshops will be conducted for the construction of 100 meter FADs using concrete blocks instead of sandbags. Droplines will be encouraged in the Dennery fishery and there will be a focus on submerged FADs as these do not require maintenance or lights, hence only buoys will be required.

FAD Fund Mechanism: With respect to the proposed funding mechanism, the aim is to work more closely with the Saint Lucia Fisherfolk Cooperative to assist with maintenance through a tax on fuel sold at the various outlets. The amount collected will be one cent per gallon from fuel bought by fishers as well as the public in general.

Saint Lucia will also be giving attention to compliance with FAD rules in order to minimize conflicts. Local fishers will be engaged as consultants to collaborate with the Department of Fisheries to conduct meetings to increase knowledge of the FAD rules among all fishers including sports fishers. The preparation of feasible budgets that would allow the fishers to maintain the FADs will be facilitated through an established management body with representatives from the 5 Fisher organizations. These representatives would be given the necessary training to enhance the managerial skills of the management body. Consultations will continue as necessary and fishers will be motivated to manage their operations as a business.

13.4.2 Discussion

No discussion followed the presentation.

13.5 St. Vincent and the Grenadines

13.5.1 Presentation summary

The two main activities selected were fisher consultations and fish catch database.

Fisher consultation: The intention is to continue to develop the FAD Cooperative into a functioning organization with an effective management structure through consultations with fishers. An officer will also be designated to regularly monitor the structural components of the FADs.

Data collection: The aim is improved coverage for data collection for management and for decision-making. The data form will be modified to a simpler and friendlier format (basically stroke and tick). This is to encourage willingness among the fishers to record the catch. The plan is for data captured to be primarily from Kingstown as the other fishers do not focus on FADs.

13.5.2 Discussion

No discussion followed the presentation.

13.6 Grenada

13.6.1 Presentation summary

The two main areas selected were marketing and FAD maintenance.

Marketing: This will include the refurbishment of the GFFO building for HACCP compliance and the procurement of equipment such as ice machines and cold storage. There will be the necessary market research and development of a management plan for running the Facility.

Considerations will also be given to accommodation of recreational areas and a Conference Room. There will be training of staff, and quarterly promotional activities encouraging the use of fish in the local diet. Fishers will be kept informed of the progress through the preparation of simple graphs to show the trends in marketing at a glance. In this regard, baselines for the preparation of a fish production plan will be established with quantified indicators of success.

In view of the level of financing that will be required to establish the Facility and to manage the operations in areas such as quality assurance, support for the funding will be sought.

FAD Maintenance: The FAD Maintenance Team already in place will continue to use the GFFO boat to conduct the monitoring of the state of the FADs. FADs fishers will conduct monitoring during their regular fishing activity. A functional system to capture data is also already in place and all FADs owned by the GFFO will be maintained by the organization.

13.6.2 Discussion

There was discussion on the potential negative impacts which could emerge from the developments regarding billfish. The presenter felt that while more information needs to be provided to fishers in general on this issue, the amounts fished by Grenada are in fact very small relative to the total fish catch. In general, Grenada does not have a robust sport fishing industry.

13.7 Issues for the Wider CARICOM Fisheries of relevance to the future activities

Subsequent to the presentations on future activities, the participants took the opportunity to use the time remaining to raise some wider issues of urgent concern to CARICOM fisheries which are reported on below.

13.7.1 Climate change and fisheries co-management

There was discussion of the impacts that hurricanes have on the fisheries sector.

The meeting took note of the fact that Hurricane Maria, the most intense tropical cyclone on record, was only one of the most recent hurricanes passing through the OECS sub-region in 2017, and that increasing intensity of these events with climate change and the potential damages to the fisheries sector is predicted. There was therefore a general position that the fisheries sector in all the region need to take on board future likely negative impacts of climate change and climate variability in the region in general.

The consensus was that there is an urgency for strategies to build resilience to climate change and climate variability in order to minimize the impact of damage to equipment and livelihoods. It was also felt that the best way forward would be using a fisheries co-management approach. Continuing the discussion, the meeting felt that another event in Dominica in the short term or even in another country and of the magnitude of Hurricane Maria could wipe out the industry in a country or the OECS region if several countries are devastated. Attention was drawn to the need to adopt a good example such as that of Saint Lucia where the fisheries sector is an integral part of the preparation of a National Climate Change Adaptation Plan.

13.7.2 Implications of some global conservationist approach to fishing

There were some concerns expressed on the wider implications of what was described as the extreme conservationist's type of fishing imposed on developing countries. Reference was made to a project in Jamaica intended to address diversification in the fisheries through FADs and the attitude of resistance by the external partners. It was therefore important that the success of the CARIFICO Project is brought to the attention of the CRFM Forum and Ministers as there is a need for a deliberate strategy to go forward with billfish fisheries to ensure the outcome does not negatively impact our food security and livelihoods.

The CRFM intervention was that WECAFC had just concluded their 8th Meeting of the Scientific Advisory Group which recommended the adoption of a DRAFT Billfish Management and Conservation Plan. This Plan could have significant implications for the small-scale commercial fisheries and there is a need to view this situation as one for urgent consideration at the next sitting of the CRFM Forum and Ministers. Attention was also drawn to the CRFM Draft FAD Fishery Management Plan which has been put on hold but which needs to be fast tracked.

It was noted that decisions are increasingly taken at regional and international levels regarding conservation of fish species and marine areas with negative repercussions on fisheries without adequate involvement of regional governments and fisheries stakeholders. Together these issues require a deeper strategic approach with representation from the Caribbean at the wider intergovernmental and NGO meetings. In view of this there is a need to develop competency in the respective Departments of Fisheries and the Department of Marine Resources, as appropriate to negotiate and participate in these meetings. Furthermore, it is important that the Ministries with responsibility for Foreign Affairs are brought on board to ensure that they are well informed and ready to participate in a manner that protects the rights of the Caribbean fishers.

There was the expressed view that the policy space in which Caribbean member states operate or function in these meetings are sometimes already defined for them before the meeting is convened and decisions are simply rubber stamped at the meeting.

Participants were again urged by different country representatives to review the Draft Billfish Management and Conservation Plan coming out of WECAFC as there is still time to modify and make adjustments. As earlier indicated this document should be studied for discussion at the next CRFM Forum and Ministerial Meetings in 2018, with a view to a coordinated approach at the next meeting of WECAFC. Moreover, there is need to recognize that powerful and influential Non-state actors have different goals from Governments and fishers. Accordingly, the region needs to put its house in order and take into consideration documents such as the Draft Management Plan for FADs and Tuna which the Forum which is still awaiting endorsement while the NGOs are moving forward with their Agenda to promote marine conservation in the region.

14. CARIFICO-CRFM JOINT STATEMENT ON FISHERIES CO - MANAGEMENT



CRFM presented the DRAFT STATEMENT of the Workshop and invited participants to review and make comments and suggestions and agree on a final statement which would be submitted to the Forum and Ministerial Council for release as a general policy statement of the Ministerial Council on the co-management of fisheries in the region. Below are the amendments in red which were made to the different parts of the full document and, endorsed by the meeting.

RECALLING that the Scope of Work for a development study to prepare a Master Plan for sustainable use of fisheries resources for coastal community development in the Caribbean (hereinafter referred to as the Master Plan) was signed by CARICOM, CRFM and the Japan International Cooperation Agency (JICA) on December 15, 2008;

ACKNOWLEDGED the contribution of the Japanese Fisheries Experts who provided technical and scientific advice and support to the fishers and counterpart staff in the national fisheries administrations of the six pilot countries;

ACKNOWLEDGED the involvement, commitment and invaluable contribution of local fishers and their organizations in the planning and implementation of the activities of the Project and achievement of the results:

REAFFIRMED that co-management and other participatory approaches to fisheries management are indispensable for good governance and sustainable use of fisheries, and improving the welfare and livelihoods of fishers and fishing communities in the region;

AGREED that urgent attention should be given to the following proposed future actions to support implementation of the recommendations of the CARIFICO Project to advance co-management and improve governance of fisheries in the Caribbean, which include, *inter alia*, legal and institutional reforms, training and capacity development, public education and awareness building and empowerment of fishers' organizations and fishing communities:

- (1) Work together with stakeholders to further support the sustainable use of pelagic resources in the waters of Member States through deployment, management and monitoring of FADs. This will include the implementation of the Draft Sub-Regional Management Plan for FAD Fisheries in the Eastern Caribbean and development and implementation of regulations, rules, and protocols and guidelines to ensure equitable and orderly access to, and use of FADs, and compliance with agreed measures to ensure conservation and optimum sustainable harvesting of the resources.
- (2) Work together with stakeholders to conduct further research, encourage, promote and share lessons regarding the use of biodegradable panels in fish pots to eliminate ghost fishing by discarded or lost fish pots, and the adaptation of appropriate technology in their fishing operations to improve selectivity of fishing gears.
- (3) Implement, as appropriate, taking into account national objectives and conditions, the “Guidelines for Fisheries Co-Management in the Caribbean Region: Good Practices of CARIFICO participating countries

Training in Support of Co-management and Improved Governance

It is recognized that resource managers, fishers and other stakeholders at the regional, national and community levels are not adequately trained in the actual operation of community based fisheries management. Additional short and long-term training and capacity building at all levels will therefore be required to support the transition to co-management arrangements for specific fisheries in the Caribbean.

Training and capacity building activities may be achieved by, *inter alia*, technical exchanges and study tours among the countries utilizing local and regional trainers from government departments and Fisherfolk organizations developed under the CARIFICO Project and other regional experts to provide practical training and mentoring in co-management.

Member States and development partners in collaboration with fishers’ organizations should therefore give priority to training and capacity building activities to support co-management and improve fisheries governance arrangements in the region.

Co-management to address Climate Change and Disaster Risk Management The biological productivity of fish stocks and the economic viability of fisheries operations vary from place to place and over time in relation to environmental and oceanographic conditions which are changing naturally, from year to year and due to the increasing impacts of global warming and ocean acidification. In addition, coastal communities and marine ecosystems are being affected by sea level rise and increasingly powerful and more frequent storms and hurricanes.

Member States and development partners in collaboration with stakeholders should give urgent attention and support to develop and mainstream climate change adaptation and disaster risk management best practices and build resilience of the fishing communities through co-management approaches and empowerment of fishers’ organizations and fishing communities in the region.

Public Education and Awareness to Improve Co-management

The need to promote improved public understanding of the importance of fisheries for food and nutrition security and livelihoods at the local and national levels, the important role of co-management and other participatory approaches, as well as the measures required for conservation and sustainable use of fisheries is well recognized in the region. There is also a need to provide accurate information to the public about fisheries to counter misinformation and uninformed protectionist measures being promoted by non-state actors.

States, development partners and stakeholders in the fisheries sector need to work together in developing and conducting educational and awareness programmes using the best available information and communication technology tools, public media and social media, in order to improve public awareness and understanding of fisheries issues.

The endorsed STATEMENT can be viewed in **Appendix 7**.

15. RESULTS FROM THE FINAL EVALUATION

15.1 Presentation summary

The presentation covered the purpose of the final evaluation, the achievements of the Project and the conclusions.

15.1.1 Purpose of the Terminal Evaluation

The purpose of the Terminal Evaluation was as follows:

- a) To confirm the progress and achievements of the project as well as the implementation process according to the project design, matrix and plan of operation;
- b) To evaluate comprehensively the project in accordance with five evaluation criteria; relevance, effectiveness, efficiency, impact and sustainability;
- c) To make recommendations to secure sustainability of the project based on the results of the evaluation.



The desired output of the Project was for pilot project activities for fisheries co-management to be implemented in the six target countries, and the experience and knowledge obtained analyzed and documented in each target country and for the technical exchanges of fisheries co-management among the CARIFICO target countries.

In brief the evaluation criteria gave consideration to the validity and necessity to satisfy target beneficiaries and the appropriateness of the interventions to solve problems; the extent to which the project activities implemented benefit the intended beneficiaries; the economic efficiency in the use of the resources or inputs; the longer term direct or indirect impact whether or not these were positive or negative and the sustainability of the project outputs and impact beyond the termination date. These were assessed and evaluated against the overall goal of the Project to implement a fisheries co-management approach in pilot activities in the six participating countries. Against this background, the evaluation sought to determine to what extent fisheries co-management was suitable to each of the target countries and to share the outcomes with other CARICOM countries.

15.1.2 Achievements of the Project

The final results of the evaluation were positive and this was perhaps due largely to the level of collaboration in terms of the input of expertise from the Japanese side and the number of assigned personnel from the target countries which varied from 3- 5 persons. The willingness of the countries to provide inputs in terms of construction materials, facilities for an office and operation cost also contributed to the success of the Project.

Briefly summarized, the results showed that a total of seven good practices of fisheries co-management were established in each of the six target countries and several technical papers and manuals were prepared including the draft publication on *Guidelines for Fisheries Co-Management in the Caribbean Region: Good Practices of CARIFICO Participating Countries*. Resource persons were dispatched across the target countries resulting in twelve fisheries co-management practices being presented at Events. New practices were also introduced from participating countries where they had been developed and tested. For example, the I.D. Card System from Dominica was transferred to St Vincent and the Grenadines and to Antigua and Barbuda. Good practices from Grenada were transferred to Antigua and Barbuda and to Dominica and Ice box making technology from Grenada transferred to Dominica.

In respect of the sharing of experience, the achievements were realized through the hosting of the CRFM / CARIFICO Seminar as described in the body of this document, where the experiences and knowledge of the respective target country are shared across the Caribbean countries. This sharing includes the guidelines for fisheries co-management for seven approaches which were presented in detail.

At the local level, Grenada FADs fishers in collaboration with the Fisheries Division have already started disseminating the experiences in Grenville to other fish landing sites. There was good evidence that more fishers are showing an interest in FADs fishing and encouraging signs of youths' interest in fishing largely due to the fact that the data and information are showing increased productivity and incomes. There is a growing willingness to pay user fees and in terms of impact on the environment there is increased interest in installing bio-degradable panels to reduce ghost fishing. Finally, the preparation and endorsement of a CARIFICO-CRFM Joint Statement on

Fisheries Co-Management by the Caribbean participants in the Seminar confirmed that countries in the region are interested in FAD fisheries co-management.

15.1.3 Conclusions

Based on the analysis, the Evaluation Team concluded that Project process will be fully completed in April 2018. The positive impacts observed are presented below under three subheadings as shown below:

Technical

The positive impacts of the project implementation highlighted improvements in areas of the seven approaches. In respect of the FAD these included: an improved FAD structural design which operates during the period of strong currents in Grenada; and another in deployment in Saint Lucia which reduced the risk of loss through the use of submerged FADs. Increased efficiency of catch and decrease in the amount of fuel was observed in St Vincent and the Grenadines; drop line fishing techniques to capture large Pelagic species were shared in the six target countries; and the use of suitable bio-degradable panels on fish pots to reduce ghost fishing is well advanced in Antigua and Barbuda. There was better collaboration between fishers and Department of Fisheries for data collection and analysis, and a document on Human Inventory for Fisheries Co-management was prepared.

Socio-economic

Increase incomes from fish sales outlets were obtained and in Grenada surplus fish catch was donated to schools, churches and local homes as part of the social contribution to the community. Young persons were showing interest in FADs fishing and some had found employment. Another positive observation was that there was reduction in user conflicts due to the replacement of private FADs with public FADs.

Institutional

Relationships among some fishers and between the fishers and the Fisheries Division in Antigua and Barbuda, Dominica and Saint Lucia have improved. Also, fishers now have more confidence in data and information provided to them due to the participatory approach in data collection. Collaboration from other agencies was also evident as in the case of GIZ where the CARIFICO Project worked along with that agency in FAD deployment.

Environmental

The catch by FADs is significantly smaller when compared to that of other fishing methods, and so the impact on the resource is considered minimal. However, the Project takes precautionary measures by reporting to ICCAT through CRFM. Reduced ghost fishing research on-going in Antigua and Barbuda is expected to contribute to good practices for resource sustainability.

15.1.4 Recommendations

Antigua and Barbuda: The Project should give attention to strengthening the Antigua and Barbuda FAD Fishers Association and to dissemination of Upgraded Fish Pot designs. At the country level these areas were recommended for attention: (1) Sustainable Financial Mechanism; (2) Improvements in FAD data collection; and

(3) Promotion of Pelagic fish and Less Utilized Species to the local consumers; and (4) attention to the staffing assigned.

Dominica: The clarification of assessment of the impact of Hurricane Maria on the FAD fishery and on the conditions of the FADs related facilities (ice making machines and cold storage) require urgent attention. In this regard, the utilization of the Fishers Resource Persons Database and consideration of a FAD Fishers Association Model must be given consideration.

Additionally, it was recommended that consideration is given to: the restoration of essential services (production) lost or disrupted by Hurricane Maria; legislation of FAD fishery regulation and the preparation of a FAD Fishery Management Plan; and institutional development and organizational strengthening of fishers' organizations and the National Association of Fisheries Cooperative. Dominica should also take measures to disseminate the experiences of CARIFICO.

There were also recommendations for Japanese inputs for assistance to the following areas: (a) restoration of essential services and fisheries infrastructures; and (b) resumption of JOCV Volunteer service: and (c) CARIFICO Follow-up.

Saint Lucia: The Project should prepare Action plans for FADs and Conch Fishers, while the country should seek to put in place measures for FADs Fishery co-management strengthening, FAD and Conch fisheries data collection, promotion of the pelagic fishery, and securing adequate staff.

St Vincent and the Grenadines: The Project should seek to strengthen the St Vincent and the Grenadines FAD Cooperative Society Limited and also the communication between the Fisheries Division and the CARIFICO project.

St Kitts and Nevis: The Project should seek to strengthen the FAD Association while at the country level attention should be given to enforcement of fisheries regulations, to FAD data collection and to adequacy of staffing assigned. In addition, work should be continued with the fishermen through consultation and training as well as the establishment and implementation of the FAD rules and regulations. Collaboration with the Cooperative Department should also be strengthened.

Grenada: The Project should seek to dispatch Grenville fishers to other countries to disseminate CARIFICO experiences, and at the country level the progress of the National FAD legislation should continue to be monitored. There should be follow through with capacity enhancement of the GFFO, while securing staff and giving attention to data collection and analysis for information.

APPENDIX 1: AGENDA

**CRFM / CARIFICO REGIONAL SEMINAR:
STRENGTHENING FISHERIES CO-MANAGEMENT IN THE REGION
30 NOVEMBER – 1 DECEMBER 2017 SAINT LUCIA**

DAY 1 – 30 November 2017		
Theme: Fisheries Co-Management Today: Activities and Outputs from the CARIFICO Project		
Time	Contents	Presenters
OPENING CEREMONY		
09:00	Opening Prayer	
09:05	Welcome Remarks	Mr. John Calixte, Permanent Secretary, Department of Agriculture, Fisheries, Natural Resources and Cooperatives, Saint Lucia
09:10	Remarks	Mr. Milton Haughton, Executive Director, CRFM
09:15	Remarks	Mr. Ichiro Mimura, Director, Rural Development Department, JICA
09:20	Feature Address	Honourable Herod Stanislas, Minister of Physical Planning in the Ministry of Agriculture, Fisheries, Physical Planning, Natural Resources and Cooperatives.
09:35	Vote of Thanks	Ms. Sarita Williams-Peter, Chief Fisheries Officer, Saint Lucia
09:45	COFFEE BREAK & PRESS CONFERENCE	
TECHNICAL SESSION		
10:15	Introduction to Participants	
10:20	Overview of CARIFICO	Mr. Minoru Tamura, JICA Expert
10:35	Activities and Outputs of CARIFICO: Co-Management of FAD Fisheries	Mr. Kharim Saddler, Department of Marine Resources, St. Kitts and Nevis
10:50	Ditto	Mr. Hilroy Simon, Fisheries Division, Antigua and Barbuda
11:05	Ditto	Mr. Jullan Defoe, Fisheries Division, Dominica
11:20	Ditto	Mr. Seon Ferrari, Department of Fisheries, Saint. Lucia
11:35	Ditto	Mr. Trovan Ferary, Fisheries Division, St. Vincent and the Grenadines
11:50	Ditto	Mr. Francis Calliste, Fisheries Division, Grenada

12:05	Activities and Outputs from CARIFICO: Co-Management of Fish Pot	Mr. George Looby, Fisheries Division, Antigua and Barbuda
12:20	Activities and Outputs from CARIFICO: Co-Management of Conch Fisheries	Ms. Elana Joseph, Department of Fisheries, Saint Lucia

12:35	LUNCH	
13:30	Socio-Economic Analysis of Offshore Fishers	Dr. Nancy Montes, University of Florida, Florida Sea Grant
14:00	Common Technical Outputs from CARIFICO	Mr. Mitsuhiro Ishida, JICA Expert
14:15	Discussion about the Outputs from CARIFICO	Saint Lucia / CRFM / JICA
15:00	Resource Person Database and Appreciation for Master Fishers	Mr. Mitsuhiro Ishida, JICA Expert
15:10	Speech from Fisher	Mr. Royan Isaac, President of Grenville FAD Fishers Organisation, Grenada
15:15	Speech from Fisher	Mr. Bertley Carrette, Master Fisher, Dominica
15:20	Closing Remarks	CRFM
15:30	End	

DAY 2 – 1 DECEMBER 2017

Theme: Fisheries Co-Management in the Future: Dissemination of Outputs from the CARIFICO Project

TECHNICAL SESSION (Cont'd)

09:00	Opportunities to Strengthen Co-Management of Caribbean Offshore FAD Fisheries	Dr. Charles Sidman, Florida Sea Grant, University of Florida
09:15	Guidelines for Fisheries Co-Management	Mr. Minoru Tamura, JICA Expert
09:30	Continuation and Future Activities of Fisheries Co-Management	Mr. Kharim Saddler, Department of Marine Resources, St. Kitts and Nevis
09:40	Ditto	Mr. Hilroy Simon, Fisheries Division, Antigua and Barbuda
09:50	Ditto	Mr. Jullan Defoe, Fisheries Division, Dominica
10:00	Ditto	Mr. Seon Ferrari, Department of Fisheries, Saint Lucia
10:10	Ditto	Mr. Trovan Ferary, Fisheries Division, St. Vincent and the Grenadines
10:20	Ditto	Mr. Francis Calliste, Fisheries Division, Grenada
10:30	COFFEE BREAK	
10:45	CARIFICO-CRFM Joint Statement on Fisheries Co-Management	CRFM
11:00	Discussion about the Future Direction of Fisheries Co-Management and the Statement	Saint Lucia / CRFM / JICA

11:30	Endorsement of CARIFICO-CRFM Joint Statement	CRFM
11:45	The Results from Final Evaluation	Mr. Satoshi Chikami (Dr. Hideaki Higashino) JICA Senior Advisor (RECS International Inc.)
12:15	Closing Remarks	Ms. Sarita William-Peter, Chief Fisheries Officer, Saint Lucia
12:20	Closing Remarks	Mr. Milton Haughton, Executive Director, CRFM
12:25	Closing Remarks	Mr. Masaru Honda, JICA Chief Advisor
12:30	End	

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APPENDIX 3: ADDRESS BY THE EXECUTIVE DIRECTOR, CRFM SECRETARIAT, MR. MILTON HAUGHTON

Ladies and gentlemen, on behalf of the Ministry of Agriculture, Fisheries, Physical Planning, Natural Resources and Co-operatives, it is my pleasant duty to bid you all a genial welcome. We are delighted to have you here to participate and share in this CFRM conference. Thank you for coming. That many of you travel long distances serves to remind us all just how important our work is.

The Caribbean territories continue to experience many challenges in relation to the management of its fisheries resources, which contribute to the overexploitation or full exploitation of commercially targeted species which have habitats in the near-shore waters.

Other issues that we, in the Caribbean, experience include: the lack of capacity to formulate and implement fisheries policies, developmental and management strategies because of the lack of critical inputs (including institutional capacity and effective stakeholder participation). Illegal, unreported and unregulated (IUU) fishing is another big threat to fisheries management in the region. This is further magnified by the migratory nature of certain fisheries resources and the absence of technical and financial resources required for effective surveillance and enforcement. We are sorely in need of an information system aimed at management planning and decision-making. There is, currently, insufficient data, human capacity for research, scientific and technical skills for effective and efficient resource management in the Fisheries Departments of many member countries.

CRFM, through its mission statement: “to promote and facilitate the responsible utilization of the region’s fisheries and other aquatic resources for the economic and social benefits of the current and future population of the region”, has been dedicated to the regional efforts of promoting sustainable development of the fisheries sectors of the Caribbean States.

Since its inauguration in 2003, CRFM has undertaken many initiatives geared towards the sustainable development of the fisheries sector and by extension, those whose livelihoods are directly dependent on this vital sector. Those included ongoing campaigns aimed at harnessing the income potential along the fisheries value chain and also bringing awareness to all the possible linkages which exist between fisheries and tourism. CRFM has been collaborating with its member states to enhance blue growth which refers to the long-term strategy to support sustainable growth in the marine and maritime sectors as a whole. This is being done through the improvement of fish handling techniques which enables greater access to foreign markets. This in turn enhances the region’s potential to earn foreign exchange while at the same time increasing employment.

CRFM is also coordinating Fisheries co-management in the region. This is a flexible process that government and resource users share the responsibility and authority for management of aquatic resources. Today, co-management is recognized as an effective approach for the sustainable management of small-scale fishery

engaged by most fishers in the Caribbean island states. CARIFICO, in collaboration with government agencies, fishers and local partners, aims to develop co-management approach unique each country. The project is co-financed by the Government of Japan through JICA.

In an effort to gain further access to the global markets, the CRFM has been very active in reforming the sector by integrating international food handling and safety standards with Sanitary and Phytosanitary (SPS) guidelines which are essential for export trade.

The aforementioned are just a limited number of activities undertaken by the CRFM geared towards building the capacity of the Caribbean region in order to capitalize on its fisheries wealth while at the same time, ensuring sustainability and economic growth.

In closing, I would like to thank each of you for attending this auspicious event and bringing your expertise to our gathering. You, as organization leaders, have the vision, the knowledge, the wherewithal and the experience to help us pave our way into the future. You are truly our greatest asset today and tomorrow, and we could not accomplish what we do without your support and leadership. Throughout this conference, I ask you to stay engaged, keep us proactive and help us shape the future of our Fisheries Sector. My personal respect and thanks goes out to all of you.

APPENDIX 4: ADDRESS BY MINISTER OF DEPARTMENT OF PHYSICAL PLANNING THE HONOURABLE HEROD STANISLAS

As the curtains of daylight descend upon our planet with rays of sunshine reflecting bright sparks of warmth and cute smiles as is evident of your lovely faces, we give thanks that we wake up every morning to the splendor and magnificence of nature's paradise.

The honour remains mine on behalf of the Government and people of Saint Lucia and the *Ministry of Agriculture, Fisheries, Physical Planning, Natural Resources and Co-operatives*, to share with you through this CRFM/CARIFICO project, a perspective which is expected to enhance our knowledge and implementation of sustainable fisheries co-management in the region.

Colleagues, it is crucial that we continue to recognize and acknowledge the importance of a sustainably managed Fisheries sector pivoted on the fulcrum of efficient resource allocation and enhanced food security, in addition to the reduction of poverty through the provision of secure livelihoods in the rural sector.

Sustainable development, management and leadership hangs on the door of the kind of development "*that meets the needs of the present generation without compromising the ability of future generations to meet their own needs*". In essence, for there to be a sustainably managed Fisheries sector, there must be an accompanying set of principles, policies or guidelines that is based on values that are:

1. Socially acceptable,
2. Economically feasible and
3. Environmentally sound.

Friends, the relentless and unstoppable force of globalization and the immutable actions and impacts of climate change can easily air brush the impacts that the Fisheries sector plays in building the resilience of our small islands to both external and internal shocks. It is estimated that the fisheries sector provides approximately 142,000 direct and indirect jobs in the Caribbean. The provision of jobs delves beyond primary production to ancillary and value-added services including processing, packaging and the sale, construction and maintenance of boats and equipment.

Growth experienced in the number of fishers and excessive catch have resulted in negative effects such as decreasing fisheries resources including conch, lobster, and red snapper; and subdued livelihood effects on fishermen due to reduced consistent income. A concerted effort must be directed toward mitigating these effects which ultimately constrict possibilities of maximizing gains from the Fishing Sector.

The CRFM/CARIFICO project has contributed significantly toward the mitigation of such negative effects. Further, it is envisaged that benefits such as a reduction of the leakage of foreign exchange due to the high dependence

on fish imports will ultimately accrue. Various initiatives including the organization of FAD fishers, technical trainings and capacity building of fishers and fisheries officers, draft FAD regulations, and knowledge transfer on co-management approaches through lessons learnt by other participating countries all contribute toward the advancement of the fisheries sector of member countries. These initiatives also contribute to institutional strengthening, strengthening of stakeholder active participation in the decision-making process, as well as increasing the average income of fishers while maintaining sustainable fisheries.

Member states are poised to capitalize on advantages presented in fisheries co-management such as enhanced economic opportunities including the increase in livelihood opportunities presented to rural communities, reduction in poverty, enhanced food security and more efficient allocation of scarce natural resources. However, we must ensure that the existing policy, legislative, and legal framework which underpins the successful implementation of fisheries co-management in the region are adequately suited and designed to accomplish this task. The significance of local and national support cannot be overstated. We must ensure that national support is provided through the alignment of long and medium term goals of the country as outlined in the national plans and the accompanying strategies, as such ensuring that governance structures are aligned with this initiative.

Recognizing the need to ensure sustainability and limited contribution to the adverse effects of climate change, we welcome initiatives geared toward the alignment of local strategies and policies to global goals and initiatives including the Sustainable Development Goals (SDGs) such as SDG 14 or life below water and the SAMOA Pathway theme of food security.

With increased focus placed on sustainability and ensuring the availability of adequate resources for future generations, it is of utmost importance that strategies and initiatives geared toward the advancement of fisheries co-management are not siloed. Continued consideration must be given to:

- coastal land use;
- maritime transportation of goods and people;
- agricultural activity near the coast; and
- mitigating threats to our coasts and marine resources.

Notwithstanding the difficulty in managing access to common-pool resources, the methods of fishing and the intensity with which it is undertaken should be closely monitored. The likelihood of the successful implementation and sustainability of fisheries co-management system increases with the use of a participatory approach. The utilization of the integrated approach ensures that fishers are involved in the decision-making process despite their small-scale nature.

In essence, following the principles to the successful governance of common-pool resources by Nobel Prize winner Elinor Ostrom, we must ensure that fisheries co-management strategies are buoyed by:

- Rules that are organized and enforced; clearly-defined boundaries;

- decisions made through collective-choice arrangements;
- congruence between the resource environment and its governance structure or rules; punishment of violations;
- use of low-cost and easy-to-access conflict resolution mechanisms; and
- Recognition by higher-level authorities of the right of the resource appropriators to self-govern.

As I conclude, I would like to place on the nucleus of your minds, the importance of fisheries and the oceans in terms of its strategic importance and the fact that it is an irreplaceable resource for our island states, which contributes phenomenally to the economic and social advancement of our people.

In this regard, member states must always remain committed through passionate intensity to foster cooperation and collaboration at all levels in the conservation, leadership, management and sustainable utilization of fisheries resources and related ecosystems for the welfare and well-being of our Caribbean people. To do so meaningfully and effectively there is an urgent need to ensure that:

- Rhetoric supports rather than replaces concrete actions and that
- Political will remains the principal oil which lubricates the intercourse of social dialogue accompanied by resource allocation,
- Collaboration and sharing of knowledge, technology, and intuitional repositories of experiences, circulate with startling regularity among and between regional and international partners, in the effort to ensure that our fisheries resources and priorities are adequately managed and not sacrificed on the altar of development.

Colleagues and friends, advocates, planners, resource leaders and managers, among the key factors identified as pivotal to the success of our committed endeavors in achieving sustainably managed fisheries resources, the following may invite your consideration if not that of mankind:

- Broadening the consultation base during the mobilization phase of programme initiatives to meaningfully integrated and include the resource users,
- facilitate effective community participation and representation,
- Preparedness by both the implementing institutions and participating communities is also highlighted as key to effective mobilization.

Naturally colleagues, this means moving away from a conventional consultative forum, to a more multi-faceted approach that will facilitate capturing the views of diverse user groups within the community. Additionally, feasibility studies are needed to address socio-economic, political and cultural characteristics inherent in communities so as to guide programme planning and implementation.

Friends, remember that this is all about the people we serve and if we are to achieve increased community participation and enhance positive conservation attitudes, it is most critical that we adopt a mobilization approach and practice that will effectively facilitate a people centric approach to the process of meaningful development.

I thank you.

APPENDIX 5: ADDRESS BY DIRECTOR, RURAL DEVELOPMENT DEPARTMENT, JICA MR. ICHIRO MIMURA

I would like to express my sincere thanks to all the participants for exchanging their positive opinions and comments at this regional seminar. I am proud to be involved in such positive and exciting discussions by the participants as they find out the way for sustainable fisheries co-management in the region.

As head of JICA Overseas Office in the Caribbean region, covering 10 countries including St. Lucia, sustainable development to overcome current vulnerabilities facing the Caribbean region has always been my concern for all of the targeted sectors of our assistance in the region. Sustainable fisheries co-management is also considered the key to fisheries development in the region for being resilient against those vulnerabilities.

Through the seminar, the experiences of each country and lessons learned through trials and errors by each country have been shared among all the participants. Also, unique, advanced and innovative co-management approaches have been introduced and shared among all the participants.

I understand that each country has different circumstances and different conditions in strengthening its Fisheries Co-Management.

However, through the seminar and by exchanging views for further clarification of those methods and approaches and for considering the possibility to adapt those methods in your country's case, I believe that participants will find out the way or have a concrete idea of how their country's advanced approach and practice for co-management can be applicable to another's country, with some changes or modifications.

Additionally, these good practices will be expanded region-wide and these efforts can contribute to common and mutually beneficial for sustainable development of the fisheries sector in the region.

Moreover, through this seminar, a necessary database of resource persons is shared among participants. That can be a great asset for you and it will help you when you need advice from those resource persons.

I believe this regional human network can be the key to improving your approach towards a practical method for strengthening fisheries co-management in your place and also the key for sustainable and resilient fisheries development as a common benefit of the people living in the region.

The CARIFICO Project will complete its 5 year cooperation at the end of April 2018. I hope this seminar was all of you and that you will effectively and efficiently utilize the remaining 5 months. I believe for the remaining period, the three JICA experts on the CARIFICO Project will make their best effort to support your ownership and commitment to strengthening fisheries co-management in your countries and sustainable fisheries co-management in the region.

Lastly, I would like to express my sincere gratitude to P.S. Mr. John Calixte; Chief Fisheries Officer, Ms. Sarita Peter of the Department of Fisheries and Mr. Milton Haughton, Executive Director, CRFM Secretariat for presiding the seminar and leading us through the entire session. I would also like to extend my sincere thanks to all the stakeholders of the CARIFICO project for your great effort to successfully complete this seminar.

Thank you for your cooperation.

APPENDIX 6: ADDRESS BY CHIEF ADVISOR-FISHERIES DEVELOPMENT CARIBBEAN JICA-
FISHERIES-CO-MANAGEMENT PROJECT CARIFICO
MR. MASARU HONDA

Ladies and Gentlemen. It is indeed a great honor for me to address you today on the occasion of the Closing CARIFICO- CRFM Regional Seminar. This morning we had the last session of our 2-day seminar on Fisheries-Co-management in our target countries. We heard many presentations and discussion on ways to sustain the fisheries co-management and at the same time make it socially productive. We had lively discussions and we shared our opinions on practical ways to balance the implementation and development of Fisheries co-management.

The opportunity to exchange our views is significant, I believe. In this sense, in our spirit of cooperation, this seminar has been a success. I believe that the participants in this seminar are now better prepared and equipped to tackle the fisheries co-management in their home countries and that they will be able to do so more effectively than before.

I would like to extend my deep appreciation to the Government of St. Kitts and Nevis, Antigua and Barbuda, Commonwealth of Dominica, St. Lucia, St. Vincent and the Grenadines, Grenada and all stakeholders of CARIFICO and the agencies concerned including Caribbean Regional Fisheries Mechanism (CRFM), University of Florida and fisherfolk organizations for their great contribution to the success of this seminar.

I also wish all the best to the participants in the seminar for their future efforts directed towards the improvement of fisheries co-management in their respective countries.

In conclusion, we would like to express the hope that this seminar will help further cement the mutual goodwill and friendly relations existing between Japan and not only OECS but also CARICOM in general.

Thank you

APPENDIX 7: STATEMENT OF OUTCOME OF THE FINAL DISSEMINATION WORKSHOP OF THE JICA FUNDED CARIBBEAN FISHERIES CO-MANAGEMENT PROJECT HELD IN CASTRIES, SAINT LUCIA, NOVEMBER 30 TO DECEMBER 1, 2017

[Comments: the statement has been revised based on the comments and suggestions of the Regional Seminar Nov 30 to Dec 1. It will be submitted to the Forum and Ministerial Council for approval as a statement of the Ministerial Council on the co-management of fisheries in the region]

STATEMENT OF THE OUTCOME OF THE FINAL DISSEMINATION WORKSHOP OF THE CARIBBEAN FISHERIES CO-MANAGEMENT PROJECT HELD IN CASTRIES, SAINT LUCIA, NOVEMBER 30 TO DECEMBER 1, 2017

DRAFT

THE MINISTERIAL COUNCIL,

RECALLING the partnership agreement between CARICOM and Japan entitled “A New Framework for Japan-CARICOM Cooperation for the Twenty-first Century” adopted in Tokyo, Japan on 8th November 2000;

RECALLING the “Partnership for Peace, Development and Prosperity between Japan and the Member States of the Caribbean Community (CARICOM)”, which was adopted by the Minister for Foreign Affairs of Japan and the Ministers responsible for Foreign Affairs of the Member States of the Caribbean Community and other Heads of Delegations, in Tokyo, Japan on 2nd September 2010, giving further direction to future Japan-CARICOM relations;

RECALLING that the Scope of Work for a development study to prepare a Master Plan for sustainable use of fisheries resources for coastal community development in the Caribbean (hereinafter referred to as the Master Plan) was signed by CARICOM, CRFM and the Japan International Cooperation Agency (JICA) on December 15, 2008;

RECALLING that the Master Plan Study Report and Recommendations which was adopted by the CARICOM States in February 2012, identified the need for follow up support to the CARICOM States to: (1) establish practical fisheries co-management models for sustainable use and management of the fisheries resources; (2) promote participatory resource management and development; and (3) formulate and strengthen regional networking by sharing local experiences and lessons learnt in each country;

RECALLING that in response to the recommendations of the Master Plan Report, the Governments of six CARICOM States, Antigua and Barbuda, the Commonwealth of Dominica, Grenada, Saint Kitts and Nevis, Saint Lucia, and Saint Vincent and the Grenadines, requested the support of the Government of Japan for a technical cooperation project to develop fisheries co-management approaches in the Caribbean region;

RECALLING that in response to the request, the Government of Japan through JICA conducted a detailed survey and consultation with stakeholders in the countries and formulated a project entitled the, “Caribbean Fisheries Co-management Project” (hereinafter referred to as “**The Project**” or “**CARIFICO**”) with the overall goal of

developing and implementing fisheries co-management approaches in six pilot countries and disseminating and applying the results and knowledge acquired in the pilot countries to the other CARICOM States;

RECALLING that the specific purpose of the Project is to develop and implement fisheries co-management approaches in each of the target countries, and that the main target areas are: (1) co-management of the pelagic resources through the use of fish aggregating device (hereinafter referred to as “**FAD**”); co-management of the queen conch resources with the aim of revitalizing the stocks in Saint Lucia; and co-management of the fish pot fishery in Antigua and Barbuda.

NOTING the progress of the activities under the Project, including the results of the pilot projects implemented and the progressive strengthening of fisheries co-management arrangements in the six pilot countries in the Eastern Caribbean, and the improvement in knowledge and capacity for co-management and sustainable use of fisheries, which will contribute to food security and improved livelihoods of coastal communities of all CARICOM Member States;

ACKNOWLEDGING the importance of fisheries to the social and economic development of the region, and the need to improve governance arrangements through co-management and participatory approaches in order to improve food and nutrition security, livelihoods and welfare of fishers and fishing communities, and ensure long term sustainable use of the fisheries resources and protection of the marine ecosystems;

EXPRESSED appreciation to the Government of Japan including JICA for the technical assistance and support provided through the Project for sustainable use, conservation and management of the fisheries of the CARICOM Member States through the implementation of pilot projects to develop fisheries co-management approaches in six target countries in the OECS Sub-region, and sharing of the results obtained with the other CARICOM countries;

ACKNOWLEDGED the contribution of the Japanese Fisheries Experts who provided technical and scientific advice and support to the fishers and counterpart staff in the national fisheries administrations of the six pilot countries;

REAFFIRMED the value attached to continued cooperation and support from the Government of Japan for improved governance and sustainable use and conservation of the region’s fisheries resources;

ACKNOWLEDGED the involvement, commitment and invaluable contribution of local fishers and their organizations in the planning and implementation of the activities of the Project and achievement of the results;

REAFFIRMED that co-management and other participatory approaches to fisheries management are indispensable for good governance and sustainable use of fisheries, and improving the welfare and livelihoods of fishers and fishing communities in the region;

WELCOMED the preparation of the “*Guidelines for Fisheries Co-Management in the Caribbean Region: Good Practices of CARIFICO participating countries*”, and noted its usefulness in sharing regional best practices in

introducing and implementing co-management approaches for specific fisheries in the region such as FAD fisheries, conch fisheries or fish-pot fisheries;

AGREED that Member States should continue to support and enhance their efforts to develop and implement policies, programmes and projects designed to promote and strengthen co-management and other participatory approaches to achieve sustainable use and management of the region's marine living resources;

CALLED UPON Member States and international development partners and donors including the Government of Japan to provide additional technical assistance and funding support for co-management and other participatory approaches to fisheries management, including, but not limited to, capacity building and empowerment of fishers and their organizations to enable them to effectively engage with government authorities and carry out their responsibilities as co-managers.

FUTURE ACTIVITIES

THE MINISTERIAL COUNCIL,

AGREED that urgent attention should be given to the following proposed future actions to support implementation of the recommendations of the CARIFICO Project to advance co-management and improve governance of fisheries in the Caribbean, which include, *inter alia*, legal and institutional reforms, training and capacity development, public education and awareness building and empowerment of fishers' organizations and fishing communities:

1. Support for Implementation of Co-management

With the expected completion date of April 2018 for the CARIFICO Project, additional funding and technical assistance are needed to consolidate the gains already made and support implementation of the activities needed to transform and institutionalize the co-management models developed, based on the priority areas and reforms identified by the pilot projects. In this regard, Member States in collaboration with development partners as may be appropriate should:

- (1) Work together with stakeholders to further support the sustainable use of pelagic resources in the waters of Member States through deployment, management and monitoring of FADs. This will include the implementation of the Draft Sub-Regional Management Plan for FAD Fisheries in the Eastern Caribbean and development and implementation of regulations, rules, and protocols and guidelines to ensure equitable and orderly access to, and use of FADs, and compliance with agreed measures to ensure conservation and optimum sustainable harvesting of the resources.
- (2) Work together with stakeholders to conduct further research, encourage, promote and share lessons regarding the use of biodegradable panels in fish pots to eliminate ghost fishing by discarded or lost fish

pots, and the adaptation of appropriate technology in their fishing operations to improve selectivity of fishing gears.

- (3) Implement, as appropriate, taking into account national objectives and conditions, the “Guidelines for Fisheries Co-Management in the Caribbean Region: Good Practices of CARIFICO participating countries”.
- (4) Work together with stakeholders to further strengthen and expand data collection and monitoring programmes for FAD, pot and other fisheries. Data should be collected and shared with Member States and with other competent organizations and stakeholders to facilitate effective assessment and monitoring of the stocks and preparation of conservation and management advice.
- (5) Develop a protocol on co-management within the framework of the Caribbean Community Common Fisheries Policy. The Protocol would establish an agreed CARICOM regional policy framework setting out the region’s commitment to co-management and principles and standards for harmonized national actions to develop and manage FAD fisheries in a sustainable and responsible manner consistent with international and national legal obligations.

2. Training in Support of Co-management and Improved Governance

It is recognized that resource managers, fishers and other stakeholders at the regional, national and community levels are not adequately trained in the actual operation of community based fisheries management. Additional short and long-term training and capacity building at all levels will therefore be required to support the transition to co-management arrangements for specific fisheries in the Caribbean.

Training and capacity building activities may be achieved by, *inter alia*, technical exchanges and study tours among the countries utilizing local and regional trainers from government departments and fisherfolk organizations developed under the CARIFICO Project and other regional experts to provide practical training and mentoring in co-management.

Member States and development partners in collaboration with fishers’ organizations should therefore give priority to training and capacity building activities to support co-management and improve fisheries governance arrangements in the region.

3. Co-management to address Climate Change and Disaster Risk Management

The biological productivity of fish stocks and the economic viability of fisheries operations vary from place to place and over time in relation to environmental and oceanographic conditions which are changing naturally, from year to year and due to the increasing impacts of global warming and ocean acidification. In addition, coastal communities and marine ecosystems are being affected by sea level rise and increasingly powerful and more frequent storms and hurricanes.

The destruction and devastation caused by recent hurricanes in the Caribbean underscore the urgent need for action to build resilience to climate change. Hurricanes Irma and Maria devastated or damaged the economies of several Caribbean States, including Antigua and Barbuda, Anguilla, Bahamas, Cuba, Dominica, Dominican

Republic, Haiti, Puerto Rico, Saint Kitts and Nevis, Saint Martin, St. Barthelemy, Turks and Caicos, and Virgin Islands, among others. Member States and development partners in collaboration with stakeholders should give urgent attention and support to develop and mainstream climate change adaptation and disaster risk management best practices and build resilience of the fishing communities through co-management approaches and empowerment of fishers' organizations and fishing communities in the region.

4. Public Education and Awareness to Improve Co-management

The need to promote improved public understanding of the importance of fisheries for food and nutrition security and livelihoods at the local and national levels, the important role of co-management and other participatory approaches, as well as the measures required for conservation and sustainable use of fisheries is well recognized in the region. There is also a need to provide accurate information to the public about fisheries to counter misinformation and uninformed protectionist measures being promoted by some non-state actors.

States, development partners and stakeholders in the fisheries sector should work together in developing and conducting educational and awareness programmes using the best available information and communication technology tools, public media and social media, in order to improve public awareness and understanding of fisheries issues.

Report of CRFM / CARIFICO Seminar: Strengthening Fisheries Co-management in the Region
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