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TECHNICAL SUPPORT TO ENHANCE THE GOVERNANCE ARRANGEMENTS FOR EASTERN CARIBBEAN FLYINGFISH FISHERIES

FINAL TECHNICAL REPORT



CRFM Technical & Advisory Document – Number 2019 / 03

Technical Support to Enhance the Governance Arrangements for Eastern Caribbean Flyingfish Fisheries: Final Technical Report

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CRFM Secretariat Belize, 2019

CRFM Technical & Advisory Document – Number 2019 / 03 Technical Support to Enhance the Governance Arrangements for Eastern Caribbean Flyingfish Fisheries: Final Technical Report

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Disclaimer

This publication has been produced for the CRFM. However, the views expressed herein are those of the authors, and can therefore in no way be taken to reflect the official opinions of the CRFM.

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Saint Vincent and the Grenadines (Salt Whistle Bay)
Jason Pratt

EXECUTIVE SUMMARY

This document provides a summary of Blue Earth's approach, methods, activities, and recommendations as they pertain to our CRFM consultancy titled: Technical Support to Enhance the Governance Arrangements for Implementing an Ecosystem Approach for Flyingfish Fisheries (Governance). Blue Earth's Governance consultancy was one of six consultancies managed by the CRFM that composed the sustainable fisheries sub-strategy relating to flyingfish fisheries as part of the UNDP / GEF funded project, Catalysing Implementation of the Strategic Action Programme for the Sustainable Management of Shared Living Marine Resources in the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+). The Governance consultancy's primary deliverables were a revised ECFF-FMP (an update to the 2014 ECFF-FMP) (Annex F), a sub-regional Data Policy (Annex H), a Cooperation Agreement between the CRFM's Member States and France (Martinique) (Annex G), and an impact assessment tool for Eastern Caribbean flyingfish fisheries (Annex K). The consultancy began in February 2017 and ended in May 2019. Its start date was delayed, causing the CRFM to reduce its timeline from 31 months to 27 months. Blue Earth used two sub-contractors (Impact Mer and Mark Tupper) to develop the consultancy's deliverables (specifically the Cooperation Agreement and the revised ECFF-FMP).

The CRFM designed its CLME+ projects to give ownership of the work to the Governance consultancy's participating countries (Barbados, Dominica, Grenada, St. Lucia, St, Vincent and the Grenadines, Trinidad and Tobago) by allowing fisheries divisions (national focal points) to develop their own incountry flyingfish fishery management outreach activities with local stakeholder groups (fishers, fisherfolk organizations, and cooperatives). This approach differed slightly from Blue Earth's original proposal, and after receiving feedback from the CRFM, we re-wrote the proposal's scope. In this way, Blue Earth played the role of consultancy manager and provided technical assistance and support to national focal points who then implemented an awareness building and consultative process in each of the six CLME+ Eastern Caribbean countries. As part of this process, Blue Earth, the CRFM, and national focal points supported two country specific meetings (Dominica, St. Lucia) with local stakeholders and one regional meeting with regional technical level organizations. Together, these three meetings built awareness among the greater flyingfish community for ecosystem-based management strategies for flyingfish in the Eastern Caribbean. The meetings also allowed local stakeholders to recommend revisions to the revised ECFF-FMP, Data Policy, and Cooperation Agreement.

We reported our progress to the CRFM in a series of 13 bi-monthly progress reports. As part of the reporting and document submission process, we included recommendations that can be used by the CRFM and national focal points to aid their efforts to develop a sub-regional ecosystem-based approach to flyingfish fisheries management. We also provided the CRFM with lessons learned that emerged from the consultative process that, will aid national focal points' and the CRFM's ongoing flyingfish management efforts. These included the following:

- Staff, financial, and infrastructure resources for flyingfish management are lacking across the region. Without financial and technical support for fisheries management activities, Eastern Caribbean countries will be challenged to implement the revised ECFF-FMP.
- Additional financial resources will be needed to implement many aspects of the revised ECFF-FMP, Data Policy, and Cooperation Agreement, and consultancy participants should begin researching these as soon as possible.
- Local stakeholder involvement and expertise is a critical component of cooperation building efforts.

- **Technical body capacity must be strengthened** if the Cooperation Agreement and the Data Policy are to improve shared living marine resource management in the Eastern Caribbean.
- **Political-level agreement for the Cooperation Agreement** between the CRFM and Martinique within the timeframe of the CLME+ Project was infeasible, and the CRFM will pursue a more practical technical level agreement.

ACRONYMS

CLME+ Catalysing Implementation of the Strategic Action Programme for the

Sustainable Management of Shared Living Marine Resources in the Caribbean

and North Brazil Shelf Large Marine Ecosystems

CRFM Caribbean Regional Fisheries Mechanism

ECFF-FMP Eastern Caribbean Flyingfish Fisheries Management Plan

FAC Fisheries Advisory Committee
 FMP Fisheries Management Plan
 GEF Global Environment Facility

NIC National Inter-sectoral Committee

TOR Term of Reference

UNDP United Nations Development Programme

WECAFC Western Central Atlantic Fishery Commission

INTRODUCTION

The purpose of this final report is to provide the CRFM's Member States; national fisheries division staff (national focal points); local stakeholders including flyingfish vendors, boat owners, fishers, fisherfolk organizations, and cooperatives; and regional technical level organizations with a summary of Blue Earth's and the CRFM's contributions to the UNDP/GEF funded *Catalysing Implementation of the Strategic Action Programme for the Sustainable Management of Shared Living Marine Resources in the Caribbean and North Brazil Shelf Large Marine Ecosystems* (CLME+) project. The report refers to Blue Earth's CRFM consultancy titled: Technical Support to Enhance the Governance Arrangements for Implementing an Ecosystem Approach for Flyingfish Fisheries (Governance). This consultancy sought to foster long-term human well-being of the local stakeholders of the Eastern Caribbean flyingfish fishery (Barbados, Dominica, Grenada, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago) by enhancing the governance arrangements for implementing an ecosystem approach to flyingfish fisheries management.

The CLME+ project joins countries and regional organizations and stakeholders, like the CRFM, to work toward sustainable management of the shared living marine resources of the Caribbean Large Marine Ecosystem and adjacent regions. Under the strategic action plan for the CLME+ project, there is a specific sustainable fisheries substrategy relating to flyingfish fisheries, including through inter-sectoral coordination and implementing the ecosystem-based approach to fisheries management. Blue Earth's Governance consultancy formed one of the six components of the work on this sub-strategy.



Flyingfish Catch Harvey

In this final report, we present our methodology and the activities that we and the CRFM designed and performed to produce the consultancy's deliverables. We divided the report into 13 sections. In section two we introduce Blue Earth's and the CRFM's approach to the Governance consultancy. In section three we provide comments on the consultancy's terms of reference (TOR). In sections four through six we present the consultancy's methods, our delivery of the TOR, and we describe how both organizations carried out the consultancy's activities. We then describe consultancy mobilization and national missions' aspects in sections seven and eight. In sections nine, 10, and 11, we explain the reporting procedures that we used with the CRFM, the consultancy's technical aspects, and offer some conclusions on the revised ECFF-FMP, Data Policy, and Cooperation Agreement development process. In section 12, we offer a list of recommendations that can be used by the CRFM and national focal points to aid their efforts to develop a sub-regional ecosystem-based approach to flyingfish fisheries management, and we provide lessons learned that emerged from the consultative process. Lastly, as part of the report's annexes (section 13), we include the consultancy's deliverables. For the Governance consultancy, these comprise the revised ECFF-FMP, the Sub-regional Data Policy for Eastern Caribbean Flyingfish, the Caribbean Regional Fisheries Mechanism-France Cooperation Agreement, and an impact assessment tool, along with various other reports on consultancy activities.

APPROACH TO THE ASSIGNMENT

The CRFM designed its CLME+ consultancies to give ownership of the work to the participating countries by allowing fisheries divisions to take on their own in-country activities. In this context, Blue Earth and the CRFM supported the work of national focal points, compiled the information they obtained from local stakeholder groups, and used it to develop many of the consultancies' deliverables including the revised ECFF-FMP. This approach allowed countries to take ownership in the consultancy, thus increasing the chances that its deliverables would be adopted by policy makers and ultimately achieve political level agreements. The approach was also designed by the CRFM and implemented by Blue Earth to maximize the consultancy's impacts given CLME+ project budget restrictions.

COMMENTS ON TERMS OF REFERENCE

After submitting our first proposal based on our interpretation of the consultancy's scope of work, the CRFM requested that we revise our approach to implementing the consultancy to allow national focal points to develop their own in-country flyingfish fishery management outreach activities with local stakeholder groups. Our amended scope of work and approach gave more on-the-groundwork and leadership responsibilities to national focal points, and by doing so we were able to reduce the consultancy's budget and create a scenario that gave consultancy ownership to the individual countries.

Regarding cooperation between the CRFM and France at the political level, the Governance consultancy's time frame did not allow for political engagement between the CRFM and France over sub-regional flyingfish management strategies. For this reason, the CRFM chose to focus its efforts on achieving technical level endorsement for the Cooperation Agreement with France rather than political level endorsement.



Fishermen returning to shore Tomas Castelazo

ORGANIZATION AND METHODOLOGY

Blue Earth organized the consultancy's scope of work into the following six phases:

- 1. Phase 1: Consultancy design and preparation
- 2. Phase 2: Partnership development
- 3. Phase 3: Develop sub-regional Data Policy
- 4. Phase 4: Update ECFF-FMP
- 5. Phase 5: Prepare impact assessment tool
- 6. Phase 6: Prepare final technical report

We began our work by researching consultancy related information. We then developed an initial list of recommendations for updating the 2014 ECFF-FMP and for developing the Data Policy and Cooperation Agreement. We discussed these recommendations with CRFM staff and with their assistance implemented an Eastern Caribbean flyingfish fishery consultative process. As part of this effort, Blue Earth and the CRFM identified and contacted national focal points in each of the six CLME+ Eastern Caribbean countries. We developed meeting facilitation materials for the national focal points (see awareness building report in Annex H) to use to encourage input from local stakeholders on the revised ECFF-FMP, Data Policy, and Cooperation Agreement drafts. National focal points in Dominica and Saint Lucia held meetings with local flyingfish fishery stakeholders and compiled their recommendations for revising the ECFF-FMP, in addition to their thoughts and input on the Data Policy and Cooperation Agreement. Additional recommendations were also compiled by consultants during the CRFM / WECAFC Working Group's Special Meeting on Flyingfish in the Eastern Caribbean held in Barbados with regional technical level organizations.

Blue Earth then incorporated the suggested revisions made by national focal points, local stakeholders, and regional technical level organizations into drafts and final versions of the Caribbean Regional Fisheries Mechanism-France Cooperation Agreement (Annex F), Sub-regional Data Policy for Eastern Caribbean Flyingfish (Annex G), and Revised Sub-Regional Fisheries Management Plan for Flyingfish in the Eastern Caribbean (Annex L). The CRFM circulated these drafts among its staff and consultancy stakeholders for their comments, suggested revisions, and overall feedback. Blue Earth revised the drafts based on this information. The drafts went through multiple rounds of revisions before their acceptance by the CRFM at its Forum Meeting in March 2019.

The consultancy's methods were guided by the following objectives:

- **Objective 1**: Update recommendations for policy and management decisions in the context of the ecosystem- based approach to fisheries management for Eastern Caribbean flyingfish;
- **Objective 2**: Improve cooperation between the CRFM and France regarding flyingfish conservation and management;
- **Objective 3**: Increase engagement of National Inter-sectoral Committees (NIC's) and Fisheries Advisory Committees (FACs) in the flyingfish fishery management process; and

• **Objective 4**: Develop a sub-regional data policy for ecosystem-based management, incorporating data, information, and indicators for monitoring performance of the revised ECFF-FMP.

In addition to the methods and objectives described above, we relied on the expertise of two sub-contractors, Impact Mer and Mark Tupper. Impact Mer performed national focal point and local stakeholder outreach in Martinique as part of the process we designed to develop the Cooperation Agreement. Blue Earth contracted Mark Tupper to research and write the revised ECFF-FMP.

Blue Earth team members developed numerous strategies related to consultancy organization, coordination, reporting, and information-sharing requirements for this consultancy. Given the overlapping elements of Blue Earth's flyingfish-focused consultancies, as well as overlap with work being conducted by other consultants, consultancy coordination became a significant component of the Governance consultancy.

DELIVERY OF TERMS OF REFERENCE

Blue Earth carried out consultancy activities (see section six for a list of these activities) that fulfilled the TOR's scope of work as it pertains to the following aspects:

- 1. Inception Activities
- 2. Technical Work
- 3. Final Technical Report

These activities allowed us to produce deliverables that correspond to those presented by the CRFM in the consultancy's TOR unless otherwise noted:

Inception Report and Work Plan

a) Inception report and work plan: **Annex A**, Caribbean Regional Fisheries Mechanism Inception Report (report contains work plan)

Technical Work

- a) Revised Sub-Regional Fisheries Management Plan for Flyingfish in the Eastern Caribbean: **Annex L**, Eastern Caribbean Flyingfish Fisheries Management Plan 2020-2025
- b) Appropriate information products: **Annex I**, 4 Information Products
- c) Management partnerships and cooperation agreement: **Annex F**, Caribbean Regional Fisheries Mechanism-France Cooperation Agreement
- d) Report on support given to cooperation between CRFM and France at the political level: **Annex F**. As stated in the report of the Special Meeting of the Joint CRFM/WECAFC Working Group on Flyingfish in the Eastern Caribbean Agenda Item 14 & 15: Presentation and discussion of draft outputs and gather feedback for further revisions of Cooperation agreement, "Noted that in the available time, seeking to have a political level agreement is impractical; so, it is best to focus at a technical level in the first instance/short term")

- e) Reports on relevant regional negotiations and consultations: **Annex C**, Flyingfish Stakeholder Meetings Summary
- f) Reports on support for strengthening and testing of proposed cooperation frameworks: **Annex D**, Strengthening and Testing of Proposed Cooperation Frameworks at the National and Regional Levels
- g) Reports on meetings at the national level for awareness-building: **Annex H**, Final Report of Meetings at the National Level for Awareness-building and Discussions on Issues Related to Ecosystems Based Management of Flyingfish
- h) Report on review of consultative process(es): Annex C, Flyingfish Stakeholder Meetings Summary
- i) CRFM sub-regional Data Policy: **Annex G**, Sub-regional Data Policy for Eastern Caribbean Flyingfish)
- j) A flyingfish project impact assessment tool: **Annex J**, CRFM Flyingfish Project Impact Assessment Tools)
- k) Bi-monthly technical activity progress reports: **Annex M**, Final Bi-monthly Technical Report)

DESCRIPTION OF ACTIVITIES CARRIED OUT

Below, we provide a summary of our key activities which led to the development of the Cooperation Agreement, the sub-regional Data Policy, the revised ECFF-FMP, and the impact assessment tool. In summary, the Blue Earth team has completed the consultancy's six phases.

- National focal point and local stakeholder identification, coordination, and outreach: Annexes C and I, Flyingfish Stakeholder Meetings Summary; Final Report of Meetings at the National Level for Awareness-building and Discussions on Issues Related to Ecosystems Based Management of Flyingfish
- **Partnership development and strengthening: Annex D**, Strengthening and Testing of Proposed Cooperation Frameworks at the National and Regional Levels
- Cooperation Agreement development: Annex G, Caribbean Regional Fisheries Mechanism-France Cooperation Agreement
- Data Policy development: Annex H, Sub-regional Data Policy for Eastern Caribbean Flyingfish
- **Revised ECFF-FMP development**: **Annex F**, Sub-regional Data Policy for Eastern Caribbean Flyingfish
- Impact assessment tool development: Annex K, CRFM Flyingfish Project Impact Assessment Tools
- **Information sharing: Annex J**, 4 Information Briefs
- **Sub-project After-life plan: Annex E**, though not asked for in the Terms of Reference for this consultancy, CRFM Final Technical Report instructions call of its inclusion. We also include it in the Adaptive Management report. The After-Life Plan is a strategy or roadmap that the CRFM can use at the conclusion of the CLME+ flyingfish sub-project to complete the policy cycle and management plan and to continue improving regional management of pelagic fisheries, including the flyingfish fishery. It contains components from all three of Blue Earth's flyingfish sub-project consultancies.

CONSULTANCY MOBILIZATION

We held an inception call with the CRFM to begin our consultancy. The call allowed our respective organizations to define a strategy that outlined our next steps and how we should manage strategic shifts in the consultancy process and work plan. The CRFM shared their thoughts on the consultancy's objectives and stated that despite the delay in the start of the contract, the overall consultancy objectives had not shifted. The delay did, however, cause the consultancy's duration to be shortened from 31 months to 27 months. Because of this situation, we discussed how to revise the consultancy's timeline. After this discussion, we submitted a revised consultancy timeline that reflected these changes while still including all consultancy deliverables. We also discussed our strategy of working with the CRFM to link with the other sub-consultancies that were happening concurrently through other contractors. This included simultaneous work, timing of the impact assessment tool and the final technical report, and flexibility. We discussed internal communication and external communication procedures with other

consultancy parties. We also defined procedures for submitting consultancy deliverables, formatting documents, revising deliverables, and using a CRFM template for bi-monthly consultancy reports.

NATIONAL MISSIONS

Throughout 2017 and much of 2018, Blue Earth organized an awareness building and consultative process with national focal points in each of the six CLME+ Eastern Caribbean countries. As part of this process, Blue Earth, the CRFM, and national focal points supported meetings that built awareness for ecosystem-based management strategies for flyingfish in the Eastern Caribbean and allowed local stakeholders that participated in these meetings to recommend revisions to the revised ECFF-FMP (annexes D (cooperation frameworks), H (awareness building), and C (stakeholder meetings summary)). National focal points and/or regional technical level organizations staged three meetings, two of which were held at the national level (Dominica and Saint Lucia; May 2018). Because only two of the six participant countries held meetings, the consultancy staged a third meeting in Barbados (October 2018) to allow flyingfish groups to participate in the awareness building and consultative process. As a result, local stakeholders from all six countries and several regional technical level organizations attended the special meeting of the CRFM-WECAFC Working Group on Flyingfish. The consultative process also included the May 2019 meeting in Saint Lucia that led up to the final revised ECFF-FMP and the 3rd Meeting of the Ministerial Sub-Committee on Flyingfish where other outputs of this consultancy were discussed by participants.

We developed the following flyingfish fishery local stakeholder meeting facilitation templates to help national focal points lead awareness building and consultative meetings to gain feedback on the documents:

- **Meeting agendas**: Guidance to share the meeting goals and topics with local stakeholders with country-specific flyingfish expertise.
- **Facilitation plans**: A more detailed guide for national focal points to use while leading consultative meetings, including key discussion questions.
- Note-taking templates: A template in which national focal points recorded input from the
 meeting discussions; national focal points shared the notes with Blue Earth following the
 meetings.

The Blue Earth team held calls with at least one fisheries division staff member in each of the six ECFF-FMP participating countries to walk through these meeting facilitation materials and answer their questions. National focal points then used the materials to stage, facilitate, and document the Dominica and St. Lucia workshops, as well as assisted Blue Earth team members during our facilitation of specific regional Barbados meeting sessions. National focal points', local stakeholders', and regional technical level organizations' suggestions focused on the revised ECFF-FMP's structure; additional topics to address; support for implementation, monitoring, and evaluation; and adaptive management-focused content.



Pitons of St. Lucia Ron Kroetz

REPORTING

The Blue Earth team submitted 13 bi-monthly progress reports for the Governance consultancy to the CRFM summarizing our activities and progress, as well as that made by our sub-contractors (Annex M). We organized the reports by consultancy phase, and they reflect the work we performed from the inception of the consultancy through July 2019. The contract status section was organized by consultancy phase and activities within each phase as listed in the TOR's scope of work. The progress reports also contained an overarching reporting section, a lesson learned and best practices section, contract milestones, risks to contract deliverables, and a financial implementation summary. We also attached all deliverables submitted during the reporting period as appendices to the reports. In addition to bi-monthly progress reports, Blue Earth submitted an Inception Report (Annex B) and a Mid-term Progress Report (Annex M). We also frequently communicated our progress and consultancy questions (for this and our other two consultancies) to the CRFM through phone conversations. These calls allowed both parties to stay aligned on consultancy strategy and progress.

REPORTING ON THE TECHNICAL ASPECTS OF THE CONSULTANCY

The CRFM designed its CLME+ projects to give ownership of the work to the Governance consultancy's participating countries by allowing national focal points to develop their own in-country flyingfish fishery management outreach activities with local stakeholder groups. In this way, Blue Earth played the role of consultancy manager and provided technical assistance and support to national focal points who then implemented an awareness building and consultative process in each of the six CLME+ Eastern Caribbean countries.

We began our work by researching consultancy related information. We then developed an initial list of recommendations for updating the 2014 ECFF-FMP and for developing the Data Policy and Cooperation Agreement. We discussed these recommendations with CRFM staff and with their assistance implemented an Eastern Caribbean flyingfish fishery consultative process. As part of this effort, Blue Earth and the CRFM identified and contacted national focal points in each of the six CLME+ Eastern Caribbean countries. We developed meeting facilitation materials for the national focal points to use to encourage input from local stakeholders on the revised ECFF-FMP, Data Policy, and Cooperation Agreement drafts and final versions. National focal points in Dominica and Saint Lucia held meetings with local flyingfish fishery stakeholders and compiled their recommendations for revising the ECFF-FMP, in addition to their thoughts and input on the Data Policy and Cooperation Agreement. Consultants also compiled additional recommendations during the CRFM/WECAFC Working Group's Special

Meeting on Flyingfish in the Eastern Caribbean held in Barbados with regional technical level organizations.

As part of the reporting and document submission process, we included recommendations that can be used by the CRFM and national focal points to aid their efforts to develop a sub-regional ecosystem-based approach to flyingfish fisheries management. We also provided the CRFM with lessons learned that emerged from the consultative process that, will aid national focal points' and the CRFM's ongoing flyingfish management efforts.

COMMENTS AND CONCLUSIONS

Blue Earth and the CRFM developed the Governance consultancy with the intent of allowing flyingfish stakeholders to openly and actively participate and contribute to the information we collected during the works' activities. Our initial revised ECFF-FMP, Data Policy, and Cooperation Agreement development process included an online survey, phone interviews, and opportunities to provide written comments on draft documents. We synthesized our findings of the online survey and comments on the draft recommendations and then began coordinating the consultative process with CRFM and national focal points. We then distributed revised ECFF-FMP recommendations and Data Policy and Cooperation Agreement concepts for review by the CRFM and later by national focal points in six countries. Local stakeholders provided limited feedback on these documents during two national meetings. Regional technical level organizations and national focal points provided their input on these documents as well during a regional meeting in Barbados. We then proceeded to develop draft final versions of the revised ECFF-FMP, Data Policy, and Cooperation Agreement. After a final round of feedback via written comments in February 2019, Blue Earth finalized the documents for consideration by CRFM Member States during the Forum meeting in March 2019.

In addition to the national consultative process and the development of the revised ECFF-FMP, Data Policy, and Cooperation Agreement, Blue Earth produced an impact assessment tool that addressed our Governance, Adaptive Management, and Stress Reduction consultancies. The purpose of this tool is to facilitate the CRFM's ongoing assessment of work relating to Member State implementation of the revised ECFF-FMP. The impact assessment will draw on various sources of data and information, which may include documents, data analysis, surveys, or stakeholder interviews.

RECOMMENDATIONS (including lessons learned)

The revised version of the ECFF-FMP is the product of a rigorous stakeholder engagement process that included Blue Earth and CRFM led research, workshops, online surveys, and interviews with national fisheries division staff, regional fisheries management experts, fishers and fisherfolk organizations, and researchers. The process also informed our development of the Data Policy and Cooperation Agreement. The following list of recommendations can be used by the CRFM and national focal points to aid their efforts to develop a sub-regional ecosystem-based approach to flyingfish fisheries management.

Recommendations:

• Without financial and technical support for fisheries management activities, Eastern Caribbean countries will be challenged to implement the ECFF-FMP or other FMPs. Unfortunately, staff, financial, and infrastructure resources for flyingfish management are lacking across the region. Tackling all aspects of ECFF-FMP implementation at once is not feasible in the current situation, so prioritization of next steps will be necessary. Regional partnerships should help national fisheries divisions with threadbare budgets pools their resources by finding innovative ways to collaborate on management initiatives including data collection.

- CRFM Member State adoption of the revised version of the ECFF-FMP could be a lengthy process. CLME+ implementers might consider developing a bottom-up policy adoption approach that is long-term, involves key individuals and organized fishery groups (as it has already done), is based on political realities, and compliments the CRFM's efforts to support national fishery policy reform efforts.
- Work to implement a data policy strategy should contemplate the speed at which reform
 processes move in the Eastern Caribbean. Such a strategy might include a range of flexible goals
 and targets that account for the idiosyncrasies and budget restrictions that many CRFM Member
 States encounter.
- Additional financial resources will be needed to implement many aspects of the revised ECFF-FMP, Data Policy, and Cooperation Agreement, and consultancy participants should begin researching these as soon as possible.
- Current efforts to improve regional cooperation and harmonization of Eastern Caribbean fisheries management strategies follow in the wake of over 20 years of work. Understanding the history, experiences, and lessons learned from the last two decades is an important component of any future fisheries management strategy and should be incorporated by stakeholders into future flyingfish fishery development efforts.
 - Technical body capacity must be strengthened if the Cooperation Agreement and more specifically the Data Policy are to improve the management of Eastern Caribbean shared living marine resources.

Lessons Learned:

- Local stakeholder involvement and expertise is a critical component of cooperation building
 efforts and has enriched the content in the revised ECFF-FMP, Data Policy, and Cooperation
 Agreement.
- Local stakeholder champions encourage information dissemination, buy-in, and create links between regional fisheries managers, national focal points, and local stakeholders.
- The most effective way to gather national focal point expertise is through their participation in third-party facilitated meetings.
- The process of Cooperation Agreement and Data Policy drafting improved networking and collaboration among participating regional, national, and local entities.
- Well-informed sub-regional-level management decisions and stock assessments cannot be made
 in the absence of consistent, accurate national data. To this end, the participation of fisheries
 divisions and fishers will be a critical component of successful Data Policy implementation by
 individual countries.
- Political-level agreement for the Cooperation Agreement between the CRFM and Martinique within the timeframe of the CLME+ consultancies was infeasible; therefore, the CRFM will seek a more practical agreement at the technical level in the near term. CRFM and Martinique may pursue a political-level agreement in the future.

ANNEX A: TERMS OF REFERENCE

TERMS OF REFERENCE

ANNEX A CLME* SUB-PROJECT # 3: EAF FOR THE EASTERN CARIBBEAN FLYINGFISH

TERMS OF REFERENCE

CONSULTANT SERVICES

TECHNICAL SUPPORT TO ENHANCE THE GOVERNANCE ARRANGEMENTS FOR IMPLEMENTING
AN ECOSYSTEM APPROACH FOR FLYINGFISH FISHERIES

CLME/SP3-FF/EOI - EGA/01/16

1.0 INTRODUCTION

5A.2 [Short]

In view of the significance of the Eastern Caribbean fourwing flyingfish commercial fisheries, the CRFM, in collaboration with WECAFC and with support provided during the corresponding case study under the CLME Project (GEF ID 1032), developed and finalized a Sub-regional Management plan (Sub-regional FMP) for Flyingfish in the Eastern Caribbean. The plan takes into account the relevant provisions of two key CRFM instruments, the Agreement on the Establishment of the Caribbean Community Common Fisheries Policy (CCCFP), and the 2010 Castries (St. Lucia) Declaration on Illegal, Unreported and Unregulated (IUU) Fishing. The Sub-regional FMP was endorsed by the 15th Sessions of WECAFC, by the Caribbean Fisheries Forum in April 2014, and by the CRFM Ministerial Council in May 2014, following extensive consultation with stakeholders at both the national and regional levels, and is now cleared for voluntary, regional implementation by CRFM Member States. The general management objectives outlined in the Sub-regional FMP are: a) sustained flyingfish resources (biological objective), b) optimal use of the flyingfish resource for long-term benefits (socio-economic objective) and c) sustained ecosystem health (ecological objective)

A specific sub-strategy relating to flyingfish fisheries was included under Strategy 5 of the CLME* Strategic Action Programme (SAP). Sub-Strategy 5A of the SAP aims to enhance the governance arrangements for implementing an ecosystem approach to flyingfish fisheries in the CLME* region. Under this sub-strategy, a number of short-term (0-5 years) and medium-term (6-10 years) actions were agreed upon:

5A.1 [Short]	Strengthen the FAO-WECAFC and CRFM sub-regional arrangements for
	the assessment and management of the flyingfish fisheries including the
	establishment of a decision-making capacity for management;

Establish and operationalise a formal agreement between the CRFM and

France on the management of the flyingfish fisheries;

5A.3 [Short, Medium] Operationalise and strengthen an integrated, sub-regional Decision Support System (DSS) for the flyingfish fisheries (in coordination with

the large pelagics arrangements);

5A.4 [Short, Medium] Strengthen the FAO-WECAFC and CRFM capacity to develop, adopt and

implement management and conservation measures for the flyingfish

fisheries (full policy cycle implementation);

5A.5 [Short, Medium] Implement the CRFM/FAO-WECAFC Sub-Regional Management Plan

for Flyingfish Fisheries in the Eastern Caribbean;

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5A.6 [Short, Medium] Develop and implement education and awareness building initiatives to improve understanding and enhanced stakeholder commitment and participation in decision-making in the flyingfish fisheries.

The Sub-Project, of which this consultancy is a part, aims at contributing to the delivery of Output 3.2. (O3.2.) under COMPONENT 3 of the main CLME[†] Project Document: "Transition to an ecosystem approach for the Eastern Caribbean flyingfish fisheries demonstrated" It has been developed in response to the corresponding calls for action under (a) the CLME[†] Strategic Action Programme (SAP), politically endorsed at the regional level in 2013 and (b) the approved Regional Fisheries Management Plan (FMP) for Flyingfish in the Eastern Caribbean.

This Consultancy seeks contribute to fostering long-term human well-being of the (direct and indirect) stakeholders of the Eastern Caribbean flyingfish fishery by enhancing the governance arrangements for implementing an ecosystem approach for flyingfish fisheries.

The CRFM is responsible for providing technical supervision, leadership and coordination to execute the activities related to this action.

2.0 THE CONSULTANT: Eastern Research Group, Inc of 110 Hartwell Avenue, Lexington, MA 02421, United States of America [the assignment will be undertaken by Blue Earth Consultants, a Division of Eastern Research Group, Inc].

3.0 OBJECTIVE

To enhance the governance arrangements for implementing an ecosystem approach for flyingfish fisheries.

4.0 SCOPE OF WORK

The Contractor will work under the general direction of Peter A Murray, Programme Manager, Fisheries Management and Development, CRFM Secretariat or the CRFM staff assigned to supervise the assignment, to update recommendations for policy & management decisions in the context of the EAF for eastern Caribbean Flyingfish; improve cooperation between CRFM and France regarding flyingfish conservation and management; increase engagement of National Intersectoral Committees (NICs) and Fisheries Advisory Committees (FACs) in the flyingfish fishery management process; and, develop a sub-regional data policy for EAF management (decision-support), incorporating data, information and indicators for monitoring performance of the Sub-Regional FMP for flyingfish in the Eastern Caribbean (impact assessment tool).

The scope of work covers all activities necessary to accomplish the Expected Results stated. The main tasks/activities are as follows:

1. Inception activities

- Attend an initial virtual briefing meeting with the CRFM Technical Team to discuss
 the objectives, activities, approach, expected outputs and any other issues related to
 the execution of the assignment that require clarification;
- b. Within five (5) days of the briefing meeting, The Consultant will prepare a report of the briefing (inception report) and work plan clearly identifying an outline and timelines for the execution of the actions.

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2. Technical Work

- Review and update the first flyingfish management plan and recommendations for the management of eastern Caribbean Flyingfish arising from the new information generated under the Sub-Project,
- b. Develop appropriate information products (press releases, infographics and/or videos) to facilitate continued access to and processing of technical information on the EAF approach to management of flyingfish to support improved awareness [sensitisation] of the Ministerial Sub-Committee, as well as national Committees on flyingfish EAF management issues and other key decision makers and policy advisory at the national and regional levels, including Attorneys General's departments, Coast Guards/Police, Foreign Ministries, Environment Ministries, Finance Ministries,
- Develop a management partnership/cooperation agreement between the CRFM and France,
- d. Support cooperation between CRFM and France at the political level regarding flyingfish (FF) conservation and management, through inter alia, mechanisms to be agreed for:
 - Encouraging active cooperation between CRFM and France at the technical/scientific level;
 - Facilitating Participation by French OTs in at least 2 Ministerial Sub-Committee and/or Ministerial Council Meetings during the Sub-Project lifespan;
 - Supporting/facilitating development of a formal management cooperation agreement;
 - iv. Supporting endorsement of the management cooperation agreement by relevant authorities;
 - Facilitating/supporting active cooperation at the political and stakeholder levels, reflected in the cooperation arrangements laid out in the updated FMP
- Facilitate through meetings and other appropriate mechanisms, approval, strengthening and testing of proposed cooperation frameworks at the national and regional levels,
- f. Support/facilitate annual meetings at the national level for awareness-building and discussions on issues related to ecosystem based management of flyingfish, and for enhanced management performance monitoring and accountability,
- g. Formulate/develop and finalise a CRFM sub-regional data policy through a consultative process, taking into account the needs and experiences of implementation of the Sub-regional Flyingfish FMP.
- h. Prepare an impact assessment tool for CRFM use in follow up work.
- i. Prepare bi-monthly technical activity progress reports and a mid-term progress report.

3. Final Technical Report

a. Prepare draft, reviewed and final versions of a final technical report which would comprise at least the following sections: Acknowledgements; Abbreviations and Acronyms; Executive Summary; Introduction; Approach to the Assignment; Comments on Terms of Reference; Organization and Methodology; Delivery of Terms of Reference; Description of Activities Carried Out; Project Mobilization; National Missions; Reporting; Comments and Conclusions; Recommendations (including lessons learned); Annex 1 Terms of Reference; Annex 2 Inception Report

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; Annex 3 Mission Reports; Annex 4 Consultancy Products, namely, Work plan; specific activity reports documenting consultant activities and progress regarding strengthening and testing cooperation frameworks; updated policy and management recommendations for Eastern Caribbean flyingfish for completing policy cycle and management plan; formal management cooperation agreement between CRFM and France; approved Sub-regional Data Policy; NIC/FAC consultation reports and relevant regional consultation reports; information products (press releases, infographics and/or videos); impact assessment tool; project final financial report; other agreed reports.

b. Drafts of each product are to be reviewed by the CRFM, prior to finalization

5.0. EXPECTED RESULTS

- Updated recommendations for policy & management decisions in the context of the EAF for eastern Caribbean Flyingfish
- Improved cooperation between CRFM and France regarding flyingfish conservation and management,
- Increased engagement of National Inter-sectoral Committees (NICs) and Fisheries Advisory Committees (FACs) in the flyingfish fishery management process
- d. Sub-regional data policy for EAF management (decision-support), incorporating data, information and indicators for monitoring performance of the Sub-Regional FMP for flyingfish in the Eastern Caribbean

DELIVERABLES

1. Inception report and work plan

 An inception report and work plan clearly identifying an outline and timelines for the execution of the actions

2. Technical Work

- a. Updated flyingfish management plan with policy and management recommendations.
- b. Appropriate information products (press releases, infographics and/or videos) to facilitate continued access to and processing of technical information on the EAF approach to management of flyingfish to support improved awareness
- c. Management partnership/cooperation agreement between the CRFM and France
- Report on support given to cooperation between CRFM and France at the political level regarding flyingfish (FF) conservation and management (consultant activity and progress report),
- Reports on relevant regional negotiations and consultations concerning building the regional cooperation framework and completing the flyingfish policy cycle.
- Reports on support for strengthening and testing of proposed cooperation frameworks at the national level (consultant activity and progress report)
- g. Reports of meetings at the national level for awareness-building and discussions on issues related to ecosystem based management of flyingfish, and for enhanced

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management performance monitoring and accountability (national consultation reports)

- Report on review of and consultative process(es) on existing national and/or subregional data policies (consultation reports)
- i. CRFM sub-regional data policy
- j. An impact assessment tool for CRFM use in follow up work.
- k. Bi-monthly technical activity progress reports, and a mid-term progress report.

3. Final Technical Report

 a. Draft, revised and final versions of a final technical report which would comprise at least the sections referred to in the scope of work above

6.0 ROLES AND RESPONSIBILITIES

The Consultant is responsible for execution of the main actions and accomplishing the Expected Results and Deliverables as outlined above.

In the conduct of the assignment the KEs will be supported by the CRFM Secretariat, which will provide overall guidance on implementation of the contract.

The CRFM Secretariat will assign two (2) staff (fisheries experts) who will work closely with the team at all times. The CRFM Secretariat will also assist in facilitating initial contact with the participating states, as well as the circulation and finalization of documents requiring regional-level review.

7.0 REPORTING

The Consultant will prepare an inception report, bi-monthly technical progress reports, mid-term progress report and final reports. The progress report will be submitted mid-term of the contractual period. The final technical report should include methodologies used to deliver the various outputs, with lessons learned and recommendations for follow up action, and include final technical deliverables in publisher-ready format. The report should be produced in Microsoft Word for Windows format and submitted electronically to the CRFM Secretariat.

8.0 LOGISTICS

All logistical arrangements pertaining to travel by the Consultant and workshop participants are the responsibility of the Consultant.

9.0 DURATION

The assignment will require 28 months, from 1 February 2017 to 31 May 2019.

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ANNEX B: INCEPTION REPORT AND WORK PLAN

INCEPTION REPORT

Document Introduction

To begin our consultancy with the Caribbean Regional Fisheries Mechanism (CRFM), Blue Earth Consultants, a Division of Eastern Research Group, Inc. (Blue Earth), held an inception call with CRFM. Call participants were Dr. Tegan Hoffmann and Kelsey Jacobsen (Blue Earth), Dr. Mark Tupper (Coastal Resources Association and University of Trinidad and Tobago), and Peter A. Murray, Dr. Susan Singh-Renton, and Delmar Lanza (CRFM). Members of Impact Mer, our second subcontractor, were not able to attend the call. This document summarizes the key decisions from the inception call, which will guide next steps and strategic shifts in the consultancy process and workplan.

Consultancy Objectives

CRFM shared their thoughts on the consultancy objectives as stated in Blue Earth's proposal given the delay in the start of the contract and indicated that the overall consultancy objectives have not shifted. Apart from the changes described in this inception report (strategic, timing, and otherwise), the consultancy report will be as in the proposal dated 8 December 2016, which was accepted by CRFM as the basis for this discussion (see document cited in the Appendix). We discussed that throughout the duration of the consultancy we will work with CRFM to link with the other sub-consultancies that are happening concurrently through other contractors.

Communication, Reporting, and Contracts

Internal Communications

Blue Earth and CRFM agreed on the following regarding internal communications between Blue Earth and CRFM:

- CRFM will send all communications to both Tegan Hoffman and Kelsey Jacobsen.
- Blue Earth will send all communications to Peter A. Murray, cc'ing secretariat@crfm.int and crfmsvg@crfm.int. Peter will circulate all communications and documents to others on the CRFM team, such as Susan Singh-Renton and Delmar Lanza, as needed.
- Peter A. Murray will coordinate CRFM's review of documents to provide consolidated comments to Blue Earth in one document wherever possible.

Communication with External Participants

On the call, we discussed topics regarding communication and coordination with parties external to Blue Earth and CRFM. Our agreements include the following:

• **Initial outreach email:** Blue Earth will draft an official email announcing the commencement of the assignment, which will include the objectives of the consultancy, high-level process, and request items such as existing data policies. The email will also request the appointment of an official point of contact(s) per country for the fishery management plan review and the partnership component of this consultancy. CRFM will send the email to the Ministry responsible

for fisheries matters in its Member States, cc'ing Blue Earth. Blue Earth will then follow up with the Ministry representatives and the points of contact as needed.

- **Document versions:** Blue Earth will save all Word, Excel, and PowerPoint documents as Microsoft Office 97 (.doc, .xls, .ppt) formats to ensure file compatibility across computer platforms. Blue Earth will share draft documents in Word and finals in PDF format.
- **Review timing:** Unless otherwise stated in the proposal, Blue Earth will allot five working days (where working days are Mon-Fri) minimum to review draft documents. We will aim to allow more time for larger documents.

Reporting

Blue Earth will use a template for bi-monthly reports. Peter Murray will supply Blue Earth with a preferred template, possibly following the CLME+ online reporting template. Peter will identify an alternate template in case the CLME+ template is not ready in time for Blue Earth's first bi-monthly report. Blue Earth plans to submit the first report at the end of March or beginning of April.

Contracts

We also discussed several pending items related to Blue Earth's contract with CRFM and the two subcontractors:

- Blue Earth will develop contracts for the subcontractors and does not anticipate delays in the consultancy timeline due to the timing of finalizing and signing those contracts.
- Blue Earth (and subcontractors, as appropriate) will send copies of round-trip airline boarding passes and hotel bills for all travel covered by the consultancy fees.
- CRFM clarified that the penalty for delayed deliverables in Blue Earth's contract with CRFM is meant only to be utilized if all other means for ensuring Blue Earth's accountability have been exhausted. It is not expected that this method would be deployed when delays are due to changes outside of Blue Earth's control (e.g., scheduling of international body meetings, response rates on surveys, etc.).

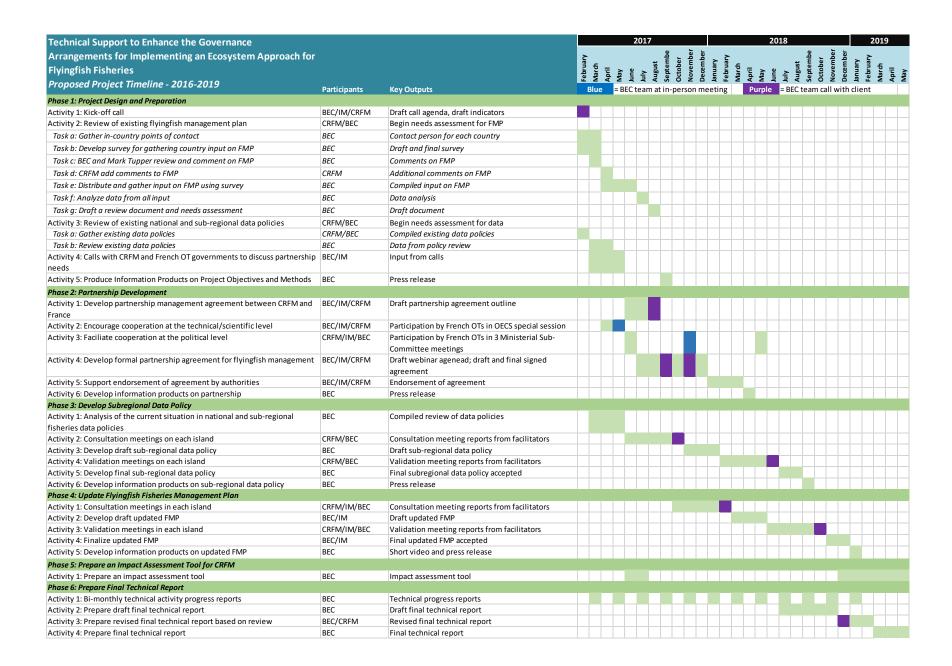
Strategic Shifts and Timeline

Given the shift in the start date for this consultancy, which shortens the duration from 31 months to about 27 months, we discussed at a high level how to revise the consultancy timeline. We agreed on the following:

- **Simultaneous work:** Blue Earth will move forward on consultancy activities simultaneously to the extent feasible, such as by beginning work on Phases 2 (partnership development), 3 (development of sub-regional data policy), and 4 (updating Flyingfish fishery management plan [FMP]) as soon as is realistic based on workflow and responses from Member State fisheries Ministries and in-country points of contact.
- Timing of impact assessment tool and final technical report: Blue Earth will prepare the impact assessment tool and final technical report simultaneously with other phases. The final technical report will be a brief summary report with each of the deliverables included as

- appendices. The impact assessment tool can be developed and refined throughout the consultancy based on how the consultancy progresses and finalized in the last months of the consultancy.
- **Flexibility:** Timing of the consultancy's activities will need to be flexible, shifting as necessary due to external constraints and moving forward more quickly on pieces where possible. However, timing will not be entirely constrained by scheduling of meetings such as the Overseas Territories special session in May / October.

Below is a revised timeline that reflects the changes above.



Next Steps on Consultancy Activities

Blue Earth and CRFM discussed how to move forward on several parts of the consultancy, including Phases 3 and 4 and the draft impact assessment tool.

Phase 3: Develop Sub-Regional Data Policy

To move forward on the development of the sub-regional data policy for flyingfish fisheries, we will first identify existing fisheries data policies to reference. Peter Murray will try to obtain and send Blue Earth an existing data policy from Saint Lucia, the CRFM general data policy outline, and any other data policies CRFM is aware of and would like Blue Earth and Mark Tupper to review. We will also perform web research to identify existing data policies. In addition, in the initial outreach email to CRFM Member State fisheries Ministries we will ask them to send us any available fishery data policies. We will seek existing policies through these means rather than distributing an online survey as suggested in Blue Earth's final proposal.

Phase 4: Update Flyingfish Fisheries Management Plan

We discussed a process for getting started on the process to update the flyingfish FMP. This process differs slightly from what is laid out in the final proposal:

- 1. Blue Earth and Mark Tupper will review the 2014 FMP and draft a survey or framework for seeking input from fisheries specialists in each country. We will send our compiled comments on the 2014 FMP (considering also the 2015 implementation review) and the draft survey tool / framework to CRFM.
- 2. Peter A. Murray will seek CRFM staff's review and send compiled comments to Blue Earth and Mark Tupper on the survey tool and FMP.
- 3. Blue Earth will send the survey tool / framework, as well as the 2014 FMP and 2015 review, to each of the country points of contact identified through our first outreach email. We will cc Peter A. Murray and the two general CRFM email addresses.
- 4. Given Susan Singh-Renton's and Mark Tupper's experience soliciting input from in-country experts, we will allow for up to 2 3 months to receive all input.

Impact Assessment Tool

Blue Earth shared draft high-level themes for an impact assessment tool, specifically themes that address: 1) success of this consultancy, and 2) progress on flyingfish fishery management beyond the completion of this consultancy. Blue Earth will revise the draft themes in the coming months and will address CRFM's written comments and add more specific ideas for questions or criteria relating to each theme. Blue Earth will be able to add more of these specifics as we begin work on the upcoming phases and gain an understanding of how to best to measure progress and success.

ANNEX C: MISSION REPORT

FLYINGFISH STAKEHOLDER MEETINGS SUMMARY

Introduction

This document provides a summary of national flyingfish consultative processes regarding Eastern Caribbean flyingfish management. These activities were held as part of consultancies by Blue Earth Consultants (Blue Earth), a Division of Eastern Research Group, Inc. for the Caribbean Regional Fisheries Mechanism (CRFM). Three meetings took place, two of which were held at the national level by national focal points (Saint Lucia and Dominica; May 2018), and the third in Barbados (October 2018) where stakeholders from six countries and several international bodies attended a special meeting of the CRFM-Western Central Atlantic Fishery Commission (WECAFC) Working Group on Flyingfish.

The meetings contributed to several key outputs of Blue Earth's consultancies to advance flyingfish fishery management in the Eastern Caribbean. The outputs include an updated Eastern Caribbean Flyingfish Fishery Management Plan (ECFF-FMP), a cooperation agreement between the CRFM and Martinique on living marine resource management, a data policy for Eastern Caribbean flyingfish, a performance evaluation of implementation of the ECFF-FMP.

Blue Earth is completing three consultancies under contract to CRFM as part of the United Nations Development Programme / Global Environment Facility funded project, Catalysing Implementation of the Strategic Action Programme for the Sustainable Management of shared Living Marine Resources in the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+). These meetings contributed to outputs associated with all three consultancies.

National-Level Meetings

In the beginning stages of our consultancies, Blue Earth developed draft recommendations for how to update the ECFF-FMP, a data policy, and a cooperation agreement for review. To engage stakeholders in developing these documents, we organized a consultative process with focal points in each of the six Eastern Caribbean countries (Barbados, Dominica, Grenada, Saint Lucia, Saint Vincent and the Grenadines, and Trinidad and Tobago). Below are the objectives and methodology for this consultative process.

Objectives

The stakeholder meeting objectives were as follows:

- Convene stakeholders with expertise related to the country's flyingfish fishery and other living marine resources
- Share draft documents related to flyingfish fishery management, including recommendations for updating the Eastern Caribbean fishery management plan (ECFF-FMP), a sub-regional data policy conceptual proposal, and a cooperation agreement
- Gather stakeholder input on draft documents to inform revisions and prepare documents for regional endorsement

Materials and Methods

Blue Earth created the following flyingfish fishery stakeholder meeting facilitation templates to help incountry focal points lead national consultative meetings to gain feedback on the documents.

- **Meeting agenda**: High-level guidance to share the meeting objectives and topics with stakeholders with country-specific flyingfish expertise.
- **Facilitation plan**: A more detailed guide for national points of contact to use while leading consultative meetings, including key discussion questions.
- **Note-taking template**: A template in which focal points recorded input from the meeting discussions; focal points shared the notes with Blue Earth following the meetings.

As part of the consultative process, the Blue Earth team (including subcontractors Christopher Milley and Mark Tupper) held calls with at least one fisheries division staff in each of the six ECFF-FMP participating countries to walk through these meeting facilitation materials and answer their questions. Fisheries staff used the materials to stage, facilitate, and document workshops in Dominica (9 May 2018) and Saint Lucia (25 May 2018). Focal points from the other four countries did not hold consultative meetings. Below, we summarize the main themes in the feedback gathered in Saint Lucia and Dominica.

Key Outcomes: Saint Lucia

Stakeholders generally agreed with the draft recommendations for updating the ECFF-FMP and with the information presented in the draft sub-regional data policy and cooperation agreement. Additionally, they provided input summarized below.

ECFF-FMP Update Recommendations

Stakeholders suggested the following:

- Present the document in a more user-friendly way (e.g., text boxes with key points at the beginning of each section, tables that highlight priority information).
- Address management gaps by merging the sub-regional flyingfish management plan with Saint Lucia's national plan where appropriate.
- Rank the management measures in order of importance.
- Add the need to research species that feed on or are otherwise part of the flyingfish food wed to determine how an increase or decrease in their abundance will impact the flyingfish population.
- Include sustainable flyingfish harvesting methods and mention the need to determine flyingfish habitats and spawning grounds.
- Add a description of how flyingfish research will be financed.
- Use language clearly stating that all stakeholders will be involved in flyingfish governance activities.

• Define obtainable measuring and monitoring objectives.

Sub-Regional Data Policy

Meeting participants discussed and / or suggested the following:

- Based on this draft, Saint Lucia would support the outlined agreements.
- The data generated by the policy's research activities should be interpreted into useful information that flyingfish managers can utilize.
- The policy's most useful aspect is its data management and sharing approach.
- Environmental data including about sargassum, factors impacting flyingfish abundance, and costs of operation are needed to support fishery decision-making.
- The policy should include high-priority protocols that include data ownership and access rights.
- The policy should define the entity responsible for enforcing it.

Cooperation Agreement

Flyingfish stakeholders stated and / or recommended the following:

- Saint Lucia would support the draft agreement.
- The Chairman of the CRFM Ministerial Council should endorse the agreement on behalf of CRFM Member countries.
- Knowledge transfer between stakeholders and training in sustainable fishing techniques for entrylevel fishers should be a component of the agreement.
- The dispute settlement process needs to be clarified.

Key Outcomes: Dominica

Meeting participants generally agreed with the information presented in the cooperation agreement draft, recommendations for updating the ECFF-FMP, and sub-regional data policy draft. In certain instances, however, they felt that the latter two documents could be strengthened with more country-specific information.

ECFF-FMP Update Recommendations

Meeting participants discussed the following recommendations regarding the ECFF-FMP update:

- Dominica could adopt the ECFF-FMP, though it may be useful to also prepare a national FMP that captures unique local issues.
- Managers should keep stakeholders apprised of the ECFF-FMP's progress and roll-out strategy at the regional and national levels and allow stakeholders to play a central role in these activities.

- Certain ECFF-FMP aspects currently not in place in Dominica may need to be rolled out incrementally, including logbooks and a licensing scheme.
- Fish aggregating device impacts on the flyingfish fishery need research so we can better address them.
- Managers should look at the trigger point more closely as more data, including on flyingfish captured for bait, become available.
- Fisherfolk groups and cooperatives should be involved in adaptive management activities.

Sub-Regional Data Policy

Outcomes from the participants' discussion on the draft data policy included the following:

- Dominica would require a policy or Memorandum of Understanding before it could share data.
- The data policy's most useful aspects are fisher data collection and data sharing.
- The following types of data (and frequency of collection) are needed to support fishery decision making in Dominica:
 - 1. Catch and effort (daily)
 - 2. Social (annually)
 - 3. Economic (price of fish sold should be collected at least monthly, trip costs daily)
 - 4. Seasonality (annually)
 - 5. Weather and seas (daily)
- High priority issues in Dominica related to the policy include data sharing (access rights), ownership, and usage.

Cooperation Agreement

The discussion surrounding the draft cooperation agreement included the following points:

- Most aspects of the cooperation agreement are useful.
- Participants did not propose any refinements to the agreement.
- The agreement should be endorsed by the CRFM and the Organization of Eastern Caribbean States.

SPECIAL MEETING OF THE CRFM-WECAFC WORKING GROUP ON FLYINGFISH

All consultants involved in the CLME+ flyingfish projects, which include Blue Earth, Nexus Coastal Resource Management, and the Caribbean Natural Resources Institute (CANARI), had trouble gaining input and participation from national focal points. This played out when only two of the six countries held stakeholder meetings through the process described above. Given these challenges, Blue Earth, Nexus, CANARI, and the CRFM determined that the most effective way to gather input from all countries would be to hold a special meeting of the CRFM-WECAFC Working Group on Flyingfish for all focal points. Blue Earth developed the first draft agenda for the two-day meeting held in Barbados, developed a facilitation plan, and facilitated select sessions. Below is a summary of the desired meeting outputs and discussion outcomes; further detail is available in the CRFM's report, "Special Meeting of the Joint CRFM / WECAFC Working Group on Flyingfish in the Eastern Caribbean."

Desired Meeting Outputs

Going into the meeting, the outputs sought included the following:

- 1. A compilation of all deliverables and outputs of the six consultancies
- 2. Analysis of the relationship between planned outputs and Member States' needs and capacities
- 3. Comments and suggestions on the deliverables and outputs to facilitate updating of the Flyingfish FMP
- 4. Considerations and suggestions concerning institutional and incentive structures and responsibilities of governments and other stakeholders for bringing the ECFF-FMP into implementation in the region, including identification of constraints and recommendations.

Discussion Outcomes

Below is a summary of the main points gathered through discussion of each of the primary meeting topics.

Capacity Availability and Needs

Themes that came out of the meeting discussions of fisheries management capacity and needs in the region included the following.

- Many national fisheries divisions lack human and technical capacity to implement the ECFF-FMP.
- Fishers' organizations hold potential for supporting both fisheries divisions and fishermen, but they require training and capacity development to meet their potential.
- There is a need for more two-way information sharing with fishermen, including sharing rationales for why certain regulations are in place and engaging fishermen in information analysis and dissemination.
- A mechanism such as National Intersectoral Committees (NICs)/Fishery Advisory Committees (FACs) or another appropriate fishery advisory entity is needed to enhance engagement of

experts and fishermen in decision-making. Membership in these groups needs careful consideration to ensure all stakeholder groups are represented.

ECFF-FMP

Below are several outcomes of the participants' discussions about the draft updated ECFF-FMP.

- There are currently many gaps in understanding of flyingfish ecological and fishery dynamics and filling these gaps will be a critical first priority for implementing the ECFF-FMP.
- The existing draft ECFF-FMP is highly technical; to make it more accessible to all stakeholder groups, it could either be re-written to be more straightforward or could come with an accompanying summary in plain language.
- There is a need for a strategy, or implementation plan, for how to deploy the ECFF-FMP at the national level and integrate it with existing national FMPs.
- There is a need to emphasize the roles of fishermen, fishers' organizations, and NICs / FACs (or other appropriate fisheries advisory bodies) in the ECFF-FMP.
- The 5,000-tonne trigger point can be viewed as an impetus to consult with fishermen about the state of the stock and their catches, rather than triggering a close of the fishery.
- Currently relevant factors such as sargassum, climate change, ocean acidification, changes in fishery focus to different species, and changes in fishing methods should appear in the ECFF-FMP.

Data Policy

Below are several outcomes from the participants' discussions of the draft data policy.

- There are numerous arrangements in development and created through past consultancies related to fisheries data collection and management.
- The data policy is a high-level policy, not a detailed plan.
- The data policy should link to the Caribbean Community Common Fisheries Policy.
- The data policy focuses on flyingfish as a pilot species and can be used as a model or expanded to address other fishery data policies in the future.
- CRFM will take on the role of compiling and analyzing flyingfish data from Eastern Caribbean countries.
- There needs to be consistency in data formats, collection timelines, minimum data requirements across countries, and an understanding of data confidentiality and intellectual property.
- Implementation of the data policy will focus on incremental progress, focusing on critical data collection in the near term on catch, landings, and vessel registration.

- There could be the need to create an incentive and consequence system for participation in data collection.
- Technologies such as smartphones and tablets could provide cost-effective and convenient options to improve data collection.

Data Collection Approaches and Minimum Requirements

Christopher Milley from Nexus presented a set of data collection recommendations for input. These included mandatory membership in fishers' organizations and the introduction of logbooks that fishers would fill out and submit at landing sites in exchange for a landings fee waiver. He recommended that fishers' organizations collect the logbooks and share aggregated data with fisheries divisions.

- Mandatory membership in fishers' organizations is not feasible without a high level of political intervention.
- Logbooks could be effective, though fishermen need to retain ownership over their personal data.
- Many fishers' organizations do not have adequate resources to manage and analyze fishermen's data.
- Cost recovery methods other than landings-based fees could be effective.
- Fisheries divisions could host annual events for fishermen where they share scientific findings. The events can incentivize fishermen to collect data.
- Fishers need a mandatory requirement to report catches. Alternatively, the incentive of receiving synthesized findings and participating in data analysis may provide sufficient incentive for fishermen to participate in data collection.
- E-logbooks are worth investigating as a convenient way for fishermen to collect and submit data.

Cooperation Agreement

Meeting participants came to several conclusions regarding the draft cooperation agreement, including the following.

- The cooperation agreement will address all major, shared living marine resources in the relevant geography.
- The cooperation agreement should mention sharing of information that would be useful for combatting illegal, unreported, and unregulated fishing. There could be complications discussing markets and marketing since this would necessitate review by other bodies, like from the central French government.
- Gaining political-level agreement within the timeframe of the CLME+ consultancies is infeasible; therefore, we will seek a more practical agreement at the technical level in the near term. CRFM and Martinique may pursue a political-level agreement in the future.
- The most effective approach will be to begin with a simple agreement that all parties can agree to.

• CRFM will sign the cooperation agreement on behalf of its member nations, through either the Secretariat or the Ministerial Council, depending on the level of the signatory representing Martinique.

Additional Stakeholder Consultations

The CRFM held additional stakeholder consultations during Blue Earth's Governance consultancy. These included a March CRFM Forum meeting, a May 2019 regional consultation in St. Lucia, and the 3rd meeting of the CRFM Ministerial Sub-Committee on Flyingfish, in Basseterre, Saint Kitts and Nevis in June, during which participants reviewed and discussed the consultancy's draft Eastern Caribbean Flyingfish Fisheries Management Plan 2020 - 2025, Cooperation Agreement, and Data Policy.

Conclusions

The stakeholder engagement process for revising the ECFF-FMP and developing the Data Policy and Cooperation Agreement included several opportunities for individuals in the region to provide input and comments. This process included the three meetings described in this document as well as other engagement methods including an online survey, phone interviews, and opportunities to provide written comments on draft documents. Blue Earth gathered input from each of these methods to develop updated, revised versions of the documents for further review and vetting. After a final round of stakeholder feedback via written comments, Blue Earth finalized the documents for endorsement at the appropriate levels.

ANNEX D: SPECIFIC ACTIVITY REPORTS DOCUMENTING CONSULTANT ACTIVITIES AND PROGRESS REGARDING STRENGTHENING AND TESTING COOPERATION FRAMEWORK

STRENGTHENING AND TESTING OF PROPOSED COOPERATION FRAMEWORKS AT THE NATIONAL AND REGIONAL LEVELS

Background and Purpose

This document provides a review of the work conducted by Blue Earth Consultants (Blue Earth), a Division of Eastern Research Group, Inc.; the Caribbean Regional Fisheries Mechanism (CRFM); national focal points (national fisheries division staff); regional technical level organizations; and local flyingfish fishery stakeholders, including flyingfish vendors, boat owners, fishers, fisherfolk organizations, and cooperatives, to strengthen and test cooperation frameworks as they pertain to flyingfish management in the Eastern Caribbean. The work is part of the United Nations Development Programme / Global Environment Facility funded project, Catalysing Implementation of the Strategic Action Programme for the Sustainable Management of shared Living Marine Resources in the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+). The cooperation framework development efforts comprise portions of Blue Earth's three consultancies under contract to the CRFM. These consultancies are:

- 1. Technical Support to Enhance the Governance Arrangements for Implementing an Ecosystem Approach for Flyingfish Fisheries (Governance)
- 2. Technical Support to Facilitate Adaptive Management for Eastern Caribbean Flyingfish Fisheries (Adaptive Management)
- 3. Technical support on Implementation of Management/Stress Reduction Measures in the Eastern Caribbean Flyingfish Fishery (Stress Reduction)

The three primary outputs of Blue Earth's work are an updated Eastern Caribbean Flyingfish Fishery Management Plan (ECFF-FMP), a Sub-Regional Data Policy that outlines data collection priorities and considerations, and a Cooperation Agreement that establishes a framework for cooperation between the CRFM Member States and Martinique with respect to the management of major, shared living marine resources.

The purpose of this report is to provide the CRFM's member states and Martinique with a summary of the tools that Blue Earth and local flyingfish stakeholders have developed to strengthen and test cooperation frameworks. The report also presents lessons learned that have emerged as part of Blue Earth's and the CRFM's development of the consultancies' consultative process, Cooperation Agreement, Data Policy, updated Eastern ECFF-FMP, and impact assessment tools. In this way, it provides guidance on further national and regional partnership building efforts that focus on improving fisheries (including the flyingfish fishery) management effectiveness at the national and sub-regional levels.

Review of National and Regional Consultative Process

Blue Earth organized a consultative process with national focal points in each of the six CLME+ Eastern Caribbean countries (Barbados, Dominica, Grenada, Saint Lucia, Saint Vincent and the Grenadines, and Trinidad and Tobago) to encourage local stakeholder input into the updated ECFF-FMP, Data Policy, and Cooperation Agreement drafting process. Below are the objectives and methodology for this consultative process. Because only two of the six countries (Dominica and Saint Lucia) held local stakeholder meetings, Blue Earth, Nexus, the Caribbean Natural Resource Institute (CANARI), and the CRFM determined that the most effective way to gather input from all countries would be to hold a special meeting of the CRFM-Western and Central Atlantic Fisheries Commission (WECAFC) Working Group on Flyingfish for regional technical level organizations, national focal points, and local stakeholders.

Additionally as part of this process but not attended by Blue Earth, the CRFM held a March Forum meeting, a regional stakeholder consultation in May 2019 in St. Lucia, and the 3rd meeting of the CRFM Ministerial Sub-Committee on Flyingfish in Saint Kitts and Nevis in June, during which participants reviewed and discussed the consultancy's draft Eastern Caribbean Flyingfish Fisheries Management Plan 2020 - 2025, Cooperation Agreement, and Data Policy.

Summary of Local Stakeholder Recommendations (Dominica and Saint Lucia)

During the Dominica and Saint Lucia meetings, flyingfish fishery local stakeholders generally agreed with the information presented in the draft Cooperation Agreement, recommendations to the draft updated ECFF-FMP, and the draft sub-regional Data Policy. In certain instances, however, they felt that the documents could be strengthened with more country-specific information. Meeting attendee recommendations included the following:

- Present the updated ECFF-FMP in a more user-friendly way (e.g., text boxes with key points at the beginning of each section, tables that highlight priority information)
- Address management gaps by merging the sub-regional flyingfish management plan with national plans that capture unique local issues
- Useful aspects of the Data Policy include fisher data collection and data sharing
- The Data Policy should include high-priority protocols that incorporate data ownership and access rights
- Knowledge transfer between local stakeholders and training in sustainable fishing techniques for entry-level fishers should be a component of the Cooperation Agreement
- The Cooperation Agreement should be endorsed by CRFM member countries and the Organization of Eastern Caribbean States (OECS)

<u>Summary of Local Stakeholder Recommendation (Special Meeting of the Joint CRFM/WECAFC Working Group on Flyingfish in the Eastern Caribbean)</u>

During the Special Meeting of the Joint CRFM / WECAFC Working Group on Flyingfish in the Eastern Caribbean, held in Barbados, regional technical level organizations discussed capacity availability and needs; the updated ECFF-FMP, Data Policy, and Cooperation Agreement drafts; and data collection approaches. Below is a summary of the main points gathered through discussion of each of the primary meeting topics.

- Many national fisheries divisions lack the human and technical capacity needed to implement the ECFF-FMP.
- There are many gaps in understanding of flyingfish ecological and fishery dynamics and filling these gaps will be a critical priority for implementing the ECFF-FMP.
- The existing draft ECFF-FMP is highly technical; to make it more accessible to all local stakeholder groups, it could either be re-written to be more straightforward, or it could come with an accompanying summary in plain language.

- The Data Policy focuses on flyingfish as a pilot species and can be used as a model or expanded to address other fishery data policies in the future.
- Fishers need a mandatory requirement to report catches. Alternatively, receiving synthesized findings and participating in data analysis may provide them with sufficient incentive to participate in data collection efforts without this requirement.
- Gaining political-level agreement within the timeframe of the CLME+ consultancies is infeasible; therefore, a more practical agreement at the technical level will be sought by the CRFM in the near term. CRFM and Martinique may pursue a political-level agreement in the future.

Lessons Learned for Future Partnership Building Efforts in the Region

Below are some of the lessons learned that have emerged from the national and regional consultative process:

- Local stakeholder involvement and expertise is a critical component of cooperation building efforts and has enriched the draft content in the updated ECFF-FMP, Data Policy, and Cooperation Agreement.
- Identification of local stakeholder champions encourages information dissemination, buy-in, and creates a link between regional fisheries managers, national focal points (fisheries division staff), fishers, and fisherfolk organizations.
- The most effective way to gather national focal point expertise is through their participation in third-party facilitated meetings.
- Current efforts to improve regional cooperation and harmonization of Eastern Caribbean fisheries management strategies follow in the wake of over 20 years of work. Understanding the history, experiences, and lessons learned from the last two decades is an important component of any future fisheries management strategy.
- Fisheries divisions do not have the capacity to engage with local flyingfish stakeholder groups

Review of Cooperation Agreement and Data Policy Development Process

Blue Earth and the CRFM undertook a series of activities to encourage the establishment of a framework at the technical/scientific level for cooperation between the CRFM Member States and Martinique with respect to the management of major, shared living marine resources. This work includes creating an integrated data collection, management, and sharing policy among countries, fishers, regional bodies that participate in the harvest and management of Eastern Caribbean flyingfish, and others involved in the industry. The following section provides a summary of the cooperative activities undertaken by Blue Earth and the CFRM as they pertain to the development of the Cooperation Agreement and Data Policy.

Summary of Cooperation Agreement National and Regional Activities

The Blue Earth team and CRFM carried out the following activities as part of the Cooperation Agreement's development process:

- Identified national focal points representing Eastern Caribbean countries and potential representatives from Departements outré-Mer (DOMs) and regional bodies to engage and include in the process of developing a Cooperation Agreement between the CRFM and France.
- Developed and applied an interview tool with questions for CRFM leadership, technical staff, and the Institut français de recherche pour l'exploitation de la mer (IFREMER) regarding the needs for enhancing cooperation and key topics that should be included in the Cooperation Agreement.
- Developed information products (infographic and press release) to share throughout the region to engage technical / scientific-level staff.
- Reviewed examples of cooperation policies and agreements (e.g., Caribbean Common Fisheries Policy Agreement, memorandum of agreement between CRFM and IFREMER, Agreement Establishing the CRFM) and documents related to enhancing cooperation between the CRFM and France.
- Recommended likely bodies for endorsement (CRFM Ministerial Council and Martinique's Direction de la Mer).
- Facilitated two national local stakeholder meetings and a special regional meeting of the CRFM-WECAFC Working Group on Flyingfish to gain input and encourage participation from national and focal points and regional technical level organizations on the Cooperation Agreement's content.

Summary of Data Policy National and Regional Activities

Blue Earth performed the following activities as part of its consultative process to inform Data Policy development:

- Performed web research on best practices for data policies and data management.
- Drew information to inform Data Policy development from online survey and interview responses from fishery managers.
- Reviewed existing data protocols.
- Led a consultative and participatory process among fishery division managers and key local stakeholders in the six participating Eastern Caribbean countries that identified data gaps and priorities for the flyingfish fishery and facilitated local stakeholder input to the Data Policy drafts.
- Identified information needs, indicators, data needed for each indicator, and data specification for each country.
- Identified Data Policy responsibilities.

Lessons Learned for Future Partnership Building Efforts in the Region

The lessons learned as they relate to the Cooperation Agreement and Data Policy development process include the following:

- Formal, structured meetings where Blue Earth was able to be present and facilitate certain sessions proved the most useful technique for gaining regional, national, and local level input.
- The information procured during the updated ECFF-FMP development process proved useful for the drafting of the Cooperation Agreement and Data Policy.
- The process of Cooperation Agreement and Data Policy drafting improved networking and collaboration among participating regional, national, and local entities.
- Technical body capacity must be strengthened if the Cooperation Agreement and more specifically the Data Policy are to improve the management of Eastern Caribbean shared living marine resources.
- Well-informed sub-regional-level management decisions and stock assessments cannot be made
 in the absence of consistent, accurate national data. To this end, the participation of fisheries
 divisions and fishers will be a critical component of successful Data Policy implementation by
 individual countries.
- Political-level agreement for the Cooperation Agreement between the CRFM and Martinique within the timeframe of the CLME+ consultancies is infeasible; therefore, the CRFM will seek a more practical agreement at the technical level in the near term. CRFM and Martinique may pursue a political-level agreement in the future.

Review of Flyingfish Fishery Management Plan Development Process

The 2014 sub-regional ECFF-FMP is endorsed by the CRFM's Ministerial Council and was a product of regional cooperation, collaboration and consultation. Blue Earth evaluated the management plan's implementation by national and regional fisheries management bodies and then built on the existing cooperation frameworks to draft an updated ECFF-FMP. The updated version is the product of a rigorous stakeholder engagement process that included Blue Earth and CRFM led research, workshops, online surveys, and interviews with national fisheries division staff, regional fisheries management experts, fishers and fisherfolk organizations, and researchers. The following sections provide a summary of the cooperative process that stakeholders undertook to contribute information used in Blue Earth's ECFF-FMP evaluation and update, as well as lessons learned throughout the process.

Summary of ECFF-FMP Evaluation Process

In 2015 the CRFM completed an evaluation of the progress on implementation of the 2014 sub-regional ECFF-FMP. As part of Blue Earth's work on the flyingfish fishery, we conducted an update to that evaluation. Components of this work included an analysis of FMP adoption, development, and implementation; data collection and reporting; national entry systems; local stakeholder engagement processes; and existing regional initiatives. In the final evaluation report, we presented key national and regional flyingfish management initiatives, a progress summary on each of the ECFF-FMP Management Measures, lessons learned, and recommendations. The following activities were performed as part of this evaluation:

- **Document review:** Reviewed the 2016 CRFM ECFF-FMP implementation evaluation.
- Online survey: Reviewed responses to help identify where more input was needed to answer the evaluation questions.

- **Interviews:** Developed an interview guide that followed up on the online survey and gained more information related to the implementation evaluation. Blue Earth performed a total of 14 phone interviews with 15 people, representing national fisheries divisions in all six focal countries as well as individuals with expertise at the regional level.
- **Data analysis:** Compiled all input from the online survey and interviews to draw out key findings.
- **Report development and refinement:** Drafted the implementation evaluation report, which includes recommendations for the CRFM on furthering implementation of the ECFF-FMP. As part of this process, local stakeholders from each member country reviewed the implementation draft and provide input for refinement and finalization.

Summary of Updated ECFF-FMP Development Process

The updated ECFF-FMP is the product of Blue Earth's and the CRFM's process that encouraged national and regional stakeholder input. Key components to its development include the following:

- Blue Earth completed an initial review of the FMP and developed a draft list of recommendations for updating the FMP.
- CRFM reviewed the draft list of recommendations for updating the FMP, provided input, and Blue Earth revised.
- National focal points from the six CLME+ countries reviewed the draft list of recommendations for updating and provided their feedback.
- Blue Earth compiled and reviewed feedback from national focal points and additional input gathered through an online survey and revised the draft list of recommendations.
- Local stakeholders identified opportunities to update the document's structure and additional topics to consider (e.g., key framing elements, management measures, data priorities including harmonization of collection efforts, research needs, use of the precautionary principle, collaborative support).
- Blue Earth analyzed the relationship between planned outputs and Member States' needs and capacities.
- Local stakeholder groups made suggestions concerning institutional and incentive structures and responsibilities of governments and other stakeholders for bringing the ECFF-FMP into implementation in the region, including identification of constraints and recommendations.

Lessons Learned for Future Partnership Building Efforts in the Region

The lessons learned during the ECFF-FMP evaluation and updated management plan process as they relate to future partnership building efforts include the following:

• The ECFF-FMP evaluation and development process exposed the region's low level of flyingfish scientific understanding. A better understanding of the level of flyingfish harvest, changes in the

fish stocks, and the ecological importance of flyingfish to other pelagic fish species are necessary for making informed management decisions.

- Staff, financial, and infrastructure resources for flyingfish management are lacking across the region. Without financial and technical support for fisheries management activities, Eastern Caribbean countries will be challenged to implement the ECFF-FMP or other FMPs. Tackling all aspects of ECFF-FMP implementation at once is not feasible in the current situation, so prioritization of next steps will be necessary. Regional partnerships can help national fisheries divisions with threadbare budgets pool their resources by finding innovative ways to collaborate on management initiatives including data collection.
- The 2014 ECFF-FMP is highly technical; to make the updated version more accessible to all local stakeholder groups, it could either be re-written to be more straightforward or could come with an accompanying summary in plain language.
- Not all relevant local stakeholder groups, such as fisheries scientists, lawyers, and value chain representatives, were engaged in early discussions leading to the development of the ECFF-FMP. Had all these groups been involved from the beginning, they might be currently more involved in implementation. One way to engage fishers and secure their buy-in and trust is for managers to share synthesized data and information regarding the fishery with them.
- Fishery divisions' omnipresent low capacity to engage with local flyingfish stakeholder groups will continue to hamper efforts by regional groups including the CRFM to create stronger cooperation frameworks.

Review of Impact Assessment Tools

Blue Earth produced three impact assessment tools which address its CRFM consultancies. The purpose of these tools is to facilitate the CRFM's ongoing assessment of work relating to the consultancies following their completion. The impact assessments will draw on various sources of data and information, which may include documents, data analysis, surveys, or stakeholder interviews. The following section provides a summary of these tools and their implementation as a way of assessing Eastern Caribbean flyingfish management initiatives and the contribution that local stakeholder groups, through their cooperation frameworks, are having on these efforts.

Summary of the Three Tools

The impact assessment tools aim to assess whether the main objectives/actions to enhance the governance arrangements for implementing an ecosystem approach for flyingfish fisheries and to facilitate adaptive management for eastern Caribbean flyingfish fisheries are being achieved. The three tools are organized according to their associated indicators of success and associated evaluation questions. They are organized in the following way:

Tool 1: General

ECFF-FMP Implementation Support

• Indicator 1: Updated ECFF-FMP consistently upheld and implemented by national agency partners

• Indicator 2: Relevant bodies (e.g., National Intersectoral Coordination Mechanisms or other similar bodies, CRFM-WECAFC Working Group on Flyingfish, CRFM Pelagic Fisheries Working Group, WECAFC Data and Statistics Working Group, OECS Commission) are actively working toward improved regional flyingfish fishery management

Tool 2: Governance

Partnership Development

• Indicator 1: Effective management collaboration demonstrated between the CRFM and France

Data Policy

- Indicator 2: Sub-regional flyingfish Data Policy validated, approved, and coordination capacity in place
- Indicator 3: Sub-regional flyingfish Data Policy consistently upheld and implemented by national agency partners
- Indicator 3: Stakeholders actively engaged in implementation of sub-regional flyingfish Data Policy

Tool 3: Adaptive Management

Information Products

• Indicator 1: Fishermen, consumers, and organizations are knowledgeable about the flyingfish FMP and supporting its implementation through compliance and consumer choices

Impact Assessment Implementation

The CRFM may collect information relating to each of the impact assessment tool questions through different means, as appropriate given the nature of the question; for example, this could include surveys or discussions with stakeholders, review of published data or information, and other research methods. There are various stakeholder groups that the CRFM will likely need to correspond with, and cooperation frameworks that it will want to consider, to gather information to answer the assessment questions; some questions can be answered by the CRFM's staff, while other questions will require reaching out to fishers, fishery officers, participants in international bodies, and more. The CRFM could perform the impact assessments regularly, for example every 12 - 18 months. A time frame such as this will allow the CRFM to stay informed about the management progress that regional and national stakeholder groups are having, the effectiveness of flyingfish cooperation frameworks, and what improvements and / or changes need to be made to improve their effectiveness.

ANNEX E: UPDATED POLICY AND MANAGEMENT RECOMMENDATIONS FOR EASTERN CARIBBEAN FLYINGFISH FOR COMPLETING POLICY CYCLE AND MANAGEMENT PLAN

SUB-PROJECT AFTER-LIFE PLAN

Background and Purpose

This document provides an After-Life Plan for Blue Earth Consultants' (Blue Earth), a Division of Eastern Research Group, Inc. three consultancies under contract to the Caribbean Regional Fisheries Mechanism (CRFM). The consultancies constitute part of the flyingfish sub-project of the United Nations Development Programme (UNDP) / Global Environment Facility (GEF) funded project, Catalyzing Implementation of the Strategic Action Programme for the Sustainable Management of shared Living Marine Resources in the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+ Project). Blue Earth's three consultancies are:

- 1. Technical Support to Enhance the Governance Arrangements for Implementing an Ecosystem Approach for Flyingfish Fisheries (Governance)
- 2. Technical Support to Facilitate Adaptive Management for Eastern Caribbean Flyingfish Fisheries (Adaptive Management)
- 3. Technical support on Implementation of Management/Stress Reduction Measures in the Eastern Caribbean Flyingfish Fishery (Stress Reduction)

The three primary outputs of Blue Earth's work are an updated Eastern Caribbean Flyingfish Fishery Management Plan (ECFF-FMP), a Sub-Regional Data Policy that outlines data collection priorities and considerations, and a Cooperation Agreement that establishes a framework for cooperation between the CRFM Member States and Martinique with respect to the management of major, shared living marine resources.

The purpose of this After-Life Plan is to provide the CRFM with a roadmap it can use at the conclusion of the CLME+ flyingfish sub-project to complete the policy cycle and management plan and to continue improving regional management of pelagic fisheries, including the flyingfish fishery. The CRFM and Member States involved in the CLME+ Project (Barbados, Dominica, Grenada, Saint Lucia, Saint Vincent and the Grenadines and Trinidad and Tobago) can use this plan to guide their ongoing flyingfish management efforts as they relate to the strategies described in the ECFF-FMP, Data Policy, and Cooperation Agreement. It provides guidance on the enabling conditions needed to move toward ecosystem-based flyingfish fisheries management; key activities for achieving those conditions; estimates of management activity costs; potential financing mechanisms to pursue; and a framework for monitoring, evaluation, and adaptive management.

Updated Policy and Management Recommendations

Several enabling conditions will need to be in place for Member States to complete the policy cycle as it relates to their implementation of the ECFF-FMP, Data Policy, and Cooperation Agreement beyond the timeframe of the CLME+ sub-project. Below, we discuss these enabling conditions and recommended key activities that flyingfish stakeholders can perform to create them.

Enabling Conditions for Completing the Policy Cycle and Management Plan

The vision for the flyingfish fishery, as stated in the 2014 ECFF-FMP, includes effective cooperation and collaboration among participating states in the conservation, management, and sustainable utilization of the flyingfish resource and related ecosystem in the Eastern Caribbean to secure optimal benefits from those resources for the people and for the Caribbean region. To achieve this vision and implement the

outputs created through the flyingfish sub-project, several enabling conditions will need to be in place. These enabling conditions represent the legal, financial, institutional, and management context required to implement the sub-project outputs and ecosystem-based flyingfish fishery management strategies. We recommend that the CRFM and its Member States recognize and consider the importance of the following enabling conditions as they relate to the successful completion of the Eastern Caribbean flyingfish policy cycle and management plan. We have organized them by the broad themes of stakeholder involvement, political support, capacity-building, and communication.

Stakeholder Involvement

Stakeholder involvement will play an important role as the CRFM and its Member States continue their efforts to complete the flyingfish policy cycle and ECFF-FMP. The following enabling conditions, some of which are already in place, will facilitate these processes:

- Strong fisherfolk organizations: These groups are a critical bridge between fisheries division staff and fishers. Their involvement in fishery management, including data collection, monitoring, and sharing and receiving information related to decision-making reduces the management burden on national fisheries divisions. Fisherfolk organizations with strong operational and technical capacity can enhance stakeholder engagement.
- Stakeholder champions: Motivated and knowledgeable individuals from stakeholder groups can disseminate information, build buy-in, and provide a link between fisheries division staff and the greater flyingfish community. Identifying champions in each country and building relationships with them could greatly enhance stakeholder engagement in flyingfish management.
- **Involvement of non-traditional groups**: Chain of custody members, business and legal sectors, and local police can assist with activities such as socio-economic data collection. Involving these groups could alleviate some of the budget and staffing shortcomings that fisheries divisions around the region experience, as well as give managers access to a variety of different types of fishery-related information.

Political Support

The ability of CRFM and its Member States to complete the policy cycle and implement many aspects of the ECFF-FMP is dependent on political support – including from national environment ministries and international bodies – and adherence to the Western Central Atlantic Fishery Commission's (WECAFC) recommendations and resolutions. The following enabling conditions will indicate the existence of this support:

• Support for FMP implementation: With general agreement on the ECFF-FMP in place, there is a need to focus management efforts to the national level where they are most needed. Support from regional management entities (CRFM, WECAFC, etc.) for country specific activities would help national fisheries divisions to use their limited resources on priorities that are consistent across the region. Availability of funds for such support would likely require some level of political support, such as if funding comes from the budget of a ministry or an international body, or if those bodies are responsible for developing grant proposals. Funds raised with new, sustainable financing mechanisms, described in the key activities section below, could be used to support this process.

- Institutionalized cooperation with Martinique and, where appropriate, other non-CARICOM WECAFC Member Countries: Guided by the Cooperation Agreement between the CRFM and France, the CRFM and technical leaders from Martinique will need to establish regular and open communication regarding major, shared living marine resources. Communication and sharing of data and information will be necessary for managing flyingfish stocks in a holistic regional manner, irrespective of national borders.
- **Endorsement of the Data Policy**: Endorsement of the Data Policy by the CRFM (representing each of the six CLME+ countries) represents one step toward implementing regionally harmonized data collection and management protocols. Endorsement at the political level would represent even stronger support for this policy and could enable greater investment in implementing the plan.

Technical and Financial Capacity

Staff and stakeholders, including, fisheries division staff, fisherfolk organizations, fishers, and other stakeholders, are ultimately responsible for implementing the various aspects of the ECFF-FMP. Therefore, they require adequate training to carry out their duties. Some enabling conditions that will indicate improved capacity include the following:

- Adequate capacity in fisheries divisions: The fisheries divisions of all six CLME+ countries experience capacity limitations that effect their ability to manage the flyingfish fishery. Enhanced capacity through hiring, trainings, and/or financial resources would aid efforts to implement the ECFF-FMP, Data Policy, and Cooperation Agreement.
- Adequate capacity in stakeholder groups: The updated ECFF-FMP emphasizes the importance of co-management with fishers and other stakeholder groups, and the Data Policy relies on fishers to collect key data. Therefore, these groups will need information and trainings to fill their roles in flyingfish management. As they become knowledgeable and comfortable with their responsibilities, fishers, fisherfolk organizations, value chain members, and others will play increasingly important roles in management activities.
- **Financing mechanisms in place**: Additional financial resources will be necessary to implement many aspects of the ECFF-FMP, Data Policy, and Cooperation Agreement.

Communication and Cooperation

Another important ingredient that will aid the CFRM and its Member States' efforts to complete the policy cycle and construct harmonized regional flyingfish management activities will be strong communication. Below are some enabling conditions related to communications:

- Willingness to cooperate at the technical and political levels: Regional efforts to manage the flyingfish fishery at the technical and political levels hinge on mutual trust and the understanding that cooperation will lead to benefits for all parties. Willingness to cooperate and share information will be necessary for harmonized management across the sub-region.
- **Fishers' willingness to share information**: Accurate data collection depends on fishers' willingness to record and share their data with national fisheries divisions. Work is needed to increase fishers' trust of fisheries divisions and willingness to share complete and accurate data.

• Two-way stakeholder engagement: An institutionalized system is needed for sharing data between fishers / fisherfolk organizations, national fisheries divisions, and the CRFM. All parties should play roles in both collecting or compiling data and reviewing and commenting on synthesized fishery data and information. Established communication channels will build trust and mutual understanding of the state of the fishery.

Recommended Key Activities for Completing the Policy Cycle and Management Plan

The CRFM, regional technical level organizations, Member States, fisherfolk organizations, researchers, and flyingfish value chain members can perform key activities to create the enabling conditions necessary to complete the policy cycle and management plan. In this section is a list, in chronological order, of recommended key activities that, when completed, will create the enabling conditions needed to implement the ECFF-FMP, Cooperation Agreement, Data Policy, and data collection systems. Their timeframes refer to the number of months after approval of the After-Life Plan by the CRFM.

ECFF-FMP

The activities in Table 1 will help create the enabling conditions necessary for implementation of the updated ECFF-FMP.

Table 1: Activities to Enable ECFF-FMP Implementation

Activity	Description Description	Timeframe
Perform needs assessments	Countries conduct legislative and capacity needs assessments, as appropriate, that identify the conditions needed to roll out management of the ECFF-FMP (or a national FMP addressing flyingfish).	Months 1 - 10
Implement capacity- building efforts	Fisheries divisions undertake capacity-building efforts for staff members, fishers, select fisherfolk organizations, and other stakeholder groups as needed to increase their abilities to participate in fishery management efforts.	Months 6 - 10 and periodically in the future
Implement stakeholder engagement	Fishers collect data and report regularly to fisheries divisions; fisherfolk organizations assist with data collection, compilation, and communications between fishers and fisheries divisions. CRFM and fishery divisions regularly share findings from data collection with fisherfolk organizations and fishers.	Ongoing beginning in month 10
Draft harmonized fisheries acts	Each participating country updates their existing fisheries acts to align with the ECFF-FMP and the model act amendments and regulations on vessel registration.	Months 6 - 21
Secure sustainable	CRFM/WECAFC Working Group on Flyingfish identifies and secures political support for at least one new revenue stream that supports flyingfish management CRFM/WECAFC Working Group on Flyingfish	Months 1 - 12 Months 12 - 18
financing	establishes a pilot flyingfish management revenue stream(s) Member States and the CRFM/WECAFC Working Group on Flyingfish scale up the management revenue	Months 18 - 24

Activity	Description	Timeframe
	mechanism(s)	
Develop implementation plans	Fishery managers create implementation plans that address their needs assessments and map the remaining steps needed to implement priority aspects of the ECFF-FMP (or a national FMP addressing flyingfish).	Months 12 - 18
Endorse management policy	The appropriate national body(ies) endorse fisheries acts and implementation plans.	Months 12 - 18

Cooperation Agreement

The activities in Table 2 will help the participating parties give effect to the Cooperation Agreement between the CRFM and Martinique:

Table 2: Activities that will Enable Cooperation Agreement Implementation

Activity	Description	Timeframe								
Sign Cooperation	Representatives from the CRFM and Martinique sign the	Months 1 - 4								
Agreement	Cooperation Agreement and consider whether endorsement									
	at a higher political level is worth pursuing.									
Formalize fishery	The CRFM, Martinique, and, where appropriate, other non-	Ongoing,								
management	CARICOM WECAFC Member Countries coordinate their	beginning upon								
coordination	fishery management strategies, drawing from the framework	endorsement of								
efforts	provided by the Cooperation Agreement. This activity	the agreement								
	includes regular communication of their joint expectations									
	for information sharing.									
Develop	The CRFM and Martinique develop a more detailed plan for	Months 6 - 10								
implementation	near-term priorities on research, data collection, and/or other									
plan	aspects of coordinated management. If desired, parties also									
	adopt more detailed rules and designate the appropriate									
	entity(ies) responsible for implementing the agreement. The									
	designated responsible entity(ies) determine a schedule for									
	reviewing and revising priorities and direction, at a									
	minimum every three years.									

Data Policy

The activities detailed in Table 3 will help flyingfish stakeholders implement the data policy.

Table 3: Activities that will Enable Data Policy Implementation

Activity	Description	Timeframe	
Create	The CRFM adopts and begins utilizing a specific software	Months 1 - 6	
centralized	and database framework for compiling flyingfish fishery data		
database	from across the region.		
Draft data	CRFM leads a stepwise process outlining access privileges to	Months 4 - 8	
access and	fishery data; appropriate national body(ies) and the CRFM		
confidentiality	institutionalize this process and share its key points with		
procedures	stakeholders.		
Collect	Fisheries divisions and fishers collect and share accurate	Ongoing,	
standardized	catch, effort, and vessel registration data in a timely manner.	beginning	in

Activity	Description	Timeframe
and accurate data	The CRFM produces regional information analysis with the data, allowing fishery managers to make informed decisions regarding the use of the Eastern Caribbean flyingfish resource.	month 8
Test electronic monitoring	Two test countries begin to electronically monitor fishing activities across the fleet and reduce the need for data collectors on the water and at landing sites.	Months 12 - 18
Implement the Castries Declaration on IUU fishing	All Caribbean states update lists of authorized fishing vessels, vessels involved in IUU fishing, and standards for fishing vessel marking and identification in accordance with Recommendation WECAFC/17/2018/1 ¹ .	Months 12 - 18

Data Collection Systems

Flyingfish stakeholders will need to perform several activities, including those detailed in Table 4 to improve their flyingfish data collection systems.

Table 4: Activities that will Enable Development of Fishery Data Collection Systems

Table 4: Activities that will Enable Development of Fishery Data Collection Systems					
Activity	Description	Timeframe			
Develop regulatory instruments	The appropriate national body(ies) develop regulatory instruments requiring fishers, fisherfolk organizations, and value chain members to use logbooks and begin researching the feasibility of using electronic data collection tools including Electronic Catch Documentation and Traceability (eCDT) systems.	Months 1 - 6			
Train fishers in data recording and management	Regional management bodies, universities, and capacity-building organizations offer trainings in data recording and management, such as the use of logbooks, or appropriate eCDT systems where / when available.	Months 4 - 18			
Assess data reliability	Fisheries Divisions survey fishers, fisherfolk organizations, and value chain members determine consistency and completeness of data coverage and compilation. Develop tune-up trainings or other protocols needed based on the survey findings.	Months 12 - 24			

Estimates of Eastern Caribbean Flyingfish Fishery Management Activity Costs

The CRFM and its Member States' level of capacity to perform the key activities to create the enabling conditions for ECFF-FMP, Data Policy, and Cooperation Agreement implementation will depend on the amount of additional funding that they can secure. In this section, we present yearly estimates, based on best practices, of the management implementation costs for both the CRFM and its Member States involved in the CLME+ Project. The breakdown of these costs in US dollars (Table 5) corresponds to the key activities associated with ECFF-FMP, Cooperation Agreement, Data Policy, and data collection systems implementation that Blue Earth presented in Tables 1-4 above. Cost variations among Member States reflect each fisheries division's management capacity as identified in Blue Earth's ECFF-FMP

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¹ Western Central Atlantic Fishery Commission (WECAFC). (2017). Eight Session on the Scientific Advisory Board (SAG): Recommendations and resolutions to WECAFC 17 for SAG review. Food and Agriculture Organization of the United Nations, Rome, 30 pp.

Management Performance Evaluation report. We estimate the possible cost to fully implement the After-Life Plan to be \$810,000 / year for the CRFM and \$220,000 - \$275,000 / year for each Member State. We estimate the possible implementation cost range to be \$500,000 - \$1,000,000 for the CRFM and \$150,000 - \$300,000 for Member States.

In Table 5, we first present activities and their costs that are not specifically associated with the ECFF-FMP, Cooperation Agreement, Data Policy, and data collection systems, but they are nonetheless inherent to ecosystem-based management strategies for flyingfish in the Eastern Caribbean. These include staffing, travel, and equipment costs. We estimate the total cost of this section to be \$335,000 for the CRFM and between, \$75,000 – \$115,000 for Member States. We estimate that the activities to help create the enabling conditions necessary to implement the updated ECFF-FMP will cost the CRFM \$300,000 and Member States \$25,000. We estimate Cooperation Agreement coordination and implementation costs to be \$100,000 for the CRFM. We do not anticipate Cooperation Agreement coordination and implementation expenses for Member States. We estimate the Data Policy and data collection system implementation cost to be \$75,000 for the CRFM and between \$120,000 and \$135,000 for Member States.

Table 5: Estimates of Yearly Eastern Caribbean Flyingfish Fishery Management Costs in US Dollars for the Caribbean Regional Fisheries Mechanism and its Member

<u>Costs</u>	<u>CRFM</u>	<u>Barbados</u>	<u>Dominica</u>	<u>Grenada</u>	<u>Saint</u> <u>Lucia</u>	Saint Vincent and the Grenadines	Trinidad and Tobago
Key activities							
Personnel	\$250,000	\$60,000	\$60,000	\$90,000	\$90,000	\$60,000	\$90,00
Travel	\$75,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,00
Purchase equipment	\$10,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$15,00
Subtotal	\$335,000	\$75,000	\$75,000	\$105,000	\$105,000	\$75,000	\$115,00
ECFF-FMP							
Perform needs assessment;							
build capacity; develop							
implementation plan	\$200,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,00
Engage local stakeholders		\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,00
Secure sustainable financing	\$100,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,0
Subtotal	\$300,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,0
Cooperation Agreement							
Coordination/implementation							
with France/Martinique	\$100,000						
Subtotal	\$100,000	\$0	\$0	\$0	\$0	\$0	
Data Policy/Collection Systems							
Create centralized database	\$25,000						
Collect/analyze/share data		\$90,000		\$90,000	\$90,000	\$90,000	
Test electronic monitoring	\$50,000			\$10,000	\$10,000		
Train fishers in data recording		\$10,000			\$10,000	\$10,000	-
Register vessels		\$10,000			\$10,000		
Subtotal	\$75,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$135,0
Possible Estimated Annual							
Implementation Cost	\$810,000	\$220,000	\$220,000	\$250,000	\$250,000	\$220,000	\$275,0
Possible Implementation Cost	\$500,000-	\$150,000-	\$150,000-	\$150,000-	\$150,000-	\$150,000-	\$150,00
Range	\$1,000,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,00

Financing Mechanisms and Formalizing (co-) Financing Commitments

Funding to support implementation of the ECFF-FMP and related documents, including the Data Policy and Cooperation Agreement, will be needed at both the national and international levels. Regional partnerships and national fisheries divisions can address omnipresent concerns over the availability of financial resources by developing new financing mechanisms. This funding can support activities outlined in the ECFF-FMP, Data Policy, and Cooperation Agreement, including data collection; monitoring, control, and surveillance; equipment purchases; infrastructure improvements; hiring of additional staff; local stakeholder engagement and training; and more (Table 5). Though we provided some estimates above, the amounts of funding needed to support these activities per annum will need to be determined by individual Member States and communicated to the CRFM.

In the report "Financing Mechanisms for Eastern Caribbean Flyingfish Management", produced by Blue Earth for the CLME+ flyingfish sub-project, we presented research findings and recommendations for the CRFM to consider regarding sustainable financing mechanisms for Eastern Caribbean flyingfish management (see Appendix A: Excerpt of Relevant Information from Report: Fishery Financing Mechanisms for more information). To arrive at these recommendations, we developed criteria for the selection of case study fisheries. These criteria included the following:

- a) **Adaptability**: Can the mechanism be adapted to suit the social, political, and economic context of Eastern Caribbean fisheries?
- b) **Geographical scope**: Is the mechanism geographically limited regarding its impact, activities, and implementation?
- c) **Governance**: Are the Eastern Caribbean Member States' fisheries management structures capable of administrating the mechanism, in a transparent manner?
- d) **Experience**: Do Member States have financing mechanism development experience and the financial resources available to implement it?
- e) **Performance**: At what level of funding and for how long can the mechanism potentially contribute to fisheries management initiatives in the Eastern Caribbean?
- f) **Allocation**: Can Member States allocate funding from the mechanism fairly among themselves? If not, do States agree with a disproportionate allocation scheme?

We then performed a rapid analysis of fisheries around the world and selected three to focus on as case studies (Philippines municipal fishery, South Pacific islands offshore tuna fisheries, North Pacific fishery). The information we obtained through research and interviews allowed us to map the flow of funds from source to deployment, describe successes and challenges encountered in implementing each of the mechanisms, and provide ideas of mechanisms that could also be effective in the Eastern Caribbean.

In the report, Blue Earth recommends several financing mechanisms for further due diligence by the CRFM and its Member States. One of these is a permit-based fee system that regulates and / or draws revenue from ocean-based resource extraction activities. Hotel, cruise ship, and departure taxes also offer an opportunity for governments, including fisheries divisions, to use country visitation fees to fund environmental protection and management activities. But potentially the most promising for Eastern Caribbean flyingfish is protected area user fees.

The Eastern Caribbean boasts a wealth of activities for tourists to engage in and places to enjoy, many of which are water-based and depend on a healthy natural environment. There could be opportunities to levy increased or additional fees on access and activities and use a portion of these to fund fisheries management activities like the methods used by the Philippines Municipal Fishery that we detailed in the report (see excerpt of relevant information from this report in Appendix A). This could occur on the local or national scale, such as through park access fees or fees assessed on activities like scuba diving or sportfishing.

The mechanisms we present in our Fishery Financing Mechanisms report may vary among countries. For this reason, the CRFM Secretariat will engage with leadership, including fisheries division staff, to assess the feasibility of implementing the mechanism and its potential financial returns. At the same time, the CRFM Secretariat will engage with leadership at the political level in each country – as well as have conversations with fisheries divisions and local stakeholders – about fishery management costs and the need for managers and fishers to identify management financing mechanisms. As leadership at the political level grows, and managers and local stakeholders begin to understand the gap that exists between current management budgets and the real costs of applying ecosystem-based approaches to fishery management, the more likely they will be to support and buy-into the funding mechanism development process. Because these outreach activities will incur expenses of their own, the CRFM Secretariat will approach potential private and public donor organizations that might be interested in supporting its efforts to identify, build political, management, and stakeholder will, and develop a pilot revenue stream.

After it secures donor funding to initiate this process, the CRFM, national focal points, and local stakeholders will take the following steps to assess the feasibility of developing funding mechanisms. The following steps, will be considered, using the protected area user fee mechanism as an example:

- 1. Perform a landscape analysis of existing protected areas in participating countries, noting those that have an existing entry fee system and their annual visitation levels; identify whether there are protected areas without existing fee structures that could provide a viable revenue stream.
- 2. Perform a willingness-to-pay study, or draw from existing studies in the region, to determine whether visitors would be willing to pay additional or increased fees for access to protected areas.
- 3. Determine a logical chain of custody of the flow of user fee funds from their initial collection point to their final use, based on existing legislative and political requirements; note whether there are points on the chain of custody that could result in leakage or reallocation of the funds to activities other than fishery management.
- 4. Develop and deliver a concise "pitch" to explain the need for the additional user fee to the appropriate political leaders; negotiate the fee level and implement specifics as needed.
- 5. The CRFM's continued partnership with multi- and bi-lateral public and private large-scale environmental funders, including the Caribbean Biodiversity Fund's Conservation Finance Program, in addition to its ongoing pursuit of GEF funding, will ensure CLME+ project continuity. It is essential to identify and secure funding to continue planning and implement the FMP and After-Life Plan. A thoughtful and holistic approach to how any additional funding of this kind might complement existing projects and build on past work could increase the CRFM's chances of obtaining support and the likelihood that the organization could use it in an efficient way.

Monitoring, Evaluation, and Adaptive Management

A standardized tool is needed to facilitate CRFM's ongoing assessment of implementation of the ECFF-FMP, Data Policy, and Cooperation Agreement. Blue Earth designed three impact assessment tools that CRFM can deploy to assess the extent to which the main objectives of the consultancies are being carried into the future. The impact assessment tools include a tool focused on assessing the Governance consultancy, a tool focused on assessing the Adaptive Management consultancy, and a general tool that addresses aspects that cross both consultancies. The CRFM Secretariat will draw from various sources of data and information to complete the impact assessments, which may include documents, data analysis, surveys, or stakeholder interviews. The CRFM Secretariat will perform the impact assessments regularly following the consultancies' completions, for example every 12 - 18 months.

Appendix A: Excerpt of Relevant Information from Report: Fishery Financing Mechanisms

Philippines Municipal Fishery - Small Pelagic Species Complex

Fishery background

The Philippines fisheries sector includes both capture fisheries and aquaculture. Capture fisheries are divided into commercial and municipal fisheries. The Philippine Fisheries Code of 1998 defines the municipal fishery as traditional, artisanal, subsistence, or small-scale fisheries that involve the use of vessels of three gross tons or less—including fishing operations that do not use boats. Municipal fishery areas of operation include inland lakes, streams, and marine waters up to 15km offshore. The Philippines Bureau of Fisheries and Aquatic Resources (BFAR) is responsible for the development, improvement, management, and conservation of the country's fisheries. BFAR defers to Local Government Units (LGUs) to enforce all rules and regulations governing the conservation and management of municipal fishery resources. LGU is a general term encompassing both Municipal Local Government Units (MLGUs) and the larger-scale Provincial Local Government Unit (PLGUs). Each LGU maintains a

registry of municipal fishers, monitors entry into municipal waters, and monitors fishing activities.⁷ Additionally, an LGU can prohibit or limit fishery activity if it and the Department of Agriculture determine that the municipality's waters are overfished or in danger of being overfished.⁸

As part of their policy-making structure, each LGU has a Fisheries and Aquatic Resources Management Council (FARMC) composed of representatives from different Peoples Organizations (POs), including fisher organizations. To be a legally recognized organization by the municipality, POs must have at least 15 members, officers, by-laws, and a program of action. The POs represent the interests of their respective Barangays, which are the villages within a municipality, and therefore the smallest unit of local government. Each Barangay also has a municipal representative who is part of the FARMC. The FARMC determines policies and management actions and makes funding proposals to the municipality. When approved, the FARMC releases funds to the Barangays for implementation. In this way, the aquatic resource management decision-making process is highly participatory, involving local stakeholders. Figure 1 presents the central and local

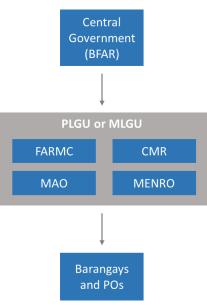


Figure 1. Organizational diagram of government and community bodies relevant to municipal fisheries

² The Food and Agriculture Organization of the United Nations (FAO). (2000). *Information on Fisheries Management in the Philippines*. [online] Available at: http://www.fao.org/fi/oldsite/FCP/en/PHL/body.htm [Accessed 5 November. 2018].

³ Philippine Fisheries Code of 1998. (1998). *Republic Act No. 8550*. [online] Manila: Congress of the Philippines, p. 3. Available at: https://www.ecolex.org/details/legislation/philippine-fisheries-code-of-1998-republic-act-no-8550-lex-faoc016098/ [Accessed 5 November 2018].

⁴ FAO. *Information of Fisheries*

⁵ Ibid

⁶ The Bureau of Fisheries and Aquatic Resources (BFAR). (2018). *About BFAR*. [online] Available at: https://www.bfar.da.gov.ph/aboutUS [Accessed 5 November. 2018].

⁷ FAO. *Information of Fisheries*

⁸ Ibid

⁹ Rosario, G. R. (2017). *Municipal Fisheries*. [online] Available at: https://www.slideshare.net/GeromeRosario/municipal-fisheries [Accessed 5 November 2018].

government offices and community organizations involved in the municipal fishery's management activities.

An estimated 1.4 million fishers participated in the municipal fishery in 2014. In 2015, catch from the fishery was approximately 22% of the country's total fish production, contributing 1.7% to the Philippines gross domestic product (GDP). In 2014, 63% of the fishery's more than 240,000 registered vessels were motorized (5-18m) and 37% were non-motorized (3-7m). Common gear types include gillnets, hook and line, traps/pots, and cast nets. It is illegal to use gear including trawls of all kinds, purse seines, and fishing gear using compressors. The Municipal Fishery is made up of a wide variety of fish species, with the most commonly caught including Indian sardines (7%) round scad and frigate tuna (6% each); anchovies, Indian mackerel, yellowfin tuna, fimbriated sardine, and squid (4% each); and slipmouth and big-eye tuna (3% and 1% respectively). Various other aquatic species compose the remaining catch. In 17

Blue Earth selected the Philippines municipal fishery as a case study because of several characteristics it shares with the Eastern Caribbean flyingfish fishery. These similarities include the following:

- The municipal fishery is a small-scale, domestic fishery.
- Fishing activities occur in and around protected areas and require fisher and vessel licenses / registrations.
- The fishery's top-down and bottom-up management systems and funding mechanisms can be applied to small-scale fisheries in small island developing state, including those in Eastern Caribbean nations.

Financing Mechanisms

Central government appropriations fund much of the management of the Philippines municipal fishery. Government-funded mechanisms include grant programs used to purchase patrol boats, support capacity building, and fund livelihood programs. Philippine organizations also draw from international aid to fund collaborations between the national government and LGUs on fisheries management planning strategies and staff capacity development Fee-based mechanisms including license fees and protected area entrance fees also help finance localized fishery management activities. POs and municipality staff collect and deposit funds into the LGU's treasury, where they are kept and disbursed to support local community organizations' surveillance and protected area development and management activities. Several financing mechanisms utilized for the fishery are described below.

¹⁰ Rosario. Municipal Fisheries.

¹¹ Southeast Asian Fisheries Development Center (SEAFDEC). 2018. *Fisheries: Country profile, Philippines*. [online] Available at http://www.seafdec.org/fisheries-country-profile-philippines/ [Accessed 5 November 2018].

¹² Ibid

¹³ Rosario. Municipal Fisheries.

¹⁴ Ibid

¹⁵ Ibid

¹⁶ Ibid

¹⁷ SEAFDEC. Fisheries: Country profile, Philippines.

Fishing License Fee

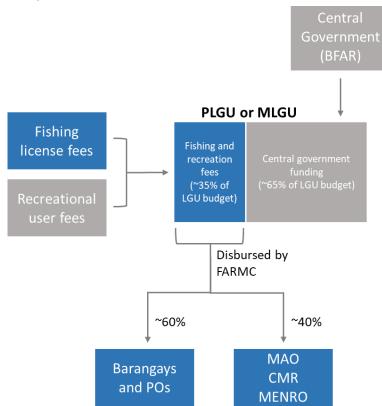
Description of the Mechanism

All vessels and fishers operating in the Philippines municipal fishery are required to register with their LGU, and most fishers must pay a license fee. Generally, each province and its associated municipalities' local government structures determine whether this registration is with an MLGU or a larger, more centralized PLGU. Fishermen pay the fee in cash annually in January or February, and those who pay are exempt from paying taxes on their catch that year. Fees range between US\$10 - 20, though some small-scale fishers are not required to pay.

Flow of Funds

Fishers pay license fees to LGUs, where they are held in the LGU treasury. These fees typically represent roughly one-third of the municipality's total annual budget; the national government supplies the remaining two-thirds of the LGU's budget through annual appropriations. Managers channel funding collected through license fees back to fishery management based on decisions made by the FARMC. About 60% of the license fees are allocated to local Barangays, who work with POs to fund, among other things, fisher capacity-building initiatives and MPA administrative and surveillance activities, no-fishing area development, focus groups, and public consultations. To combat illegal, unreported, and unregulated fishing (IUU) within the municipal fishery, a significant portion of the funds also go to local officers who carry out monitoring, control, and surveillance (MCS) activities, including monitoring landings and detecting and reporting improper fishing activities to local police.

Figure 2. Flow of fishing license funds to support Philippines municipal fishery management



The remaining 40% is disbursed among the LGU's Costal Resource Management Office (CMR), Municipal Agriculture Office (MAO). and / or Municipal Environment and Natural Resources Office (MENRO) for education and activities. communication This funding supports staff roles to provide the municipality with information, education, and communication regarding fisheries management. These efforts correspond to each municipality's annually updated fisheries management plan. Individual municipality budgets vary in size, so the amount allocated for fishery management could be as low as US\$10 - 20 thousand / year or as high as US\$100 thousand / year. Figure 2 illustrates the flow of funds, where items in blue indicate funding from license fees and items in grey are other funding sources.

Successes and Challenges

Below are several aspects of this funding mechanism that have worked well, as well as some challenges mentioned by interview informants.

Successes

- **Locally-based management initiatives**: Community members develop and carry out locally-based fishery management activities, creating a sense of ownership and a commitment to continue what they have started.
- **Stakeholder cooperation**: Strong partnerships between fishers and local and national government divisions facilitate efficient implementation of management strategies.
- **Reduction in IUU fishing**: Local law enforcement and fisher organizations support monitoring, control, and surveillance strategies, thereby enhancing protections against IUU fishing.

Challenges

- **Corruption**: Misappropriation of funds meant for fisheries management occurs, although recent efforts to investigate these cases by the League of Municipalities and the Ombudsmen's Office have improved the situation.
- **Unsustainable livelihoods**: There is limited support for projects to enhance fishers' economic resilience.
- **Little emphasis on conservation**: Management activities do not prioritize protection of critical habitats (e.g., mangroves, sea grass beds), which underpin long-term fisheries productivity.

Possible relevance to Caribbean flyingfish management

In countries with already established fee-based license systems, negotiations could result in an agreed percentage of these funds earmarked for management activities. Activities that could benefit include fisher capacity building, MCS, and data collection. Development of this funding mechanism, however, is dependent on the willingness of fishers to pay more for their licenses and the ability to ensure that funds are ultimately used for fishery management as agreed.

Recreation User Fees

Description of the Mechanism

Protected areas in the Philippines, including marine protected areas (MPAs), are under municipal ordinance and therefore under Barangay authority. The Barangay charges user fees that are used to finance, among other things, MPA management and enforcement (including fisheries management within the protected area). User fees include entrance fees and are also associated with activities like snorkeling or diving. Entrance fees range from US\$0.25 - \$3 for a day entry pass, though some well-established areas change more. For example, whale shark watching tour agencies charge nationals approximately US\$11 and foreigners US\$22 to enter the protected area. There are additional fees for underwater camera

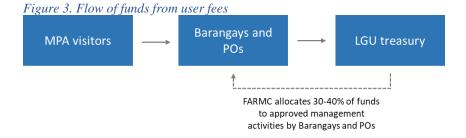
¹⁸ National park entrance fees are separate from local protected area user fees and go directly to the national park office and not to the municipality.

use (US\$3), video camera use, and SCUBA diving. MPAs with established dive tourism businesses collect over US\$100,000 per year in fees, while smaller, less established areas might raise only US\$5,000.

Flow of Funds

Each Barangay has an ordinance to collect user fees. A Barangay representative (who may also be a member of the MPA's management body) is assigned to collect the fees – which visitors pay in cash at the entrance – and note how many visitors entered the area. In some instances, tourism businesses, for example, purchase books of receipts directly from the LGU and reimburse themselves with the paid fees they collect from their clients. In either case, the Barangay representatives generally remit fees to the LGU's treasury, though some may stay with the Barangays and local fishers.

An estimated 30 - 40% of the user fees go to support Barangays' natural resource management initiatives within the MPA, vessel registration activities, capacity building, awareness raising, and law enforcement. In some MPAs, additional funds are awarded to POs and Barangays working with non-governmental organizations (NGOs) on conservation research initiatives including reef monitoring and mangrove restoration projects to further support these local conservation projects. They also transfer some of the funds to the Barangay's general fund to cover operating expenses. Barangays and POs submit workplans and proposals to the LGU. The FARMC then reviews these proposals and decides which resource management projects it will fund. The LGU uses the remaining percentage of user fees to support infrastructure improvements, local government staff salaries, and other expenses. Figure 3 shows the flow of funds from MPA user fees.



Successes and Challenges

The user fee funding mechanism has successes as well as challenges. Below are several of these aspects mentioned by interview informants.

Successes

- **Curtailment of IUU fishing**: IUU fishing has declined significantly in MPAs where user fees support MCS activities (primarily in popular tourist areas).
- **Development of additional funding mechanisms**: In many areas, Barangays or tourism businesses charge additional fees for MPA-specific activities (e.g., diving, underwater photography), increasing the amount of funds available for management activities.
- **Reduced dependence on national government**: User fees allow MPA management bodies and fisher organizations to depend less on appropriations from the central government.

• **Creation of matching funding**: Local organizations use user fees as matching funding when developing larger management proposals to national and international organizations/agencies and companies' corporate social responsibility offices.

Challenges

- **MPA carrying capacities surpassed**: Promotion of tourism activities within MPAs has, in some cases, led to carrying capacities being exceeded.
- **Little oversight of funding allocations**: In some municipalities, there is little control over the flow of user fees; therefore, some fees are misappropriated and not invested in protected area management activities. Additionally, because managers collect fees in cash, there could be leakage, where collectors do not deposit all funds the LGU treasury.
- **Delays in funding allocations**: Decision-making delays at the municipality level can cause lags in MPA management project implementation.

Possible relevance to Caribbean flyingfish

Protected area user fees for popular tourism sites could contribute significant funding towards Eastern Caribbean fisheries management. A system that charges individuals on a per-activity basis, in addition to an entrance fee, would further capitalize on protected areas visitation. Similar fee systems are in place in various locations around the Caribbean, including Saint Lucia and The Bahamas, where user fees contribute to a national conservation trust fund or support the work of a protected area management organization. Some countries do allocate user fees into a general fund and then reallocate for fisheries and protected area management, including marine reserves. Like the license fee mechanism, important implementation steps include pre-determining the percentage of funds that will be invested in fishery and/or protected area management efforts and defining which activities they will support. Managers would need to perform an evaluation of what tourists are currently paying to visit Eastern Caribbean countries and MPAs, and their willingness to pay more to support sustainable fisheries management activities.

Government Appropriations and Grants

Description of the Mechanism

Government appropriations account for approximately two-thirds of LGU budgets. Allocation of these funds varies based mainly on municipality land area, and coastal LGUs receive additional funds from BFAR for managing marine resources up to 15km offshore. Municipalities whose mayors prioritize marine resource management activities, as well as municipalities with high coastal ecotourism potential, commonly receive more funding from BFAR than others. MLGUs draft a municipal fishery management program and business plan that contains provisions for patrol boat equipment, diving equipment, on-thewater safety trainings, biophysical habitat monitoring, enforcement activities, personnel, etc.

BFAR stages annual contests and issues cash prizes to outstanding local government aquatic and coastal resource management projects. They award winning projects, for example the best managed MPA, between US\$400 - \$2,000, which comes with recognition of community members for their efforts. Additionally, the Department of Trade and Industry provides up to US\$5,000 to POs and MPA management bodies to support qualified fisher livelihood projects. The Department of Energy also provides financial benefits to communities that host powerplants. They use these funds to maintain the local MPA and livelihood development projects.

The government provides grants to LGU projects that focus on alternative forms of employment for coastal residents and sustainable resource use. These include aquaculture development initiatives and mangrove conservation projects.

Flow of Funds

During the third and fourth quarters of the year, POs and Barangays develop and submit project proposals to their LGUs that address fishery management needs and concerns. The FARMC then provides recommendations to the LGUs' MAO, CMR, and MENRO offices, whose staff select the fishery management projects the LGUs will support in the coming year. The FARMC signs off on all project funding decisions made by the CMR, MAU, or MENRO. BFAR then approves the LGUs' budgets and deposits national appropriation funds into their treasuries.

Like the funds distributed through the annual appropriations process, the national government transfers awarded grant funds directly to LGU treasuries. LGUs then disperse the funds to POs, Barangays, and LGU departments (CMR, MAU, MENRO) in accordance with the proposal. Figure 4 illustrates the flow of funds from these government appropriations and grants.

Figure 4. Flow of funds from government appropriations and grants

POs and
Barangays

Government grants

LGU treasuries

CMR, MAU,

MENRO

Successes and Challenges

Government appropriations and grants achieve successes and experience challenges in the Philippines municipal fishery. Below are the aspects mentioned by interview informants.

Successes

- Coastal resource conservation: LGUs and POs designed and implemented successful resource conservation projects in many municipalities.
- **Healthy competition over cash awards**: Local governments take pride in outperforming their neighbors seek opportunities to be recognized for their efforts by the country's president, including at events that garner media attention.

Challenges

• Local mayors influence funding preferences: POs that support the mayor's political agenda typically receive more financial support than ones that do not. In the case of fishery organizations, their visibility and the amount of financial support they receive is often at the mayor's discretion.

Possible relevance to Caribbean flyingfish management

There could be the opportunity to implement a competitive award process like the Philippines government grants. An award system might be best implemented through a regional body such as the CRFM or WECAFC, where Eastern Caribbean countries submit grant proposals and the regional body selects those

to receive funding. This system could supplement support for basic fishery management activities, for example by calling for research proposals to learn more about the flyingfish resource. It could also bolster promising livelihood projects and habitat restoration work. A grant structure could draw on the Philippines' model of rewarding communities that prioritize sustainable resource management and transferring more of the on-the-ground activities to the local scale (or in the case of the Caribbean, national).

Regarding government appropriations, this structure exists in most Eastern Caribbean countries already, where Fisheries Divisions receive an allocation of funding through their parent Ministry each year. There could be opportunities, however, to augment central government funding with other funding streams that do not pass through the General Fund.

International Aid and NGO funding

Description of the Mechanism

International aid organizations have provided significant support to the Philippines municipal fishery in the last two decades, primarily through USAID and the Asian Development Bank (ADB). USAID's ECOFISH project invested in fisheries management projects throughout the country up through 2017. Seventy percent of this work was focused on LGU capacity building, development of efficient fisheries management planning systems, and staff motivation strategies that create excitement around municipal fishery management. Thirty percent of the project extended to the national level, where it worked with BFAR to improve communication and integration capacity at the national and municipal levels. International aid organizations also partner with NGOs and universities to implement training and capacity building strategies, collect fishery data, develop management strategies based on the data, communicate these strategies to fishers, and educate fishers about the importance of science-based decision-making. The Meloy Fund, an impact investment fund owned and funded by the conservation organization Rare, incentivizes sustainable fishery management strategies by making debt and equity investments in municipal fishery-related businesses. ¹⁹ The goal of the impact investments is to create market-based livelihood incentives that drive resource management and protection efforts.

Flow of Funds

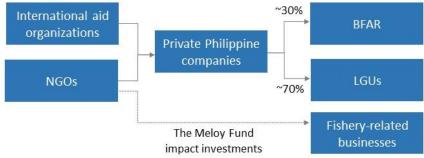
USAID invested US \$50 million in the ECOFISH project, of which 70% went to support LGUs and 30% went to BFAR. The ADB devoted around the same amount to municipal fisheries management improvements in the Philippines. USAID contracted Philippine companies and NGOs (national and international) to run the project in-country. In this regard, no ECOFISH funding went directly to LGUs or BFAR.

The Meloy Fund makes investments directly to fishery-related businesses. Figure 5 depicts the flow of funds from international aid organizations and NGO funding, including NGO-backed impact investments through the Meloy Fund.

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¹⁹ The Meloy Fund. (2018). *Financing the transition to sustainable fisheries*. [online] Available at: https://www.meloyfund.com/ [Accessed 26 November 2018].

Figure 5. Flow of funds from international aid and NGO funding



Successes and Challenges

Below are some aspects of this funding mechanism that work well, as well as some challenges.

Successes

- **Long-term capacity building**: International aid and NGO funding focus on building LGU and BFAR staff administrative capacity. Investing in training and capacity is a long-term strategy for improving fisheries management, and there have been positive impacts throughout the projects' lifespans.
- **Development of systems**: Local partners used international aid to develop effective management systems, including operational, market, and administrative aspects.

Challenges

- **Funding is not long-term**: While international aid organizations and NGOs seek long-term fishery management improvements, their funding and support is not indefinite. For example, USAID's ECOFISH project ended in 2017 and there is uncertainty about the organization's future activities in the Philippines.
- **Mission drift:** Localities seeking outside funding may be tempted to shift their priorities based on the priorities of the funding organization, leading to "mission drift," or de-emphasizing important activities.

Possible relevance to Caribbean flyingfish management

The majority of international aid and NGO funding provided to the Philippines municipal fishery is used to strengthen municipality and national government staff capacities and develop efficient fisheries management planning systems. The Eastern Caribbean is no stranger to the work of NGOs and the positive impact that international aid organizations have in the region. Therefore, the CRFM and partners may continue to seek international funding, prioritizing sources that are complementary and reducing duplicated efforts. Additionally, NGO contributions and impact investments in sustainable fisheries are growing in popularity and importance. A tool like the Meloy Fund could support new market development in the Eastern Caribbean by providing investment capital to sustainable fishing enterprises.

Additional Fishery Financing Mechanisms to Consider

The case studies described above provide a snapshot of a number of mechanisms currently in use for generating funding for fishery management around the world. However, the case studies do not provide a

comprehensive view of all possible financing mechanisms. Below, we briefly outline a selection of additional funding mechanisms that may be informative to CRFM. Where possible, we include an example of where the mechanism is implemented. The mechanisms are organized by the type of funding they represent, including market finance, permitting processes, philanthropic support, and tax-based revenue. Many of these mechanisms would best function in connection to other mechanisms, and each would require further research to determine whether it could be modified to be feasible in the Eastern Caribbean.

Market Finance

International Investment

International groups invest directly in developing economies to help increase sustainability practices as a method to increase global fishery durability. An example of such a collaboration is SeaPact, a collaborative of North American seafood companies that fund global seafood projects that support sustainable global fisheries. SeaPact's 2018 goals include supporting fisheries management. They draw funds from members and social finance organizations like the New Venture Fund and Ocean Outcomes and invest those funds in developing fisheries.

Sustainable Fisheries Practices

Some international NGOs assess the demand for a specific product, for example an artisanal fishery, in major markets like the US and then asses the supply potential in origin countries where the good is produced. The organizations seek goods that have a balanced demand and supply curve and that could support increased retail value by adding sustainability and traceability guarantees to the product. Organizations build supply chain agreements that distribute the extra retail value to all participants including fishermen. This process increases acceptance of management processes and fees, as fishers see the potential additional value created by sustainable practices. Additionally, increasing revenue to fishers and processors increases the market base for fees or taxes. An example of this functioning in a fishery is the Gulf Wild Partnership in the Gulf of Mexico, in which a conservation NGO supports US fishermen operating in the Gulf of Mexico. Gulf Wild is setting the standard for responsibly caught, traceable, and reliable wild seafood.

Social Impact Bonds

Social impact bonds are a method of pay-for-success funding, in which a government works with an innovative service provider to achieve specific outcomes that will reduce costs or increase a revenue stream for the public sector. Investors put up the capital required for the project and the government only pays them a return if they achieve the outcome and reduce costs or create a revenue stream for the public sector. The expected public sector savings are used as a basis for raising investment capital. CRFM could utilize this model to fund restoration projects that increase fishery sustainability or to build an observer program that would later support a fee-based repayment scheme.

Fishery Certification

Fair Trade USA's Capture Fisheries Standard offers fishing organizations a community development price premium on all certified seafood sales. The premium is managed by a Fair Trade committee comprised solely of fishers. The committee decides what livelihood development and / or fishery management activities the premium will support. Fair Trade certification of the flyingfish fishery and other Eastern Caribbean fisheries, while a lengthy process, could open doors to new markets and a sustainable source of income that the fishery could use for a multitude of different activities depending on its needs.

Non-profit impact investments

Private foundations are increasingly searching for new ways of using their assets to enhance the impact of their missions. A program related investment (PRI) is one such tool that allows NGOs to increase the scope of their work by making investments in activities that involve the potential return of capital within an established time frame. Done correctly, PRI making allows foundations to increase the amount of money available to the social sector, while simultaneously building stronger and more socially-minded entities (e.g., businesses). PRIs, unlike grants, are instruments that generate financial returns, allowing foundations to support social entrepreneurs with debt and / or equity capital. Much like The Meloy Fund is doing in the Philippines, non-profit foundations that traditionally support sustainable fishery and coastal development work in the Caribbean are developing PRIs and making low interest loans (for example) to responsible small-medium enterprises, including emerging ones in the fisheries sector.

Permitting Processes

Authorized Buoy System

A country can implement a system by which the country charges a fee to use a provided resource, which can result in both income and prevention of habitat damage. An example is the British Virgin Islands (BVI) buoy system, where the BVI National Park Service installed a network of 200 buoys to be used by charter boats, recreational divers, and private yachters, which are the only allowable anchorage points in the islands outside of marinas. The program aims to generate revenue for natural resource management and protect against anchoring damage to reefs.

Mineral Exploration Fee

Countries can build a permit-based fee system that regulates and/or draws revenue from the exploration of ocean-based resource extraction. A country or group of countries can assess a remediation fee on firms conducting exploration in their EEZs. The fee can go toward offsetting environmental impacts and/or resource management. Often these structures are built into regional ocean plans.

Artificial Reefs

Decommissioned ships, oil rigs, and other ocean infrastructure can become artificial reefs. Other means of disposal of such infrastructure can be costly to the organization that owns it. Countries can develop programs in which they promote the use of sites within their EEZ as locations for artificial reefs. These countries can levy fees on the processes and due diligence involved in decommissioning the infrastructure and creating the reef in their waters. If set at the appropriate level, the fee can be less costly than other disposal options. Fisheries benefit from the creation of extra habitat, and if political conditions are right a portion of the fee could go toward sustainable management of ocean resources. An example of this kind of collaboration is the Gulf of Mexico program called Rigs to Reefs, which is a partnership between local government, the oil and gas sector, and conservationists who are creating artificial reefs from decommissioned oil platforms.

Philanthropic Support

Specialized International Aid

There are many large international funds focused on climate change in countries that are most vulnerable to its impacts, including Small Island Developing States. Often, there is an overlap between climate change mitigation and fisheries management. For example, rebuilding estuaries, which serve as a barrier to sea level rise, also creates habitat to strengthen local fisheries. An example of this kind of philanthropic

entity is the Green Climate Fund (GCF) a new global fund of the United Nations created to support the efforts of developing countries to respond to the challenge of climate change. GCF helps developing countries limit or reduce their greenhouse gas emissions and adapt to climate change. It seeks to promote a paradigm shift to low-emission and climate-resilient development, considering the needs of nations that are particularly vulnerable to climate change impacts. In another example, the Cook Islands recently received the first grant from the United Nations Adaptation Fund, which is part of the Kyoto Protocol and grants funds to sustainable adaptation projects that combat the impacts of climate change.

Voluntary Contributions by Tourists and Tourism Operators

Many countries and regions have built philanthropic entities either based in-country or in the home country of their largest tourism base, to allow monetary donations toward conservation and sustainability in-country. Often, willingness to donate increases while tourists are enjoying a local ecological destination or atmosphere.

Tax-Based Revenue Generation

Conservation Departure Tax

Countries can create specific fee structures that fund environmental protection and management. An example of this type of fee is in Belize. In addition to an airport departure fee, Belize charges a BZ\$7.50 protected areas conservation trust fee. This fee, administered by the in-country Protected Areas Conservation Trust, distributes the revenue throughout the National Protected Areas System by funding projects that support conservation and promote environmentally sound management of Belize's natural and cultural resources.

Cruise Ship Tax

Many countries impalement a cruise ship tax by which all ships or passengers pay a fixed fee for visiting a country. There is the potential for some or all of this funding to be deposited into conservation accounts, such as national conservation trust funds, which then distribute grants to projects with conservation and management goals.

Hotel Stay Impact Tax

Countries can build a fee system that aims to pay for management, conservation, and repair of ecologically important tourist attractions. An example of such a fee is in Spain's Beleric Islands, where the government implements a tax on guests of hotels and cruise ships. The fee pays to repair areas of ecological importance that are damaged by tourism.

Recommendations for Financing Eastern Caribbean Flyingfish Fishery Management

Based on the findings on the case study fishery financing mechanisms, below are several recommendations for the CRFM to consider for fishery management financing. We first mention several funding mechanisms that could initially be worth investigating further, then highlight several considerations that will need to play into the decisions of what options to pursue. Finally, we provide several steps that the CRFM and partners could take to begin prioritizing and pursuing new financing mechanisms for fishery management.

Possible Mechanisms for Further Investigation

Though some of the funding mechanisms used for other fisheries would be relatively large undertakings for the CRFM to implement and may not be feasible to develop at the same scale as the case study fisheries, there are several funding mechanisms described in the case studies that are worth investigating further.

- **Member contributions:** If not already collected, annual financial contributions to the CRFM like the FFA collects in the South Pacific from member countries could significantly boost the amount of baseline funding available to the CRFM. To implement such a program, there would need to be a strong case for why it is in member countries' best interest to commit financial resources to the CRFM. This would likely require expanding the pitch to encompass all fisheries the CRFM addresses, and likewise distributing member contribution funding among fisheries as well.
- User fees: The Eastern Caribbean boasts a wealth of activities for tourists to engage in and places to enjoy, many of which are water-based and depend on a healthy natural environment. There could be opportunities to levy increased or additional fees on access and activities to help support fisheries management. This could occur on the local or national scale, such as through park access fees or fees assessed on activities like scuba diving or sportfishing. If there is a high level of coordination among countries, regional initiatives like implementing a head tax on cruise ship tourists could provide another funding mechanism.
- **Public-private partnerships:** Fishery-focused nonprofits can provide valuable contributions to fishery management, even if not from a monetary standpoint. Given that one of the key needs in the Eastern Caribbean for fishery management is increased staff capacity, there could be NGOs that would partner with the CRFM or member country fisheries divisions to provide capacity building trainings at no cost to the CRFM or the countries.
- Community development quota: While not a direct management funding mechanism, community development quotas provide economic opportunities and/or livelihood opportunities to fishing community members. A modified system based on the Western Alaska Community Development Quota could be applied to the flyingfish fishery. In each flyingfish fishing country, individual fishers could pay a small landing fee to a fund managed by a local fisher organization. The organization could then use the funds to support development projects, fisher assistance programs, management activities, etc. This type of scheme would re-invest a portion of fisher earnings back into the community and involve fisher organizations to a greater extent in management and livelihood development activities.

Considerations

There are several themes highlighted by the case study findings that represent issues that the CRFM and / or Eastern Caribbean countries would likely face with implementing many of the possible revenue streams.

• Traceability of funds: In many cases, funds gathered through fees, taxes, etc. are likely to be channeled directly to national general funds. Once money enters a general fund, it can be nearly impossible to trace how they are allocated and there is no guarantee that any of them will be allocated to fisheries management. CRFM may therefore need to prioritize revenue streams that do not involve collection by government entities.

- Allocation of cost burden: Many revenue streams rely on fishers to contribute via fees, taxes, etc. Many flyingfish fishermen already pay fees and taxes to operate and would likely be resistant to further financial burdens. Unless there is a clear value to fishermen paying additional fees or taxes, CRFM may prioritize revenue streams that draw from sources other than fishermen themselves, such as foreign fleets, visitors, wealthy second-home owners, etc.
- Involvement of fishers: When developing new revenue streams, there will likely be opportunities to involve fishers and/or fishermen's organizations, such as in decisions for how funding is allocated. There could also be opportunities to utilize funding to support fishermen's organizations, drawing from the North Pacific CDQ organization model. Fishermen's organizations in the Caribbean hold great potential for assisting both fishers and fisheries divisions with the management process and financial support would help realize that potential.
- **Fisheries addressed:** Flyingfish is not of great socioeconomic importance in all Eastern Caribbean countries, so it may be necessary to develop funding streams that benefit fisheries management more generally. This will be especially the case for mechanisms that depend on building a case for why to prioritize the management of specific fisheries.
- Harmonization of multilateral projects: Multilateral and international funders have provided large sums of funding to the Eastern Caribbean for improving flyingfish and other fishery management. Over the years, many funded projects have addressed similar issues (e.g., monitoring, fishery data collection and management, etc.) and created various iterations and in some cases overlapping and duplicative initiatives. CRFM will likely need to continue engaging in these large-scale grant projects to sustain adequate funding. A thoughtful and holistic approach to how the projects can complement one another and build on past work would enable more efficient use of funds.
- Competitive grants: Given enough funds, CRFM could draw from the model in the Philippines to develop a competitive grant program for member countries. Member countries could submit simple applications for research projects and adhere to a project reporting schedule. Grant selection criteria could give preference to projects that involve international coordination and support the ECFF-FMP management measures. While this does not represent a new funding mechanism for the CRFM, it would provide new funding to member countries.

These considerations, as well as the financing options described in this document, can serve as a platform for discussion on potential financing streams to support Eastern Caribbean flyingfish – and potentially other fishery – management. CRFM may lead a process to refine selection criteria for new financing streams to pursue and perform further due diligence to assess their feasibility.

Next Steps

Below are several steps that the CRFM and partners could take to begin acting upon the information in this report:

1. **Develop criteria:** Develop a list of fishery financing selection criteria that prioritizes mechanisms to pursue. CRFM should consider using a participatory process when developing these criteria that includes, when appropriate, regional technical level organizations, fishery divisions, national focal points, and local stakeholders. At the onset of this process, the CRFM should look at defining financing mechanism goals and make sure that participants in the development activities are committed to these goals. We recommend that CRFM incorporates the following themes and considerations into its fishery financing mechanism selection criteria:

- a) **Adaptability**: Can the mechanism be adapted to suit the social, political, and economic context of Eastern Caribbean fisheries?
- b) **Geographical scope**: Is the mechanism geographically limited regarding its impact, activities, and implementation?
- **CONTINUES** Care the Eastern Caribbean Member States' fisheries management structures capable of administrating the mechanism, in a transparent manner?
- d) **Experience**: Do Member States have financing mechanism development experience and the financial resources available to implement it?
- e) **Performance**: At what level of funding and for how long can the mechanism potentially contribute to fisheries management initiatives in the Eastern Caribbean?
- f) **Allocation**: Can Member States allocate funding from the mechanism fairly among themselves? If not, do States agree with a disproportionate allocation scheme?
- 2. **Select mechanisms to investigate:** Using the examples in this document, as well as any other potential financing mechanisms known to CRFM and partners, apply the selection criteria to prioritize a short list for further investigation. The performance of some mechanisms on some criteria may be unknown until the next step. Involve stakeholders in the selection process for their insight on the criteria and to gain buy-in.
- 3. **Investigate priority mechanisms:** Learn more about how each of the mechanisms prioritized in the previous step is expected to perform against each of the selection criteria. Eliminate any mechanisms that are not likely to perform well, narrowing to a list of 3-5 for potential implementation. Try to select diverse mechanisms that do not all depend on the same enabling conditions.
- 4. **Develop an implementation plan:** Develop a time-bound plan, with key participants identified for each step, on how to create enabling conditions and begin implementation of each of the 3 5 selected mechanisms. Some will be on shorter and some on longer timeframes for fruition. All 3 5 mechanisms might not be successful in the end, which is why a diverse mix of mechanisms is preferable. Involve all those who are named in the implementation plan in its development.
- 5. **Facilitate adoption:** In most cases, it will be necessary to develop the critical enabling conditions for new financing mechanisms. For example, specific Ministers might need to support the mechanism, or a special fund might need to be created to receive and allocate fees. Follow the process set out in the implementation plan for creating those enabling conditions. For some mechanisms, this step might require long-term engagement and relationship-building with political or business leaders. If a specific enabling condition turns out to be infeasible to achieve, table the associated funding mechanism until enabling conditions are present and focus resources on those that are currently feasible.
- 6. **Implement:** When the necessary enabling conditions are in place, move forward with mobilizing the revenue stream. Assign a point person to oversee the implementation process and keep participants accountable. Hold regular update calls or meetings to discuss progress and roadblocks. Celebrate successes together.

With this guidance, the CRFM may take steps to identify new financing mechanisms for fishery management. Building revenue streams requires dedication of time and other resources, so it will be necessary to work efficiently and leverage the connections and expertise of partners and stakeholders throughout the process.

ANNEX F: EASTERN CARIBBEAN FLYINGFISH FISHERIES MANAGEMENT PLAN 2020 - 2025

This annex is published as a separate document (CRFM Special Publication No. 27).

ANNEX G: FORMAL MANAGEMENT COOPERATION AGREEMENT BETWEEN CRFM AND FRANCE	•
This annex is published as a separate document (CRFM Special Publication No. 27, Supplement 1).	

ANNEX H: APPROVED SUB-REGIONAL DATA POLICY
This annex is published as a separate document (CRFM Special Publication No. 27, Supplement 2.).

ANNEX I: NIC / FAC CONSULTATION REPORTS AND RELEVANT REGIONAL CONSULTATION

Final Report of Meetings at the National Level for Awareness-building and Discussions on Issues Related to Ecosystems Based Management of Flyingfish

I. Introduction

The purpose of this report is to provide the Caribbean Regional Fisheries Mechanism (CRFM), its member states, and Martinique with a summary of the national level meetings that Blue Earth Consultants (Blue Earth), a Division of Eastern Research Group, Inc., the CRFM, and national focal points (national fisheries division staff) supported. These meetings built awareness for ecosystem-based management strategies for flyingfish in the Eastern Caribbean and allowed local stakeholders, including flyingfish vendors, boat owners, fishers, fisherfolk organizations, and cooperatives that participated in these meetings, to recommend revisions to the Eastern Caribbean Flyingfish Fishery Management Plan (ECFF-FMP). We divided the report into six sections. In section two we introduce Blue Earth's three consultancies under contract to the CRFM and provide background information about these consultancies. In section three we summarize the regional and national awareness building tools and approach that Blue Earth and the CRFM developed and implemented, and we identify which local flyingfish stakeholders our materials targeted. In section four we explain the national meetings' key outcomes and the challenges that national focal points experienced during the national awareness building process. In section five we present key outcomes from the regional meeting that regional technical level organizations, national focal points, and local stakeholders attended. Finally, in section six we offer our recommendations and conclusions on awareness building for issues related to flyingfish management in the Eastern Caribbean.

2. Consultancy Background

This document provides a summary of national flyingfish consultative processes regarding Eastern Caribbean flyingfish management. Blue Earth developed the consultative strategy that contributed initial information to our evaluation of implementation of the ECFF-FMP, an updated ECFF-FMP, a Sub-Regional Data Policy that outlines data collection priorities and considerations, and a Cooperation Agreement that establishes a framework for cooperation between the CRFM Member States and Martinique with respect to the management of major, shared living marine resources.

The work is part of the United Nations Development Programme/Global Environment Facility (UNDP / GEF) funded project, Catalysing Implementation of the Strategic Action Programme for the Sustainable Management of Shared Living Marine Resources in the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+). The cooperation framework development efforts comprise portions of Blue Earth's three consultancies under contract to the CRFM. These consultancies are:

- 1. Technical Support to Enhance the Governance Arrangements for Implementing an Ecosystem Approach for Flyingfish Fisheries (Governance)
- 2. Technical Support to Facilitate Adaptive Management for Eastern Caribbean Flyingfish Fisheries (Adaptive Management)
- 3. Technical support on Implementation of Management / Stress Reduction Measures in the Eastern Caribbean Flyingfish Fishery (Stress Reduction)

3. Summary of Regional and National Awareness Building Tools

Throughout 2017 and much of 2018, Blue Earth organized an awareness building and consultative process with national focal points in each of the six CLME+ Eastern Caribbean countries (Barbados,

Dominica, Grenada, Saint Lucia, Saint Vincent and the Grenadines, and Trinidad and Tobago) to encourage local stakeholders' input into the evaluation of the existing ECFF-FMP, the updated version of the ECFF-FMP, Data Policy, and Cooperation Agreement drafting process. We began this process by administering an online survey to national focal points in each country. The survey's questions reexamined the 2016 CRFM ECFF-FMP implementation evaluation and provided useful information used by Blue Earth and the CRFM to draft the updated ECFF-FMP, Data Policy, and Cooperation Agreement. Additionally, we developed an interview guide (Appendix A) that followed up on the online survey and gained more information related to the implementation evaluation. Blue Earth performed a total of 14 phone interviews with 15 people, representing national fisheries divisions in all six countries as well as individuals with expertise at the regional level.

Represented Local Stakeholders

This awareness building process, spearheaded by Blue Earth and the CFRM, included two national meetings and one regional meeting. National focal points invited the following local stakeholders to the national meetings:

- Flyingfish vendors
- Flyingfish boat owners and fishers
- Fisherfolk organizations and cooperatives
- Non-governmental organizations

Below are the objectives and materials and methods developed by Blue Earth and the CRFM for the national meeting based consultative process.

Objectives

The meetings objectives were as follows:

- Convene local stakeholders and national focal points with expertise related to the region's flyingfish fishery and other living marine resources
- Share draft documents related to flyingfish fishery management, including recommendations for updating the Eastern Caribbean fishery management plan (ECFF-FMP), a sub-regional Data Policy conceptual proposal, and a Cooperation Agreement
- Gather local stakeholder input on draft documents to inform revisions and prepare documents for regional endorsement

Materials and Methods

We created the following flyingfish fishery local stakeholder meeting facilitation templates to help national focal points lead awareness building and consultative meetings to gain feedback on the documents:

• **Meeting agendas**: Guidance to share the meeting goals and topics with local stakeholders with country-specific flyingfish expertise (Appendix B).

- **Facilitation plans**: A more detailed guide for national focal points to use while leading consultative meetings, including key discussion questions (Appendix C).
- **Note-taking templates**: A template in which national focal points recorded input from the meeting discussions; national focal points shared the notes with Blue Earth following the meetings (Appendix D).

The Blue Earth team held calls with at least one fisheries division staff member in each of the six ECFF-FMP participating countries to walk through these meeting facilitation materials and answer their questions.

4. Key Outcomes: National Meetings

National focal points used the materials to stage, facilitate, and document workshops in Dominica (9 May 2018) and Saint Lucia (25 May 2018). This section details the key outcomes from these two awareness building meetings facilitated by national fisheries division staff.

Key Outcomes: Dominica

At 9 May 2018 meeting in Dominica led by staff members from Dominica's Fisheries Division, local stakeholders generally agreed with the information presented in the Cooperation Agreement draft, the recommendations for updating the ECFF-FMP, and the sub-regional Data Policy draft. In certain instances, however, they felt that the latter two documents could be strengthened with more country-specific information.

ECFF-FMP Update Recommendations

Local stakeholders discussed the following recommendations regarding the ECFF-FMP update:

- Dominica could adopt the ECFF-FMP, though it may be useful to also prepare a national FMP that captures unique local issues.
- Managers should keep local stakeholders apprised of the ECFF-FMP's progress and roll-out strategy at the regional and national levels and allow local stakeholders to play a central role in these activities.
- Certain ECFF-FMP aspects currently not in place in Dominica may need to be rolled out incrementally, including logbooks and a licensing scheme.
- Fish aggregating device impacts on the flyingfish fishery need research so we can better address them.
- Managers should look at the trigger point more closely as more data, including on flyingfish captured for bait, become available.
- Fisherfolk groups and cooperatives should be involved in adaptive management activities.

Sub-Regional Data Policy

Outcomes from the participants' discussion on the draft Data Policy included the following:

- Dominica would require a policy or Memorandum of Understanding before it could share data.
- The Data Policy's most useful aspects are fisher data collection and data sharing.
- The following types of data (and frequency of collection) are needed to support fishery decision making in Dominica:
 - 1. Catch and effort (daily)
 - 2. Social (annually)
 - 3. Economic (price of fish sold should be collected at least monthly, trip costs daily)
 - 4. Seasonality (annually)
 - 5. Weather and seas (daily)
- High priority issues in Dominica related to the policy include data sharing (access rights), ownership, and usage.

Cooperation Agreement

The discussion surrounding the draft Cooperation Agreement included the following points:

- Most aspects of the Cooperation Agreement are useful.
- Participants did not propose any refinements to the agreement.
- The agreement should be endorsed by the CRFM and the Organization of Eastern Caribbean States.

Key Outcomes: Saint Lucia

At 25 May 2018 meeting in Saint Lucia led by staff members from Saint Lucia's Department of Fisheries, participants generally agreed with the draft recommendations for updating the ECFF-FMP and with the information presented in the draft sub-regional Data Policy and Cooperation Agreement. Additionally, they provided input summarized below.

ECFF-FMP Update Recommendations

Local stakeholders suggested the following:

- Present the document in a more user-friendly way (e.g., text boxes with key points at the beginning of each section, tables that highlight priority information).
- Address management gaps by merging the sub-regional flyingfish management plan with Saint Lucia's national plan where appropriate.
- Rank the management measures in order of importance.

- Add the need to research species that feed on or are otherwise part of the flyingfish food wed to determine how an increase or decrease in their abundance will impact the flyingfish population.
- Include sustainable flyingfish harvesting methods and mention the need to determine flyingfish habitats and spawning grounds.
- Add a description of how flyingfish research will be financed.
- Use language clearly stating that all local stakeholders will be involved in flyingfish governance activities.
- Define obtainable measuring and monitoring objectives.

Sub-Regional Data Policy

Meeting participants discussed and / or suggested the following:

- Based on this draft, Saint Lucia would support the outlined agreements.
- The data generated by the policy's research activities should be interpreted into useful information that flyingfish managers can utilize.
- The policy's most useful aspect is its data management and sharing approach.
- Environmental data including about sargassum, factors impacting flyingfish abundance, and costs of operation are needed to support fishery decision-making.
- The policy should include high-priority protocols that include data ownership and access rights.
- The policy should define the entity responsible for enforcing it.

Cooperation Agreement

Local flyingfish stakeholders stated and / or recommended the following:

- Saint Lucia would support the draft agreement.
- The Chairman of the CRFM Ministerial Council should endorse the agreement on behalf of CRFM Member countries.
- Knowledge transfer between local stakeholders and training in sustainable fishing techniques for entry-level fishers should be a component of the agreement.
- The dispute settlement process needs to be clarified.

Challenges to National Awareness Building

Two of the six countries (Dominica and Saint Lucia) held stakeholder meetings. As a result, consultants involved in the CLME+ flyingfish projects, which include Blue Earth, Nexus Coastal Resource Management, and the Caribbean Natural Resources Institute (CANARI), experienced challenges

obtaining and compiling national focal points' and local stakeholders' updated ECFF-FMP recommendations. For this reason, Blue Earth, Nexus, CANARI, and the CRFM determined that the most effective way to gather input from all countries would be to hold a special two-day regional meeting in Barbados of the CRFM-Western and Central Atlantic Fisheries Council (WECAFC) Working Group on Flyingfish for national focal points, local stakeholders, and regional technical organizations to attend.

The following regional technical level organizations, in addition to national focal points and local stakeholders, participated in the regional meeting:

- CRFM
- Organization of Eastern Caribbean States (OECS)
- Institut français de recherche pour l'exploitation de la mer (IFREMER)
- University of the West Indies (UWI)
- WECAFC
- Food and Agriculture Organization of the United Nations (FAO)
- CANARI
- UNDP

This meeting complimented the national awareness building and consultative process. Blue Earth developed the meeting's first draft agenda (Appendix E), facilitation plan (Appendix F), and facilitated select sessions.

5. Key Outcomes: Special Meeting of the CRFM-WECAFC Working Group on Flyingfish

Below is a summary of the outcomes from the two-day Special Meeting of the Joint CRFM/WECAFC Working Group on Flyingfish in the Eastern Caribbean for regional technical level organizations, national focal points, and local stakeholders held in Barbados on October 1-2, 2018.

Desired Meeting Outcomes

Going into the meeting, the outcomes included the following:

- 1. A compilation of all deliverables and outputs of the six consultancies
- 2. Analysis of the relationship between planned outputs and Member States' needs and capacities
- 3. Comments and suggestions on the deliverables and outputs to facilitate updating of the ECFF-FMP
- 4. Considerations and suggestions concerning institutional and incentive structures and responsibilities of governments and local stakeholders for bringing the ECFF-FMP into implementation in the region, including identification of constraints and recommendations.

Discussion Outcomes

Below is a summary of the main points gathered through discussion of each of the primary meeting topics.

Capacity Availability and Needs

Themes that came out of the meeting discussions of fisheries management capacity and needs in the region included the following.

- Many national fisheries divisions lack human and technical capacity to implement the ECFF-FMP.
- Fisherfolk organizations hold potential for supporting both fisheries divisions and fishermen, but they require training and capacity development to meet their potential.
- There is a need for more two-way information sharing with fishermen, including sharing rationales for why certain regulations are in place and engaging fishermen in information analysis and dissemination.
- A mechanism such as National Intersectoral Committees (NICs) / Fishery Advisory Committees (FACs) or another appropriate fishery advisory entity is needed to enhance engagement of experts and fishermen in decision-making. Membership in these groups needs careful consideration to ensure all local stakeholders are represented.

ECFF-FMP

Below are several outcomes of the participants' discussions about the draft updated ECFF-FMP.

- There are currently many gaps in understanding of flyingfish ecological and fishery dynamics; filling these gaps will be a critical priority for implementing the ECFF-FMP.
- The existing draft ECFF-FMP is highly technical; to make it more accessible to all local stakeholders, it could either be re-written to be more straightforward or could come with an accompanying summary in plain language.
- There is a need for a strategy, or implementation plan, for how to deploy the ECFF-FMP at the national level and integrate it with existing national FMPs.
- There is a need to emphasize the roles of fishermen, fisherfolk organizations, and NICs / FACs (or other appropriate fisheries advisory bodies) in the ECFF-FMP.
- The 5,000-tonne trigger point can be viewed as an impetus to consult with fishermen about the state of the stock and their catches, rather than triggering a close of the fishery.
- Relevant factors such as sargassum, climate change, ocean acidification, changes in fishery focus to different species, and changes in fishing methods should appear in the ECFF-FMP.

Data Policy

Below are several outcomes from the participants' discussions of the draft Data Policy.

• There are numerous arrangements in development and created through past projects related to fisheries data collection and management.

- The Data Policy is a high-level policy, not a detailed plan.
- The Data Policy should link to the Caribbean Community Common Fisheries Policy.
- The Data Policy focuses on flyingfish as a pilot species and can be used as a model or expanded to address other fishery data policies in the future.
- CRFM will take on the role of compiling and analyzing flyingfish data from Eastern Caribbean countries.
- There needs to be consistency in data formats, collection timelines, minimum data requirements across countries, and an understanding of data confidentiality and intellectual property.
- Implementation of the Data Policy will focus on incremental progress, focusing on critical data collection in the near term on catch, landings, and vessel registration.
- There could be the need to create an incentive and consequence system for participation in data collection.
- Technologies such as smartphones and tablets could provide cost-effective and convenient options to improve data collection.

Data Collection Approaches and Minimum Requirements

Christopher Milley from Nexus presented a set of data collection recommendations for input. These included mandatory membership in fisherfolk organizations and the introduction of logbooks that fishers would fill out and submit at landing sites in exchange for a landings fee waiver. He recommended that fisherfolk organizations collect the logbooks and share aggregated data with fisheries divisions.

- Mandatory membership in fisherfolk organizations is not feasible without a high level of political intervention.
- Logbooks could be effective, though fishermen need to retain ownership over their personal data.
- Many fisherfolk organizations do not have adequate resources to manage and analyze fishermen's data.
- Cost recovery methods other than landings-based fees could be effective.
- Fisheries divisions could host annual events for fishermen where they share scientific findings. The events can incentivize fishermen to collect data.
- Fishers need a mandatory requirement to report catches. Alternatively, the incentive of receiving synthesized findings and participating in data analysis may provide sufficient incentive for fishermen to participate in data collection.
- E-logbooks are worth investigating as a convenient way for fishermen to collect and submit data.

Cooperation Agreement

Meeting participants came to several conclusions regarding the draft Cooperation Agreement, including the following.

- The Cooperation Agreement will address all major, shared living marine resources in the relevant geography.
- The Cooperation Agreement should mention sharing of information that would be useful for combatting illegal, unreported, and unregulated fishing. There could be complications discussing markets and marketing since this would necessitate review by other bodies, like from the central French government.
- Gaining political-level agreement within the timeframe of the CLME+ consultancies is infeasible; therefore, we will seek a more practical agreement at the technical level in the near term. CRFM and Martinique may pursue a political-level agreement in the future.
- The most effective approach will be to begin with a simple agreement that all parties can agree to.
- CRFM will sign the Cooperation Agreement on behalf of its member nations, through either the Secretariat or the Ministerial Council, depending on the level of the signatory representing Martinique.

6. Recommendations and Conclusions

Blue Earth's and the CRFM's work to build local stakeholder support for the updated ECFF-FMP included several opportunities for national focal points and local stakeholders to provide their input and comments. We began the work in the first half of 2017 by distributing our first round of draft updated ECFF-FMP recommendations for review by national focal points in six countries. Following this process, Blue Earth distributed an online survey soliciting feedback from national focal points on the existing ECFF-FMP. We synthesized our findings of the ECFF-FMP online survey and comments on the draft recommendations and then began coordinating a consultative process with CRFM and national focal points. This work resulted in the Dominica, Saint Lucia, and Barbados meetings, allowing Blue Earth and the CRFM to gain additional feedback from local stakeholders and technical guidance from national focal points and regional technical level organizations on the draft updated ECFF-FMP. We then used the input from these meetings to develop an updated draft final version of the document for further review. After a final round of feedback via written comments in February 2019, Blue Earth will finalize the document for consideration by CRFM Member States during the Forum meeting in March 2019. The following recommendations are designed to help the CRFM and its member states continue to strengthen local stakeholder awareness of and support for ecosystem-based management strategies for flyingfish in the Eastern Caribbean.

• Increase two-way information sharing between national focal points and local stakeholders: Fisheries division staff prioritize outreach and engagement with fishers and other local stakeholders and explain ECFF-FMP updates and why certain regulations are in place, as well as share and disseminate data analysis results. Engagement and sharing information will improve professional relationships between these groups. Additionally, increased willingness on the part of fishers and other local stakeholders to share accurate data with national focal points will improve fisheries divisions' overall knowledge of the fishery and lead to scientific based management decisions in the future.

- Continue to identify and develop national focal points: Identification of champion national focal points encourages information dissemination, buy-in, and creates a link between regional technical level organizations and local stakeholders. The CRFM's continued engagement of national focal points and a greater emphasis on capacity building activities will help with updated ECFF-FMP implementation by the project's countries.
- Increase national focal points' capacities and financial resources: The CRFM and its regional technical level organization partners can address concerns over national fisheries divisions' human resource deficiencies by providing capacity building opportunities to national focal points that improve their abilities to prioritize and streamline fisheries outreach. It is crucial that the CRFM and its regional technical level partners secure funding for this work. Blue Earth has described possible financing mechanisms for fisheries management in our "Financing Mechanisms for Eastern Caribbean Flyingfish Management" and "Sub-Project After-Life Plan" reports.
- Continue to hold regional flyingfish stakeholder meetings: The formal, structured, regional meeting where Blue Earth was able to be present and facilitate certain sessions proved the most useful technique for gaining ECFF-FMP input. Similar events should be staged at strategic intervals in the future to ensure continued information sharing and stakeholder engagement.
- Reengage underrepresented local stakeholders: Not all relevant local stakeholders, such as fisheries scientists, lawyers, and value chain representatives, were engaged in early discussions leading to the development of the ECFF-FMP, and their participation in the updated ECFF-FMP development process remains low. Fishery managers should identify key members of these and other underrepresented local stakeholders, create and provide incentives, and solicit their involvement in flyingfish management activities.
- Support participation of local stakeholders including fisherfolk organizations in ECFF-FMP implementation strategies: Local stakeholders, and more specifically fisherfolk organizations, hold great potential to support fisheries divisions' flyingfish management efforts. Key fisherfolk organizations, with the proper training, can support vessel or fishing license recording and data collection activities. Other groups such as chain of custody members, the business and legal sectors, and local police can also take a stronger role in flyingfish management. This strategy could alleviate some of the budget and staffing shortcomings that fishery divisions around the region are experiencing.

This guidance; strong local stakeholder support; and the use of recently developed policy, information, and cooperation frameworks will help managers prioritize activities, allocate their limited resources, build political will, and gain buy-in to implement Eastern Caribbean flyingfish management activities.

Appendix A: Interview Guide

This document includes interview objectives and an interview guide to inform an evaluation of management performance of the Eastern Caribbean flyingfish fishery. Blue Earth Consultants, a Division of ERG (Blue Earth) is conducting the evaluation for the Caribbean Regional Fisheries Mechanism under the "Technical Support to Facilitate Adaptive Management for Eastern Caribbean Flyingfish Fisheries" (Adaptive Management). Blue Earth is completing the consultancies under contract to the Caribbean Regional Fisheries Mechanism (CRFM) as part of the United Nations Development Programme (UNDP) / Global Environment Facility (GEF) funded project Catalysing Implementation of the Strategic Action Programme for the Sustainable Management of shared Living Marine Resources in the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+ Project). The evaluation will feed into our development of the updated Eastern Caribbean Flyingfish Fishery Management Plan (ECFF-FMP) in coordination with Nexus Coastal Management, Ltd. To enable comparison with the findings of CRFM's 2016 Implementation Report of the ECFF-FMP, the interview objectives and outline for the management performance evaluation closely reflect key elements of the 2016 evaluation. Ultimately, this evaluation will inform potential opportunities, next steps, and recommendations to improve management of the Eastern Caribbean Flyingfish fishery.

Blue Earth will conduct semi-structured interviews with key experts including fisheries agency staff and others with knowledge of Eastern Caribbean flyingfish fishery management. These questions build off data from the online survey previously deployed to informants and are designed in consideration of the 2016 FMP Implementation Report. Since not everyone will be able to address all questions, we will skip any questions that are not relevant. We will record these non-applicable (N/A) questions differently than "I don't know" responses.

Interview Objectives

Interviews will seek to accomplish the following objectives, which all relate to Eastern Caribbean flyingfish management at the national and regional levels:

- 1. Assess the status of various aspects of management performance, including data collection, monitoring, control, and surveillance, licensing, international cooperation, and outreach.
- 2. Identify achievements toward fulfilling the Eastern Caribbean flyingfish FMP's management measures and CRFM's 2016 evaluation recommendations
- 3. Gather respondents' lessons learned and recommendations to improve Eastern Caribbean flyingfish fishery management

Interview Guide

Intro Script

I want to thank you for taking the time to speak with me today; your thoughts and opinions will be very valuable to this consultancy. I expect this interview to last approximately an hour. Blue Earth Consultants, a Division of ERG (Blue Earth) is supporting the Caribbean Regional Fisheries Mechanism (CRFM) to enhance management of the Eastern Caribbean flyingfish fishery (ECFF). As you may know, in 2015 the CRFM completed an evaluation of the progress on implementation of the sub-regional flyingfish fisheries management plan (FMP). As part of our work on the flyingfish fishery, Blue Earth is conducting an update to that evaluation. Your insight will help us provide an updated assessment of FMP implementation and make recommendations for improving implementation of the sub-regional FMP.

This consultancy is part of a larger project funded by the Global Environment Facility (GEF) for the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+). Flyingfish is one of the three types of fisheries addressed by this project. Frameworks and lessons learned from the improvements to flyingfish management will be applied to the extent feasible to other fisheries in the region.

Before we begin, I want to let you know that information you share today is not confidential. We will share information we learn through these interviews with the CRFM. If you don't know the answer to a question, please just let us know. We might then ask if you have the name and contact information of someone who could answer the question.

Do you have any questions before we begin?

Introductory Questions

- 1. Could you briefly describe whether your role in the management of the ECFF falls into any of the following categories? You may select more than one category.
 - a) Management oversight from the regional level
 - b) Policy and regulation development at the national level
 - c) Management implementation at the national level
 - d) Fishermen representative
 - e) Scientist
- 2. How many years have you been involved?

Adoption, Development, and Implementation of FMPs

- 3. Are you aware of the Eastern Caribbean Flyingfish Fishery Management Plan (ECFF-FMP)?
- 4. Has your country formally adopted the 2014 ECFF-FMP?
 - a) [If yes]: Do you know whether it is being implemented? Please describe. If you don't know, please indicate so.
 - b) [If no]: Has your country initiated a process to formally adopt the ECFF-FMP? If so, please describe where your country is in the process.
 - c) [If no]: What are some key barriers to adoption of the ECFF-FMP that exist in your country? (Note: provide these examples only if necessary current priorities, lack of regulatory authority, capacity to implement, etc.)
 - d) [If no]: Are there elements of the FMP that have been informally or operationally adopted or implemented in practice? Please describe.
- 5. Does your country have a national FMP that encompasses flyingfish management?
 - a) [If yes]: What is the name of the FMP?
 - b) [If no]: Has your country initiated a process to develop a national FMP that addresses flyingfish? To your knowledge, describe why or why not.
- 6. On a scale of low-medium-high, how would you describe the current level of human resource and infrastructure capacity in your country for development and implementation of fisheries management? Low capacity indicates that you have roughly 30% or less of the development and implementation capacity needed, medium capacity indicates between roughly 30% and 60% of the capacity needed, and high capacity means you have roughly over 60% or more of the capacity needed.

- a) [If low]: How, if at all, does your country plan to address the shortage in fisheries management capacity?
- 7. Are there any other challenges you would like to mention that are currently hindering the adoption, development, and implementation of the 2014 ECFF-FMP or a national FMP addressing flyingfish? Please describe.
- 8. Do you have any lessons learned or recommendations you would like to share regarding adoption, development, and implementation of the ECFF-FMP? If yes, please describe. –
- 9. [If don't know for any questions above]: For any of the information you didn't know above, could you share the name and contact information of a colleague or someone who might know this information?

Legislation and Monitoring, Control, and Surveillance in Support of Management of Flyingfish Fisheries

- 10. Have there been any changes to legislation to support management of flyingfish fisheries since July 2015?
 - a) [If the country has adopted the sub-regional FMP]: Is the sub-regional flyingfish FMP fully supported by existing legislation in your country that is, legislation supporting monitoring, control, and surveillance and other aspects of fisheries management?
- 11. A. [If no]: When is it expected that legislation would be updated to give full effect to the sub-regional flyingfish FMP that is, legislation supporting monitoring, control, and surveillance and other aspects of fisheries management? [If the country has adopted a national FMP]: Is the national flyingfish FMP fully supported by existing legislation in your country?
 - a) [If no]: When is it expected that legislation would be updated to give full effect to the national flyingfish FMP— that is, legislation supporting monitoring, control, and surveillance and other aspects of fisheries management?
- 12. Which of the following elements of fisheries management are mandatory under your country's current fisheries legislation?
 - a) Provision of data by the flyingfish industry
 - b) Collection of data by authorities
 - c) Analysis of data by the flyingfish fishery authority
 - d) Reporting on flyingfish fisheries data analyses to inform management
 - e) Consultation with flyingfish fisheries stakeholders on management issues
 - f) Support for the ecosystem approach to fisheries
 - g) Support for the precautionary approach to fisheries management
 - h) Designation of specific management and conservation measures
 - i) Other management measures of relevance to flyingfish fisheries? Please specify.
- 13. What, if any, changes would be required to the existing monitoring, surveillance, and enforcement systems to give full effect to implementation of the ECFF-FMP?
- 14. Are there any other challenges or barriers you would like to mention that hinder support for legislation and the monitoring, control, and surveillance of the ECFF? Please describe.
- 15. Do you have any lessons learned or recommendations you would like to share regarding legislation, monitoring, control, and surveillance of the ECFF? If yes, please describe.

16. [If don't know for any questions above]: For any of the information you didn't know above, could you share the name and contact information of a colleague or someone who might know this information?

Data Collection and Reporting in Support of Research and Informed Decision-Making

- 17. Have there been any improvements to the national fisheries data collection system since July of 2015? Please describe.
 - a) [If no]: What are the key challenges to improving the fisheries data management system in your country?
 - b) [If no]: How does your country plan to address these challenges?
- 18. Has your country submitted catch and effort data on flyingfish fisheries from July of 2015 to present?
 - a) [If no]: What would you say are the reasons for non-submission of catch and/or effort data on flyingfish fisheries?
 - b) [If yes]: Please describe the type(s) of data and frequency of reporting.
- 19. For each of the following types of data, could you tell me whether your country collects this information (yes, no, don't know) and if so, how often (e.g., daily, monthly, annually)?
 - a) Landings
 - b) Catch
 - c) Effort
 - d) Biological / ecological
 - e) Economic
 - f) Social
 - g) Other
- 20. For each of the following types of data, could you tell me whether the data are stored electronically, and if so, the storage software used (if applicable)?
 - a) Landings
 - b) Catch
 - c) Effort
 - d) Biological / ecological
 - e) Economic
 - f) Social
 - g) Other
- 21. Are these data shared with the CRFM?
- 22. Are these data publicly shareable?
- 23. Are there any challenges and barriers you would like to share that hinder data collection, reporting, and support for research and decision making? Please describe.
- 24. Do you have any lessons learned or recommendations you would like to share regarding efforts to collect and use data to improve ECFF management in your country?
- 25. [If don't know for any questions above]: For any of the information you didn't know above, could you share the name and contact information of a colleague or someone who might know this information?

Authorized National Entry (License/Permit) System for Flyingfish Fisheries

- 26. Does your country implement a fishing license or permit system specifically to control flyingfish fishing?
 - a) [If yes]: Is vessel licensing/permit information stored electronically?
 - i) [If yes]: What data elements are stored (e.g. vessel name, size, date registered, etc.)?
 - b) [If no]: Is there currently another means to keep records of vessels that may fish for flyingfish?
- 27. Has the number of fishing vessels catching flyingfish changed since July of 2015? Please describe the change.
 - a) How many fishing vessels are currently catching flyingfish in your country?
 - b) Do you know how many of those vessels are catching flyingfish for food, bait, or as incidental catch?
- 28. Are there challenges or barriers you would like to mention with implementing fishing license / permit systems or keeping records of flyingfish vessels? Please describe.
- 29. Do you have any lessons learned or recommendations you would like to share regarding the current system for licensing and record keeping of flyingfish vessels in your country?
- 30. [If don't know for any questions above]: For any of the information you didn't know above, could you share the name and contact information of a colleague or someone who might know this information?

Awareness-building of Stakeholders on the ECFF-FMP and their Engagement in the Management Process

- 31. Since July of 2015, to the best of your knowledge, has the fisheries department in your country contacted the following stakeholders to increase their awareness of the Eastern Caribbean flyingfish FMP?
 - a) Fishers
 - b) Processors
 - c) Boat owners
 - d) Vendors
 - e) Supporting organizations (e.g. fisher associations, NGO's)
 - f) General public
 - g) Other stakeholders please describe
- 32. Since July of 2015, have there been any national trainings implemented to strengthen participation of flyingfish fishers in the management process?
- 33. Since July of 2015, have there been any public awareness programs implemented to strengthen participation of flyingfish fishers in the management process?
- 34. In your opinion, has the level of participation from flyingfish fishers in ECFF management process changed since July of 2015 in your country? If possible, please elaborate.
- 35. In your opinion, has the level of participation from other (non-fisher) stakeholders in ECFF management process changed since July of 2015 in your country? If possible, please elaborate.

- 36. In your country, what actions could be taken to improve stakeholder buy-in for the Eastern Caribbean flyingfish FMP?
- 37. Are there challenges or barriers in your country that hinder outreach efforts regarding the ECFF management process? Please describe.
- 38. Are there any lessons learned and recommendations you would like to share that would improve the awareness and participation of stakeholders in the ECFF management process?
- 39. [If don't know for any questions above]: For any of the information you didn't know above, could you share the name and contact information of a colleague or someone who might know this information?

Regional Initiatives

- 40. Can you please describe any initiatives in place to harmonize the following aspects of flyingfish management among other countries in the region?
 - a) Legislation
 - b) Registration and licensing
 - c) Data collection, analysis, and sharing
 - d) monitoring, control, and surveillance
 - e) Public / stakeholder awareness
- 41. Are you aware of any collaboration occurring between Eastern Caribbean countries and Martinique or Guadeloupe regarding flyingfish management? Please describe.
- 42. What lessons have you learned that could support management improvements in the region?
- 43. Do you have any additional recommendations to improve harmonization, collaboration, and regional efforts in general?
- 44. [If don't know for any questions above]: For any of the information you didn't know above, could you share the name and contact information of a colleague or someone who might know this information?

Closing Statement

Thank you for taking the time to speak with me and share your insight today. This has been very valuable for our efforts to improve management of the Eastern Caribbean flyingfish fishery. If you have any other questions or have relevant information to support our evaluation, please feel free to contact us.

Appendix B: Agenda – Flyingfish Governance National Stakeholder Meetings

Caribbean Regional Fisheries Mechanism DRAFT Agenda – Flyingfish Governance Stakeholder Meeting COUNTRY MEETING TIME

MEETING TIME MEETING LOCATION

Meeting Objectives:

- Convene stakeholders with expertise related to SAINT LUCIA flyingfish fishery and other living marine resources
- Share draft documents related to flyingfish fishery management, including Recommendations for Updating the Fishery Management Plan (FMP), a Sub-Regional Data Policy Conceptual Proposal, and a Cooperation Agreement
- Gather stakeholder input on draft documents to inform revisions and prepare documents for regional endorsement

Agenda:

20 minutes	Introductions; review meeting objectives and agenda	
20 minutes	Present draft Recommendations for Updating the FMP	
45 minutes	Discuss stakeholder feedback on draft recommendations for updating	
	the FMP	
20 minutes	Present Sub-Regional Data Policy Conceptual Proposal	
45 minutes	Discuss stakeholder feedback on Sub-Regional Data Policy	
	Conceptual Proposal	
20 minutes	Present draft Cooperation Agreement	
45 minutes	Discuss stakeholder feedback on draft Cooperation Agreement	
15 minutes	Wrap up and Next Steps	

Please note the agenda represents estimated timing for the meeting discussions and may shift based on meeting participants' discussion priorities.

Appendix C: Facilitation Plan – Flyingfish Governance National Stakeholder Meetings

Caribbean Regional Fisheries Mechanism DRAFT Facilitation Plan – Flyingfish Governance Stakeholder Meeting

[DATE] [TIME] [LOCATION]

Note: This document provides a guide for national points of contact to lead meetings with stakeholders; it is not meant to be shared with stakeholders.

Meeting Objectives:

- Convene stakeholders with expertise related to [x country's] flyingfish fishery and other living marine resources
- Share draft documents related to flyingfish fishery management, including Recommendations for Updating the Fishery Management Plan (FMP), a Sub-Regional Data Policy Conceptual Proposal, and a Cooperation Agreement
- Gather stakeholder input on draft documents to inform revisions and prepare documents for regional endorsement

Facilitation Plan:

Agenda Item	Facilitation Questions and Materials	Key Output Needed by Blue Earth
Introductions; review meeting objectives and agenda	 Materials: Printed agendas and sign-in sheet Talking points: The Caribbean Regional Fisheries Mechanism (CRFM), which provides fisheries-related advice and recommendations at the CARICOM level, initiated 6 sub-projects during 2017 to implement the Ecosystem Approach to Fisheries (EAF) for the management of the four-wing flyingfish in the Eastern Caribbean. This species of economic and cultural significance to our region is harvested by over 1,700 boats across the Eastern Caribbean countries and in Martinique. The flyingfish efforts are serving as a pilot project, leading to outputs that can serve as models to valuable living marine resources in the region, such as dolphinfish. The sub-projects are being implemented in the focal countries of Barbados, Grenada, Saint Vincent and the Grenadines, Saint Lucia, Dominica, and Trinidad and Tobago, plus the French Overseas Territories of Martinique and Guadeloupe. The sub-projects, intended to support the long-term sustainability of the flyingfish, are part of the project funded by the United Nations Development Programme (UNDP) Global Environment Facility (GEF) titled, Catalyzing Implementation of the Strategic Action Programme for the Sustainable Management of Shared Living Marine Resources in the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+ Project). The CLME+ Project aims to strengthen governance of the region's shared living marine resources. Stakeholders' input from all flyingfish-fishing countries and Overseas Territories is critical for developing realistic and implementable frameworks for living marine resource management Lessons learned and best practices from the flyingfish pilot project will not only improve value from the flyingfish resource but provide a framework for improving the governance and community well-being flowing from other living marine resources	• List of meeting participants and job titles

Agenda Item	Facilitation Questions and Materials	Key Output Needed by Blue Earth
	lead several consultancies related to the flyingfish sub-projects. Three of the primary objectives of these consultancies focus on: 1) Updating the Sub-Regional Fisheries Management Plan for Flyingfish in the Eastern Caribbean (FMP) 2) Developing a Sub-Regional Data Policy 3) Developing a Cooperation Agreement for the management of flyingfish and shared living marine resources	
Present draft Recommendations for Updating the FMP	Materials: Printed draft Recommendations for Updating the FMP, copies of the FMP	• None
	 Talking Points: The mission of the FMP is to assist flyingfish stakeholders to implement an ecosystem approach to fisheries management, and to contribute to efficient fishing activities of the flyingfish resource within economically viable and competitive small-scale fisheries, providing a fair standard of living for those who depend on fishing flyingfish and taking the interests of consumers into account. Endorsed for regional implementation in 2014, the FMP was the first of its kind to be sanctioned by the Ministerial Council of the CRFM, consistent with the Caribbean Community Common Fisheries Policy. One of the primary objectives of these consultancies is updating the 2014 FMP. To support the update process, Blue Earth completed an initial review of the FMP and developed a draft list of recommendations for updating the FMP. CRFM Secretariat staff reviewed the draft list of recommendations, provided input, and Blue Earth revised. Then, focal points from Barbados, Dominica, Grenada, Saint Lucia, Saint Vincent and the Grenadines, and Trinidad and Tobago reviewed the draft list of recommendations and provided feedback. Blue Earth then compiled and reviewed feedback from focal points and additional input gathered through an online survey and revised the draft list of recommendations. The list of recommendations shared today reflects input to date from this vetting process. Based on your input and the input from similar meetings in other countries, Blue Earth will revise the draft list of recommendations for updating the FMP 	

Agenda Item	Facilitation Questions and Materials	Key Output Needed by Blue Earth
	and ultimately develop a revised FMP that will be further vetted with stakeholders.	
Discuss stakeholder feedback on draft recommendations for updating the FMP	 Materials: Stakeholder input collection table, copies of the FMP Key Discussion Questions: Which recommendations do you agree with? Are there any recommendations that you disagree with? Do you think that [x country] could adopt the sub-regional FMP instead of or in addition to a national flyingfish FMP? If not, what would need to change about the FMP for your country to adopt it? Are there any changes that could be made to the FMP to enable implementation in [x country]? Please describe. What should the FMP include with regards to stakeholder engagement in consultative processes? What incentives would be needed to build political will (i.e., support from policymakers) for improving flyingfish fishery management by adopting and implementing this FMP? 	Notes documenting consolidated stakeholder feedback
Present Sub-Regional Data	Materials: Printed copies of Sub-Regional Data Policy Conceptual Proposal	• None
Policy Conceptual		
Proposal	 Talking Points: Another major component of these consultancies is to develop a Sub-Regional Data Policy for the Eastern Caribbean Flyingfish fishery. The purpose of the Sub-Regional Data Policy is to: Provide a high-level approach to data collection, management, and sharing between participating countries and regional bodies. The Data Policy will be referenced in the updated ECFF-FMP. To develop the Data Policy Conceptual Proposal, Blue Earth: Requested and reviewed existing regional and national fishery data policies (note that only one national Data Policy from the region was identified) Identified existing data policies / data management protocols in other sectors or regions, as well as other relevant literature on data management Requested information from focal points regarding data collection and management through the online survey mentioned above. Worked with CRFM to develop an outline for the Sub-Regional Data 	

Agenda Item	Facilitation Questions and Materials	Key Output Needed by Blue Earth
Discuss stakeholder feedback on Sub-Regional Data Policy Conceptual Proposal	Policy Developed a conceptual proposal containing proposed high-level content for discussion and refinement with national stakeholders The Conceptual Proposal contains high-level proposed content for the Data Policy that will be refined during stakeholder participation. It serves a preliminary step to gain alignment with CRFM and stakeholders before drafting a full Data Policy. Blue Earth will draft the full Data Policy following Stakeholder's feedback on the conceptual proposal. The Data Policy Conceptual Proposal addresses topics including data prioritization and data sources, data management and sharing, and review and amendment, as well as other topics that may be refined or added based on stakeholder feedback. The Sub-Regional Data Policy is intended to be a high-level guidance document that will provide a framework for collaborative data sharing and management without being overly detailed or prescriptive. Materials: Printed copies Sub-Regional Data Policy Conceptual Proposal Key Discussion Questions: What aspects of the Sub-Regional Data Policy Conceptual Proposal seem the most useful? What refinements would you suggest to the Sub-Regional Data Policy Conceptual Proposal? Based on this draft, do you think your country would support the agreements outlined in the Data Policy? What refinements would you suggest to the criteria for prioritizing data needs? What data types are needed to support decision-making regarding the fishery? For the data types identified, how frequently would each of them need to be collected? Who would be responsible for collecting each data type? In your opinion, which entities should contribute to regional data management, and how would they contribute?	 List of relevant national policies to review Notes documenting consolidated stakeholder feedback

Agenda Item	Facilitation Questions and Materials	Key Output Needed by Blue Earth
	 sharing national data for inclusion in a regional database platform? What protocols are a high priority to include in the Data Policy (e.g., data ownership, data access and usage rights, legal considerations, quality assurance, data sharing precautions)? What would be helpful to include in the Data Policy Action Plan? 	
Present draft Cooperation Agreement	 Talking points: Another key objective of these consultancies is to encourage cooperation at the technical / scientific and political levels among Eastern Caribbean countries and departements d'outre mer (DOMs) regarding the management of regional flyingfish fisheries and other shared living marine resources. Note that the Cooperation Agreement is intended to be high-level to promote buy-in among all participating countries and regional bodies CRFM intends to enter into a Cooperation Agreement that will formalize the commitment to cooperation among countries and regional bodies participating in the fishery (including DOMs, particularly Martinique). We will discuss with stakeholders the most viable bodies to endorse the Cooperation Agreement; the endorsers may include one of the three options below: Executive Committee Chairman of the CRFM Ministerial Council and a ministerial-level representative of Martinique's Direction de la Mer CRFM Secretariat and Direction de la Mer Secretariat (if ministerial-level of endorsement is not attainable at this stage) Representatives of CRFM and OECS, of which Martinique is an associate member Blue Earth is supporting the CRFM by facilitating the Cooperation Agreement development process. Blue Earth conducted interviews with stakeholders in Dominica, Grenada, Saint Vincent and the Grenadines, Saint Lucia, Trinidad and Tobago, and Martinique, as well representatives of the CRFM and OECS. Based on this input and reviewing similar agreements, Blue Earth and CRFM developed a Draft Cooperation Agreement. At this stage, Blue Earth and CRFM are sharing the Draft Cooperation Agreement with key stakeholders in each country to vet the agreement and gather stakeholder input. 	• None

Agenda Item	Facilitation Questions and Materials	Key Output Needed by Blue Earth
	Based on this feedback, Blue Earth will revise the Draft Cooperation Agreement and support the endorsement process.	
Discuss stakeholder feedback on draft Cooperation Agreement	 Materials: Printed copies of the Draft Cooperation Agreement Key Discussion Questions: What aspects of the Draft Cooperation Agreement seem useful? What refinements would you suggest to the Draft Cooperation Agreement? Based on this draft, do you think your country would support entry into a Cooperation Agreement for the management of regional flyingfish fisheries? In your opinion, ideally, who should endorse the Cooperation Agreement (e.g., Executive Committee Chairman of the CRFM Ministerial Council, CRFM Secretariat and Direction de la Mer Secretariat, or representatives of CRFM and OECS)? Would it work for the CRFM to sign the partnership agreement on behalf of your country? 	Notes documenting consolidated stakeholder feedback
Wrap up and Next Steps	 Overview of Project Next Steps: After stakeholder consultative processes are completed in each country (by 20 April 2018), Blue Earth will request written feedback from focal points and subsequently hold skype calls with national points of contact to discuss feedback from national consultative processes (week of 23 April or 30 April). Blue Earth will then revise the FMP recommendations, Data Policy Conceptual Proposal, and Cooperation Agreement. Each component will be shared and further vetted with stakeholders before adoption. 	• None

Appendix D: Note-Taking Template – Flyingfish Governance National Stakeholder Meetings

This document provided a notes template that focal points in Dominica and Saint Lucia used to capture stakeholder responses for each discussion during their respective country's Eastern Caribbean Flyingfish Fisheries Management Plan ECFF-FMP stakeholder meetings. The document was organized by the three discussion topics: 1) FMP Update Recommendations, 2) Sub-Regional Data Policy Conceptual Proposal and 3) Cooperation Agreement. Each discussion topic included two note-taking tables. The first table under each topic was for taking notes on the overarching key questions included in the facilitation plan document (blue tables). The second table in each section was for filling in any feedback on specific sections of each draft document (green tables).

FMP Update Recommendations Discussion

Overarching Feedback on FMP Update Recommendations		
Key Questions for Stakeholders	Notes Based on Stakeholder Responses	
Which recommendations do you agree with?		
Are there any recommendations that you disagree		
with?		
Do you think that [insert country] could adopt the		
sub-regional FMP instead of or in addition to a		
national flyingfish FMP?		
If not, what would need to change about the FMP		
for your country to adopt it?		
Are there any changes that could be made to the		
FMP to enable implementation in [insert country]?		
Please describe.		
What should the FMP include with regards to		
stakeholder engagement in consultative processes?		
What incentives would be needed to build political		
will (i.e., support from policymakers) for		
improving flyingfish fishery management by		
adopting and implementing this FMP?		

Specific Feedback on FMP Update Recommendations

FMP Update Recommendations

Notes Based on Stakeholder Feedback

- 1. Streamline background and supporting information: Where appropriate, simplify the text of background and supporting sections (e.g., Sections 4, 5, 6, 7, 8) without removing useful content. Consider moving detailed subsections to annexes, which could be included as part of the main FMP document for easy reference without being separated from the plan. Consider adding a summary of key points (e.g., text box) at the beginning of each section and throughout the document to help highlight priority information for fishery managers and translate information for other audiences (e.g., fishermen, policymakers).
- 2. Clarify management advice and implementation steps: Rank the management measures in order of importance to begin implementing (Section 12.1). Consider revising the framing to differentiate between the management measures and management actions so that the management actions more clearly guide implementation of the management measures (e.g., create a table including components, issues, goals, objectives, management interventions, indicators, reference points, suggested responsible party, and timing of key milestones).
- 3. Add additional guiding documents as annexes: Include the Draft Sub-Regional Data Policy as an annex to the FMP (when it is finalized). Consider also including CRFM's harmonized control and inspection schemes as an annex, which would be included as part of the main FMP, to provide guidance to national agencies on control, surveillance, and enforcement measures.
- 4. Emphasize key framing elements of the updated plan: Consider including context for regional management by adding text noting that although the socio-economic importance and primary uses of flyingfish may vary significantly among countries in the region, the flyingfish fishery provides an important opportunity to develop strong regional management and governance frameworks that may apply to other shared living marine resources (e.g., Section 1 or 3). Relatedly, ensure that

- recommended management actions are, as appropriate, broadly applicable to all countries in the region and complement existing management plans. Note that the FMP is intended to provide guidance for countries participating in the fishery and does not supersede national fisheries management plans and other considerations related to national sovereignty or differences in the specifics of the fishery among countries. Consider adding information and guidance at the national level where appropriate.
- 5. Highlight topical priorities: Include a clear definition of the ecosystem approach to fisheries (EAF) management (e.g., Section 3), ensure that recommended management actions are linked to the goals of EAF management, and provide examples of application of EAF management to flyingfish fisheries (e.g., Section 10). Furthermore, summarize potential impacts of climate change, ocean acidification, sargassum influxes, and related environmental changes and their potential impacts on the flyingfish fishery, to consider as part of the EAF process (e.g., Section 3). Add detail regarding areas where more research may be needed to understand impacts (this could relate to the research areas mentioned in recommendation 10; e.g., Section 11.3).
- 6. Lay groundwork for future stock assessments: In alignment with the Sub-Regional Data Policy, emphasize the importance of harmonizing data collection and sharing among countries participating in the flyingfish fishery and highlight data priorities that will enable assessment of the regional trigger point and potential future stock assessments (e.g., harmonized units of effort). Consider mapping out a timeline and realistic approach (e.g., utilizing a stock assessment methodology for data-poor fisheries) for reassessing flyingfish abundance and appropriate catch levels at national and regional scales, including engaging and communicating with fishermen and gathering information about flyingfish harvested for bait (e.g., Sections 10 and 11).
- 7. Specify management measures related to the trigger point: **Identify** the management measures that will be implemented nationally

- and regionally if the regional trigger point is exceeded (e.g., Section 10), and consider appropriate measures depending on the extent to which the trigger point has been exceeded. Consider also including historical national landings to provide context for the trigger point, if available.
- 8. Specify research needs: Indicate priority topics where more research is needed, such as determining the influence of flotsam on flyingfish population size, the impact of sargassum influxes on flyingfish populations and catch, the effect of placement of FADs on local flyingfish catch, the effects of climate change on flyingfish spawning aggregations and migration patterns, the influence of the Orinoco on the fishery, and the impacts of monofilament nets on flyingfish populations (e.g., Section 11.3). Consider identifying areas of collaboration with other relevant regional projects, universities, research institutes, and regional NGOs (e.g., University of West Indies, University of Trinidad and Tobago, University of Puerto Rico, University of the Virgin Islands, The Nature Conservancy, World Wildlife Fund, the Wildlife Conservation Society, and the Food and Agriculture Organization [FAO] CC4FISH project).
- 9. Emphasize the precautionary principle: Highlight regional and international accords and guiding documents that call for a precautionary approach to fisheries management (e.g., Eastern Caribbean Regional Ocean Policy) to provide a basis for applying the precautionary principle at a regional and national scale, considering that national legislation may lack explicit mention of the precautionary approach and/or be based on maximizing yield (e.g., Sections 6 and 12).
- 10. Provide a realistic roadmap to implementation: Identify suggested responsible parties and timelines (including milestones and dates) for carrying out the actions listed in Section 11 to improve the completeness of data and information on flyingfish populations and the fishery. Ensure that this information aligns with the Sub-Regional Data Policy and the management measures and management actions described in the section above. Note that parties and timelines are adaptive depending on

- the status, capacity, and needs for implementation; details on the responsible parties and implementation timeline could be located in an annex.
- 11. Harmonize data collection: Ensure that guidance for data and information sharing included in the FMP and the Sub-Regional Data Policy annex enables harmonized data collection among participating countries and collection of data that can be compiled in the sub-regional flyingfish catch and effort and vessel registry database. Identify resources that can be made available to resource managers to allow them to collect robust, disaggregated data on catch and effort of flyingfish to measure progress towards specific reference points for FMP indicators (e.g., Section 11). Ensure that the FMP provides guidance related to harmonized data collection, storage, management, sharing, and other aspects and recommends that funds be secured for staff training. Consider adding more information about existing national data describing the status of the fishery (e.g., catch per unit effort).
- 12. Support collaboration: Outline steps taken and potential next steps for fostering collaboration among countries, départements d'outre mer (DOMs), and regional entities (e.g., CRFM and OECS) to increase management, research, enforcement, and capacity-building (e.g., Section 9).
- 13. Facilitate adoption of the FMP: Provide guidance to expedite the process of FMP adoption and implementation at the national level (e.g., Section 12), including by addressing, to the extent possible, common barriers to implementation and issues such as open access fishery laws in some countries and a lack of legislation regarding environmental factors (e.g., water quality). In addition, provide more guidance on consultative processes, such as by adding an overview diagram, high-level plan, or other description of stakeholder consultative processes regarding the FMP (e.g., identify stakeholders to engage, timing for consultative processes, process for collecting and integrating input, etc.; Section 10), emphasizing the importance of engaging the fishing industry in data collection, management, and

- assessment and avoiding overly detailed guidance that is not broadly applicable in the region.
- 14. Define and incorporate adaptive management: Add a diagram or flowchart illustrating the adaptive management cycle to the section on monitoring and evaluation of the FMP, and identify opportunities to incorporate the principles of adaptive management throughout the plan as appropriate (e.g., Section 12.7).
- 15. Enable measuring progress towards objectives and indicators: Hone in on a smaller set of objectives and indicators that are SMART (e.g., specific, measurable, achievable, relevant, time-bound) and provide an overall picture of the effectiveness of flyingfish fishery management that fishery managers and partners can realistically collect data to track. Also, consider revise the framing of the objectives and indicators to state that they are the finalized measures of progress for the fishery, rather than proposed objectives and indicators as currently described in the FMP. Consider adding a template based on the revised objectives, indicators, and management guidance included in the FMP that national fishery agencies can use to monitor and report on their performance. Identify opportunities to involve the fishing industry in monitoring activities to reduce the demands on fisheries managers (e.g., Section 12.7).
- 16. Include guidance on environmental monitoring: Consider incorporating monitoring of indicators of healthy habitat, such as water quality parameters and marine debris/pollution (e.g., Section 10 and Section 12.7). Address capacity limitations within fisheries management entities by highlighting examples of environmental data from other national and regional environmental management entities (e.g., Tobago's Institute of Marine Affairs and Natural Resources Department). Consider revising the FMP to call for the adoption of Water Quality Guidelines for the Protection of Aquatic Life.
- 17. Include guidance on socioeconomic monitoring: Consider specifying or providing additional information on target adequate levels of employment income, return on investment,

and credit access, or provide graphs showing trends in these variables (e.g., Section 10 and Section 12.7). In addition, quantify or provide trend information for "fair access to fishing grounds" and note any considerations related to sovereignty. As with environmental indicators, provide examples of other agencies that may be able to provide this information. Consider integrating opportunities to improve socio-economic aspects of the fishery without compromising ecological goals (e.g., value-add improvements to harvest techniques).

Sub-Regional Data Policy Conceptual Proposal Discussion

Overarching Feedback on Data Policy Conceptual Proposal	
Key Questions for Stakeholders	Notes Based on Stakeholder Responses
What aspects of the Sub-Regional Data Policy Conceptual	
Proposal seem the most useful?	
What refinements would you suggest to the Sub-Regional	
Data Policy Conceptual Proposal?	
Based on this draft, do you think your country would support	
the agreements outlined in the Data Policy?	
What refinements would you suggest to the criteria for	
prioritizing data needs?	
What data types are needed to support decision-making	
regarding the fishery?	
For the data types identified, how frequently would each of	
them need to be collected?	
Who would be responsible for collecting each data type?	
In your opinion, which entities should contribute to regional	
data management, and how would they contribute?	
What limitations, guidelines, or security would your country	
require around sharing national data for inclusion in a	
regional database platform?	
What protocols are a high priority to include in the Data	
Policy (e.g., data ownership, data access and usage rights,	
legal considerations, quality assurance, data sharing	
precautions)?	
What would be helpful to include in the Data Policy Action	
Plan?	

Specific Feedback on Sub-Regional Data Policy Conceptual Proposal

Data Policy Conceptual Proposal Sections

Notes Based on Stakeholder Feedback

- I. Introduction
 - a) Data Policy Overview and Fishery Background
 - b) Data Policy Scope and Agreements
- II. Data Prioritization and Sources
 - a) Identifying Data Priorities
 - b) Sharing Outputs
 - c) Data Collection and Sources
- III. Data Management and Sharing
 - a) National Data Management
 - b) Regional Data Management
 - c) Data Sharing and Usage
- IV. Data Policy Review and Amendment
- V. Appendices

Cooperation Agreement Discussion

Overarching Feedback on the Cooperation Agreement		
Key Questions for Stakeholders	Notes Based on Stakeholder Responses	
What aspects of the Draft Cooperation Agreement seem useful?		
What refinements would you suggest to the Draft Cooperation		
Agreement?		
Based on this draft, do you think your country would support		
entry into a Cooperation Agreement for the management of		
regional flyingfish fisheries?		
In your opinion, ideally, who should endorse the Cooperation		
Agreement (e.g., Executive Committee Chairman of the CRFM		
Ministerial Council, CRFM Secretariat and Direction de la		
Mer Secretariat, or representatives of CRFM and OECS)?		
Would it work for the CRFM to sign the partnership		
agreement on behalf of your country?		

Specific Feedback on the	Cooperation Agreement
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Cooperation Agreement Sections

Notes Based on Stakeholder Feedback

Preamble

Article 1: Definitions

Article 2: Establishment of this Cooperation Agreement

Article 3: Participation

Article 4: Scope

Article 5: Vision and Goals

Article 6: General Undertakings on Implementation

Article 7: Roles and Responsibilities

Article 8: Monitoring, Evaluation, and Adaptive

Management

Article 9: Amendments

Article 10: Dispute Settlement

Article 11: Entry into Force

Article 12: Withdrawal and Termination

List of attendees for the [insert date] flyingfish FMP consultation below:

Appendix E: Agenda – Special Meeting of the Joint CRFM / WECAFC Working Group on Flyingfish in the Eastern Caribbean

Special Meeting of the Joint CRFM / WECAFC Working Group on Flyingfish in the Eastern Caribbean

1 – 2 October 2018 Barbados







INDICATIVE Agenda

Meeting Goal

Discuss progress, challenges, and next steps for implementing the sub-regional flyingfish fishery management plan (FMP) and associated outputs to further flyingfish and other fishery resource management in the Eastern Caribbean

Meeting Outputs

- 1. A compilation of all deliverables and outputs to date, of the six consultancies
- 2. Analysis of the relationship between planned outputs and current needs and capacities of the Member States
- 3. Comments and suggestions on the deliverables and outputs, to facilitate updating of the Flyingfish FMP
- 4. Considerations and suggestions concerning institutional and incentive structures and responsibilities of governments and other stakeholders for bringing the Eastern Caribbean Flyingfish FMP into effective implementation in the region, including identification of potential constraints and recommendations.

Meeting Participants

Technical-level participants including but not limited to national Chief Fisheries Officers, fishing cooperative representatives, Commissioner to the OECS from Martinique, OECS Commission and FAO / WECAFC members, representative(s) of fisheries organizations, and the CRFM Secretariat

Meeting Approach

The agenda represents estimated timing for the discussions and may shift based on meeting participants' discussion priorities. Specific consultants will facilitate discussion on the various topics, supported by the others as appropriate. These discussion lead agencies are <u>underlined</u> in parentheses () in the draft agenda, below.

Agenda

Day 1 (Monday, 1 October)

- 8:30 8:50am **1** Opening remarks
 - a) Opening Remarks, Ms. Joyce Leslie, Deputy Chief Fisheries Officer
 - b) Remarks, Dr. Yvette Diei Ouadi, Secretary of WECAFC, FAO
 - c) Remarks, Mr. Milton Haughton, Executive Director, CRFM
- 8:50 9:20am 2 a) Introduction of participants
 - b) Review and adoption on meeting agenda
 - c) Review of objectives and expected outcomes of meeting

After self-introductions, participants will review the draft agenda with the view to its adoption; participants will then be apprised of the objectives and expected outcomes of the meeting

9:20 - 9:45am **3** Background to and TOR of the Working Group (FAO)

This item seeks to remind participants of their commitments as members of the working group.

- 9:45 10:30am **4** Background, Status, Issues, Challenges and Opportunities Regarding FF Fisheries
 - a) Review of the Flyingfish Fishery in the Eastern Caribbean (CRFM)
 - b) Review of the goals and intent of the CLME+ project and intended outcomes of the Flyingfish subproject (CLME+)
 - c) Preparation of SOMEE Report and input regarding flyingfish fishery (CLME+)

Participants will be given a quick, brief overview of the known status of the Eastern Caribbean Flyingfish fishery. This will be followed by a review of the intended outcome of the Flyingfish sub-project in the context of the goals and intent of the broader CLME+ project; and, the consequential input into the preparation of the SOMEE report. (As this item seeks solely to provide background, presenters will be asked to limit themselves to no more than 10 minutes for each presentation.)

> In the context of the overview of progress to date, discussion will highlight lessons and best practices, challenges and opportunities to address these, such as to inform the way forward

11:15 - 11:30am **Break**

11:30am - 12:30pm **6** Presentation and discussion of draft outputs to date and gather feedback for further revisions of Sub-regional FMP (ERG)

The consultant will be expected to expand on their outputs to date; this should

be considered in the context of the existing timelines mindful of the need to have tangible outputs for Ministerial Consideration at upcoming meetings of the Ministerial Sub-Committee on Flyingfish and / or the CRFM Ministerial Council (MC 13). Participants will be expected to focus on these outputs and provide reactions / comments / inputs on these to inform finalization

		Free and the second of the sec	
12:30 - 1:30pm		Lunch	
1:30 - 2:15pm	7	Presentation and discussion on proposed inputs into Sub-regional FMP (item 6) by other consultants a) NEXUS b) CANARI	
		The other consultants (than the lead) will also be asked to make any input they would have in this context. Participants will be expected to consider these and provide reactions / comments / inputs on these to inform the way forward for the consultancy	
2:15 - 3:15pm	8	Presentation and discussion of draft outputs and gather feedback for further revisions of draft Data Policy (<u>ERG</u>)	
		The consultant will be expected to expand on their outputs to date; this should be considered in the context of the existing timelines mindful of the need to have tangible outputs for Ministerial Consideration at upcoming meetings of the Ministerial Sub-Committee on Flyingfish and / or the CRFM Ministerial Council (MC 13). Participants will be expected to focus on these outputs and provide reactions / comments / inputs on these to inform finalization	
3:15 - 3:30pm		Break	
3:30 - 4:15pm 9		Presentation and discussion on proposed inputs into draft Data Policy (Item 8) by other consultants a) NEXUS b) CANARI	
		The other consultants (than the lead) will also be asked to make any input they would have in this context. Participants will be expected consider these and provide reactions / comments / inputs on these to inform the way forward for the consultancy	
4:15 - 4:30pm	10	Review Day two's agenda	
Day 2 (Tuesday, 2 October)			

8:30 - 9:00am 11 Summary of Day one's discussions

9:00 - 10:00am Presentation and discussion of draft outputs and gather feedback for further revisions of Data collection approaches and minimum requirements (ERG)

The consultant will be expected to expand on their outputs to date; this should

be considered in the context of the existing timelines mindful of the need to have tangible outputs for Ministerial Consideration at upcoming meetings of the Ministerial Sub-Committee on Flyingfish and / or the CRFM Ministerial Council (MC 13). Participants will be expected to focus on these outputs and provide reactions / comments / inputs on these to inform finalization

10:00-10:45

- Presentation and discussion on proposed inputs into proposed Data collection approaches and minimum requirements (Item 12) by other consultants
 - a) ERG

13

b) CANARI

The other consultants (than the lead) will also be asked to make any input they would have in this context. Participants will be expected to consider these and provide reactions/comments/inputs on these to inform the way forward for the consultancy

10:45-11:00am

Break

11:00-11:30am

Presentation and discussion of draft outputs and gather feedback for further revisions of Cooperation Agreement (ERG)

The consultant will be expected to expand on their outputs to date; this should be considered in the context of the existing timelines mindful of the need to have tangible outputs for Ministerial Consideration at upcoming meetings of the Ministerial Sub-Committee on Flyingfish and / or the CRFM Ministerial Council (MC 13). Participants will be expected to focus on these outputs and provide reactions / comments / inputs on these to inform finalization

11:45am-12:30pm

- 15 Presentation and discussion on proposed inputs into Cooperation Agreement by other consultants
 - a) ERG
 - b) NEXUS

The other consultants (than the lead) will also be asked to make any input they would have in this context (Item 14). Participants will be expected to consider these and provide reactions / comments / inputs on these to inform the way forward for the consultancy

12:30-1:30pm

Lunch

1:30-2:15pm

- Discuss countries' approaches to stakeholder participation in, awareness building for, and implementation of the sub-regional FMP at the national and local levels (CANARI, NEXUS, ERG), including:
 - a) Resources required
 - b) Initiatives for (re)establishing national or local consultation mechanisms

The consultant will be expected to expand on their outputs to date; this should be considered in the context of the existing timelines mindful of the need to have tangible outputs for Ministerial Consideration at upcoming meetings of the Ministerial Sub-Committee on Flyingfish and / or the CRFM Ministerial

Council (MC 13). Participants will be expected to focus on these outputs and provide reactions/comments/inputs on these to inform finalization. The other consultants (than the lead) will also be asked to make any input they would have in this context. Participants will also be expected to consider these and provide reactions / comments / inputs on these to inform the way forward for the consultancy

2:15-2:45pm Open discussion of challenges in furthering the flyingfish subproject goals and methods for overcoming them (<u>CRFM</u>)

This session would seek to propose the way forward; particularly, stakeholders will be asked to confirm the commitments (implicit or otherwise) in furtherance of sub-project objectives.

2:45-3:15pm **18** Wrap up and next steps

Appendix F: Facilitation Plan – Special Meeting of the Joint CRFM / WECAFC Working Group on Flyingfish in the Eastern Caribbean

Facilitation Plan – Day 1 (Monday, 1 October)

Agenda Item #; Time, Agenda Item,	Facilitation Notes		
and Lead			
(1) 8:30 - 8:50 am <i>Opening Remarks</i>	Opening remarks a) CRFM b) FAO		
CRFM	c) Government of Barbados		
(2) 8:50 - 9:20 am Introductions and Review Meeting Agenda and Outcomes	 a) Introduction of participants b) Review and adoption on meeting agenda c) Review of objectives and expected outcomes of meeting 		
CRFM (3) 9:20 - 9:45 am Background on Working Group FAO	Background to and TOR of the Working Group (FAO)		
(4) 9:45 - 10:30 am Background, Status, Issues, Challenges, and Opportunities Regarding FF Fisheries CRFM / CLME+	 Background, Status, Issues, Challenges and Opportunities Regarding FF Fisheries a) Review of the Flyingfish Fishery in the Eastern Caribbean (<u>CRFM</u>) b) Review of the goals and intent of the CLME+ project and intended outcomes of the Flyingfish subproject (<u>CLME+</u>) c) Preparation of SOMME Report and input regarding flyingfish fishery (<u>CLME+</u>) 		
(5) 10:30 - 11:15 am Overview of Progress to Date CRFM / Consultant Presentations	Brief overview of progress to date a) ERG (Governance, Stress reduction, Adaptive management) – Kelsey present brief overview b) NEXUS (Enhancing data, Long-term Livelihood enhancement) c) CANARI (improving stakeholder participation)		
11:15 - 11:30 am	Break		
(6) 11:30 am - 12:30 pm Capacity	Brief look at capacity availability and needs and changing conditions affecting the flyingfish subproject (<u>CRFM</u> , ERG, NEXUS, CANARI)		
Availability and Needs CRFM	 Topics that we could bring up: Level of priority on flyingfish at the national level in the context of other fisheries and non-fishing issues Possibility for creating efficiencies by addressing flyingfish issues, in the 		
	 context of other issues, e.g., through the existing Pelagics Working Group How to best position the flyingfish outputs to be useful for improving the 		

management of other fisheries How might new fisheries legislation external to this FMP more fishery towards greater sustainability (e.g. new Trinidad and Bill)? Will co-management measures contribute to robust managem fishery?	Γobago Fisheries
 How might new fisheries legislation external to this FMP more fishery towards greater sustainability (e.g. new Trinidad and Bill)? Will co-management measures contribute to robust management 	Γobago Fisheries
12:30 - 1:30 pm Lunch	
(7) 1:30 - 2:15 pm Discuss Sub- Regional FMP ERG Tegan – Introduce session • As we mentioned before, Blue Earth has gathered input from each of your countries to develop a draft, updated version of to Caribbean flyingfish fishery management plan (ECFF-FMP). • CRFM should have sent you the draft updated FMP to review meeting. • Kelsey will provide a brief overview of the updates Kelsey – Intro to FMP updates • See PPT Mark – Review FMP updates • See PPT Tegan – Facilitate feedback Overarching feedback: • Are there any overarching comments on the updates? That is, missing, comments on overall organization, etc.? Discussion questions: • Should we streamline some of the background information (swhich are 27 out of 37 pages of the FMP body), placing some appendices? • As you can see, in Table 5 – which consolidates the managen objectives, actions, indicators, responsible parties and milesto some cells that need to be filled in. This table summarizes mu and actions moving forward. Would you like us to propose cothose cells? • One thing that we heard is the need for more guidance on stale engagement. What type of guidance would be most useful to ECFF-FMP? • What resources would be needed to perform an annual sub-reassessment? • How realistic is the 5000 tonne trigger point in light of the hig recruitment variability of flyingfish?	stakeholders in the Eastern prior to this themes that are ections 4-9, e of the detail in themes there are then for the goals content to fill scholder include in the gional stock

Agenda Item #; Facilitation Notes			
Time, Agenda Item,			
and Lead			
(8)	Presentation and discussion of draft outputs and gather feedback for further		
2:15 - 3:15 pm	revisions of draft Data Policy (<u>ERG</u>)		
Discuss Data Policy ERG	Tegan – Introduce session		
LKU	 As we also mentioned previously, Blue Earth, with stakeholder input, 		
	developed a draft Data Policy for Eastern Caribbean flyingfish fisheries.		
	 This policy is meant to provide a framework for harmonizing the collection 		
	and sharing of flyingfish data across the Eastern Caribbean.		
	You should have received this document to review prior to the meeting as		
	well.		
	Kelsey will provide a brief overview.		
	Kelsey – Review draft Data Policy		
	• See PPT		
	Tegan – Facilitate feedback		
	Overarching feedback		
	• Are there any overarching comments on the draft Data Policy? That is, themes		
	that are missing, comments on overall organization, etc.?		
	<u>Discussion questions</u>		
	Questions to ask this group:		
	• Can you all agree to the "Data Policy Agreements" on p. 2?		
	Are there other agreements that would be important to add? Pagarding the first agreement, do you have input on who the regional.		
	 Regarding the first agreement, do you have input on who the regional body should be that compiles and shares the data? 		
	 Can you all agree to the "Regional Data Priorities" on p. 3? 		
	 Can you an agree to the Regional Data Friorities on p. 3: Are there other priorities that would be important to add? 		
	 Who are the end users of data (Figure 1, p. 3)? That is, who will be the target 		
	audiences for the regional body to share data reports with? (e.g., fishers,		
	CRFM, countries in the region, the public?)		
	• Do you agree with the criteria for prioritizing data sources on p. 3 - 4?		
	• What additions, removals, or changes would you make to these criteria?		
	 These criteria can be used in the future to identify priority data to collect. 		
	Do you think it is possible to identify priority data to collect now?		
	• We will update the list of "Data Collection Tools and Sampling Strategies" on		
	p. 6 following our discussions tomorrow on data collection approaches		
	tomorrow. Are there any modifications you would like to add now?		
3:15 - 3:30 pm	Break		
(9)	Presentation and discussion on proposed inputs into draft Data Policy by other		
3:30 - 4:15 pm	consultants		
Data Policy Inputs			
by Other	Tegan – Continue facilitating feedback		
Consultants	Discussion questions		
ERG	Questions to ask this group:		
	Do you have input on how regional bodies like WECAFC and UWI can		

Agenda Item #; Time, Agenda Item, and Lead	Facilitation Notes	
(10) Review Day 2 Agenda CRFM	 contribute to the data management system? (Table 2, p. 7) Do you have input on what platform should be used to manage regional data (see "Database Platform" section, p. 7)? For example, building from the existing FIRMS platform? We can also revisit this question during the data collection approach and requirements tomorrow. Can you all agree to the "Submission" and "Documentation" agreements on p. 7-8? Are there other agreements that would be important to add? What specific agreements about data sharing and usage can we add to the Data Policy (see "Data Sharing and Usage Approach" on p.8? Would a Data Policy action plan be useful for mapping out steps for implementing the Data Policy? Do you have input on who should be responsible for enforcing the Data Policy? Questions for follow-up with individual countries after this meeting (see slide): What national entity(ies) are responsible for collecting/compiling each type of data and submitting to the regional body? Questions that the Ministerial Council might need to discuss: What body should compile and analyze data collected from participating countries? Will they use/build from the existing FIRMS platform? Who is responsible for enforcing the Data Policy? Review Day two's agenda	

Facilitation Plan – Day 2 (Tuesday, 2 October)

Agenda Item #; Time, Agenda Item,	Facilitation Notes	
and Lead		
(11) 8:30 - 9:00 am Summary of Day 1	Summary of Day one's discussions	
Discussions CRFM		
(12)	Presentation and discussion of draft outputs and gather feedback for further	
9:00 - 10:00 am Discuss Data	revisions of Data collection approaches and minimum requirements (ERG)	
Collection	Tegan – Introduce session	
Approaches and Minimum	Nexus bas been leading an effort to improve the data collection protocols in three countries (Barbados, Trinidad and Tobago, and Grenada). The state of the	
Requirements ERG	• This is highly related to the Data Policy, and the protocols will serve to provide additional detail that is not in the Data Policy.	
	Chris will provide a brief overview of their findings and recommendations on	

Agenda Item #; Time, Agenda Item,	Facilitation Notes		
and Lead			
	national data collection. Chris – Review draft data collection approach • See PPT		
(13) 10:00 - 10:45 am Data Collection Inputs from Other Consultants ERG	 Tegan – Facilitate feedback How can the other three countries benefit from these recommended protocols as well (Saint Lucia, Saint Vincent and the Grenadines, and Dominica)? How can data systems be enhanced with limited fiscal impact on Fishery Divisions? (Can Fisher Orgs be useful?) Presentation and discussion on proposed inputs into proposed Data collection approaches and minimum requirements by other consultants ERG CANARI Discussion questions continued: What are the barriers to enhancing the roles and responsibilities of Fishers in enhancing data quality (completeness, timeliness reliability)? 		
	 What approach should be made to adapt FF fishery to climate change impacts? What measures should be taken to enhance gender equity in all areas of the fishery? 		
10:45 - 11:00am	Break		
(14) 11:00 - 11:30am Discuss Cooperation Agreement	Presentation and discussion of draft outputs and gather feedback for further revisions of Cooperation Agreement (<u>ERG</u>) Tegan – Introduce session		
ERG	As we also mentioned previously, Blue Earth, with stakeholder input, developed a draft Cooperation Agreement to support coordination of flyingfish and other fishery management between the Eastern Caribbean countries and France. **Transport of the Cooperation** **Transpor		
	 You should have received this document to review prior to the meeting as well. Kelsey will provide a brief overview. 		
	Kelsey – Review draft Data Policy • See PPT		
	 Tegan – Facilitate feedback Overarching feedback Are there any overarching comments on the draft cooperation? That is, themes that are missing, comments on overall organization, etc.? Discussion Questions Are there any significant changes needed to the draft Cooperation Agreement? That is, are there any sections that you disagree with, or any missing? Would countries want to endorse the agreement individually, or would you be 		

Agenda Item #;	Facilitation Notes
Time, Agenda Item, and Lead	
(15) 11:45 am - 12:30 pm Cooperation Agreement Input from Other Consultants ERG	ok with a representative of CRFM signing on your behalf? a) What would be the implications on individual countries and fishers of the agreement? b) Could individual countries choose to withdraw? If so, what would be the process and implications? Presentation and discussion on proposed inputs into Cooperation Agreement by other consultants • Would the OECS be the most appropriate venue for review and endorsement of the Cooperation Agreement? o If yes, what would be the best method for gaining review and endorsement from Barbados and Trinidad and Tobago (who are not members of the OECS)? o If no, what would be the best alternative? What steps need to be taken to initiate the process through OECS [or another body]?
12:30 - 1:30 pm	Lunch
(16) 1:30 - 2:15 pm Stakeholder Participation and Awareness CANARI / CRFM	Discuss countries' approaches to stakeholder participation in, awareness building for, and implementation of the sub-regional FMP at the national and local levels (<u>CANARI</u> , NEXUS, ERG), including: a) Resources required b) Initiatives for (re)establishing national or local consultation mechanisms
(17) 2:15 - 2:45 pm Challenges and Methods for Overcoming CRFM	Open discussion of challenges in furthering the flyingfish subproject goals and methods for overcoming them (<u>CRFM</u>)
(18) 2:45 - 3:15 pm Wrap up and Next Steps	Wrap up and next steps

ANNEX J: INFORMATION PRODUCTS



Information Brief No. 1, January 2019

Updates to the Eastern Caribbean Flying fish Fishery Management Plan

Background

The Eastern Caribbean flyingfish fishery management plan (FMP) provides guidance for the management and conservation of four-wing flyingfish. Drafted in 2001, the FMP has been updated in 2008, 2014, and 2019. The Ministerial Council of the Caribbean Regional Fisheries Mechanism and the Western and Central Atlantic Fishery Commission approved the 2014 edition.

The CRFM-WECAFC Working Group on Flyingfish oversees updates to the FMP. In 2018-2019, it led a process during which stakeholders from six Eastern Caribbean nations provided input on how the FMP could better support fishery management in their country. This briefing document summarizes the updates to the 2019 FMP.

Updates to the 2019 FMP

Since the last FMP update in 2014, fishers have noticed changes in flyingfish catch and environmental conditions, such as masses of sargassum algae, in some areas. The CRFM therefore led an update to the FMP to begin accounting for these changes and to implement an ecosystem approach to fisheries management.

Updates in the 2019 FMP include the following:

Background information

- Notes potential impacts of climate change on fishing communities and infrastructure
- Emphasizes the importance of flyingfish as a prey species for larger, commercially important fish species
- References the United Nations Sustainable Development Goals and newly created Sub-Regional Data Policy and Cooperation Agreement between CRFM and Martinique

Data collection

- Names priority data to collect to move toward an ecosystem approach to flyingfish fishery management
- Emphasizes fisher participation

Participatory management

- Describes Fisheries Advisory Committees (FACs) roles to ensure stakeholder input
- States that fishers should be consulted in advance of, and in the event of, the 5,000tonne trigger point being met
- Adds a description of co-management among fishers and their organizations, FACs, and technical and political bodies
- Provides more detail on adaptive management and stakeholder feedback

Fourwing Flyingfish (Hirundichthys affinis) (photo credit: Pexels)



Fishers' Opportunities for Involvement

One of the main discussions of the CRFM-WECAFC Working Group on Flyingfish was the importance of participatory processes that engage fishers and fisherfolk organizations in the management process. There are several ways that these groups are encouraged to participate:

- Collect data: Regularly record data on flyingfish catch and effort and share with data collectors
- Participate in fisherfolk organizations: These organizations help communicate between fishers and managers, and in some countries may collect and/or compile fisheries data
- **Know your data confidentiality:** Discuss with fisherfolk organizations and national fisheries divisions to understand the confidentiality requirements of how your data are aggregated and shared
- Understand findings: Review summaries of data collected, which the CRFM and/or national fisheries divisions will share

Conclusion

Environmental changes, political priorities, fishing patterns, and more, impact the Eastern Caribbean flyingfish fishery. Fishers and fisherfolk organizations play key management roles and are urged to participate in the decision making process. Engagement of all stakeholder groups will help move toward ecosystem-based management of the shared flyingfish resource and set an example for other important fisheries.

A fisherman with his flyingfish catch, Tobago (photo credit: The Tobago Project)



CRFM

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

Contributors

This document was produced with financial assistance from the United Nations Development Programme (UNDP)/Global Environment Facility (GEF) funded project, Catalysing Implementation of the Strategic Action Programme for the Sustainable Management of shared Living Marine Resources in the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+) project.

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Information Brief No. 2, January 2019

Eastern Caribbean Flyingfish Data Policy and Cooperation Agreement

Background

The flyingfish fishery is shared across Eastern Caribbean countries and French territories. International agreements call for collaboration among countries to improve ecosystem-based management of living marine resources, including flyingfish. Eastern Caribbean countries and French territories are working together as part of a project addressing fisheries in the Caribbean and North Brazil Shelf marine areas. Their work includes developing a Data Policy and a Cooperation Agreement to harmonize fishery management across the region.

CRFM Programme Manager Peter Murray leads a discussion on the Cooperation Agreement at a CRFM-WECAFC Working Group meeting on flyingfish (photo: Chris Milley)



Data Policy

There is a low level of scientific understanding of the flyingfish fishery, making it difficult to manage. To help solve this issue, stakeholders from several Eastern Caribbean countries developed a Sub-Regional Flyingfish Fishery Data Policy. The Data Policy:

- Outlines regional data collection priorities
- Identifies priority data to collect (catch, fishing effort, and vessel registration)
- Lists considerations for data accuracy, consistency, and sharing
- Identifies the Caribbean Regional Fisheries Mechanism (CRFM) as responsible for overseeing its implementation and managing a regional database
- Provides guidance on data submission and documentation
- Emphasizes data confidentiality
- Sets an expectation of two-way information sharing among fishers, fishers'

organizations, national fisheries divisions, and the CRFM

Fishers' organizations and fishers have a unique understanding of the fishery. They can collect the most accurate data and will be an important part of the data policy. By collecting data on catch (including for bait) and effort, fishers can contribute greatly to fishery management.

Grenada Day Use Vessels (photo credit: Bugsy Delesalle)



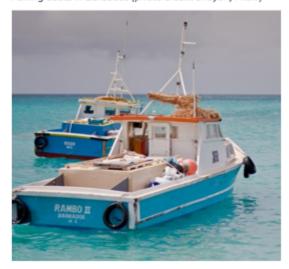
Cooperation Agreement

Flyingfish swim widely throughout the Caribbean and are caught by fishers from several Eastern Caribbean countries and Martinique, a French territory. In the past, there has been limited collaboration among these countries on fisheries management. To address this issue, representatives of these countries helped develop a Cooperation Agreement. The Cooperation Agreement:

- Establishes a cooperation framework between the CRFM Member States and Martinique for managing major, shared living marine resources, including flyingfish
- Sets a vision, goals, and cooperation benefits
- Outlines cooperation responsibilities and activities
- Outlines a method for monitoring, evaluation, and adaptive management of the agreement
- References other existing agreements and policies that call for increased cooperation

The Cooperation Agreement was accepted at the technical level by the CRFM and Martinique. In the future, the CRM and Martinique may seek endorsement at the political level.

Fishing boats in Barbados (photo credit: Shayan, Flickr)



Conclusion

Regional cooperation and harmonization are necessary for improving ecosystem-based management of flyingfish. The Data Policy and Cooperation Agreement are two steps toward solidifying management processes across the region. Fishers are urged to participate in fishery management by exchanging fishery data and information with fisheries divisions and contributing to the management process.

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

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Information Brief No. 3, January 2019

Eastern Caribbean Flyingfish Fishery Management Plan Implementation Evaluation and Recommendations

Background

This document summarizes findings from an evaluation of the implementation of the Eastern Caribbean Flyingfish Fishery Management Plan (ECFF-FMP), both regionally across the Eastern Caribbean and in each focal country (Barbados, Dominica, Grenada, Saint Lucia, Saint Vincent and the Grenadines, and Trinidad and Tobago). Blue Earth Consultants performed an independent evaluation through document review, an online survey, and interviews with in-country stakeholders.

Recommendations

Based on the regional and country-specific evaluation findings, several recommendations arose for improving flyingfish fishery management. These recommendations are listed in the figure below, with further detail on three that could require engagement from managers and policy-makers in the near term. More detail on each recommendation can be found in the 2018 report, "ECFF-FMP Management Performance Evaluation."

Recommendations for Improving Flyingfish Management

Develop an ECFF-FMP implementation plan

Collect key actionable data

Update national licensing systems

Prioritize two-way stakeholder engagement

Support participation of fisherfolk organizations

Consider a business approach to flyingfish management

Determine how flyingfish abundance levels impact other fisheries

Develop management financing mechanisms

Immediate Actions that Managers and Policymakers Can Take

As part of their CLME+ consultancies, the Blue Earth team developed draft legislative amendments and regulations for national licensing systems. Countries must take the next step to initiate a process to put these legal instruments into effect.

Fisherfolk organizations hold great potential to reduce the burden on national fisheries divisions, such as by coordinating data collection and analysis. Countries can empower fisherfolk organizations by providing capacity-building trainings.

As part of their CLME+ consultancies, Blue Earth performed research and developed a list of potential new financing sources for flyingfish management. Countries and regional bodies need to perform due diligence and prioritize financing options to pursue.

Conclusion

Collaboration and action at the regional and national levels will be needed to implement the recommendations above and improve management of the shared flyingfish resource. To help organize next steps, the CLME+ project commissioned a Sub-Project After-Life Plan, which details enabling conditions and milestones; financing mechanisms; and monitoring, learning, and adaptive management approaches. A separate Information Note summarizes the After-Life Plan and next steps for improving management of Eastern Caribbean flyingfish.

Eastern Caribbean fishing boats (photo credit: Pixabay)



Flyingfish catch (photo credit: Harvey)



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Saint Vincent and the Grenadines (Salt Whistle Bay) (photo credit: Jason Pratt)





Information Brief No. 4, January 2019

Eastern Caribbean Flyingfish Fishery Management: Next Steps

Background

From 2017-2019, the Caribbean Regional Fisheries Mechanism (CRFM) contracted several consulting firms to assist with various aspects of improving management of the Eastern Caribbean flyingfish fishery. The consultants' activities included:

- Updating the Eastern Caribbean flyingfish fishery management plan (ECFF-FMP)
- Creating a Sub-Regional Data Policy
- Creating a Cooperation Agreement with respect to major, shared living marine resources (including flyingfish) between the CRFM and Martinique
- Recommending flyingfish data collection system improvements
- Developing a list of registered fishing vessels and vessel census
- Creating information products to increase public and stakeholder understanding of flyingfish fishery management

The CRFM recognizes that the momentum created through these consultancies must be built upon in order to further ecosystem-based management of flyingfish fisheries. Their next steps are laid out in a Sub-Project After-Life Plan, summarized here.

Pitons of St. Lucia (photo credit: Ron Kroetz)

Sub-Project After-Life Plan

The After-Life Plan charts a course for the CRFM and partners to continue building the conditions and activities necessary for implementing the ECFF-FMP and related subproject outputs.

Enabling Conditions and Key Milestones

To achieve the vision of the ECFF-FMP, several enabling conditions will need to exist.

Stakeholder involvement

- Strong fisherfolk organizations
- Champions from key stakeholder and nontraditional groups

Political support

- Support for ECFF-FMP implementation
- Cooperation with Martinique and endorsement of the Data Policy

Technical and financial capacity

- Adequate capacity in fisheries divisions
- Financing mechanisms in place

Communication and cooperation

- Willingness to cooperate at the technical and political levels
- Two-way stakeholder engagement



Enabling Conditions and Key Milestones - continued

To achieve these enabling conditions, certain milestones will need to be met. These milestones may include the following.

ECFF-FMP

- Perform legislative and capacity needs assessments to identify roadblocks for implementation
- Build capacity of select fisherfolk organizations and fishers to participate in management
- Update and pass fisheries acts and regulations to align with the ECFF-FMP
- Develop an implementation plan for national-scale roll-out

Cooperation Agreement

- CRFM and Martinique sign the Cooperation Agreement and establish communications approaches
- Develop a more detailed plan for near-term priorities

Data Policy

- Establish a database for compiling and analyzing data from across the region
- Develop a protocol for data confidentiality and access

Eastern Caribbean fishers at sea (photo credit: Wikimedia)



Financing Mechanisms

Additional funding will be needed for full implementation of the ECFF-FMP and related agreements.

Among the possible mechanisms, user fees stand out as a potentially feasible option for the Eastern Caribbean. User fees could apply through protected area entry fees, fees on activities like scuba diving or sportfishing, or head taxes on cruise ship arrivals (which could be strengthened through regional cooperation to negotiate with cruise line associations).

User fees, as well as other potential financing mechanisms, will require further due diligence to ascertain whether they will be feasible and result in reliable funding for flyingfish fishery management in the Eastern Caribbean.

Fishing boats in Saint Lucia (photo credit: Wikimedia)



Monitoring, Learning, and Adaptive Management

The CRFM has at its disposal three impact assessment tools it can use to evaluate ongoing progress related to the sub-project after its completion. The impact assessment tools comprise a series of questions; CRFM will need to draw from various sources of data and information to complete the impact assessments, which may include document review, data analysis, surveys, and/or stakeholder interviews. The CRFM could perform the impact assessments regularly, for example every 12-18 months.

Conclusion

Without continued effort on the part of all participants – fishery managers at the technical and political levels, fisherfolk cooperatives, fishers, and more – achievements through the flyingfish consultancies may not carry forward. Therefore, active participation from each of these stakeholder groups, following the highlevel roadmap laid out in the After-Life Plan, will be necessary. As envisioned by the CLME+ project, processes and outputs developed through the flyingfish consultancies can pave the way for future improvements to other important fisheries in the region, which can learn from the lessons and challenges encountered in this sub-project.

Eastern Caribbean fishing boat (photo credit: Wewn Fawn)



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By: Blue Earth Consultants, a Division of Eastern Research Group ANNEX K: IMPACT ASSESSMENT TOOL

CRFM Flyingfish Impact Assessment Tools

Background and Purpose of this Document

Below are three impact assessment tools, which address ERG / Blue Earth's work under ERG / Blue Earth's CRFM consultancies - "Technical Support to Enhance the Governance Arrangements for Implementing an Ecosystem Approach for Flyingfish Fisheries" (Governance), "Technical Support to Facilitate Adaptive Management for Eastern Caribbean Flyingfish Fisheries" (Adaptive Management), and "Technical Support on Implementation of Management/Stress Reduction Measures in the Eastern Caribbean Flyingfish Fishery."²⁰ The impact assessment tools aim to assess whether the main objectives / actions to enhance the governance arrangements for implementing an ecosystem approach for flyingfish fisheries and to facilitate adaptive management for eastern Caribbean flyingfish fisheries are being achieved. Importantly, the main purpose of these impact assessment tools is to facilitate the Caribbean Regional Fisheries Mechanism's (CRFM) ongoing assessment of work relating to the consultancies following their completion. CRFM may collect information relating to each of the impact assessment tool questions through different means, as appropriate given the nature of the question; for example, this could include surveys or discussions with stakeholders, review of published data or information, and other research methods. Also note that there are various stakeholder groups that CRFM will likely need to correspond with to gather information to answer the assessment questions; some questions can be answered by CRFM staff while others will require reaching out to fishers, fishery officers, participants in international bodies, and more.

The three impact assessment tools in this document include a tool focused on assessing the Governance consultancy, a tool focused on assessing the Adaptive Management consultancy, and a General tool. The General tool assesses the impact of activities related to implementation of the Eastern Caribbean flyingfish fishery management plan (ECFF-FMP), which relates to all three consultancies. This document does not include a specific tool for the Stress Reduction consultancy because this consultancy calls for two additional impact assessment tools to be developed and implemented later in the consultancy process; however, the General impact assessment tool assesses whether objectives / actions related to the FMP implementation component of the Stress Reduction consultancy have been achieved.

The indicators and evaluation questions below represent a possible approach to the impact assessment tools; there may also be the opportunity to disaggregate some of the questions further, such as by assessing a single question below separately for each of the six focal countries plus Martinique.

Impact Assessment Implementation

The impact assessments will draw on various sources of data and information, which may include documents, data analysis, surveys, or stakeholder interviews. Some questions below will be easily addressable without data collection, and others will require data collection. CRFM could perform the impact assessments regularly following the consultancies' completions, for example every 12 - 18 months.

²⁰ ERG/Blue Earth's Stress Reduction consultancy includes additional impact assessment tools that will be developed specific to two of that consultancy's work packages. The ERG / Blue Earth team will both develop those impact assessment tools and implement them during the course of that consultancy. The General impact assessment tool contained in this document also assesses the impact of the Stress Reduction Consultancy.

Outlines of Impact Assessment Tools

Tool 1: General

Each proposed indicator of success is listed as a section below, with associated evaluation questions. Indicators are focused on FMP implementation and support. With each question, a brief narrative will help explain responses when CRFM implements the impact assessments. This impact assessment tool relates to work under ERG / Blue Earth's Governance, Adaptive Management, and Stress Reduction consultancies.

FMP Implementation and Support

Indicator 1: Updated ECFF-FMP consistently upheld and implemented by national agency partners

1.	How much progress has each country (Barbados, Trinidad and Tobago, Grenada, Saint Lucia, Saint Vincent and the Grenadines, and Dominica) made on validating the updated ECFF-FMP? [For each country]:				
		achieved)	☐ Moderate progress (25 - 50% achieved) ☐ Very strong progress (75-100% achieved) s response:		
2.	1 0	How much progress has each country made on revising its national legislation and regulations as needed to allow for implementation of the updated ECFF-FMP?			
	2 -	achieved)	☐ Moderate progress (25 - 50% achieved) ☐ Very strong progress (75 - 100% achieved) s response:		
3.	Has a sub-regional implementar and the CRFM?	Has a sub-regional implementation plan been developed and validated by each of the six countries and the CREM?			
	\square \square No	\square \square Yes	□□ In Progress		
4.	□ □ No		gional management of flyingfish fisheries? Graph Yes r these responses, including indicating which		
5.	Has a national implementation plan been developed and validated by stakeholders in your country?				
		\square \square Yes	\square In Progress		
6.	To what extent have the objectives of the updated ECFF-FMP been met to date? [For each objective]:				
	☐ ☐ Minimal or no progress (0☐ ☐ Strong progress (50 - 75%	achieved)	☐ Moderate progress (25 - 50% achieved)☐ Very strong progress (75 - 100% achieved)		
	Please provide any necessary ex	xplanation for this	s response:		
7.	To what extent is an ecosystem approach to flyingfish fisheries governance at the sub-regional level being implemented?				
	☐ Minimal or no progress (0☐ Strong progress (50 - 75%		□ Moderate progress (25 - 50% achieved)□ Very strong progress (75 - 100% achieved)		

8.	What actions have taken place in the past year to implement adaptive management of the Eastern Caribbean flyingfish fisheries?						
	☐ Adjustment of the annual catch trigger point						
	☐ Data collection and / or research to inform management						
		•					
		 □ Management measures in response to the trigger point being exceeded □ Adjustment of open fishing seasons 					
	3	<u>C</u>					
	□□ Changes in allowable gear						
	☐ Changes in enforcement and surveillance coverage						
	☐ Changes in vessel permitting system						
		☐ Changes in stakeholder engagement					
	☐ Implementation of targeted outreach and education☐ Other						
		Please provide any necessary explanation for this response:					
9.	To what extent are national fis	heries authorities responsible t	for management, research, and				
		planning and national monitoring, control, surveillance, and enforcement agencies provided with the requisite resources to facilitate effective implementation of the ECFF-FMP?					
	[For each country and Martin	•					
			rate resources (25 - 50% achieved)				
	□ □ Strong resources (50 - 759	· · · · · · · · · · · · · · · · · · ·	trong resources (75 - 100% achieved)				
	•	Please provide any necessary explanation for this response:					
10.	Overall what is the level of kr	owledge among relevant staff	members in the six focal countries				
10.	and Martinique regarding the						
			☐ Moderate knowledge				
		 □ No knowledge □ Minimal knowledge □ Moderate knowledge □ Moderate knowledge 					
	Please provide any necessary explanation for this response:						
	a) What percent increase in knowledge level has occurred over the past year?						
	[For each country]:						
	\square 0 - 15% \square 15 - 30% \square 30 - 45% \square >45%						
	Please provide any neo	cessary explanation for this res	sponse:				
11.	Are national fisheries authoriti	es and national monitoring, co	entrol, surveillance, and enforcement				
	agencies making consistent efforts to ensure compliance with the ECFF-FMP?						
	[For each country and Martinique]:						
	\square Minimal effort (0 - 25% achieved) \square Moderate effort (25 - 50% achieved)						
	□ Strong effort (50 - 75% achieved) $□$ Very strong effort (75 - 100% achieved)						
	Please provide any necessary explanation for this response:						
12.	Overall, what level of support	for implementing the undated	ECEE-EMP is currently				
12.	Overall, what level of support for implementing the updated ECFF-FMP is currently demonstrated by the decision-makers who have been involved?						
	a) Acting as a political cl		a.				
	\square No support	-	□□ Somewhat supportive				
	* *	☐ Minimally supportive☐ Very supportive	□□ Somewhat supportive				
	□ □ Supportive Supporting scientific was	• • •					
	b) Supporting scientific w		□□ Somewhat aumortive				
	□ □ No support	☐ Minimally supportive	□□ Somewhat supportive				
	□ □ Supportive	☐ Very supportive					
	c) Providing capacity-building opportunities						
	□ □ No support	☐ Minimally supportive	□□ Somewhat supportive				
	□ □ Supportive	□ Very supportive					

	d)	Providing funding				
		□ □No support	☐ ☐ Minimally su	pportive	□ □ Somewhat supportive	
		□ Supportive	□ □ Very support	ive		
	e)	Generating public	support			
		□ □No support	☐ ☐ Minimally su	pportive	□ □ Somewhat supportive	
		□ Supportive	□ □ Very support	ive		
	f)	Keeping under rev	view the supporting wor	rk planning ar	nd budgeting arrangements	
		\square \square No support	□ ■ Minimally su	pportive	□ □ Somewhat supportive	
		□ □Supportive	□ □ Very support	ive	• •	
	g)	Other – please spe	• • •			
	0,	□ □No support	□ □ Minimally su	pportive	□ □ Somewhat supportive	
		□□Supportive	□ □ Very support		11	
	Please		ary explanation for the			
		r				
13.	What have been the primary impacts of updating and implementing the ECFF-FMP on sub-regional flyingfish management?					
14.	Are the implemented management interventions for flyingfish fisheries producing outcomes that are consistent with the goals set by the ECFF-FMP (e.g., improving food security, improving catch / income, improving safety, security, and health of fishers)? Minimal or no progress (0 - 25% achieved) Moderate progress (25 - 50% achieved) Very strong progress (75 - 100% achieved)					
15.	To what extent have financing mechanisms been developed to support management activities required for an ecosystem approach to flyingfish management in the Eastern Caribbean? Minimal or no progress (0 - 25% achieved) Moderate progress (25 - 50% achieved) Very strong progress (75 - 100% achieved)					
Group Worki	on Fly	ringfish, CRFM I up, OECS Comm	Pelagic Fisheries Wor	rking Group	odies, CRFM-WECAFC Working by WECAFC Data and Statistics ard improved regional flyingfish	
1.	What a	• 1	upport are still needed	to enhance Ea	astern Caribbean flyingfish fishery	
	☐ Fisheries management personnel					
	☐ Trainings for fisheries management personnel					
	☐ Additional opportunities for regional collaboration					
	☐ Resources for stakeholder consultations					
	☐ Resources for fisherfolk organizations					
	□ □ Equipment or supplies					
	□ Other:					
		provide any necess	ary explanation for the	se responses:		
		For each type of s	ary explanation for the upport, what body(ies), ald be most appropriate	processes, in	ter-sectoral arrangements, or other this support?	
2.	Please a)	For each type of s arrangements wou relevant regional b	upport, what body(ies), ald be most appropriate	processes, in for providing	this support? anagement of flyingfish fisheries?	

3.	[For each relevant regional body]: Are meetings of the regional body taking place on an appropriate basis — that is, frequent enough for adequate information exchange, but not too frequently to lose value?
4.	[For each relevant regional body]: Are there clear agendas leading to action items and responsible parties for each meeting of the relevant regional body? □□ No □□ Sometimes □□ Yes Please provide any necessary explanation for these responses:
5.	Is there an arrangement in place that integrates national flyingfish fisheries into a sub-regional policy cycle that includes all relevant regional bodies? □□ Yes □□ No □□ In Progress Please provide any necessary explanation for this response:
6.	Are all harvesting countries following up on their commitments and action items to further the improvement of regional flyingfish fishery management? □□ No □□ Sometimes □□ Yes Please provide any necessary explanation for this response:
Tool 2:	: Governance
Indicate	proposed indicator of success is listed as a section below, with associated evaluation questions, ors are focused on aspects of ECFF-FMP implementation and support and the data policy specific Governance consultancy.
Partne	rship Development
	ndicators and associated evaluation questions in this section are focused on ECFF-FMP nentation and support.
Indicat	tor 1: Effective management collaboration demonstrated between the CRFM and France
1.	Has a partnership agreement been endorsed with a signature from each of the relevant Parties (e.g., CRFM Secretariat and Martinique's Direction de la Mer)? \[\subseteq \text{Yes} \subseteq \text{No} \subseteq \text{In progress} \] Please provide any necessary explanation for this response:
2.	How often do technical / scientific fisheries agency staff in harvesting countries communicate / work on flyingfish matters (e.g., produce papers, formulate management strategies) with fisheries staff in Martinique?
3.	How often do CRFM staff communicate / work on flyingfish matters (e.g., produce papers, formulate management strategies) with fisheries staff in Martinique? □□ Never □□ 1 - 3 times per year □□ 4 - 10 times per year □□ More than 10 times per year

4. How often do legislative / policy staff or elected officials in the six countries communicate / work on flying fish matters (e.g., produce papers, formulate management strategies) with fisheries staff in Martinique? □ □ Never \Box 1 - 3 times per year $\Box \Box 4$ - 10 times per year ☐ More than 10 times per year Please provide any necessary explanation for this response: 5. How many opportunities have been provided in the past year for stakeholder input on flyingfish management from Eastern Caribbean countries and Martinique (e.g., public comment, community forums, online requests for information and feedback, etc.)? $\square \square 0$ - 1 opportunity $\square \square 2$ - 4 opportunities □ □ 5 - 7 opportunities $\square \square > 7$ opportunities Please provide any necessary explanation for this response: How many Ministerial Sub-Committee and / or Ministerial Council meetings have been held in 6. the past year with participation from Martinique? \square \square No meetings □□ 1 meeting \square \square 2 meetings $\square \square 3$ meetings $\square \square > 3$ meetings Please provide any necessary explanation for this response: 7. To what extent are the six countries and Martinique upholding their commitments as described in the partnership agreement? □□ Not at all \square \square Minimally ☐ ☐ Moderately \square \square Strongly □ □ Very strongly Please provide any necessary explanation for this response: **Data Policy** The indicators and associated evaluation questions in this section are focused on the data policy. Indicator 2: Sub-regional flyingfish data policy validated, approved, and coordination capacity in place 1. Has the updated sub-regional data policy been validated in each country (Barbados, Trinidad and Tobago, Grenada, Saint Lucia, Saint Vincent and the Grenadines, and Dominica) and approved by the CRFM? \square Yes \square No \square In progress Please provide any necessary explanation for this response: Does the data policy provide an effective framework to enable harmonized flyingfish data 2. collection and management throughout the Eastern Caribbean? Has the CRFM developed a database and begun regularly compiling regional flyingfish data? 3. ☐ ☐ In progress Please provide any necessary explanation for this response: 4. Does the CRFM have adequate resources to facilitate establishment, management, and reporting on the sub-regional flyingfish catch and effort and vessel registry databases? ☐☐ In progress \square No Please provide any necessary explanation for this response:

Please provide any necessary explanation for this response:

5.	Are the necessary systems and software in place to compile, store, and manage national data? Minimally in place Moderately in place Strongly in place Very strongly in place Please provide any necessary explanation for this response:
6.	Are the necessary systems and software in place to analyze regional data, for the purpose of supporting regional flyingfish management decisions?
7.	Are flyingfish landings traceable using current data collection tools and approaches? \[\subseteq \text{Yes} \subseteq \text{No} \subseteq \text{In progress} \] Please provide any necessary explanation for this response:
	tor 3: Sub-regional flyingfish data policy consistently upheld and implemented by national partners
1.	Do national fisheries division staff understand the regional flyingfish data priorities and data submission guidelines outlined in the data policy?
2.	Are national fisheries divisions effectively communicating standardized data collection methods and sampling requirements to all individuals involved in data collection? No communication Minimal communication Some communication Good communication Very good communication Please provide any necessary explanation for this response: a) If communication is not effective, please explain why:
3.	Are national fisheries divisions consistently collecting and submitting flyingfish fishery data to the CRFM?
4.	If and when they submit data to the CRFM, are national fisheries divisions submitting all of the required types of flyingfish fishery data? □ Yes □ No □ Sometimes Please provide any necessary explanation for this response:
5.	Is the CRFM regularly analyzing and synthesizing flyingfish data collected from throughout the sub-region? □□ Yes □□ No □□ Sometimes
6.	Is the CRFM regularly sharing synthesized data and information with stakeholders including fisherfolk in all six countries?

Indicator 3: Stakeholders actively engaged in implementation of sub-regional flyingfish data policy

1.	How many information products (e.g., press release, Facebook post, short video, infographic) focused on Eastern Caribbean flyingfish fisheries have been developed and distributed in the past year?					
	□ □ 0 - 1	$\square \square 2 - 3$	□ □ 4 - 5	☐ ☐ More than 5		
		necessary explanation for				
2.	Have those informa ☐ Yes	tion products been develo	oped with a clear t	arget audience and purpose?		
3.	[For each country] data collection?	[For each country]: Approximately what percent of flyingfish fishers are participating in fishery data collection?				
	□ □ 0 - 10%	□ □ 11 - 20%	6	□ □ 21 - 30%		
	□□31 - 50%	□ □ 50 - 70%	6	\square \square > 70%		
	Please provide any	necessary explanation for	this response:			
4.	supporting flyingfis	sh fishery data collection?	, *	nerfolk organizations are actively		
	□ □ 0 - 25%	□ □ 25 - 50%	□ □ 50 - 75%	□ □ 75 - 100%		
	Please provide any	necessary explanation for	this response:			
5.	[For each country]: Approximately what percent of processors are participating in flyingfish fishery data collection?					
	□ □ 0 - 25%	□ □ 25 - 50%	□ □ 50 - 75%	□ □ 75 - 100%		
		necessary explanation for	this response:			
6.	[For each country]: Approximately what percent of establishments that sell flyingfish products are participating in flyingfish fishery data collection?					
	\Box 0 - 25%	□□ 25 - 50%	□ □ 50 - 75%	□ □ 75 - 100%		
		necessary explanation for				
7.	Other than the stakeholder groups mentioned in the above questions, what other stakeholder groups are actively involved in flyingfish fishery data collection and how are they involved?					
8.	Are there any points along the flyingfish supply chain where data is not currently being collected, but would benefit sub-regional flyingfish management if it were collected? Why would these data benefit management?					

Tool 3: Adaptive Management

Each proposed indicator of success is listed as a section below, with associated evaluation questions. Indicators are focused on aspects of FMP implementation and support specific to the Adaptive Management consultancy.

Information Products

Indicator 1: Fishermen, consumers, and organizations are knowledgeable about the flyingfish FMP and supporting its implementation through compliance and consumer choices

1.	produ	What percent of fishers in your country are estimated to have been exposed to information products (e.g., infographic, press release, radio spot, etc.) relating to flyingfish management in the past year?				
		each country and M	artiniaue l·			
		Few fishers (0 - 25%		Moderate numb	er of fishers (25 - 50%)	
		Many fishers (50 - 7	*	Most fishers (75	,	
	a)		ow many individua	`	,	
		se provide any neces	•		- 1-p1-00-101	
2.	infog [For □□ 1 □□ 1 a)	graphic, press release each country and M. Few consumers (0 - Many consumers (50	e, radio spot, etc.) ro fartinique]: 25%)	Moderate numb Most consumers I seafood consur	xposed to information products (e.g., ish management in the past year? er of consumers (25 - 50%) (c. (75 - 100%)) mers does this represent?	
				•		
3.	the p	incidences of fishe ast year? each country and M Strongly decreased	[artinique]:		yingfish FMP regulations changed in □□ Remained stable	
		Increased se provide any neces	□ □ Strongl	y increased		
4.	awar	many national-lev eness-building of ec each country and M	osystem-based mar		d in the past year with the goal of ngfish fisheries?	
	_	No meetings	$\square \square 1 - 2 \text{ me}$	etings	\square \square 3 - 4 meetings	
		>4 meetings		etings	3 - 4 meetings	
		se provide any neces	ssary explanation fo	r this response:		
5.	What mechanisms, if any, other than national-level meetings have been tested to strengther cooperation at the national and regional levels in flyingfish management? Which mechanisms, is any, have been successful?					
6.	Are t	he following groups	s participating in sul	o-regional or nat	ional processes for flyingfish?	
	<i>a</i>)	Fisheries NGOs		-		
		\square \square Yes	$\square \square$ No	□ □ Sometir	nes	
	<i>b</i>)	Fishers				
	•	\square \square Yes	\square \square No	□ □ Someting	nes	
	c)	Fisheries private	sector bodies			
	•	□ □ Yes ¹	\square \square No	□ □ Someting	nes	
	d)	Environmental N	<i>IGOs</i>			
	,	\square \square Yes	$\square \square$ No	□ □ Someting	nes	

7.	Do countries conduct consumer surveys to gather information about seafood buying choices?							
	[For	each country and Mart	nique]:					
		Never	\square Once every 3 years					
		Once every 2 years	☐ ☐ Once annually					
	Pleas	Please provide any necessary explanation for this response:						
	a)	[If yes to Question	6] Do consumers report that the	ir seafood buying choices are				
		influenced by the eff	ectiveness of fishery management?					
		[For each country a	nd Martinique]:					
		☐ ☐ Not at all influe	nced Somewhat influenced	l □□ Very influenced				
		Dlagga provida any n	ecessary explanation for this respons					

ANNEX L: OTHER AGREED REPORTS (MID-TERM AND FINAL BI-MONTHLY PROGRESS REPORT)

CRFM Flyingfish Governance Consultancy *Mid-Term Progress Report*

Introduction

This report summarizes work that the Blue Earth team (Blue Earth Consultants, a Division of Eastern Research Group, Inc. [Blue Earth] and subcontractors Impact Mer and Mark Tupper) have completed to date under the "Technical Support to Enhance the Governance Arrangements for Implementing an Ecosystem Approach for Flyingfish Fisheries" (Governance) consultancy. The Blue Earth team is completing the Governance consultancy under contract to the Caribbean Regional Fisheries Mechanism (CRFM) as part of the United Nations Development Programme Global Environment Facility funded project Catalysing Implementation of the Strategic Action Programme for the Sustainable Management of shared Living Marine Resources in the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+ Project). This report is a deliverable for Blue Earth's second payment of the Governance consultancy and is revised here based on feedback received from CRFM Secretariat staff.

Overview of Completed Activities

Below, we provide a summary of activities completed towards the objectives of the consultancy, which include facilitating the development of a Cooperation Agreement for the management of regional flyingfish fisheries, developing a Sub-Regional Data Policy, and updating the 2014 Eastern Caribbean Flyingfish Fishery Management Plan (FMP). This report also summarizes activities related to impact assessment, consultancy coordination and reporting, and information-sharing. In summary, the Blue Earth team has completed Phase 1 of this consultancy and is working concurrently on activities related to Phases 2, 3, 4, 5, and 6. This Mid-Term Progress Report describes activities related to all Phases.

Partnership Development

The Blue Earth team has completed the activities described below to develop a Cooperation Agreement for the management of Eastern Caribbean flyingfish and other shared living marine resources. Based on input from CRFM Secretariat staff, we have broadened the partnership development process from focusing specifically on the flyingfish fishery to include the possibility of applying the Cooperation Agreement to other shared living marine resources in the region.

Stakeholder identification and outreach: The Blue Earth team worked with CRFM Secretariat staff to develop a list of organizations and individuals representing French-affiliated fisheries management entities in Martinique, Guadeloupe, and France to include in interviews and discussions regarding partnership development. CRFM Secretariat staff and the Blue Earth team also identified key points of contact representing non-French Eastern Caribbean focal countries (Barbados, Grenada, Saint Vincent and the Grenadines, Saint Lucia, Dominica, and Trinidad and Tobago) and regional bodies (see Appendix A for a list of key contacts engaged to date). The Blue Earth team made extensive efforts to contact representatives of French fisheries management agencies, including by sending numerous emails in French and English to potential informants, coordinating with Impact Mer to identify additional potential contacts and update outdated contact information, and calling agencies in France and Martinique as well as other stakeholders to attempt schedule interviews. As described below, Blue Earth held one formal interview with a representative of a French fishery management agency and has corresponded with several other contacts. Blue Earth sent CRFM Secretariat staff a memo (Appendix B) regarding a new approach for conducting outreach to French representatives and discussed this approach during a call on 22 January 2018. The approach includes a draft set of talking points that Blue Earth, CRFM, and other flyingfish consultant leads can use to describe the importance of the flyingfish fishery as a pilot project for improving governance arrangements for flyingfish and other shared living marine resources in the region.

- Partnership interview guide development and implementation: We developed a draft and final partnership interview tool in English (Appendix C) and French. We conducted 10 phone interviews (see Appendix A) focused on understanding the needs and priorities for cooperation in the region and necessary steps for the process to develop a Cooperation Agreement. Interview respondents included national fisheries managers, CRFM Secretariat staff, and a representative of L'Institut français de recherche pour l'exploitation de la mer (IFREMER). In the latter case, please note that while we have conducted one formal interview, we have corresponded via email with several representatives of French fisheries management agencies and have proposed new approach for conducting outreach (Appendix B).
- Review of example partnership agreements: We reviewed example partnership agreements and policies, such as the memorandum of understanding between the CRFM and IFREMER, the Caribbean Common Fisheries Policy, the Agreement Establishing the CRFM, and other examples of partnership agreements from Blue Earth's past consultancy experience.
- **Draft Cooperation Agreement development:** Drawing upon example partnership agreements and input from interview respondents about priority topics to include in the agreement, we developed a draft agreement outline, sought feedback from CRFM Secretariat staff, revised the outline, and developed a full draft Cooperation Agreement (Appendix D).
- Next steps: We are currently coordinating with Direction de la Mer to identify potential interview respondents, as well as coordinating interviews with representatives of the Organisation of Eastern Caribbean States (OECS) Commission, including the Commissioner for Martinique. We will revise the draft agreement based on feedback from CRFM Secretariat staff and any additional input we receive. The Blue Earth team will then coordinate with the CRFM to share the draft agreement and supporting materials with focal points in each country. Blue Earth will support focal points to facilitate national consultative processes with key stakeholders (e.g., fisheries managers, fishermen, seafood industry members, etc.) to be held in 2018. This approach represents Blue Earth's approach for coordinating consultative processes with stakeholders based on discussions with CRFM Secretariat staff on 22 January 2018 (please see Appendix E for a memo describing options discussed on this call). Please note that the Blue Earth team will coordinate with country points of contact regarding the Cooperation Agreement, FMP, and the Data Policy at the same time to minimize stakeholder fatigue.

Sub-Regional Data Policy

The Blue Earth team has completed the activities described below to develop a sub-regional Data Policy for the Eastern Caribbean flyingfish fishery. The Data Policy will provide a framework to enable harmonized management of shared flyingfish fishery resources in the Eastern Caribbean and facilitate the establishment of a process and standards for sharing flyingfish fishery data at a regional level to enhance management.

• Data Policy research and stakeholder input: In the FMP online survey and in phone partnership-focused phone interviews, we included questions regarding national flyingfish data collection and management. The Blue Earth team also performed rapid research to identify any existing flyingfish or other fisheries data policies in the Caribbean, including by reviewing the 2016 FMP Implementation Report, performing web research, and reviewing related consultancies currently underway. We conducted additional follow-up with country focal points and contacted

Permanent Secretaries of natural resources ministries to solicit any examples of existing data policies; we identified one existing national data policy relevant to flyingfish. We then compiled and reviewed sources relevant to the Data Policy (e.g., Saint Lucia's national fishery data sampling plan, CRFM and partner documents and recommendations related to flyingfish, fishery data management best practices, and existing data management policies from other sectors).

- **Development of Data Policy conceptual proposal:** Based on our research, we developed a draft outline of the Data Policy and revised based on input from CRFM Secretariat staff. We subsequently developed a draft conceptual proposal of the Data Policy as a PowerPoint. We worked with the Nexus Coastal Resource Management (Nexus) team to identify areas of overlap with their other consultancies and obtain feedback. We revised the conceptual proposal based on input from Nexus and shared with CRFM Secretariat staff for feedback (Appendix F). We are currently revising the draft conceptual proposal based on the feedback we received.
- **Next steps:** Blue Earth will share the revised Data Policy conceptual proposal with CRFM Secretariat staff and implement additional revisions if needed. Through consultative processes that will be conducted in 2018, the Blue Earth team will facilitate stakeholder review of the Data Policy to gain input and build buy-in. Following the stakeholder consultations, the Blue Earth team will build on the Data Policy conceptual proposal to develop a draft and final Data Policy to submit to the CRFM.

Eastern Caribbean Flyingfish Fishery Management Plan Update

- **Internal review of the FMP:** To initiate the process of updating the 2014 Draft Sub-regional Flyingfish FMP, the Blue Earth team completed an initial review of FMP and the 2016 Implementation Report, identifying potential gaps and opportunities to improve the plan.
- **Development and implementation of survey to guide stakeholder review:** We developed an online survey (Appendix G) to facilitate stakeholder review of the FMP, shared the survey with CRFM Secretariat staff, and revised based on input. We then sent the online survey to focal points from each of the six countries and conducted several rounds of follow-up and additional outreach to secure responses from all six countries (Appendix H). Blue Earth submitted a "Progress Report on Eastern Caribbean Flyingfish Fishery Management Plan Monitoring and Evaluation" (Appendix I) to CRFM Secretariat staff summarizing online survey findings, which is described below.
- Recommendations for updating the FMP: In addition to the online survey, the Blue Earth team developed a draft list of preliminary recommendations for updating the FMP (Appendix J). We shared the recommendations CRFM Secretariat staff, revised based on input, and sent the recommendations to focal points representing each country for review. We received input on the FMP recommendations from all six countries and compiled responses for later use when developing the updated FMP.
- **Preliminary synthesis of stakeholder input:** We compiled and reviewed the responses to the FMP online survey and the feedback on the recommendations for updating the FMP. For a separate but closely related consultancy, "Technical support on Implementation of Management /

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²¹ Caribbean Regional Fisheries Mechanism. In Preparation. "Progress Report on Eastern Caribbean Flyingfish Fishery Management Plan Monitoring and Evaluation." Prepared by Blue Earth Consultants under the Catalyzing Implementation of the Strategic Action Programme for the Sustainable Management of shared Living Marine Resources in the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+ Project).

Stress Reduction Measures in the Eastern Caribbean Flyingfish Fishery" (Stress Reduction), we synthesized our findings from the survey and recommendations feedback and developed a progress report focused on FMP monitoring and evaluation. The findings of the progress report will help guide next steps for updating the FMP.

• **Next steps:** The Blue Earth team will facilitate consultative processes with stakeholders to identify priorities for updating the FMP. This may include preparing materials to guide focal points in national consultative processes and then working with focal points and other stakeholders to revise based on feedback and vet the updated FMP.

Impact Assessment Tool

The Blue Earth team developed initial indicators for CRFM's input during the Consultancy Design and Preparation phase (Appendix K). Later, we developed full draft Impact Assessment Tools (IATs) that address our work under Blue Earth's three CRFM consultancies: Governance, Adaptive Management, and Stress Reduction (Appendix L). Importantly, the main purpose of these IATs is to facilitate CRFM's ongoing assessment of work relating to the consultancies following their completion. The IATs may be refined as the consultancies progress. The IATs aim to assess whether the main objectives/actions to enhance the governance arrangements for implementing an ecosystem approach for flyingfish fisheries and to facilitate adaptive management for eastern Caribbean flyingfish fisheries are being achieved. The IATs include questions specific to the Governance consultancy as well as general questions that apply to all three consultancies. Blue Earth submitted the full draft IATs to CRFM and revised based on their comments.

Consultancy Coordination, Reporting, and Information-Sharing

In addition to the activities described above, the Blue Earth team has conducted numerous activities related to consultancy coordination, reporting, and information-sharing requirements for this consultancy. Given the overlapping elements of Blue Earth's flyingfish-focused consultancies as well as overlap with work being conducted by other consultants, consultancy coordination has become a significant component of this consultancy.

• Consultancy coordination: We provided initial consultancy coordination support by developing a draft letter for CRFM to send to the relevant Permanent Secretaries of natural resources ministries in each of the six focal countries to introduce the consultancy, request contact information in each country, and inquire about any existing data policies. CRFM Secretariat staff sent the introductory letter and Blue Earth conducted follow-up outreach by email and phone to identify focal points of contact for updating the FMP and developing the Cooperation Agreement. Blue Earth has lead coordination across sub-contractors and consultancies, including holding an inception call among members of the Blue Earth team and CRFM Secretariat staff and holding several calls and an in-person meeting with Nexus to map out a joint approach for overlapping consultancies. Blue Earth also coordinates with Mark Tupper and Impact Mer regarding the Governance consultancy.²² In addition, we have also corresponded with Terrence Phillips at the Caribbean Natural Resources Institute (CANARI) regarding communications approaches and overlap with CANARI's flyingfish consultancy. Finally, Blue Earth and CRFM Secretariat staff developed a timeline of deliverables deadlines for Blue Earth's three consultancies, which have all been approved by CRFM.

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²² Mark Tupper and Impact Mer are supporting the Governance consultancy as sub-contractors.

- Reporting: In addition to this Mid-Term Report, for this consultancy Blue Earth has submitted an Inception Report and workplan (Gantt chart timeline), five bi-monthly progress reports, a Report on Consultancy Design and Preparation, and a Report of Support Provided for Cooperation between CRFM and France. To complement formal reporting, Blue Earth has been in close contact with CRFM Secretariat staff throughout the consultancy to date, including by seeking input on draft outlines, draft reports, and other interim deliverables. Most recently, Blue Earth and CRFM Secretariat staff held a call to discuss progress and map out next steps (please see the revised report on Consultancy Design and Preparation and Cooperation for next steps).
- **Information products:** Information products are a key component of the CRFM's outreach to stakeholder groups and the public regarding the flyingfish consultancies. To date, Blue Earth has produced a press release (Appendix M) and an infographic (Appendix N) describing the overarching work under the flying-fish sub-strategy with a focus on the intended outputs of the Governance Consultancy for distribution by the CRFM.

Challenges and Lessons Learned

Blue Earth has documented challenges and lessons learned in bi-monthly progress reports submitted to fulfill reporting requirements of this consultancy. In summary, Blue Earth has encountered challenges coordinating work across overlapping consultancies, engaging representatives of French fisheries management agencies in the Cooperation Agreement development process and planning consultative processes to enable maximum stakeholder participation. For example, we had initially planned to present interim work products at the Sixteenth session of the Caribbean Fisheries Forum to obtain stakeholder input, but the dates for the Forum were not set far enough in advance for adequate planning time. In addition, it was determined that more national stakeholder input on draft work products would be necessary before presenting at a regional meeting. Blue Earth and CRFM discussed and identified an alternative approach, which will involve Blue Earth supporting country focal points' facilitation of national consultative processes and working with focal points to integrate feedback.

Blue Earth has noted several lessons learned from implementing this consultancy to date, which are also noted in our bi-monthly progress reports. Lessons learned include the importance of taking time to coordinate with other consultants across consultancies to identify overlapping deliverables and leverage joint approaches. In addition, in-country sub-contractors play an important role in making connections and performing follow-up outreach to stakeholders. Furthermore, keeping CRFM Secretariat staff updated on stakeholder input related to key consultancy components helps ensure alignment on consultancy approach and next steps. Finally, maintaining a flexible yet proactive approach to planning stakeholder consultations ensures that stakeholder input is obtained during key consultancy phases.

Conclusion and Next Steps

This report describes the activities that the Blue Earth team has completed to date under the Governance consultancy. These activities address all six phases of the consultancy: Consultancy Design and Preparation, Partnership Development, Sub-Regional Data Policy, Flyingfish FMP, IATs, reporting, and information products. Specific next steps for each of these consultancy components are described in the corresponding sections above.

As a critical next step, we are working with CRFM Secretariat staff to develop an approach for coordinating with country focal points to facilitate national consultative processes. Blue Earth will prepare packets of materials for focal points to facilitate meetings and consultations. Blue Earth will then hold virtual meetings with focal points to gather feedback and revise the Cooperative Agreement, Sub-Regional Data Policy Conceptual Proposal, and FMP update. Following this process, we will identify

opportunities to engage stakeholders to vet and finalize each consultancy product (please see the Report on Consultancy Design and Preparation and Cooperation for more detail regarding next steps).

Blue Earth (ERG) CRFM Flyingfish Sub-Project Governance Arrangements Consultancy - Progress Report #14, July 2019

This document summarizes activities and progress made by the Blue Earth team (Blue Earth Consultants, a Division of Eastern Research Group, Inc. [Blue Earth] and subcontractors Impact Mer and Mark Tupper) on the consultancy, "Technical Support to Enhance the Governance Arrangements for Implementing an Ecosystem Approach for Flyingfish Fisheries" (Governance). Blue Earth is completing the Governance consultancy under contract to the Caribbean Regional Fisheries Mechanism (CRFM) as part of the United Nations Development Programme (UNDP) / Global Environment Facility (GEF) funded project Catalysing Implementation of the Strategic Action Programme for the Sustainable Management of shared Living Marine Resources in the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+ Project). This consultancy is closely linked to the "Technical Support to Facilitate Adaptive Management for Eastern Caribbean Flyingfish Fisheries" (Adaptive Management) and the "Technical Support on Implementation of Management / Stress Reduction Measures in the Eastern Caribbean Flyingfish Fishery" (Stress Reduction) consultancies that Blue Earth is also implementing. This document reflects work performed under this consultancy to date. The Contract Status section below is organized by activities as listed in the scope of work. In addition to bi-monthly progress reports, Blue Earth has submitted several interim reports, which are listed in the Reporting section below.

Contract at a Glance

Sub-Project Title	Technical Support to Enhance the Governance Arrangements for Implementing an Ecosystem		
	Approach for Flyingfish Fisheries		
Consultant	Eastern Research Gr	roup, Inc.	
Contract name	Technical Support to Enhance the Governance Arrangements for Implementing an Ecosystem		
	Approach for Flying	gfish Fisheries	
Update Period	9 February 2019 – 5	April 2019	
Contract Lead	Eastern Research Gr	roup, Inc.	
Contract Start Date	1 February 2017		
Contract end date	31 May 2019		
Total Contract Amount	\$101,926		
Cash received (to date)	\$66,253		
Amount spent	\$101,926* as of 4/1/2019		
Activity Implementation Status	Good	Satisfactory	Poor
	X		
Financial Implementation status	Good	Satisfactory	Poor
	X		
Consultancy Partners	Consultancy Partners Mark Tupper and Impact Mer (Subcontractors)		
Submitted by	Andy Bystrom		
Submission date	July 2019		

^{*}Total includes amount spent by Blue Earth and Mark Tupper

Contract Status

Each table below lists the activities included under each Phase of the consultancy, as well as the status of activities and results achieved to date. Please note that this Bi-Monthly Progress Report is cumulative; therefore, status descriptions include activities completed during past reporting periods as well as the current reporting period.

Phase 1: Consultancy Design and 	Phase 1: Consultancy Design and Preparation				
Activities (as listed in the Scope of Work)	Status	Results to Date (measured against the Deliverables / Outputs listed in Contract Document[s])			
Consultancy Inception	 Complete: Organized and held an inception call between CRFM Secretariat staff, Blue Earth, and subcontractor Mark Tupper Signed and executed sub-contracts with Mark Tupper and Impact Mer 	 Produced draft call agenda and other call materials (e.g., draft consultancy indicators) Completed inception call Executed sub-contracts Consultancy Inception Report 			
Review of Existing FMP	 Complete: Reviewed 2014 Eastern Caribbean Flyingfish Fishery Management Plan (FMP) and developed list of draft recommendations for updating the FMP Sent list of recommendations to CRFM and revised based on feedback Drafted an email for CRFM to send to relevant natural resource secretaries in each of the six Eastern Caribbean countries to identify focal points within fisheries management agencies Followed up by email and phone with the six country secretaries; compiled information shared by secretaries 	 Draft list of Recommendations for Improving the Eastern Caribbean Flyingfish Fishery Management Plan List of focal points for each country 			
Review of existing national and sub-regional data policies	 Complete: Performed rapid research to identify any existing flyingfish data policies in the Caribbean, including reaching out to focal points to seek any examples of existing data policies (identified one data sampling plan) Identified resources that are relevant to data policies, such as reviews of data collection programs, online fishery data portals, and best practices for data collection and 	Draft Sub-Regional Data Policy Conceptual Proposal (see below)			

	 management outside of the Caribbean Reviewed several related consultancies that are currently under way (CLME+, PPCR Marine Sub-Component, and CC4FISH) to identify any research aspects that could be relevant to a flyingfish data policy; noted several areas of potential relevance to refer to later in the consultancy if needed 	
Calls to Discuss Partnership Needs	 Complete: Completed 13 Skype interviews regarding needs for partnership to date (including a follow-up interview with Lionel Reynal); efforts to schedule calls with OECS 	• 13 completed interviews
Information Products on Consultancy Objectives and Methods	 Complete: Developed a draft press release and two versions of an infographic and submitted to CRFM for review Revised and resubmitted based on CRFM secretariat staff feedback Shared recommendations of how CRFM could distribute press release and infographic Press release distributed by CRFM on 24 January 2018 PPT slides describing Blue Earth's consultancies, objectives, and deliverables developed for Caribbean Fisheries Forum meeting Developed draft press release submitted to CRFM on 27 July 2018 	 Press release distributed by CRFM Two versions of infographic Draft second press release

Phase 2: Partnership Development				
Activities (as listed in the Scope of	Status	Results to Date (measured against the		
Work)		Deliverables / Outputs listed in Contract		
		Document[s])		
Draft Cooperation Agreement	Complete:	Outline of draft Cooperation		
	 Developed draft partnership agreement outline, submitted to CRFM for review, and revised based on CRFM feedback Reviewed partnership interview data and developed additional interview questions for key stakeholders to gather more information on partnership governance and other elements 	Agreement • Draft Cooperation Agreement (appears as appendix in draft updated ECFF-FMP, Appendix A)		

	 Held additional partnership interviews with CRFM Secretariat staff and the OECS Commissioner for Martinique for a total of 12 (see <i>Calls to Discuss Partnership Needs</i> above) Conducted ongoing phone and email outreach to schedule additional phone interviews, focusing on contacting representatives from Martinique Developed draft Cooperation Agreement and submitted to CRFM for review Revised draft Cooperation Agreement based on CRFM Secretariat staff feedback, including by widening the focus to living marine resources, submitted to CRFM for a second review, received additional feedback Revised draft Cooperation Agreement based on additional CRFM Secretariat staff input Finalized draft Cooperation Agreement and shared with focal points to discuss during national consultative processes Revised draft Cooperation Agreement per stakeholder comments Included draft Cooperation Agreement as appendix in draft updated ECFF-FMP. Version submitted to CRFM for review at March Forum meeting 	
Encourage/facilitate cooperation at the technical/scientific and	Complete: • Conducted interviews with technical/scientific	13 completed interviewsReference and facilitation materials for
political levels	representatives and CRFM Secretariat staff	national consultative processes
	Held a call with CRFM to discuss progress to date and map	• 5 completed planning calls with focal
	out an approach for further engagement at the technical/scientific and political levels	points to support coordinating consultative processes
	 Developed materials for national consultative processes 	• Saint Lucia consultative process
	that will further engage technical/scientific and political	completed, and attendance list and
	staff and leadership (e.g., draft Cooperation Agreement, draft meeting agenda, draft facilitation plan including	documentation of stakeholder feedback received
	talking points and key questions, draft note-taking	First draft a and revised Barbados
	template)	meeting agenda
	• Held 5 calls with 11 focal points in Barbados, Dominica,	Revised cooperation agreement for

Final Cooperation Agreement	Grenada, Saint Lucia, Saint Vincent and the Grenadines, Trinidad, and Tobago to review draft materials and plan national consultative processes Supported consultative processes in member countries and collected stakeholder feedback on the draft Cooperation Agreement from Saint Lucia Attended and discussed with country stakeholders at the 16th Meeting of the Caribbean Fisheries Forum in Montserrat, where CRFM Secretariat staff provided a presentation and the draft partnership agreement to all participants for review Participated in call with CRFM Secretariat, Nexus, and CANARI to discuss steps for multi-level stakeholder engagement Developed and revised draft agenda for 1.5-day meeting in Barbados on 1 – 2 October 2018 Discussed development and process for agreement with PhD candidate and CERMES affiliate Lisa Soares Participated in meeting with representatives from Eastern Caribbean countries and France (Martinique) Determined at Barbados meeting to negotiate cooperation agreement at the technical level with Martinique (not France) Revised Cooperation Agreement following Barbados meeting based on meeting discussions; currently awaiting compiled stakeholder feedback from CRFM Received stakeholder feedback from CRFM Received Stakeholder feedback from CRFM Revised Cooperation Agreement based on stakeholder feedback Complete: Cooperation Agreement was appended to final updated FMP and approved during the 3rd Meeting of the CRFM	discussion at Oct 1-2 Barbados meeting Revised Cooperation Agreement for stakeholder feedback following Barbados meeting Revised Cooperation Agreement based on stakeholder feedback and comments Final Cooperation Agreement
	FMP and approved during the 3 rd Meeting of the CRFM Ministerial Sub-Committee on Flyingfish in Saint Kitts and Nevis in June	

Support for Endorsement of Agreement	 Complete: Held calls with CRFM Secretariat staff Discussed opportunities for presenting the agreement for endorsement at a regional meeting and worked with CRFM Secretariat staff to identify potential future meetings Conducting ongoing outreach to schedule interviews with representatives from potential endorsing mechanisms, including the OECS Discussed avenues for endorsement with Murielle Lesalles and Lionel Reynal in Martinique and the French Embassy to the OECS Member States and Barbados Supporting national consultative processes to gain broad stakeholder feedback on the draft Cooperation Agreement Supported CRFM sharing the draft Cooperation Agreement at the 16th Meeting of the Caribbean Fisheries Forum in mid-April Compiled comments from 1 – 2 October Barbados meeting for incorporation into the cooperation agreement Discussed at 1 - 2 October Barbados meeting the priority on 	 Sub-project After-Life Plan and PPT Information Product #2: Eastern Caribbean Flyingfish Data Policy and Cooperation Agreement
	gaining technical-level endorsement in the near term, with political-level endorsement as a possible goal after Blue Earth's consultancies have been completed Discussed at March CRFM Forum Meeting Received stakeholder comments and revised draft accordingly Submitted draft as part of updated ECFF-FMP appendix	
	Endorsed by Forum	
Information products on partnership	 Complete: Drafted 4 Information Products (see Annex I) Received CRFM comments and feedback Submitted revised draft Information Products CRFM approval in March of 4 Information Products 	4 Final Information Products

Phase 3: Develop Sub-Regional Da	ata Policy	
Deliverables / Outputs (as listed in Contract Document[s])		Results to Date (measured against the Deliverables / Outputs listed in Contract Document[s])
Analysis of the current situation in national and sub-regional data policies	 Complete: See Review of existing National and Sub-Regional Data Policies section in Phase 1 above 	Draft Sub-Regional Data Policy Conceptual Proposal
Stakeholder consultations	 Complete: Developed online survey and phone interview questions for stakeholders regarding data collection and management Secured responses from fisheries managers in Barbados, Dominica, Grenada, Saint Vincent and the Grenadines, Saint Lucia, and Trinidad and Tobago Discussed and developed an approach for conducting national stakeholder consultative processes, including for supporting stakeholder review of the Data Policy Conceptual Proposal Coordinate with focal points to plan consultative processes Supported implementation of consultative process in Saint Lucia, providing ongoing support to other countries Attended and discussed with country stakeholders at the 16th Meeting of the Caribbean Fisheries Forum in Montserrat, where CRFM Secretariat staff provided a presentation and the draft data policy conceptual proposal to all participants for review Participated in call with CRFM Secretariat, Nexus, and CANARI to discuss steps for multi-level stakeholder engagement Developed agenda including time to present and discuss draft Data Policy at October Barbados meeting Gained feedback on revised cooperation agreement at 1 – 2 October Barbados meeting At Barbados meeting, determined that CRFM will seek adoption of the data policy at the technical level during this consultancy, and CRFM may seek endorsement at the political level at a later stage 	 Online survey and phone interview responses Draft Sub-Regional Data Policy Conceptual Proposal Saint Lucia consultative process, and attendance list and documentation of stakeholder feedback

	T	T
	Received stakeholder feedback on Data Policy	
	• Received stakeholder comments on draft updated ECFF-	
	FMP	
Draft Sub-Regional Data Policy	Complete:	Draft Sub-Regional Data Policy outline
	• Identified existing data polices from other sectors (e.g.,	• Draft Sub-Regional Data Policy
	United States National Science Foundation) to inform the	Conceptual Proposal PowerPoint
	structure and level of detail of the draft sub-regional data	• Draft Sub-Regional Data Policy
	policy for flyingfish	Document
	• Developed a draft outline of the Sub-Regional Data Policy,	• Developed revised data policy for
	submitted to CRFM for review, and revised based on	discussion
	feedback from CRFM Secretariat Staff	• Revised Data Policy for stakeholder
	Developed a full draft Conceptual Proposal of the Draft	feedback following Barbados meeting
	Sub-Regional Data Policy	Draft Data Policy revisions according
	• Shared the Conceptual Proposal with Chris Milley and the	to compiled stakeholder feedback
	Nexus team to identify areas of overlap with other	Final Data Policy
	consultancies and obtain feedback	
	• Shared Conceptual Proposal with CRFM for input and	
	revised based on feedback	
	Shared Conceptual Proposal with focal points to review	
	during national consultative processes and held calls with	
	focal points to plan consultative process meetings	
	Received feedback from stakeholders in Saint Lucia	
	regarding the Draft Data Policy	
	Developed a Word Document version of the Data Policy On the Common Service of the Data Policy On the Data Policy	
	• Gained feedback on the draft data policy from Dominica;	
	incorporated feedback into draft, sent to CRFM along with	
	other materials in preparation for the Barbados meeting	
	• Gained feedback on revised data policy at 1 – 2 October	
	Barbados meeting	
	Revised Data Policy following Barbados meeting based on meeting discussions.	
	meeting discussions	
	Revised Draft Data Policy revisions according to compiled stakeholder feedback	
	• Included draft Data Policy as appendix in draft updated	
	ECFF-FMP. Version submitted to CRFM for review at	

	March Forum meeting
	• Endorsed by Forum, further revised and approved at 3 rd Meeting of the CRFM Ministerial Sub-Committee on Flyingfish
Validation Meetings	Complete: • Saint Lucia and Dominica consultative
	 Developed approach for supporting focal points facilitating national stakeholder consultations to gain input on the draft Sub-Regional Data Policy Developed materials to support facilitation (e.g., Draft Data
	Policy, meeting agenda, facilitation plan including talking points and key questions, etc.) and submitted to CRFM for review
	Revised materials to support facilitation of national consultative processes and shared with focal points
	Held calls with focal points to discuss materials and plan consultative process meetings
	Supported stakeholder consultation meeting in Saint Lucia and received meeting documentation and notes frameworks
	Communicated with CRFM Secretariat regarding upcoming meetings of CRFM-WECAFC working groups at which to present draft
	Gained feedback on the draft data policy from Dominica
	Participated in call with CRFM Secretariat, Nexus, and CANARI to discuss steps for multi-level stakeholder engagement
	Developed agenda including time to present and discuss draft Data Policy at October Barbados meeting
	 Gained feedback on revised data policy at 1 – 2 October Barbados meeting; further in-country meetings will be at the discretion of focal points
	Additional validation meeting include: March CRFM Forum meeting, May 2019 regional consultation in St.
	Lucia, 3rd meeting of the CRFM Ministerial Sub-
	Committee on Flyingfish, in Basseterre, Saint Kitts and
	Nevis in June, during which participants reviewed and
	discussed the consultancy's draft Eastern Caribbean

Final Sub-Regional Data Policy	Flyingfish Fisheries Management Plan 2020 - 2025, Cooperation Agreement, and Data Policy. Complete:	- Final Cub Pagional Data Policy
Tiliai Suo-Regionai Data i oney	 Final Data Policy discussed at CFF 16 and approved during the 3rd Meeting of the CRFM Ministerial Sub-Committee on Flyingfish in June. 	Final Sub-Regional Data Policy
Information Products on Sub-Regional Data Policy	 Complete: Please note that there are no further information products listed in our contract as deliverables for this consultancy; however, Blue Earth created a draft press release to update on the consultative processes. We will correspond with country focal points regularly / as needed and sharing updates; we will also develop information products related to the Adaptive Management consultancy Drafted Information Product #2 on Data Policy and Cooperation Agreement Received CRFM comments and feedback Submitted revised draft Information Brief #2 Eastern Caribbean Flyingfish Data Policy and Cooperation Agreement Information Product #2 approved by CRFM 	Cooperation Agreement • Final Information Product #2 Eastern Caribbean Flyingfish Data Policy and

Phase 4: Update Flyingfish Fish	ery Management Plan	
Deliverables / Outputs (as listed	Status	Results to Date (measured against the
in Contract Document[s])		Deliverables / Outputs listed in Contract
		Document[s])
Stakeholder consultations	Complete:	Online survey and phone interview
	• Developed online survey gathering feedback on the FMP,	responses
	including working with CRFM to revise and finalize and load	Draft Recommendations for Updating
	the survey into Qualtrics online survey software for	the Eastern Caribbean Flyingfish
	distribution	Fishery Management Plan
	Sent online survey and draft list of Recommendations for	• Saint Lucia consultative process
	Improving the FMP to focal points in all six countries	completed, and attendance list and
	Conducted outreach via phone and email to secure responses	documentation of stakeholder feedback
	from focal points to online survey and comments on the	received

recommendations

- Received responses to the online survey from representatives of all six countries
- Discussed process for collaborating with Nexus so they can
 use our preliminary findings to inform their research relating
 to fisheries objectives and Blue Earth can incorporate their
 findings regarding objectives into our process for updating the
 FMP
- Synthesized findings of the FMP online survey and comments on the draft recommendations for revising the FMP as part of a progress report for the Stress Reduction Consultancy and identified gaps
- Developed additional questions for stakeholders regarding the FMP to fill information gaps and shared with CRFM
- Coordinated with Mark Tupper to seek feedback on FMP
- Analyzed and coded FMP online survey results and comments on the draft recommendations; revised the draft recommendations
- Discussed and developed an approach for conducting national stakeholder consultative processes, including for supporting stakeholder review of the draft recommendations for updating the FMP
- Coordinated with focal points to plan consultative processes
- Supported implementation of consultative process meeting in Saint Lucia; provided support to other countries
- Coordinating with subcontractor Mark Tupper to travel to and help facilitate meeting in Tobago
- Participated in call with CRFM Secretariat, Nexus, and CANARI to discuss steps for multi-level stakeholder engagement
- Developed agenda including time to present and discuss potential updates to the FMP at October Barbados meeting
- Developed draft updated ECFF-FMP for discussion
- Discussed feedback on revised FMP at 1 2 October Barbados meeting

- Developed draft updated ECFF-FMP
- Revised draft updated ECFF-FMP

	 Compiled stakeholder input from CRFM WECAFC meeting in Barbados Developed plan and timeline with CRFM on the revisions, review, and finalization of the ECFF-FMP Submitted Draft Updated ECFF-FMP Received CRFM comments and revised accordingly including discussion of trigger point recommendations and the inclusion of stock assessment recommendation into revised updated ECFF-FMP 	
Draft Updated FMP	 Complete: Reviewed meeting notes from CRFM WECAFC meeting in Barbados and currently updating ECFF-FMP Submitted draft updated ECFF-FMP Revised draft according to CRFM comments Agreed on a timeline for draft updated ECFF-FMP stakeholder comments and revisions prior to CRFM Forum meeting Included stakeholder comments in latest version of draft updated ECFF-FMP Submitted draft updated ECFF-FMP for March Forum meeting review. Latest version has Cooperation Agreement and Data Policy as appendices. 	Draft updated ECFF-FMP (Appendix A)
Validation Meetings	Complete: Developed approach for supporting focal points facilitating national stakeholder consultations to gain input on draft Recommendations for Updating the FMP Developed materials to support facilitation (e.g., list of recommendations, meeting agenda, facilitation plan including talking points and key questions, etc.) and submitted to CRFM for review Revised materials to support facilitation of national consultative processes and shared with focal points Held calls with focal points to discuss materials and plan consultative process meetings Supported stakeholder consultation meeting in Saint Lucia	 Reference and facilitation materials for national consultative processes 5 completed planning calls with focal points to support coordinating consultative processes Saint Lucia consultative process completed, and attendance list and documentation of stakeholder feedback received

	 and received meeting documentation and notes frameworks Communicated with CRFM Secretariat regarding upcoming meetings of CRFM-WECAFC working groups at which to present draft Gained feedback on the draft FMP updates from Dominica Participated in call with CRFM Secretariat, Nexus, and CANARI to discuss steps for multi-level stakeholder engagement Developed agenda including time to present and discuss potential updates to the FMP at October Barbados meeting Gained feedback on revised data policy at 1 – 2 October Barbados meeting; further in-country meetings will be at the discretion of focal points Additional validation meeting include: March CRFM Forum meeting, May 2019 regional consultation in Saint Lucia, 3rd Meeting of the CRFM Ministerial Sub-Committee on Flyingfish, in Basseterre, Saint Kitts and Nevis in June, during which participants reviewed and discussed the consultancy's draft Eastern Caribbean Flyingfish Fisheries Management Plan 2020 - 2025, Cooperation Agreement, and Data Policy. 	
Final Updated FMP	 Complete: Currently incorporating feedback from 1 – 2 October Barbados meeting to develop a draft final ECFF-FMP Confirmed timeline with CRFM to include draft updated ECFF-FMP in Forum meeting Revised after Forum and approved during 3rd Meeting of the CRFM Ministerial Sub-Committee on Flyingfish 	Confirmed timelineFinal Updated FMP
Information products on updated FMP	Complete: • Please note that there are no further information products listed in our contract as deliverables for this consultancy; however, Blue Earth created a draft press release to update on the consultative processes. We will correspond with country focal points regularly / as needed and sharing updates; we will also develop information products related to the Adaptive Management consultancy	 Draft second press release Information Brief #3 Eastern Caribbean Flyingfish Management Plan Implementation, Evaluation, and Recommendations Final Information Brief #3 Eastern Caribbean Flyingfish Management Plan Implementation, Evaluation, and

 Drafted, submitted and received comments on Information Product #3 Eastern Caribbean Flyingfish Management Plan Implementation, Evaluation, and Recommendations Submitted revised draft Information Product #3 Eastern Caribbean Flyingfish Management Plan Implementation, Evaluation, and Recommendations 	Recommendations (Appendix A in Adaptive Management progress report #10)
Information Product #3 approved by CRFM	

Phase 5: Prepare an Impact Assessment Tool for CRFM		
Deliverables / Outputs (as listed	Status	Results to Date (measured against the
in Contract Document[s])		Deliverables / Outputs listed in Contract
		Document[s])
Impact assessment tool	Complete:	Impact assessment tools
	• Developed initial indicators for CRFM's input during the	_
	Consultancy Design and Preparation phase	
	Developed full draft Impact Assessment Tools (IATs) that	
	address Blue Earth's work under Blue Earth's three CRFM	
	consultancies: Governance, Adaptive Management, and Stress	
	Reduction	
	• Revised IATs to align with CLME+ Governance	
	Effectiveness Assessment Framework based on feedback	
	from Robin Mahon and Lucia Fanning	
	Completed further revisions based on CRFM input	

Phase 6: Reporting		
Deliverables / Outputs (as listed	Status	Results to Date (measured against the
in Contract Document[s])		Deliverables / Outputs listed in Contract
		Document[s])
The appropriate number of bi-	Complete:	• 13 bi-monthly progress reports
monthly reports	• This is Blue Earth's 13 th and final bi-monthly progress report	
	submitted under this consultancy	
Consultancy Inception Report	Complete:	Consultancy Inception Report
	• Developed, revised, and finalized a consultancy Inception	
	Report	

Work Plan	Complete:	Consultancy Work Plan
	Developed and submitted Consultancy Work Plan	
Report on Consultancy Design and Preparation	 Complete: Developed a draft Report on Consultancy Design and Preparation and submitted to CRFM for review Revised based on CRFM Secretariat staff feedback including merging with the Report on Support Provided for Cooperation between CRFM and France Submitted merged, revised report to CRFM for review Revised based on CRFM Secretariat staff's second round of feedback and submitted final report 21 February 2018. 	Final Report on Consultancy Design and Preparation; and, Cooperation
Report of support provided for cooperation between CRFM and France at the political level regarding flyingfish (FF) conservation and management	 Complete: Developed outline of draft Report of Support Provided for Cooperation between CRFM and France and submitted to CRFM for feedback Developed draft report and submitted to CRFM for review Revised based on CRFM Secretariat staff feedback, including merging with the draft report on Consultancy Design and Preparation Submitted merged, revised Report to CRFM for review Revised based on CRFM Secretariat staff's second round of feedback and submitted final report on 21 February 2018. 	 Outline of draft final Report on Support provided between CRFM and France regarding flyingfish conservation and management Final Report on Consultancy Design and Preparation; and, Cooperation
Mid-Term Progress Report	 Complete: Developed draft outline of the Mid-Term Progress Report Developed draft Mid-Term Progress Report and submitted to CRFM for review, including appendices of deliverables produced to date Revised based on CRFM Secretariat staff's second round of feedback 	 Outline of the mid-term progress report Final Mid-Term Progress Report
Observer Report and slides for the 16 th Meeting of the Caribbean Fisheries Forum	 Complete: Developed an Observer Report for inclusion in the meeting materials for the 16th Meeting of the Caribbean Fisheries Forum Developed slides regarding the Governance, Stress Reduction, and Adaptive Management consultancies for CRFM Secretariat to present 	Observer ReportPresentation slides

Final Technical Report	Complete:	Final Technical Report
	Blue Earth requested clarification from CRFM on aspects of	
	the final technical report (email 7 March 2019) and received a response on 26 March 2019.	
	• Submitted final technical report in July 2019.	
	Revised in August and September	
Other	Complete:	Resubmitted deliverable files along
	• Resubmitted all consultancy deliverables with updated	with this progress report
	CLME+ logos	

Overarching Reporting

Identify any adjustments / changes that have been made to deliverables / outputs

Since consultancy inception, Blue Earth has made the following adjustments to the scheduled deliverables:

- Combined Payment 2 deliverables 2, 3, and 4 into one document (Draft final report on Consultancy Design and Preparation, Draft final report of support provided for cooperation between the CRFM and France, and Draft final report on support given to cooperation between CRFM and France)
- Combined Impact Assessment Tools across Blue Earth's three consultancies
- Included a broader focus on shared living marine resources in the Cooperation Agreement and data policy
- The consultancy timelines have shifted due to response rates of in-country stakeholders, timing of the multi-stakeholder meeting in Barbados, and other factors. However, with feedback from the meeting in Barbados we are moving forward on developing the next set of deliverables.
- In place of the remaining national in-country meetings including validations meetings, CRFM, the WECAFC Subcommittee on Flyingfish, and consultants supported travel for technical staff members and other stakeholders to attend the meeting in Barbados on 1 2 October. The meeting was the primary opportunity for these stakeholders to provide feedback and discuss the key outputs across consultancies. The week following the meeting, the CRFM Secretariat was expected to provide an update and gain further feedback on each of the outputs and the process forward with the CRFM Ministerial Council and transmit this feedback to the consultants. Please note that CRFM indicated that the Ministerial Council did not discuss the flyingfish consultancies.
- Blue Earth and CRFM developed a timeline for revising and finalizing the ECFF-FMP.

	ECFF-FMP timeline refined by CRFM and Blue Earth
Identify Lessons Learnt and Best Practices	Lessons learned include the following:
	CRFM Member State adoption of the revised version of the ECFF-FMP could be
	a lengthy process. A bottom-up policy adoption approach might be a useful approach for managers to use moving forward.
	Regarding data policy, reform processes move slowly in the Eastern Caribbean.
	Flexible goals and targets might be considered by managers that account for the idiosyncrasies and budget restrictions that many CRFM Member States encounter.
	• In some cases, processes outlined in the consultancy proposal for gaining stakeholder input need to be revised to fit the schedules and time commitments of stakeholders, particularly those at the political level.
	• The <i>de facto</i> sequence for gaining input from a range of stakeholders in the Eastern Caribbean involves gaining input from technical- and community-level stakeholders first and discussing with political-level stakeholders later in the process.
	• Flyingfish must be considered together with other fisheries in the Eastern
	Caribbean, since in many countries, fishermen target multiple species.
	• Certain information contained in deliverables from other CLME+ projects could
	be incorporated into the revised Flyingfish Fishery Management Plan, including
	ECFF FMP evaluation findings, data collection strategies and restraints, and
	national focal point and stakeholder consultation lessons learned.

Identify contract milestones achieved within update period	 Milestones include the following (also mentioned above in Status column): Compilation of input on updated ECFF-FMP from Barbados meeting and current work to implement those comments Draft Updated FMP has been submitted and is being reviewed by stakeholders Final ECFF-FMP submitted (with Cooperation Agreement and Data Policy as appendices) after Ministerial Sub-Committee on Flyingfish meeting in June 2019
 Identify any risks to contract outputs Lack of existing sub-regional and national data policies to inform data policy development Difficulty engaging representatives of fisheries management agencies in DOMs and France Challenges identifying an appropriate venue for stakeholder consultations, including for political-level leaders from all countries to participate in stakeholder consultations Flyingfish-focused stakeholder groups (e.g., NICs and FACs) not active Difficulty gaining substantive input from flyingfish fishermen (particularly in Barbados) who may be at sea during proposed consultative process timelines. Potential for low survey response rates and non-statistically significant representation of fishers due to timing of the flyingfish fishery season and limited survey capacity Limited capacity of in-country stakeholders including fishery staff to support the consultancy, including Tobago's requirement of additional capacity in order to participate Limited time at 1.5-day Barbados meeting to gather feedback on all key consultancy outputs and 	 Please outline the risk management strategy adopted Conducted web research and reviewed other relevant documents to develop the Sub-Regional Data Policy; Developed a conceptual proposal of the Sub-Regional Data Policy, sought initial feedback, and will share with stakeholders during consultation meetings to solicit input and ensure alignment of content with regional needs Requested names of alternate contacts and follow-up by Impact Mer; Strategized on new outreach approach to more effectively cultivate engagement from French and DOM agencies; conducted follow-ups and made contact with key stakeholders in Martinique Developed approach for supporting national consultative processes facilitated by focal points in each country related to the three primary consultancy components, held calls with stakeholders and re-allocated resources to support consultative process meetings Coordinated with other consultants to consider potentially combine stakeholder consultations Worked with stakeholders to potentially hold consultative processes with separate stakeholder groups (e.g., managers at one time, fishermen after the season has concluded) Allowed additional time beyond the flyingfish fishing season for focal points to administer surveys and collect fishermen input Allocated consultant staff time to support key country national focal point meetings (St. Lucia and Grenada) and a regional meeting (Barbados) Created an opportunity to gather political, technical, and other stakeholders to
 potential for not gaining as in-depth feedback as needed Limited capacity to implement the frameworks (FMP, data policy, cooperation agreement, data collection systems) 	 gather and discuss outputs across projects (Barbados meeting) Researched and drafted agenda, key questions, and discussion topics ahead of the Barbados meeting and ensure that the meeting keep to its timetable Focused on stepwise implementation in realistic timeframes, and on development of sustainable revenue streams.

Financial Implementation

Contract implementation on track?	If no, please indicate why
Yes X No	
Is revised payment schedule needed? If	Blue Earth and Nexus have agreed to a timetable of deliverable deadlines based on the timing of
yes, please attach revised plan.	in-country visits and the multi-stakeholder meeting and CRFM Ministerial Council meeting in
	October 2018.

Additional Information

2 Additional Information	
Identify any activities during the reporting period that address gender equality	No components of the activities reported on explicitly address gender equality. However, the 8 th Special Meeting of the Ministerial Council has issued the following statement on gender, youth and decent work:
	"The Council accepted that international and national norms regarding issues pertaining to gender, youth, and decent work be adhered to, and be incorporated into all CRFM policies, protocols, programmes, and plans." This statement was considered throughout the remainder of the consultancy and the deliverables it produced.

The CRFM is an inter-governmental organization whose mission is to "Promote and facilitate the responsible utilization of the region's fisheries and other aquatic resources for the economic and social benefits of the current and future population of the region". The CRFM consists of three bodies – the Ministerial Council, the Caribbean Fisheries Forum and the CRFM Secretariat.

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

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