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**REPORT OF THE FIRST MEETING OF THE
CRFM/CLME EASTERN CARIBBEAN
FLYINGFISH FISHERY
CASE STUDY STEERING COMMITTEE**



10 February 2011
Barbados

CRFM Secretariat
Belize 2011



CRFM Technical & Advisory Document - Number 2011 / 1

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Flyingfish Fishery Case Study Steering Committee, 10 February 2011,
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1. Opening Ceremony

The Opening Ceremony was chaired by the Chief Fisheries Officer of Barbados, Mr. Stephen Willoughby. The Meeting opened with the singing of the National Anthem of Barbados. Mrs. Vernel Nicholls, President of the Barbados National Union of Fisherfolk Organizations (BARNUFO), then offered an Opening Prayer.

Mr. Milton Haughton, Deputy Executive Director of the CRFM Secretariat welcomed participants on behalf of the Executive Director and staff of the CRFM Secretariat. He then drew attention to the purpose of the meeting that is the launching of two Case Studies under the GEF funded and Caribbean co-financed Caribbean Large Marine Ecosystem (CLME) Project, which together had a combined budget of approximately US\$508,000 and a duration of just under 2 years.

Mr. Haughton then noted that current fisheries governance is based on the rights and duties laid down in United Nations Convention on the Law of the Sea (UNCLOS), which has been supplemented by a number of binding and non-binding instruments. These instruments, he pointed out, have added content and addressed major weaknesses in UNCLOS, particularly in relation to conservation and management of fisheries and ecosystems, not just for shared stocks on the high seas, but also for stocks under the jurisdiction of coastal states. Mr. Haughton also noted that in relation to conservation and management of flyingfish and large pelagic species, that is, the species under consideration in these Case Studies, the most significant of these international instruments is the 1995 United Nations Fish Stocks Agreement (FSA) which entered into force in 2001, and contains the most modern principles and standards for governance of straddling and highly migratory fish stocks. He further drew attention to the fact that only 6 of the 15 CARICOM States are Parties to the FSA, the latest being St. Vincent and the Grenadines which, on 29 October 2010, joined Belize, Barbados, Bahamas, St. Lucia and Trinidad and Tobago as a Party to the Agreement. In closing Mr. Haughton urged CARICOM States that have not yet done so, to give serious consideration to becoming parties to the FSA given the urgent need to strengthen the governance framework to ensure optimum long term sustainable use and conservation of the flyingfish and large pelagic resources, on which many fishermen and fishing communities in the region are dependent for their livelihoods. The full text of the address by Mr. Haughton is at *Appendix I(A)*.

Mr. Ivan Soto, Senior Project Officer for the CLME Project then thanked CRFM for its efforts to host the meeting. Mr. Soto apologised on behalf of the Project Coordinator of the CLME project, Nestor Windevoxhel, who was unable to attend the meeting. However, the full text of Mr. Windevoxhel's address to the meeting was shared and is given in *Appendix I(B)*. Mr. Soto reaffirmed support for CRFM as a partner in the CLME project. Mr. Soto reflected on the important role and responsibility of the CLME partners in fulfilling the aims of the CLME project. He said he wanted to thank the Committee well in advance for its contributions to the two Case Studies being conducted under the auspices of the CRFM. Mr. Soto reassured the Committee of the CLME's project's commitment to incorporate the conclusions and recommendations of the Case Studies in promoting a sustainable Ecosystem Approach to Fisheries (EAF). In closing, Mr. Soto once again thanked the Committee in advance for its efforts and wished the Committee a successful meeting. The keynote address was to be delivered by the Minister of Agriculture, Food Fisheries, Industry and Small Business in Barbados, Dr. The Honourable David Estwick. However, owing to his presence being required for the Cabinet session scheduled for the same day, Minister Estwick was unavailable to attend the Opening Ceremony, and Mr. Willoughby apologized on his behalf. In the absence of the Minister, Mr. Willoughby indicated that he would simply want to use the opportunity to share a few

thoughts. Firstly, Mr. Willoughby recalled the tremendous energy and efforts that had been made over many years to gain the proper recognition for the contribution of the fisheries sector to the region's developing economies. Mr. Willoughby observed that the cause continued, and the fight was being taken up by others. He also acknowledged the efforts that began with the CARICOM Fisheries Assessment and Management Programme (CFRAMP), and through its successor, CRFM, which continued to be a valuable contribution to fisheries at the regional level.

In considering the CLME project, Mr. Willoughby recognized its potential to revolutionize our outlook in fisheries, and to ultimately help the countries to achieve their aims to attain the EAF approach to management and improved governance at all levels. He noted that the region's fisheries continued to face many challenges, e.g. overfishing, pollution, habitat degradation, international conservation measures that restricted the further development of our fisheries, and trade barriers. To overcome these challenges, Mr. Willoughby pleaded for active cooperation at all levels of the sector: the fisherfolk level, the technical level, the management level, and the political level. Moreover, in order to guarantee success, such cooperation required close collaboration, transparency, efficient use of resources, accountability, and equity. In closing, Mr. Willoughby emphasized the need to get meaningful results from the meeting's deliberations, in order to move forward in a logical and progressive manner.

The CRFM Secretariat's Programme Manager for Research and Resource Assessment, Dr. Susan Singh-Renton gave the vote of thanks. Dr. Singh-Renton acknowledged appreciation of the host country's efforts to provide on-site administrative and logistical support. Within the region, the flyingfish and large pelagic fish fisheries of Barbados were significant, and so Barbados's willingness to host the two Steering Committee Meetings reflected a clear commitment to the proper management of these fisheries. In addition, she thanked the speakers at the Opening Ceremony for their contributions and the Committee members for giving their time and attention for the two days of deliberations. In closing, Dr. Singh-Renton wished all a successful meeting.

2. Introduction of participants

On behalf of the CRFM Secretariat, Mr. Milton Haughton invited participants to introduce themselves. A list of participants is included in *Appendix 2*.

3. Election of the Chairperson

Mr. Haughton mentioned that, within the CARICOM / CRFM environment, it was conventional to choose the host country's representative to serve as the Chairperson, but he noted that the meeting was not obliged to follow this convention. Mr. Haughton then opened the floor for nominations for Chairperson.

The representative from St. Lucia, Ms. Sarita Williams, nominated Mr. Stephen Willoughby to serve as chairperson. This nomination was seconded by one of the representatives of Trinidad and Tobago, Ms. Elizabeth Mohammed. No additional nominations were made, and as there were also no dissenting voices, Mr. Willoughby assumed his position as meeting Chairperson.

4. Adoption of meeting agenda and meeting arrangements

The Chairperson invited the Committee to review the draft agenda. Mr. Haughton asked that a new agenda item be included to facilitate a presentation by Mr. Soto providing an overview of the CLME project. The overview would help to remind the Committee of the broader context of the CLME project within which the Consultancy should be reviewed. Mr. Haughton further advised the meeting that the Secretariat would draft the conclusions and recommendations to facilitate review and formal endorsement under the agenda item dealing with this issue.

The Chairperson asked that a proposal be made for the modified agenda to be adopted. In response to the Chairperson's request, the representative from the Organization of Eastern Caribbean States - Environment and Sustainable Development Unit (OECS-ESDU), Mr. Peter Murray, proposed that the agenda be adopted, and this was seconded by the representative of CERMES, UWI, Professor Hazel Oxenford. The agreed modified agenda is provided in *Appendix 3*.

The Chairperson also advised of meeting arrangements, i. e. working hours for the day, break periods for refreshment and lunch, payment of per diems, and rapporteur arrangements.

5. Review of the Case Study Steering Committee Terms of Reference

The Deputy Executive Director of the CRFM Secretariat presented an overview of the Terms of Reference of the Case Study Steering Committee. He then presented a proposal made by the Project Coordinator of the CLME PCU, to change the name of the Committee from 'Steering Committee' to 'Advisory Committee' to more accurately reflect the role and functions of the Committee. The proposed name change would also bring the name of this Committee in line with the names of similar Committees responsible for other pilot projects and case studies under the CLME Project.

Discussion summary - There was significant discussion about the suggested change of the Committee's title from 'Steering' to 'Advisory'. It was argued that should the change be adopted, wording would need to reflect the change in the functions of the Committee. There was a suggestion to look at the functions, and to determine if these were acceptable prior to making a decision about the name change. The representative from the CLME PCU, Mr. Soto, clarified that the name change was not intended to decrease or affect the responsibility of the Committee. He indicated the importance of establishing a clear idea of the scope of the Committee's functions in order to inform its decision, and then the Committee's decision should be transmitted to the CLME. Mr. Soto further noted that the CLME contract was with CRFM, and hence CRFM had primary responsibility to report to the CLME. After some deliberation about whether to keep the issue open until activities had been reviewed, and reflection about the summary text used to introduce the functions, the Chair was able to confirm that there was general consensus to retain the Committee's title, as originally proposed. The Committee's decision on this issue is formally documented under agenda item 9.

In response to an enquiry about the life of the Steering Committee, it was clarified that the life of the Committee was same as the life of the Case Study. One of the Barbados representatives, Mr. Christopher Parker, queried the language of bullet 4, and pointed out the limitations of the Steering Committee to actually get involved in cases of conflict.

Regarding the Committee's Terms of Reference, the functions were given considerable attention. There was some discussion about the Committee's ability to become directly involved in the resolution of conflicts. In conclusion, the text of the relevant function was split to avoid confusion about mechanisms to be established for achieving cooperation and coordination, and to reflect that the Committee, at best, could only offer assistance in conflict resolution. There was also a query about the information provided in the background. The Committee noted that the fishery landings value quoted in the Background section (sub-section titled 'Flyingfish') was not current, and agreed that the information be updated, and incorporated into the agreed Terms of Reference. Additionally, regarding the number of meetings to be held, the Committee pointed out that there could be opportunity for more than 2 meetings, and so the text should be modified to reflect this.

In conclusion, the Committee agreed to retain the original title of the Committee to reflect its 'steering function' more appropriately, and endorsed the Terms of Reference with these agreed editorial changes. The draft Terms of Reference for the Committee is given in *Appendix 4(A)* and the agreed, revised Terms of Reference is given in *Appendix 4(B)*.

6. CLME Overview

Mr. Ivan Soto presented an overview of the CLME Project in which he provided details of the overall goal, major objectives, project strategies, key activities and expected outputs (presentation provided in *Appendix 5(A)*). Mr. Soto also gave updates on the progress of the various CLME case study, pilot and SAP project activities, as well as project management activities. The expected contributions of these activities to the Transboundary Diagnostic Analysis / Strategic Action Programme (TDA / SAP) process and outcomes were also explained.

Given that the purpose of the CLME project is sustainable management of the shared living marine resources of the Caribbean LME and adjacent areas through the Ecosystem Approach to Fisheries (FAO), Mr. Soto also provided a PowerPoint presentation to explain the Ecosystem Approach to Fisheries (see *Appendix 5(B)*).

Discussion summary - A query was raised concerning the linkage of the Japan International Cooperation Agency (JICA) Master Plan to the CLME project, in respect of the technical and SAP activities. In response, it was pointed out that the CLME project and its partners were trying to exchange information and to avoid duplication of efforts. In view of this, there was a constant effort to ensure linkages among the partners of the CLME project, and also with related initiatives being undertaken.

7. Presentation of case study background, objectives, proposed activities, budget and implementation schedule

7.1 Introductory overview

The Deputy Director of the CRFM Secretariat, Mr. Milton Haughton provided an overview of the Case Study. He first explained that the presentation of the Work Plan would be divided into 3 sections as follows:

- (i) an initial overview and background by Milton Haughton;

- (ii) presentation of the science component related to the Transboundary Diagnostic Analysis that would be done by Dr. Susan Singh-Renton; and
- (iii) presentation of the policy, legal and institutional framework related to the Strategic Action Programme by Milton Haughton.

Mr. Haughton's presentation noted and explained the overall objectives – (i) the establishment of effective sub-regional governance and management framework, and (ii) the implementation of policy cycles based on the precautionary and ecosystem-based management (EBM) principles. He referred to the principal international agreements and instruments which together established the current global framework and principles for good fisheries governance. He noted the countries in the region that had ratified or acceded to the key Agreements, i.e. the 1982 United Nations Convention on the Law of the Seas, the 1993 FAO Compliance Agreement, and the 1995 UN Fish Stocks Agreement. Mr. Haughton also noted that the principles of good ocean governance enunciated at the global level are being promoted by the CLME to achieve long-term sustainable use and management of the living marine resources. He then highlighted the main challenges faced by the Region in achieving optimum long-term benefits from the living marine resources of the CLME as, political will, information base, human and institutional capacity, and policy and legal frameworks. Mr. Haughton also provided an overview of the flyingfish fishery, and then noted the challenges and priorities for improved conservation and management of the flyingfish. He listed the key stakeholders and beneficiaries for this fishery. Finally, he noted the immediate objectives of the case study – fill knowledge gaps, and development of SAP to examine the need for governance and management reforms, and to make the relevant recommendations. See *Appendix 6(A)* for details of the presentation.

Discussion summary – The OECS Secretariat representative, Mr. Peter Murray, brought to the attention of the Committee that several other regional instruments needed to be considered for the Case Study activities besides the ones mentioned in the presentation, in view of their current pertinence to regional fisheries initiatives. These included, inter alia: the Castries (St. Lucia) Declaration on IUU Fishing; CARICOM's Draft Common Fisheries Policy; the Revised Treaty of Chaguaramas; the Revised Treaty of Basseterre, the WTO agreement that dealt with very important trade issues, including fisheries subsidies; the Cartagena Convention, and the CRFM agreement.

There was an enquiry whether the SAP component of the consultancy intended to address the issue of open versus limited access to fisheries resources. In response, the Committee was advised that the consultancy should strive to create the appropriate environment for such discussions, as clearly the resources are not limitless. There was also an enquiry about the budget allocation for improvement of data collection, as the allocation was too small to facilitate meaningful field work. It was clarified that the small budget allocation did not allow for collection of new data, and so it was necessary to work with what was already available. There was an intention to critically review data improvement recommendations made previously in determining practical solutions for the way forward. The Consultancy would also strive to investigate practical options for broadening the information base to meet the EAF challenge.

At this point, Dr. McConney requested time to present an overview of the regional governance framework Case Study, being implemented by CERMES under the CLME project, at the end of this agenda item for review by the Committee, and was granted permission to do so.

7.2 TDA component

Dr. Singh-Renton presented and explained the TDA component of the Case Study, focusing on the activities related to data improvement and incorporation of economic data into a proposed bio-economic assessment of the Eastern Caribbean fourwing flyingfish. She took the opportunity to inform the meeting of preparatory activities undertaken by the CRFM to date. The Committee was also advised about those inputs including expertise and funding that would be required to address the proposed activities, expected outputs, performance indicators, and assumptions. The presentation made by Dr. Singh-Renton is at *Appendix 6(B)*.

Discussion summary - Two general comments were made regarding the Consultancy document. It was pointed out that the background information was incomplete, as it did not reflect the progress made during the 2008 Eastern Caribbean flyingfish assessment conducted under the auspices of the Western Central Atlantic Fishery Commission (WECAFC). The Committee was also advised about a socio-economic study that had been completed in Tobago during the inter-sessional period following the 2008 WECAFC meeting. Most Committee members were unaware of the Tobago study and its results. This highlighted concerns about insufficient communication and information exchange in and among the sub-regional group of states involved in the fishery. The Committee emphasized the importance of establishing formal systems to ensure good communication and information exchange. One of the representatives of Trinidad and Tobago, The Director, Marine Resources and Fisheries, Mr. Kenneth Caesar, undertook to pass the report on the study to the CRFM Secretariat for distribution to Committee Members.

Regarding the first TDA objective concerning improvement of availability of data (see approved Consultancy document provided in *Appendix 6(C)*), the Committee sought further details about the nature and extent of the activity. In particular, clarification was sought regarding the following: examination of data on the bait fishery and the fishery of Martinique; examination of environmental data; data mining. It was clarified that, to the extent possible and working with the limited budget allocation for this activity, the activity would strive to address all these aspects through a data review process that would take into account EAF data and information needs for provision of management advice. In view of the low budget allocation for this activity, a suggestion was made to consider restricting examination of data and analyses to a single fleet, if this would guarantee a quality output. The Committee proposed that the Consultancy document be amended to reflect the required clarifications. However, the Committee was reminded that the Consultancy document was an agreed document, and so it was accepted that the report of the meeting was sufficient to capture the clarifications provided. The Committee also suggested that either the slide set or the Consultancy document be inserted as an appendix to the meeting report and be adequately referenced to avoid the confusion of misinterpretation. The Consultancy document was amended to address the Committee's concerns and this amended version is given in *Appendix 6(D)*.

There was an enquiry about the merging of TDA objectives 5.1.3 and 5.1.4. It was clarified that, due to budget reductions, the two objectives were consolidated into a single activity, but the two numbers were retained to facilitate tracking of the formerly noted objectives. It was agreed to insert an explanatory footnote to facilitate the tracking task, and redo the numbering system to be logical and less confusing.

7.3 SAP Component

Mr. Haughton presented and explained the SAP component of the Case Study focusing on the activities related to the policy, legal and institutional reforms (that is the SAP component) and the revised schedule and timeline. The presentation highlighted the major activities, inputs including expertise and funding, expected outputs, performance indicators, and assumptions. The presentation also provided an activity schedule for the Case Study (see *Appendix 6(A)*).

Discussion summary - Following on the presentation on the SAP Component of the Case Study, there was some discussion as to how best to engage Martinique in the delivery of the Case Study, with it being recognised that Martinique is an overseas territory of France and that its fisheries would be within the EU mandate. It was also mentioned that the engagement should not be restricted to Martinique, but all three French islands should be involved. In terms of the best approach to engage with Martinique, the following options were put forward:

- Approach Martinique directly
- Approach the engagement from the level of the EU and / or France due to jurisdictional arrangements
- Use the FAO / WECAFC (Lesser Antilles Committee) as a possible avenue.

It was noted that wherever CRFM staff appeared in the presentation, it should be replaced with CRFM Secretariat or CRFM as appropriate. Also, it was agreed that the appropriate terminology would be used in the presentation to ensure that the stakeholder analysis activity would be viewed as the identification of the key stakeholders, their roles, capacities, etc.

In response to a query regarding the purpose of the national meetings with the stakeholders, it was indicated that such meetings would serve to inform stakeholders about the case study and its various activities and obtain feedback. As a result, some concern was expressed regarding the timeframe and the expected outputs, e.g. the declaration and regional action plan if meaningful consultations are to be conducted.

In terms of the activity to convene a joint meeting of senior fisheries officials of the CRFM Participating States and the WECAFC Ad Hoc Group on Flyingfish in the eastern Caribbean, it was agreed that consideration would be given to involving the WECAFC Lesser Antilles Committee. It was accepted that wording would be included to ensure that stakeholders concerns and inputs / advice would be addressed. Also, under Assumptions, it was accepted that “compromise” would be replaced by “will seek to compromise”.

In relation to the convening of two meetings of the CRFM Ministerial Council (Ministers responsible for fisheries of the States interested in the flyingfish fishery) with appropriate representation from Martinique, it was noted that it would hold two meetings of a sub-committee of the Ministerial Council of States actively engaged in the flyingfish fishery, with the determination of such States being guided by international agreements.

With regards to the timeline for Case Study, it was noted that the timelines for the last two activities would have to be adjusted to meet the 30 June 2012 deadline. However, some concern was expressed that the outputs would not be met by the 30 June 2012 deadline. It was noted that if the timeline was shrunk, then the number of policy cycle iterations would have to be reduced. The Secretariat was tasked with reviewing the timeline and making the necessary adjustments.

7.4 Consideration of linkages with the CLME consultancy to develop the Regional Governance Framework

Dr. McConney provided a summary of the proposed CLME consultancy to develop the Regional Governance Framework. He explained that the Regional Governance Framework consultancy was to be implemented during January 2011 to May 2012 by the Centre for Resource Management and Environmental Studies (CERMES) of the University of the West Indies in collaboration with Dalhousie University. The consultancy would address the following key questions:

- What is involved in the development of a regional science-policy interface for ocean governance in the Wider Caribbean Region?
- How can we assess ocean governance arrangements and their functionality for reef, pelagic and continental shelf fishery ecosystems?
- What are the appropriate regional ocean governance framework options for input to the Strategic Action Programme (SAP)?

The consultant would engage with the countries and organisations involved in the CLME Project to produce outputs expected to include: governance and stakeholder analysis by fishery ecosystem, analyses of basic policy cycles, assessment of legal and institutional arrangements by fishery ecosystem, a draft report on the Regional Governance Framework highlighting strengths and weaknesses of current governance and a draft regional governance framework options paper for the region. The consultant exhorted Committee members to ensure that the case study focused more on the advice and decision-making aspects of the policy cycle rather than on the science (data and information).

Discussion summary – It was pointed out that the information leaflet and verbal summary overview did not indicate clearly the methodology / approach for evaluation of performance of organizations. There was also a question as to whether the study by CERMES would examine the mandates and performance of existing organisations, including the adequacy of the mandates, organisational structures and practices in relation to the objective of long-term sustainable use and conservation of the marine living resources of the CLME. Dr. McConney clarified that there was an intention to examine the mandate of each organization studied, and to relate this to the actual scope of operations of that organization. He further noted that emphasis will be on governance structures rather than on levels of performance.

8. Review and discussion of any issues pertaining to the case study objectives, activities, and implementation schedule

Several issues were raised, and the Committee made a number of decisions and recommendations to address these. The Discussion summaries noted in section 7 provide details of the issues raised, and section 9 provides the conclusions, endorsements, and recommendations of the Committee concerning those issues which required formal conclusions, endorsements or recommendations.

9. Conclusions and recommendations of the Committee

The following conclusions, endorsements, and recommendations were made by the Committee.

9.1 General

- (i) *Issue - Proposal by the CLME PCU to change the name of the Committee from 'Steering Committee' to 'Advisory Committee'*

Conclusion:

Acknowledging various concerns expressed by the Committee, concerning the possible disadvantages of apparent decreased responsibility and authority to influence the course of the study, and hence

Noting the importance of retaining a steering function and giving due recognition to this function,

The Committee agreed that the title of the Committee remain unchanged.

- (ii) *Issue - Endorsement of Committee TORs*

Endorsement:

The Committee endorsed the Terms of Reference with the suggested modifications. The Terms of Reference, with agreed modifications are given in *Appendix 4*.

- (iii) *Issue - The background information provided in the case study research proposal is outdated.*

Recommendation:

Recognizing that there have been more recent additional technical work on flyingfish, the Committee

Recommended that the background text of the proposal be updated to reflect the progress achieved at least during the 2008 meeting of the WECAFC ad hoc Working Group.

- (iv) *Issue - Exchange of information and supporting procedures*

Recommendation:

Recognizing that not all the progress concerning inter-sessional work completed at the national level has been made available for use by other stakeholders and scientists, and

Acknowledging the critical importance of establishing effective and routine communication and reporting procedures among all stakeholders at the national and regional levels for such a shared resource the Committee

Recommended that Committee members work to ensure that systems be established at the national and regional levels to ensure broad exchange of information useful for informing development of EAF management for the Eastern Caribbean flyingfish.

(v) *Issue – Endorsement of Case Study workplan and schedule*

Endorsement:

Following review and discussion of the TDA and SAP components, and proposed modifications as noted in the subsequent sections, the Committee endorsed the Case Study workplan and schedule.

9.2 TDA Component

- (vi) *Issue - Instances in which the language of the TDA objectives required further improvements: (a) full meaning of improvement of availability of data and information, i.e. the inclusion of bait fisheries, data from Martinique, and consideration of environmental data, and (b) interpretation and consistency of meaning of objective noted under 5.1.3 & 5.1.4.*

Recommendation:

Acknowledging the status of the document as a formally approved contract, the Committee

Recommended that the clarifications of language be provided in the minutes of the meeting, and that clear reference be made to the specific CLME document (either by inclusion of the slide set and / or CLME document in an appendix that is clearly referenced, or through provision of the full URL address).

Also recommended that a footnote be placed in the research proposal document, explaining the combination of TDA objectives 5.1.3 and 5.1.4, and that numbering of this combined objective be made more logical in the text, i.e. 5.1.3.

9.3 SAP component

Following on the discussions of the activities to be undertaken under SAP Component, the Committee made the recommendations set out below:

In seeking to engage with Martinique, the following options should be explored:

- Approach Martinique directly
- Approach the engagement from the level of the EU and/or France due to jurisdictional arrangements
- Use the FAO / WECAFC Lesser Antilles Committee as a possible avenue.

National meetings with the stakeholders would serve to inform stakeholders about the Case Study and its various activities and obtain feedback.

Consideration would be given to involving the WECAFC Lesser Antilles Committee in the joint meeting of senior fisheries officials of the CRFM Participating States and the WECAFC Ad Hoc Group on Flyingfish in the eastern Caribbean. The Secretariat would review the timeline and making the necessary adjustments.

10. Any other business

Following on a brief discussion on information sharing, it was suggested that the CRFM could put a secure area on its website for the sharing of information with the Steering Committee.

A query was raised concerning the role of the Chairman of the Steering Committee in the CRFM process. It was agreed that Mr. Willoughby would serve as Chairperson until the next meeting, and would therefore monitor and coordinate proposed inter-sessional activities.

11. Adjournment

The Meeting was adjourned at 5:00p.m.

Appendix 1(A): Remarks by CRFM Secretariat's Deputy Executive Director, Mr. Milton Haughton

Mr. Chairman, ladies and gentlemen:

1. I bring greetings and well wishes from the Executive Director and staff of the CRFM Secretariat. I extend a very warm welcome to all of you here today, and especially to our colleagues from the Fisheries Divisions from T&T, SLU, Dominica, Grenada, overseas. I also want to extend special welcome to Ivan Soto from the CLME Project office in Colombia, Mr. Peter Murray from the OECS Secretariat, Dr. Patrick Mc Coney and Dr. David Berry from UWI. We also have with us representatives from the Fisherfolk organizations – I want to give a very special welcome to them. I am very pleased that they were able to join us today.
2. I would also like to use the opportunity to recognize the kind assistance and support of the Government of Barbados, in particular the assistance provided by the Permanent Secretary, Ministry of Agriculture and the Chief Fisheries Officer and his staff.
3. The purpose of our gathering here during the next 2 days is to launch two regional studies that are aimed at providing scientific and policy guidance in order to strengthen governance and management arrangements for the flyingfish and large pelagic fisheries. The two Meetings are being organized by the CRFM Secretariat in collaboration with the GEF Funded Caribbean Large Marine Ecosystem Project, based in Cartagena Colombia. The meetings are being held as a result of two Agreements signed by the Belize based CRFM Secretariat and the United Nations Office for Project Services (UNOPS) based in Copenhagen, Denmark in December 2010, for the execution of two case studies which have a combined budget of US\$508,000 and a duration of just under 2 years.
4. The studies will be implemented in the region by the CRFM Secretariat in collaboration with participating countries and regional partner institutions concerned with fisheries, such as, CERMES / UWI, the Network of Regional Fisherfolk Organisations, and the French Research Institute for Exploration of the Sea (IFREMER).
5. The flyingfish and large pelagic species such as wahoo, blackfin tuna, marlin, and dolphinfish are very important to Caribbean countries because of their contribution to food security and livelihoods. The ultimate goal of these studies is to ensure that the people of the region obtain optimum sustainable social and economic benefits from these fish stocks which are shared by several Caribbean States.
6. The studies will seek to develop the information base for improving understanding of the flyingfish and selected large pelagic fisheries, including information on the importance of recreational fishing activities. The information collected will then be used to prepare Strategic Action Programmes (SAP) for the fisheries. The SAPs will include a shared vision, and the required interventions, such as the governance and management reforms agreed by the countries to achieve long term conservation and sustainable use of the fish stocks while safeguarding the marine ecosystems in which they are found.

7. Mr. Chairman if you permit me I would like to say a few words about the Global instruments that are available to us and can assist in strengthening the Governance framework, and the long-term sustainable use, conservation and management of these pelagic species that are the focus of our deliberations.
8. Current fisheries governance is based mainly on the rights and duties of States and their nationals which are laid down in the 1982 United Nations Convention on the law of the sea. UNCLOS has however been strengthened by a number of binding and non-binding instruments which form an integral part of the global system for ocean governance. The primary non-binding instruments include the 1995 FAO Code of Conduct for Responsible Fisheries and its International Plans of Implementation, Agenda 21 of UNCED, JPOI, the Annual UN General Assembly Resolutions on Sustainable Fisheries (which started in 2003). These international instruments have elaborate upon the relevant provisions of UNCLOS to add content, fill major gaps and address major weaknesses particularly in relation to the Convention's provisions regarding conservation and management of shared stocks on the high seas, but also for stocks under the jurisdiction or sovereignty of coastal states, and the protection of the marine ecosystem and marine biodiversity including non-target marine species.
9. In relation to our work here today, the most significant of these instruments is the 1995 United Nations Fish Stocks Agreement which entered into force 2001. The Fish Stocks Agreement was developed to ensure effective implementation of the provisions of UNCLOS dealing with the conservation and management of straddling fish stocks and highly migratory fish stocks" such as the flying fish and large pelagic species which are the object of our studies.
10. Article 2 of the FSA says that the objective of the Agreement is "to ensure the long term conservation and sustainable use of the straddling fish stocks and highly migratory fish stocks through effective implementation of the relevant provisions of the Convention."
11. Article 5 of the FSA sets out general principles for the conservation and management of such stocks. However, although the Agreement is suppose to implement the relevant provisions of UNCLOS, in effect, it has added considerably to the much weaker conservation objectives set out in article 61 of UNCLOS. In addition to requiring long term sustainability, perhaps more importantly, it has added the precautionary approach, the need to protect biodiversity, and application of the ecosystem approach, among other objectives not explicitly found in UNCLOS. Taken together, the provisions of article 5 represent a significant improvement in the conservation standards found in UNCLOS and provide states with a robust set of principles and standards on which they can rely in managing their fisheries.
12. These are principles and standards which Caribbean States have embraced through the instrument of the CLME project. However, unfortunately not many Caribbean States have ratified or accepted or acceded to the FSA. The trend is, however, more encouraging. Of the 15 CARICOM States 6 are now Parties to this important Agreement, the latest being the St. Vincent and the Grenadines which, on 29 October 2010, joined Belize, Barbados, Bahamas, St. Lucia and Trinidad and Tobago as a Party to the FSA. I want to commend these countries and encourage others that have not yet done so, to give serious consideration to becoming parties to the FSA given the urgent to establish governance systems to ensure optimum long

term sustainable use and conservation of the flyingfish and large pelagic resources that are available to us and that so many of our citizens depend upon for their livelihoods.

Appendix 1(B): Opening Remarks from the Project Coordinator, CLME Project

Dear Friends of the advisory group of case studies on large pelagic and flyingfish.

I very much regret not being able to be with you right now, but I rest assured that with the help of my colleagues and with your experience great results will be achieved. I will be with you in my heart and I will follow up on the deliberations and recommendations that are made.

As you know we share great responsibilities, the CLME and our colleagues from CRFM and other partners in the region share the responsibility of offering and collecting the knowledge, experience and wisdom from many different groups of fishermen, scientists, experts and government officials, in order to identify the most important needs and opportunities for sustainable fisheries and conservation of living resources in marine ecosystems in the Wider Caribbean.

You represent people who fish these species and their experiences in each of your countries; this is why your participation is so important. You will guide us to take into account the realities of the people you represent.

We hope that you can help to gather information, share knowledge and generously carry messages back to your countries, so that we can meet the needs of the people and optimize opportunities within our work, we know that will require effort, and I would like to thank you for your contribution in advance. I assure you that our colleagues from CRFM and ourselves will do our best to incorporate this knowledge into regional processes and take the lessons learnt so that we can share them with the rest of the Caribbean. We will use the results of your collective work in the construction of recommendations to improve the fisheries and development of a Strategic Action Program for the Wider Caribbean.

We know there is hard work ahead but be assured we will do everything in our power to make it worthwhile.

Thanks again and I wish you the very best during you work.

Nestor Windevoxhel
CLME Project Coordinator

Appendix 2: List of Participants (in alphabetical order)

BERRY, David S.
Senior Lecturer
Faculty of Law
University of the West Indies
Cave Hill Campus
Bridgetown
Barbados BB 11000
Tel: 246-417-4243
Fax: 246-424-1788
Email: david.berry@cavehill.uwi.edu

CAESAR, Kenneth
Director, Marine Resources and Fisheries
Specialist
Department of Marine Resources and Fisheries
Tobago House of Assembly
T L H Building
Milford Road
Scarborough
Tobago
Tel: 868-639-4446
Fax: 868-639-4446
Email: kcaesar_2000@yahoo.com

CALLISTE, Francis
Fisheries Officer
Fisheries Division
Ministry of Agriculture, Fisheries and Forestry
Melville Street Fish Complex
St. George's
Grenada
Tel: 473-440-2708
473-440-3814
473-440-3831
Fax: 473-440-6613
Email: tobex00@hotmail.com

COOKE, Alexcia
PhD Candidate
Centre for Resource Management and
Environmental Studies
University of the West Indies
Cave Hill Campus
St. Michael
Barbados
Tel: 246-417-4565
Email: alexcia.cooke@mycavehill.uwi.edu

CORBIN, Felicia
Chairman
Fisheries Advisory Committee
c/o Fisheries Division
Princess Alice Highway
Bridgetown
Barbados
Tel: 246-426-5189
Email: barnufo@sunbeach.net

CUMMINS, Alvin
Microbiologist / Consultant / Treasurer
Barbados National Union of Fisherfolk
Organisations
c/o Fisheries Division
Princess Alice Highway
Bridgetown
Barbados
Tel: 246-426-5189
Email: barnufo@sunbeach.net

HAUGHTON, Milton
Deputy Executive Director
CRFM Secretariat
Princess Margaret Drive
Belize City
Belize
Tel: 501-223-4443
Fax: 501-223-4446
Email: haughton@caricom-fisheries.com

HINDS, Walter Alexander
Barbados National Union of Fisherfolk
Organisations
c/o Fisheries Division
Princess Alice Highway
Bridgetown
Barbados
Tel: 246-426-5189
Email: barnufo@sunbeach.net

ISAACS, Kris
Fisheries Officer
Fisheries Division
Ministry of Agriculture, Rural Transformation,
Forestry and Fisheries
Kingstown
St. Vincent and the Grenadines
Tel: 784-456-2738
Fax: 784-457-1112
Email: fishdiv@vincysurf.com

KELLMAN, Anthony
Monitoring and Programme Officer
Food and Agriculture Organisation
2nd Floor, United Nations House
Hastings
Christ Church
Barbados
Tel: 246-426-7110
Email: anthony.kellman@fao.org

LESLIE, Joyce
Deputy Chief Fisheries Officer
Fisheries Division
Ministry of Agriculture, Food, Fisheries,
Industry and Small Business Development
Princess Alice Highway
Bridgetown
Barbados
Tel: 246-426-3745
Fax: 246-436-9068
Email: fishbarbados.dcof@caribsurf.com

MAGLOIRE, Andrew
Chief Fisheries Officer
Fisheries Division
Ministry of Environment, Natural Resources,
Physical Planning and Fisheries
M. E. Charles Boulevard
Roseau
Dominica
Tel: 767-266-5291
767-266-5292
767-448-0140
Email: fisheriesdivision@dominica.gov.dm

McCONNAY, Patrick
Senior Lecturer
Centre for Resource Management and
Environmental Studies
University of the West Indies
Cave Hill Campus
St. Michael
Barbados
Tel: 246-417-4316
Fax: 246-424-4204
Email: patrick.mcconney@cavehill.uwi.edu

MOHAMMED, Elizabeth
Senior Fisheries Officer (ag)
Fisheries Division
Ministry of Food Production, Land and Marine
Affairs
#35 Cipriani Boulevard, Newtown
Port of Spain
Trinidad
Tel: 868-623-8525
868-623-6028
Fax: 868-623-8542
Email: emohammed@malmr.gov.tt
eliza_moham@yahoo.com

MURRAY, Peter A.
Programme Officer III
Commission of the Organisation of Eastern
Caribbean States
Environment and Sustainable Unit
Morne Fortuné
P. O. Box 1383
Castries
St. Lucia
Tel.: 758-455-6327
Fax: 758-452-2194
Email: pamurray@oecs.org

NICHOLLS, Vernel
President
Barbados National Union of Fisherfolk
Organisations
c/o Fisheries Division
Princess Alice Highway
Bridgetown
Barbados
Tel: 246-426-5189
Email: barnufo@sunbeach.net

OXENFORD, Hazel
Professor of Marine Ecology & Fisheries
Centre for Resource Management and
Environmental Studies
University of the West Indies
Cave Hill Campus
St. Michael
Barbados
Tel: 246-417-4571
Fax: 246-424-4204
Email: hazel.oxenford@cavehill.uwi.edu

PARKER, Christopher
Fisheries Biologist
Fisheries Division
Ministry of Agriculture, Food, Fisheries,
Industry and Small Business Development
Princess Alice Highway
Bridgetown
Barbados
Tel.: 246-426-3745
Fax: 246-436-9068
Email: fishbarbados.fb@caribsurf.com

PHILLIPS, Terrence
Programme Manager, Fisheries Management
and Development
CRFM Secretariat
3rd Floor, Core's Building
Halifax and Hillsboro Streets
Kingstown
St. Vincent and the Grenadines
Tel: 784-457-3474
Fax: 784-457-3475
Email: terrencephillips@vincysurf.com

SINGH-RENTON, Susan
Programme Manager, Research and Resource
Assessment
CRFM Secretariat
3rd Floor, Core's Building
Halifax and Hillsboro Streets
Kingstown
St. Vincent and the Grenadines
Tel: 784-457-3474
Fax: 784-457-3475
Email: ssinghrenton@vincysurf.com

SOTO, German Ivan
Caribbean Large Marine Ecosystem Project
Project Coordinating Unit
Casa Del Marques de Valdehoyos
Centro Historico
Cartagena Bolivar
Colombia
Tel: 575-664-8882
Fax: 575-664-8882/0914
Email: ivans@unops.org

WILLOUGHBY, Stephen
Chief Fisheries Officer
Fisheries Division
Ministry of Agriculture, Food, Fisheries,
Industry and Small Business Development
Princess Alice Highway
Bridgetown
Barbados
Tel: 246-426-3745
Fax: 246-436-9068
Email: fishbarbados.fb@caribsurf.com

WILLIAMS-PETER, Sarita
Fisheries Biologist
Department of Fisheries
Ministry of Agriculture, Lands, Forestry and Fisheries
Sans Souci
Castries
St. Lucia
Tel: 758-468-4139/4183
Fax: 758-452-3853
Email: sarita.peter@maff.egov.lc

Appendix 3: Meeting Agenda, as adopted

1. Opening of the meeting
2. Election of the Chairperson
3. Adoption of meeting agenda and meeting arrangements.
4. Introduction of participants.
5. Review of the CSC Terms of Reference
6. Overview of the CLME project
7. Presentation of case study background, objectives, proposed activities, budget and implementation schedule.
8. Review and discussion of any issues pertaining to the case study objectives, activities, and implementation schedule.
9. Conclusions and recommendations of the Committee.
10. Any other business.
11. Adjournment.

Appendix 4(A): Draft Terms of Reference Flyingfish Case Study Steering Committee of the CLME Project

Background

The CLME Project focuses on assisting Caribbean countries to improve the management of their shared living marine resources most of which are considered to be fully or over exploited, through an ecosystem level approach. A preliminary Transboundary Diagnostic Analysis (TDA) identified three priority transboundary problems that affect the CLME: unsustainable exploitation of fish and other living resources, habitat degradation and community modification, and pollution. It found weak governance to be the major factor responsible for these problems. The final TDA will serve as the scientific basis for development of an agreed program of interventions, that is, a Strategic Action Programme (SAP) for the CLME. The SAP will include a shared vision, and the required priority interventions, investments, and governance and management reforms agreed to. Spiny lobster and reef fish and marine biodiversity pilot projects as well as focused case studies on large pelagics, flyingfish and shrimp and groundfish resources will test governance models at the local, national, sub-regional and regional levels.

Flyingfish Fishery

The four-wing flyingfish (*Hirundichthys affinis*) fishery is the single most important small pelagic fishery in the southern Lesser Antilles. It is a shared resource which is exploited by at least seven countries producing annual landings of about 3000-4000 mt. With expanding fleet capacity and only limited cooperation among the States exploiting the flyingfish there is concern that the resource may become overfished. This Case Study will review and complete the transboundary diagnostic analysis of the fishery and identify and analyse the priority transboundary problems and issues including the underlying and root causes. The Case Study will then prepare a Strategic Action Programme which should identify the policy, legal and institutional reforms and investments needed to address the priority transboundary problems identified.

Composition

The Steering Committee (SC) shall be comprised of one member nominated by each of the participating countries, one representative from the Key Partner Organizations (CERMES, OECS, Regional Fisherfolk Organization, FAO/WECAF), and representatives from the CRFM Secretariat. Persons or organizations with expertise in the areas covered by the Case Study may be invited to participate as observer in the deliberations of the SC. The CRFM Secretariat will act as secretary to the SC. The CRFM Secretariat will prepare draft work plans, scientific, technical and financial reports, and other project management documents, as required.

Functions

The SC shall provide oversight and support to the CRFM Secretariat, Participating States and organizations to achieve the objectives of the Case Study, within the context of the overall CLME Project. In particular the SC shall:

- (i) provide guidance to the CRFM Secretariat and Participating States to facilitate efficient and timely delivery of the approved work plan activities and achievement of the agreed outputs;
- (ii) review and endorse work plans and monitor progress of the Case Study implementation;
- (iii) provide advice and recommendation to the CRFM Secretariat, as executing agency, to strengthen implementation of the Case Study;
- (iv) recommend mechanisms to ensure effective cooperation and coordination among Participating States and entities as may be necessary, and assist with the resolution of conflicts that may arise between parties from time to time;
- (v) promote the objectives and activities of the Case Study and assist with building support at the local, national and regional levels for its implementation;
- (vi) promote the dissemination and sharing of project results, recommendations and experiences among other CLME partners and stakeholders;
- (vii) seek complementary funding to support Case Study activities at the regional, national and local levels, as considered appropriate; and
- (viii) undertake such other functions as from time to time may be deemed necessary to ensure efficient delivery of the Case Study within the framework of the overall CLME Project.

Meetings:

- The SC shall meet at least twice during the 18 months of the Case Study. However, the SC may meet electronically and on an opportunistic basis afforded by the presence of members at other regional workshops or meetings as considered necessary.
- The deliberations and recommendations of the SC shall be in writing.
- The cost of participation in meetings of the SC will normally be met by the CRFM from Project resources in keeping with the Grant Support Agreement between UNOPS and the CRFM Secretariat.

Appendix 4(B): Revised Terms of Reference Flyingfish Case Study Steering Committee of the CLME Project

Background

The CLME Project focuses on assisting Caribbean countries to improve the management of their shared living marine resources most of which are considered to be fully or over exploited, through an ecosystem level approach. A preliminary Transboundary Diagnostic Analysis (TDA) identified three priority transboundary problems that affect the CLME: unsustainable exploitation of fish and other living resources, habitat degradation and community modification, and pollution. It found weak governance to be the major factor responsible for these problems. The final TDA will serve as the scientific basis for development of an agreed program of interventions, that is, a Strategic Action Programme (SAP) for the CLME. The SAP will include a shared vision, and the required priority interventions, investments, and governance and management reforms agreed to. Spiny lobster and reef fish and marine biodiversity pilot projects as well as focused case studies on large pelagics, flyingfish and shrimp and groundfish resources will test governance models at the local, national, sub-regional and regional levels.

Flyingfish Fishery

The fourwing flyingfish (*Hirundichthys affinis*) fishery is the single most important small pelagic fishery in the southern Lesser Antilles. It is a shared resource which is exploited by at least seven countries. With expanding fleet capacity and only limited cooperation among the States exploiting the flyingfish there is concern that the resource may become overfished. This Case Study will review and complete the transboundary diagnostic analysis of the fishery and identify and analyse the priority transboundary problems and issues including the underlying and root causes. The Case Study will then prepare a Strategic Action Programme which should identify the policy, legal and institutional reforms and investments needed to address the priority transboundary problems identified.

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Functions

The SC shall provide oversight and support to the CRFM Secretariat, Participating States and organizations to achieve the objectives of the Case Study, within the context of the overall CLME Project. In particular the SC shall:

- (i) provide guidance to the CRFM Secretariat and Participating States to facilitate efficient and timely delivery of the approved work plan activities and achievement of the agreed outputs;

- (ii) review and endorse work plans and monitor progress of the Case Study implementation;
- (iii) provide advice and recommendation to the CRFM Secretariat, as executing agency, to strengthen implementation of the Case Study;
- (iv) recommend mechanisms to ensure effective cooperation and coordination among Participating States and entities as may be necessary;
- (v) offer assistance with the resolution of conflicts that may arise between parties from time to time;
- (vi) promote the objectives and activities of the Case Study and assist with building support at the local, national and regional levels for its implementation;
- (vii) promote the dissemination and sharing of project results, recommendations and experiences among other CLME partners and stakeholders;
- (viii) seek complementary funding to support Case Study activities at the regional, national and local levels, as considered appropriate; and
- (ix) undertake such other functions as from time to time may be deemed necessary to ensure efficient delivery of the Case Study within the framework of the overall CLME Project.

Meetings

- The SC shall meet at least twice during the 18 months of the Case Study. However, the SC may meet electronically and on an opportunistic basis afforded by the presence of members at other regional workshops or meetings as considered necessary.
- The deliberations and recommendations of the SC shall be in writing.
- The cost of participation in meetings of the SC will normally be met by the CRFM from Project resources in keeping with the Grant Support Agreement between UNOPS and the CRFM Secretariat.

Appendix 5(A): Overview of the CLME Project

Slide 1

 **1st MEETING OF THE CRFM/CLME
LARGE PELAGIC FISHERY CASE
STUDY MEETING**

**THE CARIBBEAN LARGE MARINE
ECOSYSTEM PROJECT**

CLME PROJECT COORDINATING UNIT

10-11 February 2011
Blue Horizon Hotel, Barbados

Slide 2

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1. [Goal and purpose](#)
2. [Major objectives](#)
3. [Members and associated countries](#)
4. [Transboundary problems](#)
5. [Prioritized fisheries](#)
6. [CLME project strategies](#)
7. [CLME project expected outcomes](#)
8. [TDA/SAP process](#)
9. [Key outputs possible to be achieved](#)
10. [TDA activities](#)
11. [SAP and PILOT PROJECTS](#)



1. GOAL AND PURPOSE

GOAL

Sustainable provision of goods and services provided from the shared living marine resources in the Wider Caribbean Region through robust cooperative governance.

PURPOSE

Sustainable management of the shared living marine resources of the Caribbean LME and adjacent areas through the Ecosystem Approach to Fisheries (FAO).

GEF UNDP FAO UNOPS

2. MAJOR OBJECTIVES

1. To identify, analyse, and agree upon major issues, root causes and actions required to achieve sustainable management of the shared living marine resources in the Caribbean LME and its adjacent regions
2. To improve the shared knowledge base for sustainable use and management of transboundary living marine resources.
3. To implement legal, policy and institutional (SAP) reforms to achieve sustainable transboundary living marine resource management.
4. To develop an institutional and procedural approach to LME level monitoring, evaluation and reporting.

GEF UNDP FAO UNOPS

3. MEMBERS AND ASSOCIATED COUNTRIES

23 GEF eligible countries:

1. Antigua and Barbuda	13. Haiti
2. Bahamas	14. Honduras
3. Barbados	15. Jamaica
4. Belize	16. Mexico
5. Brazil	17. Nicaragua
6. Colombia	18. Panama
7. Costa Rica	19. St Kitts and Nevis
8. Dominica	20. St Lucia
9. Dominican Republic	21. St Vincent and the Grenadines
10. Guatemala	22. Suriname
11. Grenada	23. Trinidad and Tobago
12. Guyana	

2 associate countries:


1. Cuba
2. Venezuela




4. TRANSBOUNDARY PROBLEMS

1. Unsustainable exploitation of fish and other living marine resources	2. Habitat degradation and community modification	3. Pollution
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← Climate change as a cross-cutting issue →





5. PRIORITIZED FISHERIES

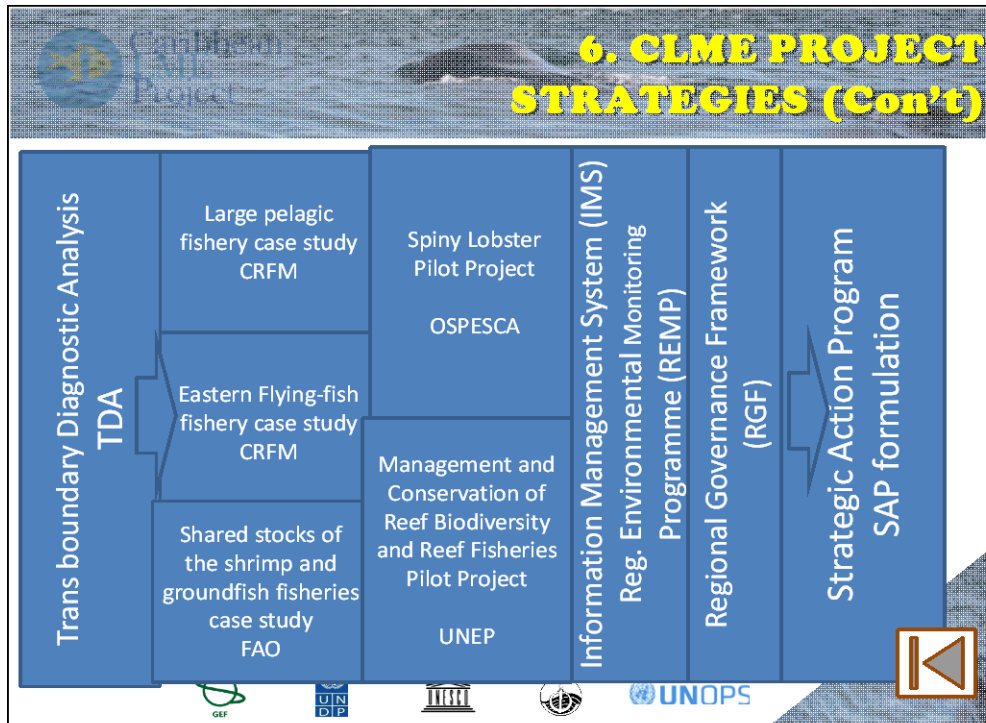
1. Spiny Lobster;
2. Reef Fish;
3. Large Pelagics;
4. Flyingfish; and
5. Shrimp and Groundfish



6. CLME PROJECT STRATEGIES

1. Develop innovative governance and management approaches suited to the Caribbean
2. Enable countries and regional organisations to fully engage in regional processes and frameworks (e.g. TDA, SAP, REMP, IMS, RGF)
3. Help countries to effectively address LME problems through Ecosystem Based Management (EBM) approach
4. Fill critical knowledge gaps
5. Prioritise transboundary problems through LME Modular Approach and GEF Transboundary Diagnostic Analysis (TDA) process
6. Promoting agreement on Regional Management and Governance Framework





7. CLME PROJECT OUTCOMES

**Outcome 1:
TDA Core
Activities**

ITEM	ACTIVITY	DESCRIPTION
1	TDA SAP Training Course	Done in January 2010 by a TDA SAP Expert.
2	Technical Reviews and Project Reports	Inputs from Technical Task Team (TTT) and Stakeholder Advisory Group (STAG).
3	Causal Chain Analysis	These include the development of : a) Reef Ecosystem TDA b) Pelagic Ecosystem TDA c) Continental Shelf Ecosystem TDA.
4	Final Sub-regional TDAs	
5	Final Regional TDA	To be drafted by the TDA SAP Expert. He is already hired and awaiting for the final versions of the (3) fishery ecosystem TDAs to complement his draft.

Logos: GEF, UNDP, UNEP, UNOPS

7. CLME PROJECT OUTCOMES (Con't)

Outcome 2: SAP Core Activities

ITEM	ACTIVITY	DESCRIPTION
1	Vision and Targets	This will get contribution from SAP FT (plus TTTs and STAGs)
2	Financial Analysis and Project Reports	Efforts for "fund raising" to support SAP preparation (e.g. NICs, PP and CC strategies)
3	Strategic Action Programme (SAP)	To be drafted by TDA SAP Expert with inputs from Fishery Ecosystem Experts, National Focal Points and SAP FT.
4	National Action Plans	To implement SAP at country level through active participation of National Intersectoral Committees.

Logos: GEF, UNDP, ITC, FAO, UNOPS

7. CLME PROJECT OUTCOMES (Con't)

Outcome 3: LOBSTER AND REEF FISH PILOT PROJECTS

1. Identify and test sustainable management and governance models based on the Ecosystem Based Management (EBM) approach at community levels that can be replicated and up-scaled to national and regional levels.
2. Promote conservation and strong governance including improved regulations and enforcement
3. Facilitate the transfer of best practices and the dissemination of lessons learnt
4. Agree sub-regional fishery management plans
5. Promote the ratification of international agreements relevant to the sustainable use of coastal and marine resources in the CLME

Logos: GEF, UNDP, ITC, FAO, UNOPS

7. CLME PROJECT OUTCOMES (Con't)

Outcome 4: PROJECT MANAGEMENT ACTIVITIES

- Establish and maintain a Project Coordination Unit (PCU); and
- Recruit local consultants for PCU:
 - ✓ *Stakeholder and Public Participation Expert (SPPE),*
 - ✓ *Office Manager (OM),*
 - ✓ *Administrative Assistant (AA)*

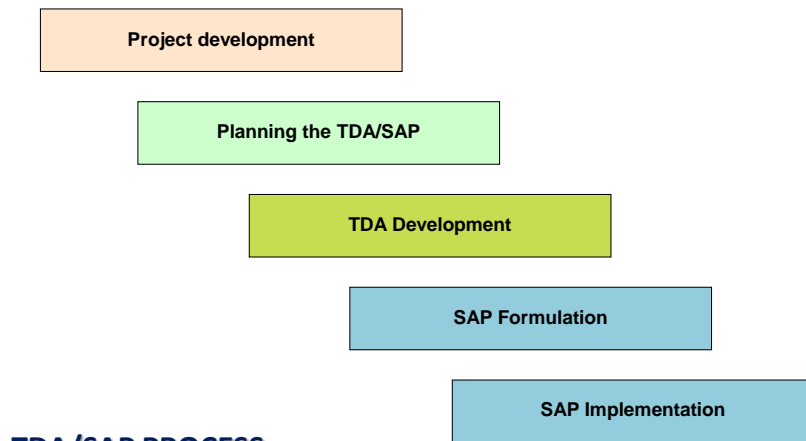
Logos: GEF, UNDP, ITCIT, UNOPS

7. CLME PROJECT OUTCOMES (Con't)

ITEM	POST	DESCRIPTION
1	Stakeholder and Public Participation Expert (SPPE)	<ul style="list-style-type: none"> • The SPPE shall have responsibility for all aspects of public involvement and participation relating to the Project and shall report directly to the Regional Project Coordinator (RPC). • The SPPE shall also work with the CTA to promote the Project regionally and the development of promotional materials and events.
2	Office Manager (OM)	<ul style="list-style-type: none"> • The OM will perform a variety of management, financial and administrative services to ensure the efficient daily running of the PCU and in support of Project activities. • The OM will be responsible for Project finances, procurement, contracts and documentation, as well as personnel matters. • The OM will receive directions from the Regional Project Coordinator (RPC) and the Senior Project Officer (SPO) and have line management responsibility for the IT Specialist (ITS) and the Administrative Assistant (AA).

Logos: GEF, UNDP, ITCIT, UNOPS

ITEM	POST	DESCRIPTION
3	Administrative Assistant (AA)	<ul style="list-style-type: none"> The AA will perform a variety of administrative and financial services in order to ensure the efficient daily running of the PCU and in support of Project activities. The AA will work within the PCU headquarters in Cartagena, Colombia contributing to the smooth functioning and continuity of the Project and will receive directions from the OM.
4	Information Technology Specialist (ITS)	<ul style="list-style-type: none"> The ITS will perform a variety of administrative and information technology (IT) services to ensure the efficient daily running of the PCU and in support of Project activities. The ITS will be responsible for the functioning and maintenance of the PCU's electronic equipment and will assist the (SPO) in managing the Project website and the Project Information Management System (IMS). The ITS will work within the PCU headquarters in Cartagena, Colombia contributing to the smooth functioning and continuity of the Project and will receive directions from the OM.

TDA/SAP PROCESS



8. TDA/SAP PROCESS (Con't)

TDA | Identify and prioritise transboundary problems and root causes

SAP | Agree on actions (reforms and investments) needed to address prioritised transboundary problems

GEF UN/IOE UNOPS

8. TDA/SAP PROCESS (Con't)
COMPLEMENTARY ACTIVITIES

ITEM	ACTIVITY	DESCRIPTION
1	CLME Monitoring and Evaluation and Reporting Framework (REMP)	to monitor CLME status and implementation of SAP; includes Regional Ecosystem Monitoring Programme (REMP) to track long term trends in CLME transboundary issues
2	Information Management System (IMS)	bring together existing fragmented LMR data and information systems into one publicly accessible platform which supports CLME MERF
3	Stakeholder Analysis and Public Participation Strategy	to identify key regional stakeholders, ensure their active participation in the TDA SAP process and include their points of view in the TDA SAP products
4	Communications Strategy	ensure effective information exchange and dissemination of Project messages to key partners and stakeholders
5	CLME Project Web Site	interactive source for CLME Project information and documentation and portal to partners and other per links

GEF DFP

9. KEY OUTPUTS TO BE ACHIEVED GIVEN THE TIME FRAME

- ✓ A Regional Transboundary Diagnostic Analysis (TDA).
- ✓ Lessons learned from pilot projects and case studies (e.g. policy cycles, fisheries management measures).
- ✓ Design of the Strategic Action Program for the CLME region.
- ✓ Provision of an enabling environment for decision making through specific consultancies (e.g. Regional Governance Framework, IMS).
- ✓ Steps towards the achievement of ownership feelings by member countries on project results
- ✓ Efforts to start SAP implementation (e.g. set up of the National Inter Sectoral Committees (NICs).
- ✓ Enhancement of political will from countries for implementing the SAP.


10. TDA ACTIVITIES: PROGRESS REVIEW

FISHERY ECOSYSTEM CONSULTANCIES

- In January 2010 the TTTs decided to focus the TDA within a fishery ecosystem approach;
- Two "**fishery ecosystem consultants**" were hired to update the (3) sub-regionally based TDAs done during the PDF-B phase of the CLME project.
- Mrs. Sherry Heileman and Mr. Terrence Phillips will submit a second draft of these reports. These reports will include feedback from PCU and member countries.

GOVERNANCE ANALYSIS FOR FISHERY ECOSYSTEM CONSULTANCIES






- PCU thought that it could useful if the (3) fishery ecosystem consultancies get benefit from a **governance analysis** conducted by a leading organization in governance issues.
- The PCU approached CERMES and contacted Prof. Mahon who is leading a team for conducting the "Governance Analysis for the CLME region";
- Final draft of this report will be ready during the first quarter of 2011.


 **10. TDA ACTIVITIES: PROGRESS REVIEW**

TDA GAP FILLING ACTIVITIES (Case Studies)

- Regional organizations were approached to conduct consultancies on the major identified fisheries
 - ✓ Flyingfish (CRFM)
 - ✓ Large pelagics (CRFM)
 - ✓ Shrimp and groundfish (FAO)
- This meeting is providing the initial steps for full implementation of the case studies (flyingfish and large pelagics).






- For the following case studies:
 - ✓ CERMES
Regional Governance Framework for the CLME region
 - ✓ FAO
TDA/ gap filling activities for the shared stocks of the shrimp and groundfish fisheries of the Guianas-Brazil Shelf
....contracts are awaiting signature by the parties involved.
- For the case of the “Development of the IMS and REMP for the CLME region” we are still waiting the submission of the proposal by IOC UNESCO.

 **10. TDA ACTIVITIES: PROGRESS REVIEW**

PILOT PROJECTS

- Pilot projects:
 - ✓ Spiny lobster
 - ✓ Reef fisheries
- The aim of these pilot projects is showcasing how the fisheries management policy cycle can be strengthened at the national and local levels and linked vertically (e.g. sub-regional, regional levels)

10. TDA ACTIVITIES: PROGRESS REVIEW

PILOT PROJECTS (Con't)

- The **spiny lobster** pilot project

This will demonstrate best practices & effective management and governance models for the lobster fishery (local and national levels) and to uplink them to a sub-regional management and governance framework.

- The **reef fisheries** pilot project

This will promote the EBM approach for the conservation and effective management of coral reef ecosystems and their associated resources.

This approach seeks to maintain their functional and structural integrity and biodiversity, and ensure economic & social benefits for local communities and the region as a whole.

GEF UNDP UNOPS

10. TDA ACTIVITIES: PROGRESS REVIEW

PILOT PROJECTS HIGHLIGHTS

- UNEP's reef fishery pilot project contract was signed in February/March 2010. Activities are under/will be under implementation by key partner organizations in Jamaica (Pedro Banks), Dominican Republic (Montecristi), San Andres Island and Haiti (Caracol Bay).
- OSPESCA's spiny lobster pilot project contract was signed in December 2010. Kick off activities included the recruitment of a Pilot Project Coordinator who is setting up a coordinating unit as preparatory steps for full implementation.

GEF UNDP UNOPS

11. SAP & PILOT PROJECTS

- The PCU trusts that PILOT PROJECTS will provide concrete results on specific activities that help to motivate the countries in to replicating them.
- The PCU trusts that this is an effective way of transferring the more experimental ideas into the mainstream activities for countries.

GEF UNDP UNOPS

11. SAP & PILOT PROJECTS

In addition to discussing this issue with the advisory groups to gain their expert view of what and where the pilots will contribute to the SAP, the PCU suggests that:

- ✓ Pilots 'inform' the SAP - by providing data to fill any gaps etc
- ✓ Pilots should be seen as 'experiment' testing new approaches etc. Not all of which may work. So the SAP needs to be selective over what it takes and where they are applied.
- ✓ In terms of the SAP itself - the pilot results can be analysed and eventually included in the recommendations.

GEF UNDP UNOPS

11. SAP & PILOT PROJECTS (PCU role)

- Provide an strategic vision of the project
- Provide quality control of end products (e.g. consultancies, case studies, pilot projects, admin and financial issues, etc.)
- Ensure effective coordination between contractors, advisory groups and PCU
- Facilitate communication (e.g. through Communication and Public Participation Strategies).

- Facilitate the exchange of lessons learned to stakeholders
- Provide technical advice according to resources availability
- Ensure the application of UNOPS regulations according to current procedures
- Perform a leading role during TDA finalization and SAP development

11. SAP & PILOT PROJECTS (Interactions case studies/pilots/SAP)

- Organize periodical *telcons* between the representatives from pilot projects, case studies and the PCU for the exchange of lessons learned and progress reports.
- Promote information exchange between pilots and case studies.
- Exchange of progress reports between pilots and case studies.
- Facilitate co-ordinations between advisory groups, PCU and National Focal Points (NICs).
- Co-ordinate technical discussions from pilot projects and case studies results and lesson learnt with the SAP FT.

- To keep advisory groups periodically informed on progress, findings (e.g. lessons learnt).
- Upon funding availability:
 - ✓ Facilitate joint capacity building activities between pilot projects and case studies, if possible.
 - ✓ Facilitate virtual discussion forum on key topics as possible.





 Caribbean
LME
Project

G. Iván SOTO
Senior Project Officer
Caribbean Large Marine Ecosystem
Project
ivans@unops.org

THANK YOU

Casa del Marques de Valdehoyos
Calle de la Factoria. Centro Historico.
Cartagena de Indias, Bolivar.
COLOMBIA.




The Ecosystem Approach to Fisheries


Overview and applicability

FAO, Marine and Inland Fisheries

1

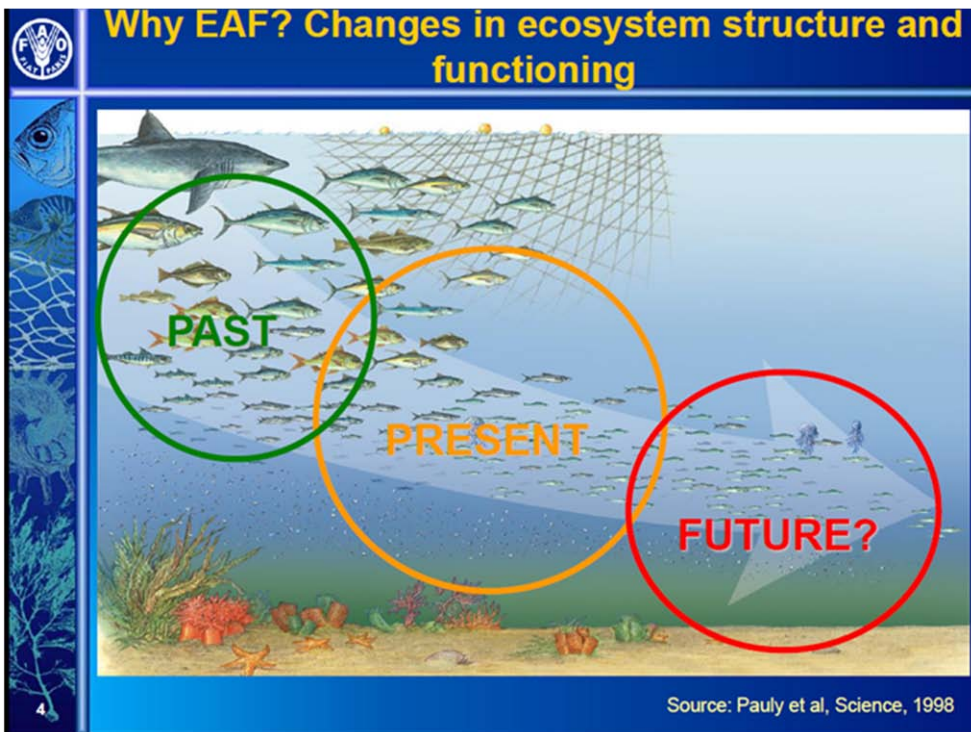
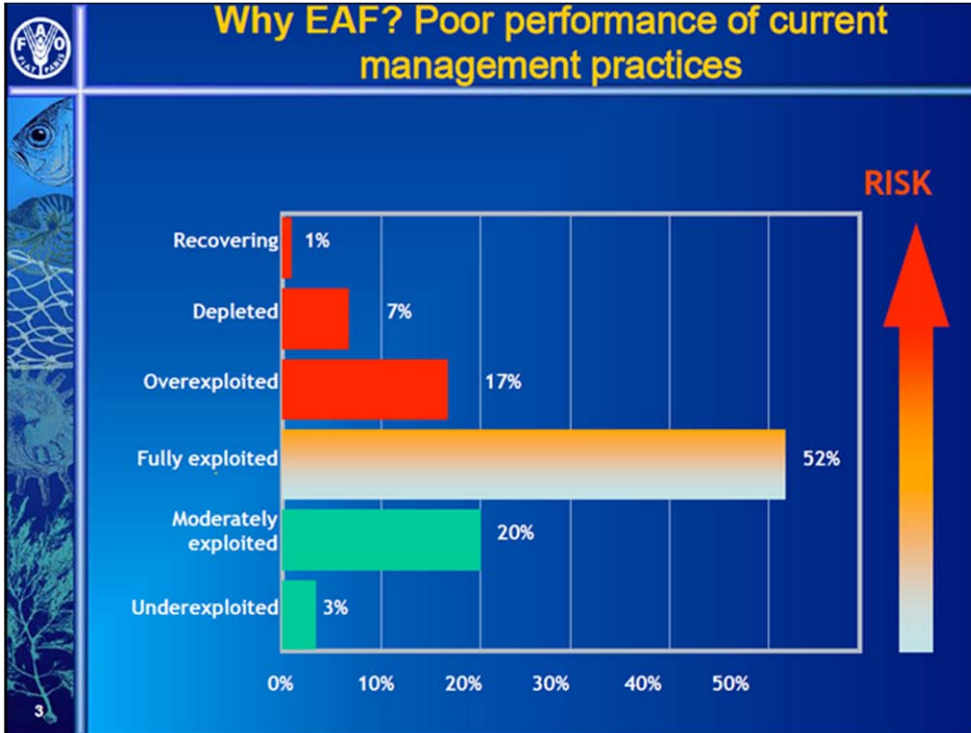


WHY EAF ?



- ☀ Poor performance of current management practices
- ☀ Degradation of fishery resources and the marine environment
- ☀ Recognition of a wide range of societal interests in marine ecosystems and the need to reconcile these

2





Ending with jellyfish fisheries?



5



Many issues

Impacting sectors

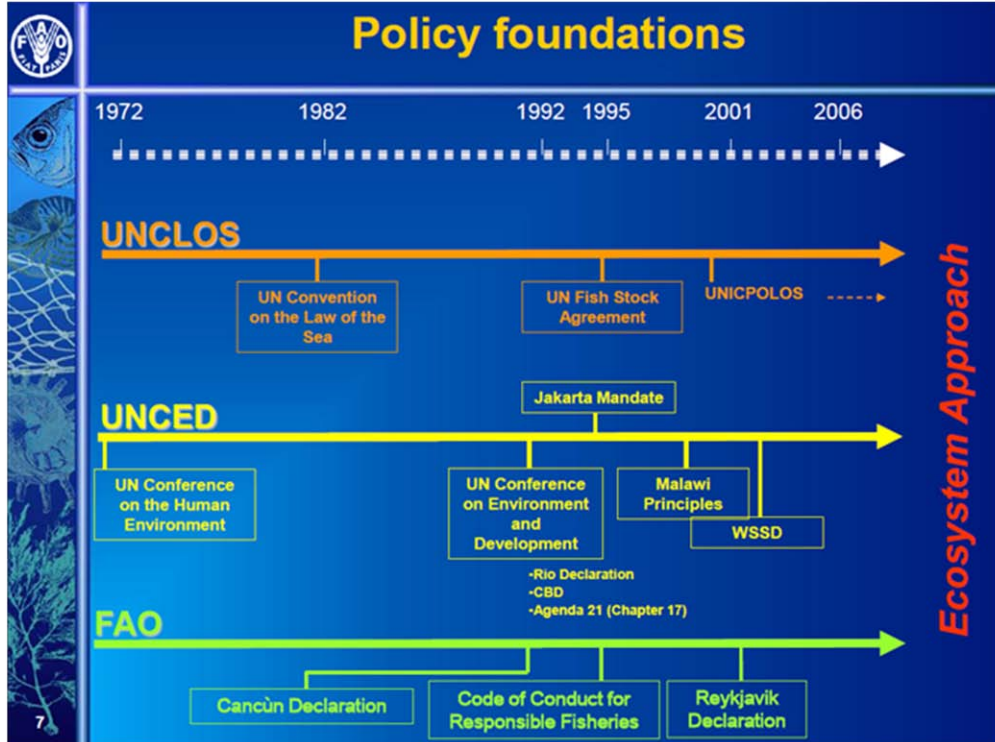
- Fisheries
- Tourism
- Coastal development
- Public works
- Navigation
- Oil and gas
- Dumping
- Agriculture

.....

Types of impact

- Overfishing; depletion
- Contamination
- Diseases
- Alien invasive species
- Habitat destruction
- Human and natural disasters

6



-
- Principles**
1. None of the principles that underlie the EAF are new. They can all be traced in earlier instruments, agreements, declarations.
 2. Implementation of these principles lags behind in relation to their formulation in agreed international instruments
 3. The EAF highlights and reorganizes the principles of sustainable development making their application more imperative
 4. The EAF is the realization of sustainable development in fisheries
- 8



Principles (Normative)



- Maintaining ecosystem integrity



- Improving human well-being and equity

9



Principles (Operational)



- Apply the precautionary approach
- Ensure stakeholder participation
- Use incentives
- Promote sectoral coordination

10



Principles (Cognitive)

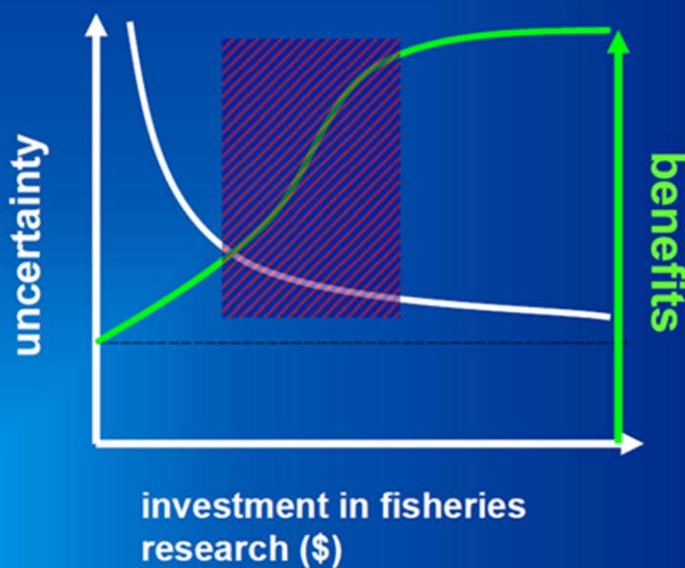


- Increase **research** to better understand ecosystems in all its components
- Conservation and management decisions should be based on the **best available knowledge**

11



Uncertainty, cost of research and potential benefits



12



What is the EAF?

- ✓The EAF is a holistic and integrated approach to fisheries management.
- ✓The EAF is participatory at all phases of the planning and implementation processes.
- ✓The EAF can be applied to all situations, including from small-scale to industrial fisheries, from data poor to data rich situations and from local to global scales.
- ✓The EAF is a comprehensive and all encompassing application of the CCRF



13



The extension concept

Conventional approach

Extension →

Ecosystem approach

Few objectives	Multiple objective
Sectoral	Interaction with other sectors
Target species	Biodiversity & environment
Stock / fishery scale	Multiple (nested) scales
Predictive	Adaptive
Scientific knowledge	Extended knowledge
Prescriptions	Incentives
Top-down	Interactive /Participatory
Corporate	Public / Transparent

14



Comparison of approaches

Many approaches are proposed in the context of sustainable development for aquatic ecosystems, e.g.:

- Ecosystem-based fisheries management (EBFM)
- Ecosystem-based management (EBM)
- Ecosystem approach (EA)
- Ecosystem approach to fisheries (EAF)
- Integrated coastal zone (or area) management (ICZM, ICAM)
- Integrated ocean management (IOM)
- Community-based fisheries management (co-management)
- Large Marine Ecosystems (LME)
- Territorial user rights for fisheries (TURFS)
- Marine protected areas (MPAs)
- Sustainable Livelihood Approach (SLA)

15



CROSS-SECTORAL (integrated) APPROACHES

- ☀ Coordinates and harmonize policies for different sectors operating in a given region (e.g. fisheries, mining, shipping, tourism etc.)
- ☀ Allocate rights to different user groups and reconcile conflicts

Examples: EBM, IOM, LME and ICZM

16



SECTORAL APPROACH

- ☀ Harmonizes the fishery sector policy with national/regional sustainability goals and intentions
- ☀ Implements the above policies in fisheries
- ☀ Makes sure required links are made with other sectors, where relevant

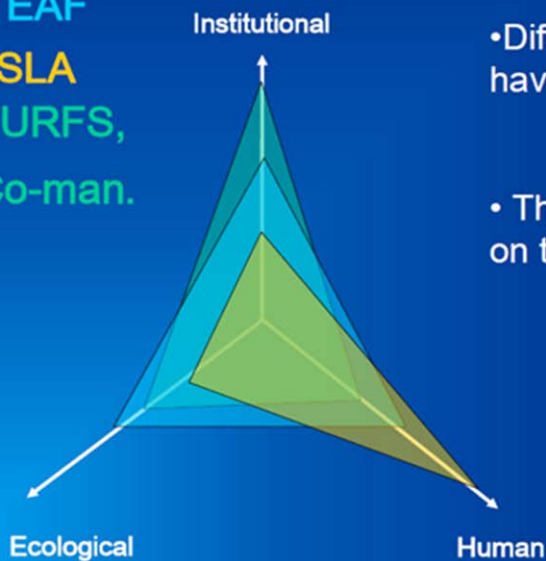
Examples: EAF, EBFM

17



3. Comparison with other approaches

EAF
SLA
TURFS,
Co-man.



• Different approaches have different emphasis

• Their relevance depends on the context

18



Misconceptions

There is insufficient information currently available to answer ecosystem questions necessary for applying an EAF

REALITY: EAF is primarily about decision making for achieving well defined objectives, based on the best available knowledge.

19



Misconceptions

Complex models of species interactions among all components of an ecosystem are necessary to guide EAF

REALITY: Potential effects and consequences at ecosystem level of management decisions must be considered, however even simple models of ecosystem function can establish a plausible subset of potential outcomes

20



Misconceptions



The EA requires a paradigm shift in management institutions and science support

REALITY: The Ecosystem approach is a management framework that can be best achieved through an evolution, not a revolution.

There is broad agreement, however, that what is needed is mainly a change in people's mindset, particularly as regards long-term sustainability as compared to short-term gains.

21



Misconceptions



Fisheries management has so far largely failed and this is why we need an EAF

REALITY: EAF is an improved way of managing natural resources and builds on experiences made over the last 50 years.

-It cannot resolve basic governance problems, including lack of transparency and accountability, poor political will, illegal fishing, overcapacity and perverse incentives

- Through stakeholder participation and ownership, governance issues can be improved

22



Misconceptions



Marine Protected Areas (MPAs) are essential components of EAF

REALITY: MPAs ≠ EAF

- MPAs are just one of several possible fisheries management tools
- Other valid tools, under an EAF, include harvesting restrictions, extraction quotas, activity prohibition areas, gear prohibitions etc.

23



Misconceptions



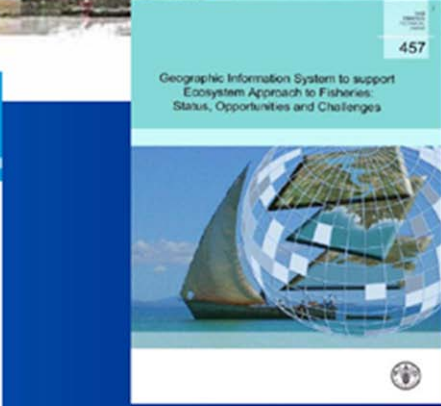
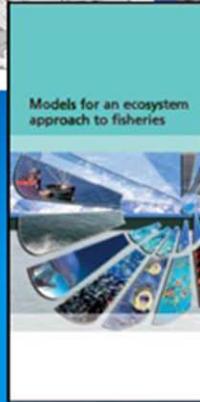
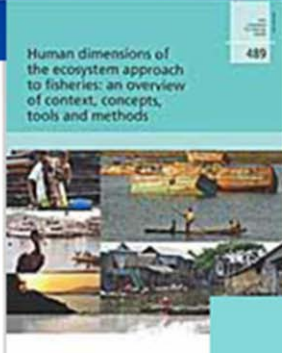
The EAF is not well defined

REALITY: EAF has been extensively defined both in terms of its purpose and characteristics. There are now several examples of actual application in individual countries.

24



Guidance for implementation



A toolbox for EAF



- ✓FAO is developing an integrated toolbox for the application of EAF
- ✓Following the key steps of the planning and implementation processes, the toolbox will provide the suite of tools and methods intended to facilitate the EAF application
- ✓The toolbox will be available on line and in paper format





Support to member countries

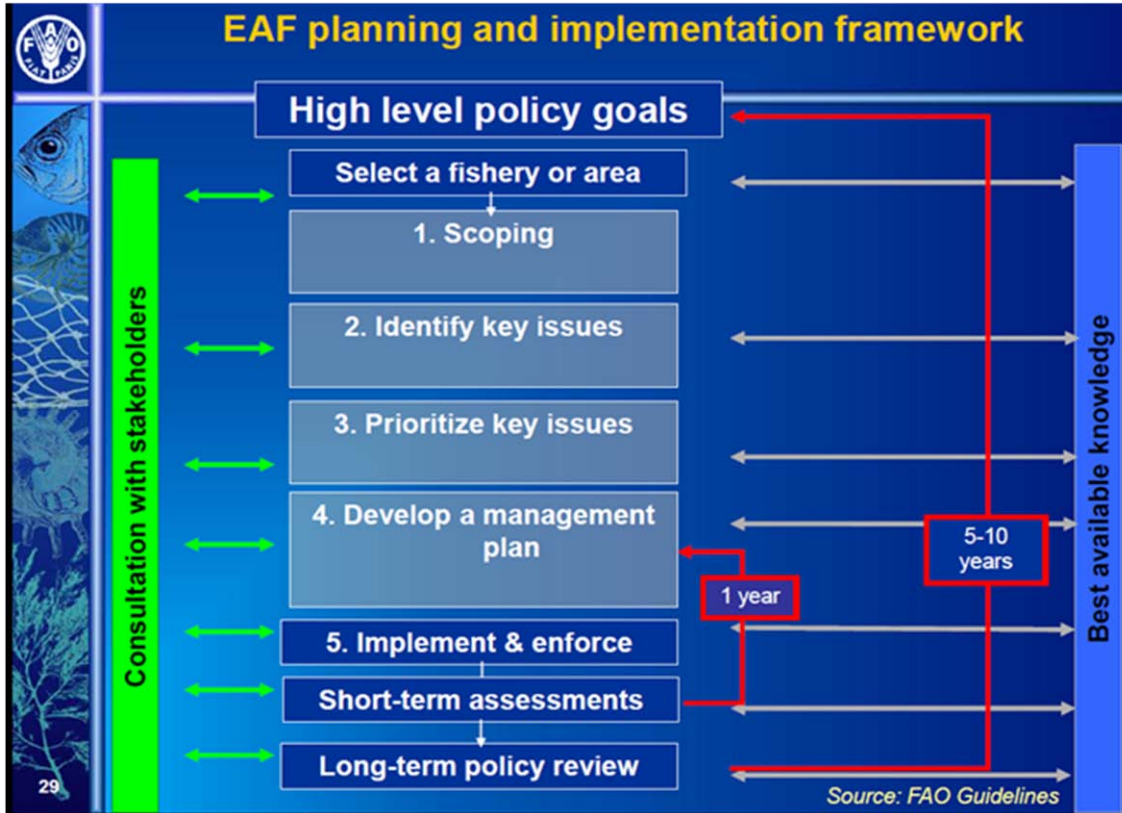
- Global projects
- EAF Nansen (mainly Africa, cooperation with Africa's LMEs)
- CCLME-West Africa
- BOBLME
- Various EAF projects coming up, with stronger multidisciplinary approach
- Interactions with aquaculture EAF/EAA

27

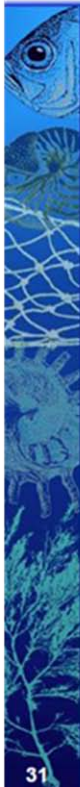


PRACTICAL APPLICATION OF EAF

28



-
- EAF: Challenges**
- Existing governance systems (transparency and a vision of fairness, equity and sustainability objectives shared among the various stakeholders and within society)
 - Lack of coherence between economic, social and environmental policies
 - Lack of coherence between various conservation/resource management agencies at various scales
 - Globalization and international trade
 - Developing appropriate institutional frameworks across sectors and stakeholders
 - Climate change!



31

THANK
YOU

Appendix 6(A): Overview of the Case Studies

Slide 1



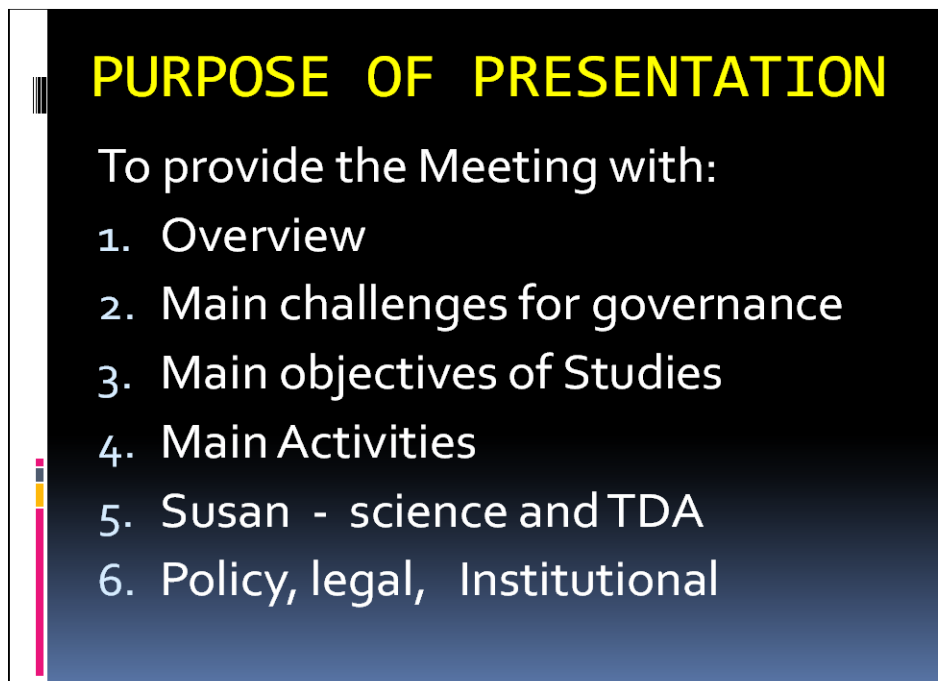
CASE STUDIES
Flyingfish Fisheries
&
Large Pelagic Fisheries

Milton Haughton

*The Caribbean Regional Fisheries
Mechanism (CRFM) Secretariat*




Slide 2



PURPOSE OF PRESENTATION

To provide the Meeting with:

1. Overview
2. Main challenges for governance
3. Main objectives of Studies
4. Main Activities
5. Susan - science and TDA
6. Policy, legal, Institutional



Overall Objectives

- Effective sub-regional governance and management framework
- Policy cycles based on EBM principles that:
 - Involve all key stakeholders
 - Utilize the best available information
 - Sub-regional Agreement for management and conservation
 - Sub-regional management plan
 - Sub-regional deliberative and decision-making body



International Principles and Best Practices for Governance

- UNCLOS
- Fish Stocks Agreement
- Compliance Agreement
- Biodiversity Convention
- Agreement on Port State measures
- Code of Conduct & IPOAs
- Agenda 21
- JPOI
- UN Resolutions on Sustainable Fisheries

Fisheries Governance

- 1995 Fish Stocks Agreement
 - “ensure the long-term conservation and sustainable use of straddling fish stocks and highly migratory fish stocks” (Art. 2)
 - Conservation and utilization measures to be based on best scientific evidence available and design to maintain or restore stocks at levels capable of producing MSY
 - Application of the precautionary approach
 - Application of ecosystem approach
 - Collection, compilation and sharing of statistics

Global treaties: Fisheries governance

COUNTRY	UNCLOS 1982	Straddling Stocks	Compliance Agreement	1992 CBD
Antigua & B	2/02/1989			9/3/1993 r
Bahamas	29/07/1983	16/01/1997		2/9/1993 r
Barbados	12/10/1993	22/09/2000	26/10/2000	10/12/'93 r
Belize	13/08/1983	14/07/2005	19/7/2005	30/12/'93 r
Dominica	24/10/1991			6/4/1994 r
Grenada	25/04/1991			11/8/1994 r
Guyana	16/11/1993			29/8/1994 r
Jamaica	21/03/1983			6/1/1995 r
St Kitts & N	7/01/1993		24 /6/ 1994	7/1/1993 r
St Lucia	27/03/1985	9/08/1996	23/10/2003	28/7/1993 a
SVG	1/10/1993	29/10/2010 a		3/6/1996 a
Trinidad & T	25/4/1986	13/09/2006		1/8/1996 r

Governance

A number of principles have emerged to guide countries toward “good ocean governance”:

- avoidance of depleted or degraded resources & ecosystems
- achieve sustainable & profitable fisheries:
 - + Sustainable use
 - + Precaution approach
 - + Pollution Prevention
 - + Polluter Pays
 - + Ecosystem Approach
 - + Public Participation
 - + Intra and Inter-generational Equity
 - + Cooperation among states
 - + Integration

Challenges for governance

- Political will – state sovereignty
- Scientific Info. - catch & effort + others
- Social and economic conditions
- Capacity - Local, national, regional
- Policy & Legal frameworks
- Institutional frameworks
 - decision making
 - Transparent
 - Accountable
 - Participation
 - Compliance

FLYINGFISH FISHERY

1. Fourwing flyingfish (*Hirundichthys affinis*)
2. 7 States:
Barbados, Dominica, Grenada,
Martinique, Trinidad & Tobago, St. Lucia,
St. Vincent & Grenadines
3. Most important small pelagic fishery
4. Landings : 3000 - 4000 MT
5. Boats: 1700 (mainly small to medium size)
6. Socio-economically important
7. US\$15 million in Barbados
8. Cultural icon

CHALLENGES & PRIORITIES - FLYINGFISH

- Continuing unavailability of key data & information ,
and need for expanded statistical systems (refine
assessments, economic aspects, EBM, environmental
aspects incl. climate change)
- Need for active and effective regional management
arrangement involving all fishing and range states,
that would guide policy & management
- Holistic and responsible manag. (EBM, science-based)
- Active cooperation among states (coastal & others)
- Monitoring, control & surveillance



Stakeholders & Beneficiaries

Key Stakeholders:

- National governmental (multiple departments)
- regional IGOs and NGOs
- Industry (Fishers, boat owners, processors, retailers, exporters etc)


Key Beneficiaries:

- People who earn a living from the resource
- Consumers
- Tourism - popular Caribbean seafood dish
- Countries - reduction in cost of importing seafood/ stable employment

Management structure and accountability - Flyingfish

1. The project will be **- led by the CRFM**
1. There will be a **Steering Committee** comprising representatives from these key partners


Key Partners	
BARBADOS	CRFM
DOMINICA	OECS
GRENADA	WECAFC
MARTINIQUE	CERMES
ST. LUCIA	IFREMER
ST. VINCENT & GRENADINES	FISHER'S REPS
TRINIDAD AND TOBAGO	



Immediate Objective

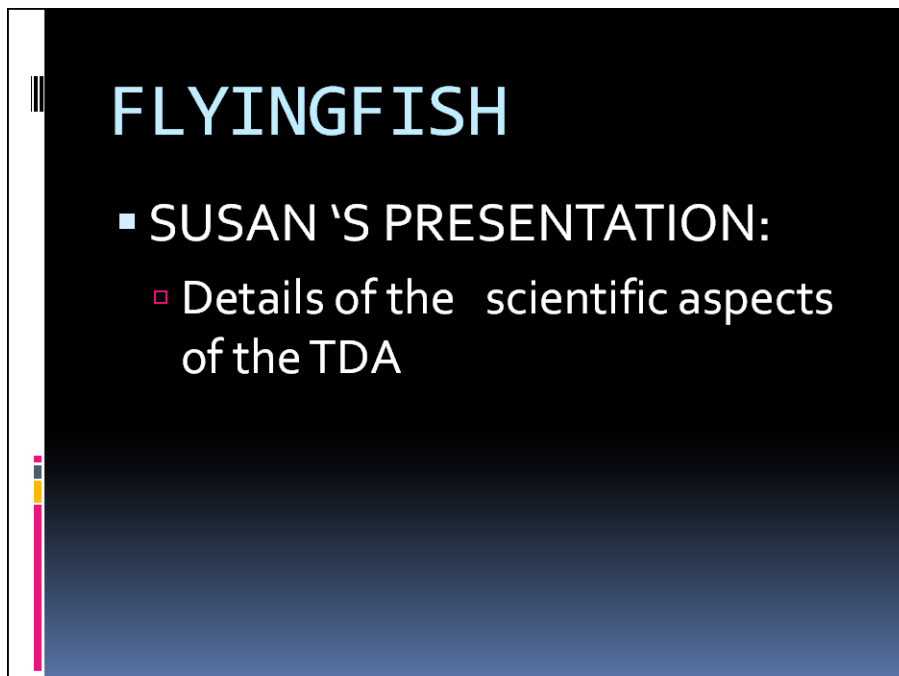
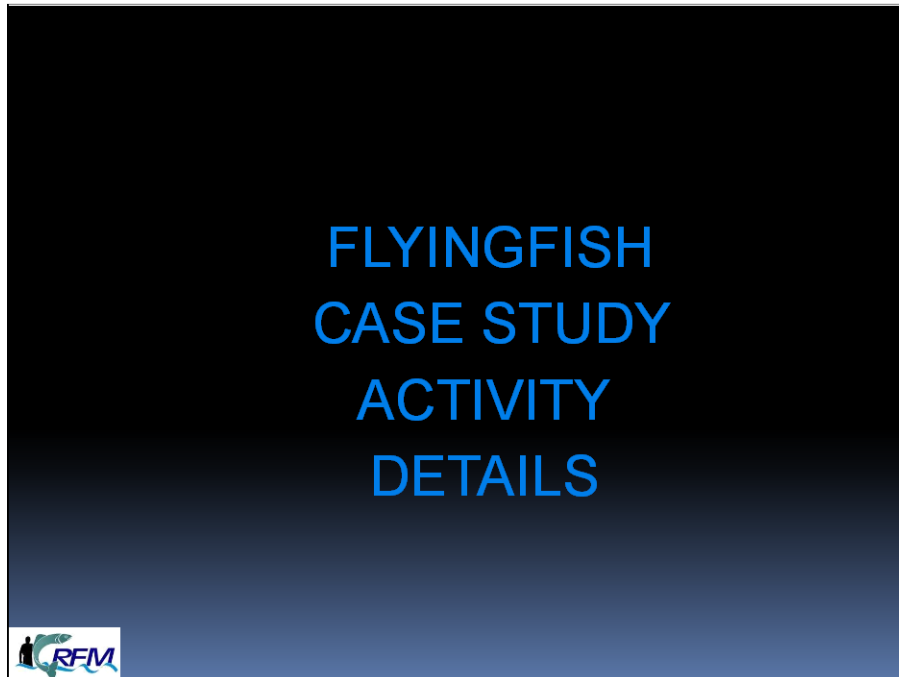
1. Fill knowledge gaps that will contribute to the final Transboundary Diagnostic Analysis
2. Development of Strategic Action Programme:

including governance and management reforms and recommendations which will include priority actions for the long term sustainability and optimum utilization of the flyingfish fishery.



Activity & Budget Summary

- [FLYINGFISH CASE STUDY SUMMARY BUDGET.doc](#)



FLYINGFISH
POLICY, LEGAL, INSTITUTIONAL
ISSUES
&
STRATEGIC ACTION PROGRAMME

PROPOSED WORK PLANS
 Prepare MOU between CRFM and Martinique

1. ACTIVITIES	PERFORMANCE INDICATORS	ASSUMPTIONS
1) Prepare MOU to facilitate cooperation between CRFM States & Martinique regarding marine resource governance & management	MOU prepared and executed	Political will exists to execute MOU
Input	Output	
<ul style="list-style-type: none"> •CRFM staff •External Consultant • \$5000 	MOU on cooperation between the CRFM and France (Martinique) prepared and executed	

PROPOSED WORK PLANS		
Stakeholder Analysis		
ACTIVITIES	PERFORMANCE INDICATORS	ASSUMPTIONS
Identify and assess stakeholders	Report on primary & secondary stakeholders; and assessment of their importance & influence regarding governance of the flyingfish	National coordinators will assist consultant in identifying & meeting stakeholders in all participating countries in a timely manner
INPUT	OUTPUT	
<ul style="list-style-type: none"> •CRFM Secretariat •External Consultant •\$15,000 	Report of stakeholder analysis: <ul style="list-style-type: none"> • info primary & secondary stakeholders; •assessment of capacity, importance and influence, willingness to participate in governance & management of the fisheries 	

PROPOSED PLANS		
<i>Convene national meetings with stakeholders</i>		
1. ACTIVITIES	PERFORMANCE INDICATORS	ASSUMPTIONS
Meetings with national stakeholders to present and discuss reviews and recommendations	Meetings held in countries	
Input	Output	
<ul style="list-style-type: none"> •CRFM Secretariat •External Consultant •National Fisheries •NIC •\$17,000 	Reports of meetings with primary stakeholders to review the recommendations from the evaluation exercise, including the proposal for a sub-regional decision-making mechanism/forum, with their input and recommendations	

PROPOSED PLANS


Convene expanded joint CRFM States involved, WECAFC Ad Hoc Working Group on Flyingfish France (Martinique)

1. ACTIVITIES	PERFORMANCE INDICATORS	ASSUMPTIONS
Mtg of officials to review reports of stakeholder , policy, legal & institutional review ; Declaration /Plan of Action on governance and management of flyingfish	Meeting Report, endorsement of stakeholder analysis, policy /legal institutional review	FAO willing to convene joint Meeting; countries willing to compromise
Input	Output	
<ul style="list-style-type: none"> •CRFM Secretariat •Ext Consultant •Forum & WECAFC • \$20,000 	Report and recommendations of the joint meeting of the CRFM and FAO/WECAFC Working Groups completed and documents endorsed unified recommendations made to the Ministers	

PROPOSED PLANS

Prepare SAP report with the findings and recommendations

1. ACTIVITIES	PERFORMANCE INDICATORS	ASSUMPTIONS
Prepare SAP Report	Report prepared	
Input	Output	
<ul style="list-style-type: none"> •CRFM Secretariat •External Consultant • States input • \$19,000 	Report prepared - incorporate stakeholders' views ; Focused - transboundary issues ; identify policy, legal and institutional deficiencies and restrictions that may hinder effective transboundary governance of the flyingfish fishery; & recommended policy, legal and institutional reforms & investments required	



PROPOSED PLANS		
<i>Convene 2 meetings CRFM Ministerial Council (States with significant involvement in the flyingfish) & Martinique</i>		
1. ACTIVITIES	PERFORMANCE INDICATORS	ASSUMPTIONS
Ministerial mtg to endorse reports of stakeholder , policy, legal & institutional review ; Declaration /Plan of Action on governance and management of flyingfish	Meeting Report, approval of stakeholder analysis, policy /legal institutional review	Political will exist
Input	Output	
<ul style="list-style-type: none"> •CRFM Secretariat •Ext Consultant •Ministerial Input • \$36,000 	Report -Decisions of Ministerial Meetings Sub-regional Declaration /plan of action endorsed by policy makers from the participating State SAP Report and recommendations endorsed	

ACTIVITY SCHEDULE


- [ACTIVITY schedule flyingfish Case study.doc](#)



-
- A presentation slide with a black background and a blue gradient at the bottom. On the left side, there is a vertical bar with a color gradient from purple to yellow. The title "LARGE PELAGIC FISHERIES" is centered at the top in white, bold, sans-serif capital letters. Below the title is a numbered list of nine points in white text.
1. Tunas, billfishes, sharks, tuna-like species, dolphinfish
 2. Some spp. - highly migratory (yellowfin), others regional distribution (e.g. Spanish mackerel)
 3. Top predators in the CLME
 4. All species except dolphinfish included in ICCAT's mandate, but regional species - our responsibility
 5. Some CLME States have developed fleets , including High Seas fleets. Distant water fleets also operate within the region.
 6. Some fisheries are still developing, with FAD fisheries expanding across region
 7. These species support artisanal, industrial and recreational fisheries throughout the CLME
 8. Importance of a species varies with country and accessible markets
 9. Several CLME countries are members of ICCAT, and obtain catch quotas for regulated species e.g. bigeye tuna, swordfish, marlins

LARGE PELAGICS

CASE STUDY ACTIVITY DETAILS



CHALLENGES & PRIORITIES – LARGE PELAGICS

- ❑ Improved contributions to ICCAT for management of large tunas and billfishes
- ❑ Evaluate & manage *regional* species
- ❑ Strengthen statistical programs –
 - ❑ *not keeping pace with assessment & management needs,*
 - ❑ *no monitoring of recreational fisheries*
- ❑ Need for active and effective regional management arrangement involving all fishing and range states,
 - ❑ *Holistic and responsible management (EBM, precautionary, science-based)*
 - ❑ *Active cooperation by range states and fishing states*



Stakeholders & Beneficiaries

Key Stakeholders:

- National governmental (multiple departments)
- regional inter-governmental organisations
- Industry (Fishers, boat owners, processors, retailers, exporters etc)


Key Beneficiaries:

- People who earn a living from the resource
- Consumers
- Tourism - popular Caribbean seafood dish
- Countries - reduction in cost of importing seafood/ stable employment

OBJECTIVES LARGE PELAGIC FISH RESOURCES

IMMEDIATE OBJECTIVE

- The purpose - to fill knowledge gaps that will contribute to the final TDA.
- The TDA will inform the development of the SAP and management and governance framework.
 - include priority actions for sustainability of pelagic
 - cooperative mechanism for involvement of countries in activities of ICCAT (for some species).
 - regional mechanism for the management of other large pelagic species not addressed by ICCAT.



Management structure & accountability - large Pelagic

1. The project will be - led by the CRFM
2. There will be a Case Study Steering Committee comprising representatives from these key partners

Key Partners	
BARBADOS	OECS
DOMINICA	WECAFC
GRENADA	CERMES
MARTINIQUE	IFREMER
ST. LUCIA	FISHER'S REP.
ST. VINCENT	
TRINIDAD	ICCAT
VENEZUELA	
USA, Mex, Bra, Cuba	

LARGE PELAGIC FISHERIES

POLICY, LEGAL, INSTITUTIONAL ISSUES

&

STRATEGIC ACTION PROGRAMME

Large Pelagics

- Countries involved in the Fishery
 - Wider Caribbean Region and beyond
 - Several countries involved in fisheries
 - Several intend to expand into fisheries

PROPOSED WORK PLANS

7.2.1 Stakeholder Analysis

ACTIVITIES	PERFORMANCE INDICATORS	ASSUMPTIONS
Identify and assess stakeholders	Report on primary & secondary stakeholders; and assessment of their importance & influence regarding governance of the large pelagic species	National coordinators will assist consultant in identifying & meeting stakeholders in all participating countries in a timely manner
INPUT	OUTPUT	
<ul style="list-style-type: none"> •CRFM Secretariat •External Consultant • \$25,127 	Report of stakeholder analysis: <ul style="list-style-type: none"> • info. on primary & secondary stakeholders •assessment of capacity, importance, influence, and willingness to participate in governance & management of the fisheries 	

PROPOSED WORK PLANS
7.2.2. Policy, legal and institutional analysis

1. ACTIVITIES	PERFORMANCE INDICATORS	ASSUMPTIONS
Review /analysis of existing policies, legal & institutional arrangements re governance & management of LP	Policy, legal and institutional analysis completed and reports prepared	Countries willing to share relevant data & information on their policies, laws, regulations
Input	Output	
<ul style="list-style-type: none"> •CRFM Secretariat •External Consultant •Country visits •Expanded CRFM Scientific meeting & Forum to discuss and refine recommendations • \$24,555 	Report on the policy, legal & institutional analysis completed, weaknesses, root causes, gaps and reforms needed for sustainable governance identified, including application of EBM & precautionary approach	

PROPOSED PLANS
7.2.3 Convene Joint Meeting with stakeholders & technical officials to agree initial regional management plan for selected species

1. ACTIVITIES	PERFORMANCE INDICATORS	ASSUMPTIONS
<ol style="list-style-type: none"> 1) Review recommend. from evaluations (7.1, 7.2.1 & 7.2.2) 2) Prepare regional management plan for key regional species assesses 	<ul style="list-style-type: none"> • Report of meeting with recommendations • Initial Management plan prepared for species assessed 	Countries are willing to cooperate re management of shared large pelagic resources
Input	Output	
<ul style="list-style-type: none"> • CRFM Secretariat • External consultant • States input • \$34,410 	<ol style="list-style-type: none"> 1) Report of Joint stakeholder-technical officials 2) Regional management plan prepared for key selected species 	

PROPOSED PLANS		
<i>7.2.4 Prepare SAP report with the findings and recommendations</i>		
1. ACTIVITIES	PERFORMANCE INDICATORS	ASSUMPTIONS
Prepare SAP Report	Report prepared	
Input	Output	
<ul style="list-style-type: none"> • CRFM Secretariat • External Consultant • States input • \$12,050 	Report prepared - incorporate stakeholders' views ; Focused - transboundary issues ; identify policy, legal and institutional deficiencies and restrictions that may hinder effective transboundary governance of the large pelagic resources; & recommended policy, legal and institutional reforms & investments required	

ACTIVITY SCHEDULE

- [ACTIVITY schedule large Pelagic Case study.doc](#)

Appendix 6(B): Proposal for TDA GAP Filling Activities

Slide 1

CLME Project - Research Proposal:

**Case Study on
Large Pelagic Fishery**

Proposal for TDA GAP Filling Activities

By
Susan Singh-Renton
The Caribbean Regional Fisheries Mechanism

Slide 2

PRESENTATION LAYOUT

- Objectives of TDA Gap filling activities**
- Activities/ progress to date**
- Expected Outputs**
- Schedule**

OBJECTIVES – LARGE PELAGIC RESOURCES

1. Enhancement of fisheries data collection for large pelagic fish species, with emphasis on the small tuna and tuna-like species and those not under the jurisdiction of the ICCAT (i.e. dolphinfish, blackfin tuna, cero and king mackerels, wahoo and bullet tunas)
2. Region-wide assessment of the status of key regionally-distributed large pelagic species using available data and information
3. Assessment of the nature and importance of recreational fisheries in the region .
4. Develop specific recommendations for informing the Strategic Action Plan (SAP)

ACTIVITIES (& PROGRESS)

1. Enhancement of fisheries data collection, with emphasis on regional species and dolphinfish

ACTIVITIES	PERFORMANCE INDICATORS	ASSUMPTIONS
<ol style="list-style-type: none"> 1. Review of data collection issues in States with such fisheries - Commenced 2. Options for broadening the information base to facilitate EAF approaches - Commenced 1. Develop recommendations for improved and expanded monitoring, taking into account the need to cooperate and share data at the CLME and ICCAT levels for many species (<i>linkages to CRFM Scientific meeting work, JICA project and Canadian internship</i>). 	<ol style="list-style-type: none"> 1) Report of review that includes recommendations for improved monitoring of large pelagic fisheries at the national and regional levels, and for broadening the information base required to apply EAF approaches. 	<ol style="list-style-type: none"> 1) Selected countries <ul style="list-style-type: none"> - are committed to share sample data, - are committed to share information about their statistical systems, - are committed to establishing improved and expanded data collection systems, - have sufficient staff in place to achieve this, and - are willing to work with the CRFM.

ACTIVITIES (& PROGRESS)

2. Region-wide assessment of the status of key regionally-distributed large pelagic species using available data and information

ACTIVITIES	PERFORMANCE INDICATORS	ASSUMPTIONS
1) Using available fishery and biological data, establish group of scientists from selected participating states to coordinate and complete a region-wide assessment of 1-2 commercially important species - Commenced 2) Develop management advice - Commenced	1) Reports of completed region-wide stock assessments, with regional-level management advice.	1) Availability of good time series of fishery and biological data from the range states 2) Cooperation of stock assessment scientists in range states.

ACTIVITIES (& PROGRESS)

3. Assessment of the nature and importance of recreational fisheries in the region

ACTIVITIES	PERFORMANCE INDICATORS	ASSUMPTIONS
1) Update recreational fisheries sector statistics and characteristics to the extent possible. 2) Develop case studies book to document, study, and analyse experience in the region involving research efforts to assess recreational fisheries	1) Report on the nature and importance of recreational fisheries in the region	1) There are reasonable statistics to facilitate update. 2) There is a reasonable level of experience in research and evaluation of recreational fisheries.

EXPECTED OUTPUTS

1. Report of review that includes recommendations for improving / expanding data collection systems so as to facilitate regional-scale assessments
2. Reports of 1-2 large pelagic stock assessments (likely dolphinfish, blackfin tuna),
3. Report/Book of case studies describing nature and importance of recreational fisheries in the region.

SCHEDULE

1. Review of data collection systems – *proposed completion date is June 2011, report by July 2011*
2. Assessment of 1-2 key commercial species of regional importance – *proposed completion date is June 2011, report by July 2011*
3. Nature and importance of recreational fisheries – *proposed completion date is October-Dec 2011*

...THANK YOU FOR YOUR ATTENTION..

REVISED ACTIVITY SCHEDULE	
ACTIVITY (Original date)	Revised Date
1 st Progress Report (by December 2010)	January 2011
Formulation of Case Study Steering Committee (CSC) and initial report with work plan (by 30 September 2010)	10 February 2011
Agreement between France (Martinique) and CRFM to facilitate cooperation on management and governance of the flyingfish (15 October 2010)	April / 15 May 2011
Commission flyingfish assessments (15 November 2010)	Started June 2010
Commission stakeholder analysis by (30 November 2010)	June / July 2011
Commission policy, legal and institutional analysis (by 15 November 2010)	July / August 2011
National meetings with stakeholders	September / October 2011
Complete draft report of stakeholder analysis	November 2011
Complete draft policy legal and institutional analysis	November 2011
Flyingfish assessments drafted (by August 2011)	August 2011
Initiate preparation of regional declaration	30 September 2011
Submission of final version of flyingfish assessments (by 30 October 2011)	October 2011
Complete Draft final Declaration / Action Plan prepared	December 2011
Joint Meeting of CRFM / WECAFC	January 2012
Initial SAP activities report drafted (by 31 January 2011)	28 February 2012
Completion of Annual Report	15 December 2011
1 st Meeting of Ministerial Council	30 January 2012
Draft Final SAP Report	31 March 2012
2 nd Case Study Steering Committee Meeting	30 March 2012
2nd Meeting of Ministerial Council	30 April 2012
Finalize SAP Report and recommendations	31 May 2012
Final report including progress on policy cycle implementation (by 30 October 2012)	30 June 2012

Appendix 6(C): Approved Consultancy Document



UNOPS 



**Sustainable Management of the Shared Marine Resources
of the Caribbean Large Marine Ecosystem (CLME) and Adjacent Regions**

**Research Proposal
Case Study on Eastern Caribbean Flyingfish Fishery**

**TDA Gap Filling and SAP Activities
for the Shared Stocks of the Eastern Caribbean
Flyingfish Fishery**

31 August 2010
Belize City, Belize

CASE STUDY SUMMARY		
A.	Title:	Case Study on Eastern Caribbean Flyingfish (<i>Hirundichthys affinis</i>) Fishery
B.	Participating Countries:	Barbados, Dominica, France (Martinique), Grenada, St. Vincent and the Grenadines, St. Lucia, and Trinidad and Tobago
C.	Implementing Agency:	Caribbean Regional Fisheries Mechanism (CRFM) Secretariat, Princess Margaret Drive, P.O. Box 642, Belize City, Belize. Executive Director – Mr. Hugh A. Saul Tel: 501-223-4443; 501-223-4444; 501-223-4445 Fax: 501-223-4446 Email: crfm@btl.net Website: www.caricom-fisheries.com
D.	Collaborating Organisations:	CERMES - UWI, FAO / WECAFC, OECS Secretariat, CARICOM Secretariat, IFREMER, Regional Fisherfolk Organisation
E.	Cost of the Case Study:	US\$265,000
F.	Duration:	24 Months
G.	Description of the Case Study	The four-winged flyingfish (<i>Hirundichthys affinis</i>) fishery is the single most important small pelagic fishery in the southern Lesser Antilles. It is a shared resource which is exploited by seven countries producing annual landings of about 3000 - 4000 mt. With expanding fleet capacity and only limited cooperation among the States exploiting the flyingfish there is concern that the resource may become overfished. This Case Study will review and complete the transboundary diagnostic analysis of the fishery and identify and analyse the priority transboundary problems and issues including the underlying and root causes. The Case Study will then prepare a Strategic Action Programme which should identify the policy, legal and institutional reforms and investments needed to address the priority transboundary problems identified.

1. BACKGROUND

1.1 CLME Project

The Caribbean Large Marine Ecosystem and Adjacent Regions (CLME) Project is a 4 year Global Environment Fund (GEF) intervention worth a total of US\$56,310,947 (US\$7,008,116 from GEF and US\$47,804,111 in co-financing). The Project partners include 23 GEF countries, 2 associate countries and 11 organizations. The Project Document (attached) was approved by GEF on 11 April 2008.

The CLME Project began on 1 May 2009 and will run until 30 April 2013. The Project implementing agency is the United Nations Development Programme (UNDP) in partnership with IOC of UNESCO and the executing agency is the United Nations Office for Project Services (UNOPS). The project is administered from a small Project Coordination Unit (PCU) located in the offices of IOCARIBE, IOC of UNESCO, in Cartagena, Colombia.

The CLME Project will assist Caribbean countries to improve the management of their shared living marine resources, most of which are considered to be fully or over exploited, through an ecosystem level approach. A preliminary Transboundary Diagnostic Analysis (TDA) identified three priority transboundary problems that affect the Caribbean Large Marine Ecosystem (CLME): unsustainable exploitation of fish and other living resources, habitat degradation and community modification, and pollution. The final TDA will serve as the science basis for development of an agreed program of interventions including fishery reforms, conservation measures and pollution control. A Strategic Action Programme (SAP) with a shared vision for the CLME will be developed, and required priority interventions, reforms and investments agreed to. As part of the SAP, the Project will promote the creation of a management and governance framework, based on linked policy cycles at multiple levels. This way the CLME Project will facilitate the strengthening of fishery governance in the Caribbean at the regional, sub-regional and national levels by working with existing structures, strengthening horizontal and vertical linkages both politically and technically. To assist this process, the project will create an integrated information management system bringing together congruent fisheries, biological, pollution and socio-economic data and information as powerful management tool. Similarly, a monitoring and evaluation framework and a Regional Monitoring Environmental Programme (REMP) will be developed. Pilot projects on specific transboundary fisheries (spiny lobster and reef fisheries) will trial governance models at the local, national and sub-regional levels and provide additional knowledge on means of applying ecosystem based approaches to fisheries management and determining the fisheries' socio-economic importance and sensitivities.

1.2 Climate Change

The tropical countries of the Caribbean and the small island developing states (SIDS) in particular, are amongst those predicted to suffer most and soonest from climate change. They are especially vulnerable because of their economic and social sensitivity to climate change in an already fragile environment. The ultimate response for such countries is adaptation to climate variations and to extreme meteorological phenomena by the development of long-term adaptation capacities. There are numerous ongoing efforts at addressing climate change in the Wider Caribbean Region. These include the programmes of the Caribbean Community Climate Change Centre (CCCCC) and the United Nations Economic Commission for Latin America and the Caribbean (ECLAC). However, very little of this work has been focused on fisheries or marine resources. The CLME Project aims to

mainstream climate change vulnerability assessment and adaptation. The Flyingfish assessments will also integrate climate change issues.

2. ECOSYSTEM BASED MANAGEMENT

A focus of the CLME Project will be to address the challenges of sustainable use of shared living marine resources through the concept of Ecosystem Based Management (EBM). EBM links the various sectors that share the use of marine ecosystems, e.g. fisheries, tourism, shipping, energy, and addresses complexity. It is also an essential component of principled ocean governance in the Wider Caribbean. In practical terms, the objective is to apply EBM to the LMR policy cycles at various levels and integrate it into the fishery management planning processes for large pelagics, flyingfish, lobster, reef fishes, and shrimp and groundfish. The Flyingfish assessments will develop and promote an EBM perspective.

3. EASTERN CARIBBEAN FLYINGFISH FISHERIES BACKGROUND

In the southern Lesser Antilles the fourwing flyingfish (*Hirundichthys affinis*) is the single most important small pelagic. It is fished by seven countries: Trinidad and Tobago, Grenada, St. Vincent and the Grenadines, Barbados, St. Lucia, Dominica and France (Martinique). The total landings for these countries are about 3000-4000 mt making a relatively small fishery (Ferreira 2002). However, over 1700 boats are engaged in this fishery which is pursued from a variety of small to medium scale vessels from numerous often rural landing sites in the participating countries. Consequently, there is a high social and economic dependence on this fishery. There is also considerable value added from the onshore processing, distribution and sale of the catch. In Barbados the landed value of the catch between 1999 and 2003 was about US\$1.8M a year with the added value being a further US\$13.8M a year for a total value of US\$15.6M. There was an increasing trend in landings through the 1980's owing to the rapid expansion of the fleet and area fished. During this period the fishing fleet in Barbados expanded rapidly and total landings of flying fish more than doubled. This led to concern that the resource may become overfished and to increased attention to acquiring the information needed for management.

A substantial body of information has been acquired on flyingfish fisheries over the past three decades. The Eastern Caribbean Flyingfish Project that culminated in a workshop in 1992 provides a synthesis of the information up to that point (Oxenford *et al.* 1993). At that workshop key conclusions regarding the biology of flyingfish were that it is essentially an annual species, and that there is mixing of adults throughout the eastern Caribbean. Therefore, the resource should be managed as a single stock. Subsequent research has indicated that the Eastern Caribbean stock is distinct from the neighboring stocks exploited by the fisheries of Brazil and Curacao. This research has revealed restricted gene flow within the eastern Caribbean stock that may have implications for the way that the stock is managed, since there may be sub-stocks within the region (Gomes *et al.* 1998, 1999). An evaluation of assessment options for flyingfish concluded that the overriding feature of the resource was its high inter-annual variability in abundance. Analyses indicate that yield per recruit would be optimized at average age of capture well below the average age of maturity. Thus it is not a useful approach for this fishery. The relationship between stock and recruitment was not clear, but indicated a tendency for recruitment to be lower than average when stock size was lower than average.

A preliminary analysis of the relationship between recruitment and environmental variables did not reveal any strong environmental influences that might be used to predict recruitment success (Mahon 1990a). A risk analysis indicated that the fishery could be expected to exhibit undesirable characteristics, such as increased inter-annual variability that may result in prolonged periods of low catch even at the fishing mortality that produces maximum long-term sustainable recruitment. Indications are that an increase in landings of 15 - 20% over the levels of the early 1990s could take the resource into the vicinity of the threshold (Mahon 1989). Therefore, it would be precautionary to keep fishing mortality somewhat below that level. Exactly where it should be kept would depend on the management objective for the fishery, e.g. to obtain the greatest catch, or to reduce inter-annual variability and thus promote stability in the fishery.

The Pelagic and Reef Fishes Subproject of the CARICOM Fisheries Resource Assessment and Management Programme (CFRAMP) included an activity to address aspects of eastern Caribbean flyingfish. At the Small Coastal Pelagic and Flyingfish Subproject Specification Workshop (SSW) in Grenada in 1996 papers were presented reviewing the status of Flyingfish fisheries and outlining proposed research and management activities for flyingfish. These activities were not carried out owing to lack of funding. The contributions to the SSW although not published address a number of topics that deserve attention: biology, life history and ecology (Nakashima 1996a, Monteiro, *et al.* 1996, Singh-Renton 1996), social science (McConney 1996), fishing practices (Mohammed 1996), fishery assessment and management (Cochrane 1996, Nakashima 1996b). Country reviews presented at this workshop also provide another waypoint in description of national fisheries for flyingfish. The existence of a southeastern Caribbean management unit for *H. affinis*, was further recognised by the WECAFC Working Party on Marine Resources in Belize City 1997 (FAO 1998). In 1997 WECAFC established an ad hoc Flyingfish Working Group that has met three times: September 1999 (FAO 1999); January 2001 (FAO 2002); July 2008 (FAO, 2009). At the first meeting an analysis of catch and effort data from five countries over the period 1982-1998 was carried out but the data did not show any trends and were considered inadequate for analysis (FAO 2002). The WG identified three activities that should be pursued towards the cooperative management of the southeastern Caribbean flyingfish stock:

- Analysis of fishery catches and fishing effort
- Review of social and economic aspects
- Preparation of a Regional Fisheries Management Plan (FMP)

At the Second Meeting of the Working Group in 2001, re-analysis of catch and corrected effort data was attempted in a workshop setting, but the data for all islands except Barbados were confounded by an inability to distinguish between vessels that targeted flyingfish and those that did not (FAO 2002). Some of the sociological information on the flyingfish fishery identified at the first meeting as being needed was collected and presented at the second working group meeting in 2001 (FAO 2002). Country fishery updates presented at both WG meetings provide the most recent information on the fisheries (FAO 1999, 2002). The regional FMP was developed in draft form and remains to be reviewed and adopted (Oxenford 2002). In the meantime, access to flyingfish stocks continues to be a contentious issue between Barbados and Trinidad and Tobago. Much of the contention appears to centre on perceptions of trade rather than scientific issues. The results of the ECFFP were a major component of the information synthesised in the first months of 2003 by the Joint Technical Working Group (JTWG) established by these two governments to put together the best available body of information on this fishery. Still lacking is an appropriate governance mechanism for the resource. The JTWG and the WECAFC WG provide the opportunity for exchange and synthesis of technical

information, although the former involves only two of seven states in involved in the fishery, but there is still no appropriate forum for decision-making for this fishery.

4. JUSTIFICATION OF CASE STUDY

The initial TDA identified and analysed the priority transboundary problems in three sub-regions (Insular Caribbean, Central / South America and Guianas / Brazil). The analysis included an initial causal chain analysis exercise covering identification of underlying and root causes as well as a first identification of the information gaps. The TDA will now be reviewed to include a full analysis of data and information gaps, a complete causal chain analysis, a public involvement and communication strategy, institutional mapping, a legislative review, a socio-economic review and identification of interventions for inclusion in the SAP. The results of the TDA gap filling activities and the demonstration projects will be incorporated into a final updated TDA. An important contribution to the TDA will be the gap filling activities related to the flyingfish fishery.

The SAP is a negotiated policy document which should identify policy, legal and institutional reforms and investments needed to address the priority transboundary problems identified in the TDA. Endorsed at the highest level, it establishes clear priorities for action to resolve the priority problems. The preparation of a SAP is a cooperative process among the countries of the region. The TDA identifies the priority problems, the underlying sectoral causes, and the root causes of the problems. The SAP outlines the actions needed to resolve the priority problems and must be agreed before technical assistance, capacity-building, or investment projects can be developed. The SAP will include the actions required to address the governance issues of the flyingfish fishery.

4.1 Development Objective

The CLME Project's Overall Objective is the sustainable management of the shared living marine resources of the CLME and adjacent areas through an ecosystem-based management (EBM) approach that will meet the World Summit on Sustainable Development (WSSD) target for sustainable fisheries.

4.2 Immediate Objective

The immediate objective of this Case Study is twofold:

- 4.2.1 to fill important knowledge gaps that will contribute to the final TDA, and
- 4.2.2 to inform the development of the SAP and the CLME management and governance framework, which will include priority actions for the sustainability of the Eastern Caribbean flyingfish fishery.

5. SPECIFIC OBJECTIVES AND ACTIVITIES

Specific Case Study objectives and activities are:

- 5.1 To review and complete the TDA gap filling activities. In the CLME Project Document (ProDoc) these were listed as:
 - 5.1.1 Improvement of availability of data and information including catch/effort information, in the Eastern Caribbean taking into account long lining and mixed landings;
 - 5.1.2 Single Species bioeconomic analysis of the fishery to establish the bioeconomic criteria and set reliable management measures for the four-winged flyingfish;
 - 5.1.3 & 5.1.4 Incorporate key predator-prey interactions and the interactions of fisheries for these resources into a bioeconomic evaluation of the fisheries, so as to inform refine the management for the four-winged flyingfish

Since the ProDoc and the Terms of Reference of this Case Study were prepared, work on some of the above activities may have evolved or have already been completed or surpassed by the identification of more important gap filling needs. The Case Study will consider the original ProDoc activities and propose modified or alternative activities to them if appropriate, subject to approval by the Case Study Steering Committee.

- 5.2 To carry out the following SAP activities:
 - 5.2.1 Undertake a stakeholder analysis, including an assessment of their capacity to take part in the sub-regional management process;
 - 5.2.2 Evaluate the existing policy cycles and linkages among the countries involved in the flyingfish fishery and make recommendations to improve them. This will include a review and analysis of existing policy, legal and institutional arrangements and investments for management and governance of flyingfish. The review and analysis should including the extent of incorporation and application of principles such as the EBM approach, the precautionary principle, public and stakeholder participation, accountability and transparency in both domestic and regional instruments and arrangements. The analysis will take into account measures and institutional arrangements at the local, national and regional levels. The analysis will also consider the extent to which the fisheries policies and institutions are integrated into the wider national and regional frameworks for economic development and environmental protection and management.
 - 5.2.3 Prepare a Memorandum of Understanding between CRFM and Martinique on Cooperation in the Management and Governance of the Flyingfish Fishery. The purpose of the MOU is to facilitate closer cooperation and collaboration between Martinique and the CRFM, including their involvement in the planning and implementation of this Case Study.
 - 5.2.4 Prepare a Regional Non-binding Declaration setting out the commitments of the States regarding effective management and governance of the Eastern Caribbean fourwing flyingfish to achieve sustainable fisheries.

- 5.2.5 Convene national meetings with key stakeholders to review the recommendations from the evaluation exercise, including the proposal for a sub-regional decision-making mechanism/forum, and seek their input and support. The National meetings will be led by the National fisheries officials in each Participating State.
- 5.2.6 Promote and mobilize the CRFM networking on flying fish issues through the Small Coastal Pelagic Fisheries Working Group to ensure all recommendations and lessons learnt come from reliable field experiences with solid basis.
- 5.2.7 Convene a joint meeting of senior fisheries officials of the CRFM Participating States and the WECAFC Ad Hoc Working Group on Flyingfish in the eastern Caribbean, with appropriate representation, to review the preliminary outputs and provide further guidance on the activities, including recommendations for the Ministerial Meetings. The meeting will include representation from Martinique.
- 5.2.8 Convene meetings of the CRFM Ministerial Council (Ministers responsible for fisheries of the States interested in the flyingfish fishery) with appropriate Ministerial representation from Martinique to endorse the Regional Declaration and provide policy guidance on the development of the SAP.
- 5.2.9 Prepare a report on the combined findings of: assessment reports; the stakeholder analysis; review of the existing policy legal and institutional frameworks and cycles and recommend reforms needed to achieve sustainable governance and management of the flyingfish resources. The report should:
- incorporate the views of all stakeholders;
 - focus on the transboundary issues and concerns without minimizing the importance of national issues and priorities
 - Identify policy, legal and institutional deficiencies and restrictions that may hinder effective transboundary management and governance of the flyingfish fishery.
 - The recommended reforms should include the identification of a sub-regional decision-making forum and other policy, legal and institutional reforms and investments needed at local, national and subregional levels for effective governance and management of the fisheries and the ecosystem.

The flyingfish sub-regional policy cycle component will involve the seven countries mentioned above and will use CARICOM/CRFM as a political entity; and the WECAFC Ad Hoc Flyingfish Working Group and the CRFM as technical entities. Technically it will be informed by the UWI Eastern Caribbean Flyingfish Project, the FAO Lesser Antilles Pelagic Ecosystem Project (LAPE) and the ongoing CRFM assessment activities on flyingfish. It will also address the linkage of local and national policy cycles that are required in support of the sub-regional one.

6. INPUTS

Technical, financial, administrative and political inputs and commitments will be required from several sources including the CLME Project, the CRFM Secretariat supported by external consultants, Fisheries Officials and Policy Makers from the 7 Participating States, and other

collaborating Regional Organisations including FAO/WECAFC, OECS Secretariat, CERMES/UWI and IFREMER.

The CRFM Secretariat, supported by external consultants, will provide technical expertise in the areas of fishery assessment, statistics, governance, management, stakeholder analysis, organizational and institutional analysis, fisheries and marine law and policy, and regional cooperation. In addition the CRFM Secretariat will coordinate and provide administrative support for the planned activities.

Inputs will also be provided by The CLME Regional Project Coordinator who will provide technical oversight and will conduct a Case Study Implementation Review and submit this to UNDP-GEF every six months.

The following specific inputs will be required to achieve the specific objectives and activities mentioned at Section 5 above (each activity is repeated below for easy reference followed by the inputs required):

Activity 5.1.1: Improvement in availability of data, particularly total catch and catch rate data both from the food and bait fisheries

- 1) Review of data collection issues in the 7 States involved in the Eastern Caribbean flyingfish fishery, including issues pertaining to socio-economic data and those issues specifically identified by the WECAFC Working Group on Eastern Caribbean Flyingfish.
- 2) Formulate recommendations for improved monitoring of the flyingfish fisheries at the national and regional levels in the future

Activity 5.1.2: Single-species bioeconomic analysis of the fishery to establish the bioeconomic criteria and set reliable management measures for the fourwing flyingfish

- 1) Conduct single-species bioeconomic analysis of fishery using available data to establish the bioeconomic criteria and set reliable management measures for the four-winged flyingfish
- 2) To the extent possible, gather additional data to inform bioeconomic analysis

Activity 5.1.3 and 5.1.4: Incorporate key predator-prey interactions and the interactions of fisheries for these resources into a bioeconomic evaluation of the fisheries, so as to inform refine the management for the four-winged flyingfish

- 1) Studies to gather and analyse the relevant social and economic data, and incorporate the results into fishery management advice.
- 2) Update fishery management advice to reflect EAF considerations to the extent possible

Activity 5.2.1: Stakeholder Analysis

Engage consultant to assist the CRFM Secretariat with stakeholder analysis to identify primary and secondary stakeholders and assess their capacity, level of influence and willingness to participate in the sub-regional management process for the flyingfish.

Activity 5.2.2: Review and analysis of existing policies, legal and institutional arrangements for governance and management of flyingfish, including application of the EBM approach.

- 1) Visit and consult relevant government departments and other organisations in the 7 Participating States to obtain, review and analyse existing policy and legal instruments, and assess the strengths, weaknesses and linkages of institutional arrangements that can support governance and management of the flyingfish fishery at the various policy cycles.
- 2) The information obtained will be analysed to identify and assess the capability of existing policy, legal and institutional frameworks at different stage of the policy cycle; reveal areas of common interests and compatibility, as well as identify constraints and conflicts that may exist between the local, national and sub-regional levels and thus hinder the effectiveness of the sub-regional policy cycle.
- 3) Review, discuss and agree on issues and root causes, and on the interventions needed to address them, using the CRFM Annual Scientific Meetings as the foundation for addressing the matter (all interested States and organisations would be invited to participate)

These inputs will be provided by the CRFM Secretariat staff supported by international/regional consultants.

Activity 5.2.3: Prepare Memorandum of Understanding between CRFM and Martinique on Cooperation regarding governance of shared marine resources (flyingfish)

- 1) The CRFM will provide expertise to facilitate the negotiation, drafting and execution of a Memorandum of Understanding (MOU) between the CRFM and Martinique to facilitate general cooperation between the competent organizations in Martinique and the CRFM regarding marine resource governance and management.

Activity 5.2.4: Prepare a proposal of Sub-regional Declaration / Action Plan on the management and conservation of the Eastern Caribbean fourwing flyingfish prepared and adopted by the State Parties

- 1) Facilitate sub-regional consultation to prepare, achieve agreement on, and endorsement of a sub-regional Declaration / action plan for regional cooperation on the governance and management of the Eastern Caribbean fourwing flyingfish, through the activities of the Caribbean Fisheries Forum and the CRFM Ministerial Council, with appropriate participation by France. Financial and technical expertise will be required to support the countries in preparation and endorsement of the Declaration / action plan.
- 2) Promote the incorporation and discussion of the main issues, recommendations and actions indentify to the National Inter-ministerial committees (NIC) or equivalents were they exist via the CLME national focal point.

Activity 5.2.5: Convene national meetings with stakeholders

- 1) Convene key national meetings with primary stakeholders to review the recommendations from the evaluation exercise, including the proposal for a sub-regional decision-making mechanism/forum, and seek their input and support. These will be supported and facilitated by the CRFM Staff and international/regional consultants.

Activity 5.2.6 Convene expanded joint technical meeting of the CRFM States involved in the Project and the WECAFC Ad Hoc Working Group on Flyingfish in the eastern Caribbean, with the appropriate representation from France (Martinique)

- 1) The joint meeting involving senior fisheries officials will review the reports of the stakeholder analysis; the policy, legal and institutional review and development of the Declaration/Plan of Action on the governance and management of the flyingfish. Financial support will be needed for the meeting. The CRFM Secretariat staff supported by international / regional consultants will provide expert inputs to facilitate the joint meeting.

Activity 5.2.7 Convene meetings of the CRFM Ministerial Council (Ministers responsible for fisheries of the States interested in the flyingfish fishery) with appropriate representation from Martinique

- 1) Convene 2 meetings of the CRFM Ministerial Council (with Ministers responsible for fisheries of the States interested in the flyingfish fishery) with appropriate Ministerial representation from Martinique to endorse the Regional Declaration and provide policy guidance on the development of the SAP. Financial resources will be required to convene the meetings. The CRFM Secretariat staff supported by international/regional experts will facilitate and provide technical support.

Activity 5.2.8 Prepare SAP report with the findings and recommendations

- 1) The Draft SAP Report dealing with governance of the flyingfish resources will synthesize information from the various activities undertaken under this Case Study and:
 - incorporate the views of all stakeholders;
 - focus on the transboundary issues and concerns without minimizing the importance of national priorities;
 - identify policy, legal and institutional deficiencies and restrictions that may hinder effective transboundary governance of the flyingfish fishery; and
 - recommended reforms including the identification of a sub-regional decision-making forum and other policy, legal and institutional changes and investments needed at local, national and subregional levels for effective governance and management of the flyingfish fisheries using an ecosystem-based approach
- 2) The Report will be prepared by CRFM Staff supported by international / regional consultants in collaboration with the participating states.

In addition to the above technical activities the CRFM Secretariat will prepare progress reports on the flying fish Case Study and will convene 3 meetings of the Flyingfish Case Study Steering Committee

to review progress and provide guidance on the implementation of the activities. The preparation of these progress reports and meetings will be financed and facilitated by the CRFM Secretariat staff through the CLME Project.

7. EXPECTED OUTPUTS

At the end of the Case Study the following overall outputs will have been achieved:

- Completion of four flyingfish assessments and TDA as described in Section 5 above.
- Completion of SAP activities described in Section 5 above with corresponding reports.

The following specific outputs will be achieved:

- 1) Report of review that includes recommendations for improving Eastern Caribbean flyingfish data collection systems
- 2) Completed single species bioeconomic assessment, and established bioeconomic management criteria to guide management planning and decision-making for the flyingfish fishery.
- 3) Expanded bioeconomic assessment, taking into account key predator-prey interactions and fishery interactions.
- 4) EAF management recommendations on the Eastern Caribbean fourwing flyingfish, taking into account social and economic objectives.
- 5) Report of stakeholder analysis, with information on primary & secondary stakeholders; and an assessment of their importance and influence regarding the governance of flyingfish
- 6) Report on the policy, legal and institutional analysis completed and the gaps and reforms needed for sustainable governance of the fisheries identified.
- 7) Report and recommendations of the joint meeting of the CRFM and FAO/WECAFC Working Groups completed
- 8) Reports (2) of the Case Study Steering Committee prepared
- 9) MOU on cooperation between the CRFM and France (Martinique) prepared and executed
- 10) Reports and decisions of the CRFM Ministerial Committee completed
- 11) Sub-regional Declaration /plan of action completed, and endorsed by policy makers from the participating State
- 12) SAP Report and recommendations prepared

8. SPECIFIC DELIVERABLES AND TIMING

- Formulation of Case Study Steering Committee (CSC) and initial report with work plan (by 30 September 2010)
- Initiate consultation/discussion on preparation of Agreement between France (Martinique) and CRFM to facilitate cooperation on management and governance of the flyingfish (15 October 2010)
- Commission flyingfish assessments and initiate SAP activities (15 November 2010)
- Commission stakeholder analysis by (30 November 2010).
- Progress report (by December 2010)
- Commission policy, legal and institutional analysis (by 15 November 2010)
- Flyingfish assessments drafted (by August 2011)
- Submission of final version of flyingfish assessments (by 30 October 2011)
- Initial SAP activities report drafted (by 31 January 2011)
- Submission of final SAP activities report (by 15 June 2012)
- Initiate the implementation of the policy cycle recommendations which test the sub-regional decision-making mechanism (Preparation of Regional Declaration) (by 28 February 2012)
- Second Case Study Steering Committee Meeting (by 30 August 2012)
- Final report including progress on policy cycle implementation (by 30 October 2012)

9. MANAGEMENT STRUCTURE AND ACCOUNTABILITY

The Case Study will be led by CARICOM CRFM. CARICOM CRFM will establish a Case Study Steering Committee (CSC) comprising key partners including, but not be limited to, representatives of the 7 States involved in the Fisheries [Trinidad and Tobago, Grenada, St. Vincent and the Grenadines, Barbados, St. Lucia, Dominica and France (Martinique)] drawn from the national fisheries departments and / or related agencies, fishing industry representatives, regional research institutions and other regional organization with an interest in the fisheries including CERMES UWI, and FAO / WECAFC. The CRFM will be accountable to the Project Coordination Unit for all funds and pilot project outputs.

9.1 Composition of Case Study Steering Committee (CSC)

Case Study Steering Committee (CSC)	
STATES	ORGANISATIONS
BARBADOS	CRFM Secretariat
DOMINICA	OECS Secretariat
GRENADA	FAO/WECAFC
MARTINIQUE	CERMES UWI
ST. LUCIA	IFREMER
ST. VINCENT AND THE GRENADINES	FISHER'S ORGANISATION REPRESENTATIVE
TRINIDAD AND TOBAGO	

The CRFM Secretariat will function as the Secretariat of the CSC.

9.2 CRFM

The CRFM is a regional fisheries body established by the CARICOM Governments to promote sustainable use of the living marine and other aquatic resources by the development, efficient management and conservation of such resources. The objectives of the CRFM as stated in Article 4 of the Agreement establishing the Organization (CRFM, 2002) are:

- Efficient management and sustainable development of marine and other aquatic resources within the jurisdictions of Member States;
- promotion and establishment of co-operative arrangements among interested States for the efficient management of shared, straddling or highly migratory marine and other aquatic resources;
- provision of technical advisory and consultative services to fisheries divisions of Member States in the development, management and conservation of their marine and other aquatic resources.

CRFM is made up of three bodies as follows:

- A Ministerial Council (Ministers Responsible for Fisheries of Member States) that has primary responsibility for, inter alia, determining the policies of the Organisation, resource allocation, cooperative agreements, and related decision-making;
- The Caribbean Fisheries Forum (heads of national fisheries administrations) which provide technical leadership to the Organization, including the provision of scientific advice to the Ministerial Council, and oversight to the operations of the CRFM Secretariat; and
- The CRFM Secretariat, which is the technical unit responsible for day-to-day coordination and execution of the work programmes; collaborating with national fisheries authorities; mobilizing resources; and managing the institutional networking to promote its optimal involvement and efficient functioning.

There are presently 17 Member States of the CRFM. These are: Anguilla, Antigua and Barbuda, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, The Bahamas, Trinidad and Tobago, and Turks and Caicos Islands.

The CRFM has established a number of fisheries resource working groups which have met annually (for 2 weeks duration) under the umbrella of the CRFM Annual Scientific Meetings. They compile and analyze available statistics and conduct assessment studies to determine the state of various fish stocks and provide management advice to the Member States. The working groups include: the Large Pelagic Fisheries Resource Working Group; the CRFM Small Coastal Pelagic Fisheries Resource Working Group (includes flyingfish); the Reef and Slope Fisheries Resources Working Group; the Conch and Lobster Resource Working Group; and the Shrimp and Groundfish Working Group. Six Annual Meetings have been held since the establishment of the CRFM in 2003 and more than 30 fisheries have been evaluated and management recommendations prepared (see www.caricom-fisheries.com to access and obtain copies of the scientific and other technical reports produced by the CRFM).

10. REPORTING

The CRFM Secretariat will be required to report on all deliverables committed under section 10 as follows:

- 1) A bimonthly brief summary report (e.g. synthesis of achievements to be handled as CLME project news - so called Journalistic report (no more than two pages).
- 2) Quarterly report under the guidance of the PCU (quarterly report template to be provided by the PCU).
- 3) Annual report (including a financial report).
- 4) The CRFM Secretariat will produce a Progress Report in coordination with PCU, to be presented at the Caribbean Sea Commission (CSC) Meeting. CRFM will include an annual

report to CLME PCU for the Steering Committee (SC) incorporation suggestions and recommendations. This report will describe progress of the Case Study based on the approved Strategic Results Framework. The Progress Report will be submitted to the Regional Project Coordinator for onward transmission to the Implementation and Executing agencies and the CLME Project Steering Committee. This report will provide a review of the work plan to identify achievements and deliveries versus the approved schedule, budget expenditures, and recommendations with respect to any amendments to work plan and budget, and any other information required by the Steering Committee and/or the Executing Agencies.

The Annual Reports will be presented to the PCU in MS Word format (including abstract and full version). In addition, a PowerPoint presentation will also be submitted to the PCU as part of the Annual Reports. The PowerPoint will include both an abstract and a full version of the report.

11. DISSEMINATION OF RESULTS

Results from the Case Study will be documented in scientific and technical reports and disseminated within and beyond the 7 Participating States and partners involved in the CLME Project through a number of existing information sharing networks and forums including but not limited to those currently used by the CRFM, FAO / WECAFC, CERMES UWI, and the CLME Project. In addition:

- The project will seek to participate in and contribute to IW:LEARN, the GEF's International Waters knowledge sharing programme, including participation in biannual GEF International Waters Conferences, preparation of IW "Experience Notes" documenting important lessons and good practice, and contributions to various IW:LEARN-mediated regional and thematic knowledge sharing activities, both virtual and in person.
- The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects.
- The CRFM Secretariat will contribute regularly to the CLME SPPE by exchanging and sharing relevant information and coordinating the publishing of news/technical documents on the CLME web sites.
- CRFM Secretariat will use the information provided by the case study to prepare a technical paper on the results and lessons learnt to be incorporated as part of a technical series of the CLME project. This will include the update of the CLME webpage with the information/data provided from the case study.

12. SUSTAINABILITY

The Case Study will be implemented in a manner that will promote its full integration into ongoing policies processes and programmes of national and regional organisations to ensure sustainability and continuity beyond the duration of the CLME Project inputs. The following elements of the Case Study will contribute to its sustainability beyond the end of the Case Study and the CLME Project:

- Increased awareness and commitment at political and decision-making levels regarding the value of the flyingfish resources and the transboundary management issues affecting them;
- The information base, tools, and models for management decision-making will have been increased and made more accessible to stakeholders,
- The Case Study will focus on enhancing and strengthening existing networks and institutions in the region rather than creating new ones;
- The Case Study will emphasize capacity building of the national and regional institutions involved in the governance and management of the fisheries;
- The Case Study duration should contribute to the establishment and sustainability of the proposed processes and mechanisms;
- The Case Study will seek to establish a culture of cooperation and networking among 7 Participating States and regional fisheries bodies in the region;
- Through “strengthening by doing”, the Case Study will create successes that serve as examples of how countries can collaborate to manage other transboundary living marine resources, and,
- The Case Study will promote the active engagement and participation by the private sector in all major activities to facilitate buy-in and long term sustainability.

13. REPLICABILITY

The Case Study will provide lessons that can be adapted to other transboundary fisheries in the region and to other parts of the world, particularly those where transboundary resources are exploited by small-scale fisheries, for example in Southeast Asia and West Africa. The approaches, results and experiences gained during this Case Study will be documented and disseminated using available media to a wide audience. The Case Study will seek to disseminate these lessons in a form that facilitates their replicability (such as IW Experience Notes), and will actively participate in GEF and other activities that seek to promote replication and share experiences, such as IW: LEARN and the Biennial GEF IW Conferences. The Case Study will also utilize the CLME Project Communication Strategy.

LOGICAL FRAMEWORK MATRIX

Activity #	Objectives / Activities	Implementation Strategy	Performance Indicators /measurable outputs	Assumptions for success
5.1.1	Improvement in availability of data, particularly total catch and catch rate data both from the food and bait fisheries	<p>1) Review of data collection issues in the 7 States involved in the Eastern Caribbean flyingfish fishery, including issues pertaining to socio-economic data and those issues specifically identified by the WECAFC Working Group on Eastern Caribbean Flyingfish.</p> <p>2) Formulate recommendations for improved monitoring in the future.</p>	<p>1) Report of review that includes recommendations for improving Eastern Caribbean flyingfish data collection systems</p> <p>2) Updated assessments of flyingfish using improved datasets</p>	Selected countries are committed to providing the data needed to develop improved datasets for assessment, and are willing to work with the CRFM.
5.1.2	Bioeconomic studies of the fishery to establish the bioeconomic criteria and set reliable management measures for the four-winged flyingfish	<p>1) Conduct bioeconomic analysis of fishery using available data.</p> <p>2) To the extent possible, gather additional data to inform bioeconomic analysis</p>	1) Completed bioeconomic analysis, and established bioeconomic management criteria to guide management planning and decision-making.	Selected countries have sufficient bioeconomic data to facilitate the analysis, or are committed to gathering the required data in a timely fashion
5.1.4	Assessment of economic risk and social impacts to refine the management for the four-winged flyingfish	<p>1) Studies to gather and analyse the relevant social and economic data, and incorporate the results into fishery management advice.</p> <p>2) Update fishery management advice to reflect EAF considerations to the extent possible</p>	<p>1) Evaluation study of the social impact and economic risk of the fishery</p> <p>2) EAF management recommendations on the Eastern Caribbean four-winged flyingfish, taking into account social impact and economic risk information</p>	<p>Socio-economic studies will require cooperation by CRFM States involved.</p> <p>That expertise in developing EAF management advice can be accessed by the CRFM.</p>
5.2.1	Stakeholder Analysis	1) Engage consultant to assist with stakeholder analysis. Identify key stakeholders and assess their capacity, level of influence and willingness to participate in sub-regional management process	Report of stakeholder analysis, with information on key, primary and secondary stakeholders; and an assessment of their importance and influence regarding the governance of flyingfish	National coordinators will assist consultant in identifying and meeting stakeholders in all participating countries in a timely manner

Activity #	Objectives / Activities	Implementation Strategy	Performance Indicators /measurable outputs	Assumptions for success
5.2.2	Review and analysis of existing policies, legal and institutional arrangements for governance and management of flyingfish, including application of the EBM approach. The analysis will take into account measures and institutional arrangements at the local, national and regional levels.	(1) Visits to participating States to obtain, review and analyse existing policy and legal documents, and assess the strengths, weaknesses and linkages of institutional arrangements at the various policy cycles. (2)Analyses to identify and assess the capability of stakeholders at different stage of the policy cycle; reveal areas of common interests and compatibility, as well as identify constraints and conflicts that may exist between the local, national and sub-regional levels and thus hinder the effectiveness of the sub-regional policy cycle. (3) Review, discuss and agree on issues and root causes, and on the interventions needed to address them, using the CRFM Annual Scientific Meetings as the foundation for addressing the matter (all interested States and organisations would be invited to participate)	Policy, legal and institutional analysis completed and reports prepared	Countries are prepared to meet consultants and willing to share relevant data and information on their policies, laws, regulations and other fisheries related agreements that have an impact on flyingfish and species related to or dependent upon the flyingfish fisheries.
5.2.3	Prepare Memorandum of Understanding (MOU) between CRFM and Martinique on Cooperation re governance of shared marine resources (flyingfish)	Negotiate a MOU to facilitate general cooperation between the competent organization in Martinique and the CRFM regarding marine resource governance and management	MOU prepared and executed	Political will exists to execute MOU
5.2.4	Prepare non-binding Sub-regional Declaration / Action Plan on the management and conservation of the Eastern Caribbean four-winged flyingfish prepared and adopted by the State Parties	1) Facilitate sub-regional consultation on and endorsement of sub-regional Declaration/action plan for Eastern Caribbean four-winged flyingfish, through the activities of the CFF and the CRFM Ministerial Council.	1) Sub-regional Declaration /plan of action completed, with the relevant political endorsement.	Several national management plans have not been finalized. Assumption that political will exist for the preparation of a sub-regional declaration/plan regarding governance of flyingfish
5.2.5	Convene national meetings with stakeholders	Convene national meetings with key and primary stakeholders to review the recommendations from the evaluation exercise, including the proposal for a sub-regional decision-making mechanism/forum, and obtain their input and agreement	Report of meetings with recommendations	Key and primary stakeholders are available and willing to participate in consultations and freely share their ideas and provide comments

Activity #	Objectives / Activities	Implementation Strategy	Performance Indicators /measurable outputs	Assumptions for success
				on the reports submitted for consideration
5.2.6	Convene a joint meeting of the CRFM / WECAFC ad hoc Working Group on Flyingfish in the eastern Caribbean, with the appropriate representation, to guide and review the activities	Convene a joint meeting of the CRFM States and the WECAFC Ad Hoc Working Group on Flyingfish in the eastern Caribbean, with the appropriate representation, to guide and review the activities	Agenda and reports with recommendation available	States will send suitable technical personnel to analyse the issues and make recommendations on the way forward.
5.2.7	Convene meetings of the CRFM Ministerial Council (Ministers responsible for fisheries of the States interested in the flyingfish fishery) with appropriate representation from Martinique	Convene 2 meeting of the CRFM Ministerial Council (with Ministers responsible for fisheries of the States interested in the flyingfish fishery) with appropriate Ministerial representation from Martinique to endorse the Regional Declaration and provide policy guidance on the development of the SAP.	Agenda and report of ministerial meetings available	Ministerial representation available and willing to devote time to discuss and endorse declaration/action plan and provide guidance on SAP development.
5.2.8	Prepare SAP report with the findings and recommendations	<p>The report will synthesize information from the abovementioned activities and:</p> <ul style="list-style-type: none"> • incorporate the views of all stakeholders; • focus on the transboundary issues and concerns without minimizing the importance of national priorities; • identify policy, legal and institutional deficiencies and restrictions that may hinder effective transboundary governance of the flyingfish fishery; and • recommended reforms including the identification of a sub-regional decision-making forum and other policy, legal and institutional changes and investments needed at local, national and subregional levels for effective governance and management of the flyingfish fisheries using an ecosystem-based approach 	Copies of the SAP Report available	

CASE STUDY SCHEDULE

	ACTIVITIES	Year 1				Year 2			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
5.1	TDA ASSESSMENT ACTIVITIES								
5.1.1	Improvement of availability of data and information including catch / effort								
5.1.2	Bioeconomic studies of the fishery to establish the bioeconomic criteria								
5.1.3	Assessment of species interaction between flyingfish and large pelagic fishes								
5.2	SAP PREPARATION ACTIVITIES								
5.2.1	Stakeholder analysis								
5.2.2	Evaluate the existing policy cycles and linkages -Policy, legal and institutional frameworks								
5.2.3	Prepare Cooperation Agreement between CRFM and Martinique on Cooperation								
5.2.4	Prepare Regional Declaration on management and Governance of flyingfish								
5.2.5	Convene national meetings with stakeholders								
5.2.6	Convene joint CRFM / WECAFC meeting								

5.2.7	Convene 2 meetings of the CRFM Ministers Council with representation from Martinique								
5.2.8	Prepare SAP report with findings and recommended reforms								
	1st Meeting Case Study Steering Committee								
	2nd Meeting Case Study Steering Committee								
	Administration and coordination of the Case Study								

BUDGET SUMMARY

FLYINGFISH CASE STUDY SUMMARY BUDGET			US\$
5.1	TDA ASSESSMENT ACTIVITIES		
5.1.1	Improvement of availability of data and information including catch/effort		20,000.00
5.1.2	Single species bioeconomic evaluations of the fishery to establish the bioeconomic criteria		20,000.00
5.1.3 & 5.1.4	Expanded bioeconomic assessment of key predator-prey interactions and the corresponding fishery interactions		34,000.00
5.2	SAP PREPARATION ACTIVITIES		
5.2.1	Stakeholder analysis		15,000.00
5.2.2	Evaluate the existing policy cycles and linkages - Policy, legal and institutional frameworks		19,000.00
5.2.3	Prepare Cooperation Agreement between CRFM and Martinique on Cooperation		5,000.00
5.2.4	Prepare Regional Declaration on management and governance of flyingfish		5,000.00
5.2.5	Convene national meetings with stakeholders		17,000.00
5.2.6	Convene joint CRFM /WECAFC meeting		20,000.00
5.2.7	Convene 2 meetings of the CRFM Ministers Council with representation from Martinique		36,000.00
5.2.8	Prepare SAP report with the findings and recommendations		19,000.00
	1st Meeting Case Study Steering Committee (15 persons, 2 day meeting)		20,000.00
	2nd Meeting Case Study Steering Committee (15 persons)		20,000.00
	Sub-total		250,000.00
	Administrative overheads	5% of Budget	12,500.00
	Coordination with other CLME Projects/activities	1% of budget	2,500.00
	TOTAL		265,000.00

**Appendix 6(D): Approved Consultancy Document, with text revisions requested by the
First Meeting of the Case Study Consultancy Committee**



UNOPS 



**Sustainable Management of the Shared Marine Resources
of the Caribbean Large Marine Ecosystem (CLME) and Adjacent Regions**

**Research Proposal
Case Study on Eastern Caribbean Flyingfish Fishery**

**TDA Gap Filling and SAP Activities
for the Shared Stocks of the Eastern Caribbean
Flyingfish Fishery**

31 August 2010
Belize City, Belize

CASE STUDY SUMMARY		
A.	Title:	Case Study on Eastern Caribbean Flyingfish (<i>Hirundichthys affinis</i>) Fishery
B.	Participating Countries:	Barbados, Dominica, France (Martinique), Grenada, St. Vincent and the Grenadines, St. Lucia, and Trinidad and Tobago
C.	Implementing Agency:	Caribbean Regional Fisheries Mechanism (CRFM) Secretariat, Princess Margaret Drive, Belize City, Belize. Executive Director – Mr. Hugh Saul Tel: 501-223-4443; 501-223-4444; 501-223-4445 Fax: 501-223-4446 Email: crfm@btl.net Website: www.caricom-fisheries.com
D.	Collaborating Organisations:	CERMES - UWI, FAO / WECAFC, OECS Secretariat, CARICOM Secretariat, IFREMER, Regional Fisherfolk Organisation
E.	Cost of the Case Study:	US\$265,000
F	Duration:	24 Months
G.	Description of the Case Study:	The fourwing flyingfish (<i>Hirundichthys affinis</i>) fishery is the single most important small pelagic fishery in the southern Lesser Antilles. It is a shared resource which is exploited by seven countries producing annual landings of about 3000-4000 mt. With expanding fleet capacity and only limited cooperation among the States exploiting the flyingfish there is concern that the resource may become overfished. This Case Study will review and complete the transboundary diagnostic analysis of the fishery and identify and analyse the priority transboundary problems and issues including the underlying and root causes. The Case Study will then prepare a Strategic Action Programme which should identify the policy, legal and institutional reforms and investments needed to address the priority transboundary problems identified.

1. BACKGROUND

1.1 CLME Project

The Caribbean Large Marine Ecosystem and Adjacent Regions (CLME) Project is a 4 year Global Environment Fund (GEF) intervention worth a total of US\$56,310,947 (US\$7,008,116 from GEF and US\$47,804,111 in co-financing). The Project partners include 23 GEF countries, 2 associate countries and 11 organizations. The Project Document (attached) was approved by GEF on 11 April 2008.

The CLME Project began on 1 May 2009 and will run until 30 April 2013. The Project implementing agency is the United Nations Development Programme (UNDP) in partnership with IOC of UNESCO and the executing agency is the United Nations Office for Project Services (UNOPS). The project is administered from a small Project Coordination Unit (PCU) located in the offices of IOCARIBE, IOC of UNESCO, in Cartagena, Colombia.

The CLME Project will assist Caribbean countries to improve the management of their shared living marine resources, most of which are considered to be fully or over exploited, through an ecosystem level approach. A preliminary Transboundary Diagnostic Analysis (TDA) identified three priority transboundary problems that affect the Caribbean Large Marine Ecosystem (CLME): unsustainable exploitation of fish and other living resources, habitat degradation and community modification, and pollution. The final TDA will serve as the science basis for development of an agreed program of interventions including fishery reforms, conservation measures and pollution control. A Strategic Action Programme (SAP) with a shared vision for the CLME will be developed, and required priority interventions, reforms and investments agreed to. As part of the SAP, the Project will promote the creation of a management and governance framework, based on linked policy cycles at multiple levels. This way the CLME Project will facilitate the strengthening of fishery governance in the Caribbean at the regional, sub-regional and national levels by working with existing structures, strengthening horizontal and vertical linkages both politically and technically. To assist this process, the project will create an integrated information management system bringing together congruent fisheries, biological, pollution and socio-economic data and information as powerful management tool. Similarly, a monitoring and evaluation framework and a Regional Monitoring Environmental Programme (REMP) will be developed. Pilot projects on specific transboundary fisheries (spiny lobster and reef fisheries) will trial governance models at the local, national and sub-regional levels and provide additional knowledge on means of applying ecosystem based approaches to fisheries management and determining the fisheries' socio-economic importance and sensitivities.

1.2 Climate Change

The tropical countries of the Caribbean and the small island developing states (SIDS) in particular, are amongst those predicted to suffer most and soonest from climate change. They are especially vulnerable because of their economic and social sensitivity to climate change in an already fragile environment. The ultimate response for such countries is adaptation to climate variations and to extreme meteorological phenomena by the development of long-term adaptation capacities. There are numerous ongoing efforts at addressing climate change in the Wider Caribbean Region. These include the programmes of the Caribbean Community Climate Change Centre (CCCCC) and the United Nations Economic Commission for Latin America and the Caribbean (ECLAC). However, very little of this work has been focused on fisheries or marine resources. The CLME Project aims to

mainstream climate change vulnerability assessment and adaptation. The Flyingfish assessments will also integrate climate change issues.

2. ECOSYSTEM BASED MANAGEMENT

A focus of the CLME Project will be to address the challenges of sustainable use of shared living marine resources through the concept of Ecosystem Based Management (EBM). EBM links the various sectors that share the use of marine ecosystems, e.g. fisheries, tourism, shipping, energy, and addresses complexity. It is also an essential component of principled ocean governance in the Wider Caribbean. In practical terms, the objective is to apply EBM to the LMR policy cycles at various levels and integrate it into the fishery management planning processes for large pelagics, flyingfish, lobster, reef fishes, and shrimp and groundfish. The Flyingfish assessments will develop and promote an EBM perspective.

3. EASTERN CARIBBEAN FLYINGFISH FISHERIES BACKGROUND

In the southern Lesser Antilles the fourwing flyingfish (*Hirundichthys affinis*) is the single most important small pelagic. FAO (2009) conducted a detailed review of those fisheries believed to be the main flyingfish fisheries in the Eastern Caribbean: Trinidad and Tobago, Grenada, St. Vincent and the Grenadines, Barbados, St. Lucia, Dominica and France (Martinique). The estimated total landings for these countries gradually increased from just under 1,000t in the mid-1950s to a peak of almost 5,000t in the late 1980s, landings declined and have been estimated at 2,000 - 2,500 t in recent years (FAO, 2009). The increasing trend in landings through the 1980's occurred as a result of the rapid expansion of the fleet and area fished. During this period the fishing fleet in Barbados expanded rapidly and total landings of flyingfish more than doubled. This led to concern that the resource may become overfished and led to increased attention to acquiring the information needed for management. Ferreira (2002) estimated that about 1575 boats and 3500 fishers were directly involved in the harvest of flyingfish in the Eastern Caribbean, using a variety of small to medium scale vessels from numerous often rural landing sites in the participating countries. Additionally, Medley *et al.* (2009) determined that on average, over 78,200 flyingfish fishing trips were being conducted annually for three of the major fleets. Consequently, there is a high social and economic dependence on this fishery. There is also considerable value added from the onshore processing, distribution and sale of the catch. In Barbados the landed value of the catch between 1999 and 2003 was about US\$1.8M a year with the added value being a further US\$13.8M a year for a total value of US\$15.6M.

A substantial body of information has been acquired on flyingfish fisheries over the past three decades. The Eastern Caribbean Flyingfish Project that culminated in a workshop in 1992 provides a synthesis of the information up to that point (Oxenford *et al.* 1993). At that workshop key conclusions regarding the biology of flyingfish were that it is essentially an annual species, and that there is mixing of adults throughout the eastern Caribbean. Therefore, the resource should be managed as a single stock. Subsequent research has indicated that the Eastern Caribbean stock is distinct from the neighboring stocks exploited by the fisheries of Brazil and Curacao. This research has revealed restricted gene flow within the eastern Caribbean stock that may have implications for the way that the stock is managed, since there may be sub-stocks within the region (Gomes *et al.* 1998, 1999). An evaluation of assessment options for flyingfish concluded that the overriding feature

of the resource was its high inter-annual variability in abundance. Analyses indicate that yield per recruit would be optimized at average age of capture well below the average age of maturity. Thus it is not a useful approach for this fishery. The relationship between stock and recruitment was not clear, but indicated a tendency for recruitment to be lower than average when stock size was lower than average.

A preliminary analysis of the relationship between recruitment and environmental variables did not reveal any strong environmental influences that might be used to predict recruitment success (Mahon 1990a). A risk analysis indicated that the fishery could be expected to exhibit undesirable characteristics, such as increased inter-annual variability that may result in prolonged periods of low catch even at the fishing mortality that produces maximum long-term sustainable recruitment. Indications are that an increase in landings of 15 - 20% over the levels of the early 1990s could take the resource into the vicinity of the threshold (Mahon 1989). Therefore, it would be precautionary to keep fishing mortality somewhat below that level. Exactly where it should be kept would depend on the management objective for the fishery, e.g. to obtain the greatest catch, or to reduce inter-annual variability and thus promote stability in the fishery.

The Pelagic and Reef Fishes Subproject of the CARICOM Fisheries Resource Assessment and Management Programme (CFRAMP) included an activity to address aspects of eastern Caribbean flyingfish. At the Small Coastal Pelagic and Flyingfish Subproject Specification Workshop (SSW) in Grenada in 1996 papers were presented reviewing the status of Flyingfish fisheries and outlining proposed research and management activities for flyingfish. These activities were not carried out owing to lack of funding. The contributions to the SSW although not published address a number of topics that deserve attention: biology, life history and ecology (Nakashima 1996a, Monteiro, *et al.* 1996, Singh-Renton 1996), social science (McConney 1996), fishing practices (Mohammed 1996), fishery assessment and management (Cochrane 1996, Nakashima 1996b). Country reviews presented at this workshop also provide another waypoint in description of national fisheries for flyingfish. The existence of a southeastern Caribbean management unit for *H. affinis*, was further recognised by the WECAFC Working Party on Marine Resources in Belize City 1997 (FAO 1998). In 1997 WECAFC established an ad hoc Flyingfish Working Group that has met three times: September 1999 (FAO 1999); January 2001 (FAO 2002); July 2008 (FAO, 2009). At the first meeting an analysis of catch and effort data from five countries over the period 1982-1998 was carried out but the data did not show any trends and were considered inadequate for analysis (FAO 2002). The WG identified three activities that should be pursued towards the cooperative management of the southeastern Caribbean flyingfish stock:

- Analysis of fishery catches and fishing effort
- Review of social and economic aspects
- Preparation of a Regional Fisheries Management Plan (FMP)

At the Second Meeting of the Working Group in 2001, re-analysis of catch and corrected effort data was attempted in a workshop setting, but the data for all islands except Barbados were confounded by an inability to distinguish between vessels that targeted flyingfish and those that did not (FAO 2002). Some of the sociological information on the flyingfish fishery identified at the first meeting as being needed was collected and presented at the second working group meeting in 2001 (FAO 2002). Country fishery updates presented at both WG meetings provide the most recent information on the fisheries (FAO 1999, 2002). The regional FMP was developed in draft form and remains to be reviewed and adopted (Oxenford 2002).

The Third Meeting of the Working Group worked to develop an accurate historical time series of data, completed an assessment of the Eastern flyingfish stock to the extent made possible by the accuracy of the data, and reviewed and updated the regional Fisheries Management Plan. The 2008 assessment of the eastern Caribbean flyingfish showed the stock to be in a relatively healthy state (FAO, 2009).

In the meantime, access to flyingfish stocks continues to be a contentious issue between Barbados and Trinidad and Tobago. Much of the contention appears to centre on perceptions of trade rather than scientific issues. The results of the ECFPP were a major component of the information synthesised in the first months of 2003 by the Joint Technical Working Group (JTWG) established by these two governments to put together the best available body of information on this fishery. Still lacking is an appropriate governance mechanism for the resource. The JTWG and the WECAFC WG provide the opportunity for exchange and synthesis of technical information, although the former involves only two of seven states involved in the fishery, but there is still no appropriate forum for decision-making for this fishery.

4. JUSTIFICATION OF CASE STUDY

The initial TDA identified and analysed the priority transboundary problems in three sub-regions (Insular Caribbean, Central / South America and Guianas/Brazil). The analysis included an initial causal chain analysis exercise covering identification of underlying and root causes as well as a first identification of the information gaps. The TDA will now be reviewed to include a full analysis of data and information gaps, a complete causal chain analysis, a public involvement and communication strategy, institutional mapping, a legislative review, a socio-economic review and identification of interventions for inclusion in the SAP. The results of the TDA gap filling activities and the demonstration projects will be incorporated into a final updated TDA. An important contribution to the TDA will be the gap filling activities related to the flyingfish fishery.

The SAP is a negotiated policy document which should identify policy, legal and institutional reforms and investments needed to address the priority transboundary problems identified in the TDA. Endorsed at the highest level, it establishes clear priorities for action to resolve the priority problems. The preparation of a SAP is a cooperative process among the countries of the region. The TDA identifies the priority problems, the underlying sectoral causes, and the root causes of the problems. The SAP outlines the actions needed to resolve the priority problems and must be agreed before technical assistance, capacity-building, or investment projects can be developed. The SAP will include the actions required to address the governance issues of the flyingfish fishery.

5. DEVELOPMENT OBJECTIVE

The CLME Project's Overall Objective is the sustainable management of the shared living marine resources of the CLME and adjacent areas through an ecosystem-based management (EBM) approach that will meet the World Summit on Sustainable Development (WSSD) target for sustainable fisheries.

6. IMMEDIATE OBJECTIVE

The immediate objective of this Case Study is twofold:

- 6.1 to fill important knowledge gaps that will contribute to the final TDA, and
- 6.2 to inform the development of the SAP and the CLME management and governance framework, which will include priority actions for the sustainability of the Eastern Caribbean flyingfish fishery.

7. SPECIFIC OBJECTIVES AND ACTIVITIES

Specific Case Study objectives and activities are:

- 7.1 To review and complete the TDA gap filling activities. In the CLME Project Document (ProDoc) these were listed as:
 - 7.1.1 Improvement of availability of data and information including catch/effort information, in the Eastern Caribbean taking into account long lining and mixed landings;
 - 7.1.2 Single Species bioeconomic analysis of the fishery to establish the bioeconomic criteria and set reliable management measures for the fourwing flyingfish;
 - 7.1.3 Incorporate key predator-prey interactions and the interactions of fisheries for these resources into a bioeconomic evaluation of the fisheries, so as to inform refine the management for the fourwing flyingfish¹

Since the ProDoc and the Terms of Reference of this Case Study were prepared, work on some of the above activities may have evolved or have already been completed or surpassed by the identification of more important gap filling needs. The Case Study will consider the original ProDoc activities and propose modified or alternative activities to them if appropriate, subject to approval by the Case Study Steering Committee.

7.2 To carry out the following SAP activities:

- 7.2.1 Undertake a stakeholder analysis, including an assessment of their capacity to take part in the sub-regional management process;

¹ This objective was formerly split into two separate objectives in earlier versions of the Consultancy document. The original separate objectives were as follows:

“5.1.3 Assessment of species interaction between flyingfish and large pelagic fishes to provide for these in management using EBM principles; and

5.1.4. Assessment of economic risk and social impacts to refine the management for the four-wing flyingfish.”

- 7.2.2 Evaluate the existing policy cycles and linkages among the countries involved in the flyingfish fishery and make recommendations to improve them. This will include a review and analysis of existing policy, legal and institutional arrangements and investments for management and governance of flyingfish. The review and analysis should including the extent of incorporation and application of principles such as the EBM approach, the precautionary principle, public and stakeholder participation, accountability and transparency in both domestic and regional instruments and arrangements. The analysis will take into account measures and institutional arrangements at the local, national and regional levels. The analysis will also consider the extent to which the fisheries policies and institutions are integrated into the wider national and regional frameworks for economic development and environmental protection and management.
- 7.2.3 Prepare a Memorandum of Understanding between CRFM and Martinique on Cooperation in the Management and Governance of the Flyingfish Fishery. The purpose of the MOU is to facilitate closer cooperation and collaboration between Martinique and the CRFM, including their involvement in the planning and implementation of this Case Study.
- 7.2.4 Prepare a Regional Non-binding Declaration setting out the commitments of the States regarding effective management and governance of the Eastern Caribbean four-wing flyingfish to achieve sustainable fisheries.
- 7.2.5 Convene national meetings with key stakeholders to review the recommendations from the evaluation exercise, including the proposal for a sub-regional decision-making mechanism / forum, and seek their input and support. The National meetings will be led by the National fisheries officials in each Participating State.
- 7.2.6 Promote and mobilize the CRFM networking on flying fish issues through the Small Coastal Pelagic Fisheries Working Group to ensure all recommendations and lessons learnt come from reliable field experiences with solid basis.
- 7.2.7 Convene a joint meeting of senior fisheries officials of the CRFM Participating States and the WECAFC ad hoc Working Group on Flyingfish in the eastern Caribbean, with appropriate representation, to review the preliminary outputs and provide further guidance on the activities, including recommendations for the Ministerial Meetings. The meeting will include representation from Martinique.
- 7.2.8 Convene meetings of the CRFM Ministerial Council (Ministers responsible for fisheries of the States interested in the flyingfish fishery) with appropriate Ministerial representation from Martinique to endorse the Regional Declaration and provide policy guidance on the development of the SAP.
- 7.2.9 Prepare a report on the combined findings of: assessment reports; the stakeholder analysis; review of the existing policy legal and institutional frameworks and cycles and recommend reforms needed to achieve sustainable governance and management of the flyingfish resources. The report should:
- incorporate the views of all stakeholders;

- focus on the transboundary issues and concerns without minimizing the importance of national issues and priorities.
- Identify policy, legal and institutional deficiencies and restrictions that may hinder effective transboundary management and governance of the flyingfish fishery.
- The recommended reforms should include the identification of a sub-regional decision-making forum and other policy, legal and institutional reforms and investments needed at local, national and subregional levels for effective governance and management of the fisheries and the ecosystem.

The flyingfish sub-regional policy cycle component will involve the seven countries mentioned above and will use CARICOM / CRFM as a political entity; and the WECAFC ad hoc Flyingfish Working Group and the CRFM as technical entities. Technically it will be informed by the UWI Eastern Caribbean Flyingfish Project, the FAO Lesser Antilles Pelagic Ecosystem Project (LAPE) and the ongoing CRFM assessment activities on flyingfish. It will also address the linkage of local and national policy cycles that are required in support of the sub-regional one.

8. INPUTS

Technical, financial, administrative and political inputs and commitments will be required from several sources including the CLME Project, the CRFM Secretariat supported by external consultants, Fisheries Officials and Policy Makers from the 7 Participating States, and other collaborating Regional Organisations including FAO / WECAFC, OECS Secretariat, CERMES / UWI and IFREMER.

The CRFM Secretariat, supported by external consultants, will provide technical expertise in the areas of fishery assessment, statistics, governance, management, stakeholder analysis, organizational and institutional analysis, fisheries and marine law and policy, and regional cooperation. In addition the CRFM Secretariat will coordinate and provide administrative support for the planned activities.

Inputs will also be provided by The CLME Regional Project Coordinator who will provide technical oversight and will conduct a Case Study Implementation Review and submit this to UNDP-GEF every six months.

The following specific inputs will be required to achieve the specific objectives and activities mentioned at Section 5 above (each activity is repeated below for easy reference followed by the inputs required):

Activity 5.1.1: Improvement in availability of data, particularly total catch and catch rate data both from the food and bait fisheries

- 1) Review of data collection issues in the 7 States involved in the Eastern Caribbean flyingfish fishery, including issues pertaining to socio-economic data and those issues specifically identified by the WECAFC Working Group on Eastern Caribbean Flyingfish.

- 2) Formulate recommendations for improved monitoring of the flyingfish fisheries at the national and regional levels in the future

Activity 5.1.2: Single-species bioeconomic analysis of the fishery to establish the bioeconomic criteria and set reliable management measures for the fourwing flyingfish

- 1) Conduct single-species bioeconomic analysis of fishery using available data to establish the bioeconomic criteria and set reliable management measures for the fourwing flyingfish.
- 2) To the extent possible, gather additional data to inform bioeconomic analysis.

Activity 5.1.3: Incorporate key predator-prey interactions and the interactions of fisheries for these resources into a bioeconomic evaluation of the fisheries, so as to inform refine the management for the fourwing flyingfish

- 1) Studies to gather and analyse the relevant social and economic data, and incorporate the results into fishery management advice.
- 2) Update fishery management advice to reflect EAF considerations to the extent possible

Activity 5.2.1: Stakeholder Analysis

- 1) Engage consultant to assist the CRFM Secretariat with stakeholder analysis to identify primary and secondary stakeholders and assess their capacity, level of influence and willingness to participate in the sub-regional management process for the flyingfish.

Activity 5.2.2: Review and analysis of existing policies, legal and institutional arrangements for governance and management of flyingfish, including application of the EBM approach.

- 1) Visit and consult relevant government departments and other organisations in the 7 Participating States to obtain, review and analyse existing policy and legal instruments, and assess the strengths, weaknesses and linkages of institutional arrangements that can support governance and management of the flyingfish fishery at the various policy cycles.
- 2) The information obtained will be analysed to identify and assess the capability of existing policy, legal and institutional frameworks at different stage of the policy cycle; reveal areas of common interests and compatibility, as well as identify constraints and conflicts that may exist between the local, national and sub-regional levels and thus hinder the effectiveness of the sub-regional policy cycle.
- 3) Review, discuss and agree on issues and root causes, and on the interventions needed to address them, using the CRFM Annual Scientific Meetings as the foundation for addressing the matter (all interested States and organisations would be invited to participate).

These inputs will be provided by the CRFM Secretariat staff supported by international / regional consultants.

Activity 5.2.3: Prepare Memorandum of Understanding between CRFM and Martinique on Cooperation regarding governance of shared marine resources (flyingfish)

- 1) The CRFM will provide expertise to facilitate the negotiation, drafting and execution of a Memorandum of Understanding (MOU) between the CRFM and Martinique to facilitate general cooperation between the competent organizations in Martinique and the CRFM regarding marine resource governance and management.

Activity 5.2.4: Prepare a proposal of Sub-regional Declaration / Action Plan on the management and conservation of the Eastern Caribbean four-wing flyingfish prepared and adopted by the State Parties

- 1) Facilitate sub-regional consultation to prepare, achieve agreement on, and endorsement of a sub-regional Declaration/action plan for regional cooperation on the governance and management of the Eastern Caribbean four-wing flyingfish, through the activities of the Caribbean Fisheries Forum and the CRFM Ministerial Council, with appropriate participation by France. Financial and technical expertise will be required to support the countries in preparation and endorsement of the Declaration/action plan.
- 2) Promote the incorporation and discussion of the main issues, recommendations and actions indentify to the National Inter-ministerial committees (NIC) or equivalents were they exist via the CLME national focal point.

Activity 5.2.5: Convene national meetings with stakeholders

- 1) Convene key national meetings with primary stakeholders to review the recommendations from the evaluation exercise, including the proposal for a sub-regional decision-making mechanism/forum, and seek their input and support. These will be supported and facilitated by the CRFM Staff and international/regional consultants.

Activity 5.2.6 Convene expanded joint technical meeting of the CRFM States involved in the Project and the WECAFC ad hoc Working Group on Flyingfish in the eastern Caribbean, with the appropriate representation from France (Martinique)

- 1) The joint meeting involving senior fisheries officials will review the reports of the stakeholder analysis; the policy, legal and institutional review and development of the Declaration/Plan of Action on the governance and management of the flyingfish. Financial support will be needed for the meeting. The CRFM Secretariat staff supported by international/regional consultants will provide expert inputs to facilitate the joint meeting.

Activity 5.2.7 Convene meetings of the CRFM Ministerial Council (Ministers responsible for fisheries of the States interested in the flyingfish fishery) with appropriate representation from Martinique

- 1) Convene 2 meeting of the CRFM Ministerial Council (with Ministers responsible for fisheries of the States interested in the flyingfish fishery) with appropriate Ministerial representation from Martinique to endorse the Regional Declaration and provide policy guidance on the development of the SAP. Financial resources will be required to convene the

meetings. The CRFM Secretariat staff supported by international/regional experts will facilitate and provide technical support.

Activity 5.2.8 Prepare SAP report with the findings and recommendations

- 1) The Draft SAP Report dealing with governance of the flyingfish resources will synthesize information from the various activities undertaken under this Case Study and:
 - incorporate the views of all stakeholders;
 - focus on the transboundary issues and concerns without minimizing the importance of national priorities;
 - identify policy, legal and institutional deficiencies and restrictions that may hinder effective transboundary governance of the flyingfish fishery; and
 - recommended reforms including the identification of a sub-regional decision-making forum and other policy, legal and institutional changes and investments needed at local, national and subregional levels for effective governance and management of the flyingfish fisheries using an ecosystem-based approach
- 2) The Report will be prepared by CRFM Staff supported by international/regional consultants in collaboration with the participating states.

In addition to the above technical activities the CRFM Secretariat will prepare progress reports on the flying fish Case Study and will convene 3 meetings of the Flyingfish Case Study Steering Committee to review progress and provide guidance on the implementation of the activities. The preparation of these progress reports and meetings will be financed and facilitated by the CRFM Secretariat staff through the CLME Project.

9. EXPECTED OUTPUTS

At the end of the Case Study the following overall outputs will have been achieved:

- Completion of four flyingfish assessments and TDA as described in Section 5 above.
- Completion of SAP activities described in Section 5 above with corresponding reports.

The following specific outputs will be achieved:

- 1) Report of review that includes recommendations for improving Eastern Caribbean flyingfish data collection systems.
- 2) Completed single species bioeconomic assessment, and established bioeconomic management criteria to guide management planning and decision-making for the flyingfish fishery.
- 3) Expanded bioeconomic assessment, taking into account key predator-prey interactions and fishery interactions.

- 4) EAF management recommendations on the Eastern Caribbean four-wing flyingfish, taking into account social and economic objectives.
- 5) Report of stakeholder analysis, with information on primary and secondary stakeholders; and an assessment of their importance and influence regarding the governance of flyingfish.
- 6) Report on the policy, legal and institutional analysis completed and the gaps and reforms needed for sustainable governance of the fisheries identified.
- 7) Report and recommendations of the joint meeting of the CRFM and FAO / WECAFC Working Groups completed.
- 8) Reports (2) of the Case Study Steering Committee prepared.
- 9) MOU on cooperation between the CRFM and France (Martinique) prepared and executed.
- 10) Reports and decisions of the CRFM Ministerial Committee completed.
- 11) Sub-regional Declaration / plan of action completed, and endorsed by policy makers from the participating State.
- 12) SAP Report and recommendations prepared

10. SPECIFIC DELIVERABLES AND TIMING

- Formulation of Case Study Steering Committee (CSC) and initial report with work plan (by 30 September 2010)
- Initiate consultation/discussion on preparation of Agreement between France (Martinique) and CRFM to facilitate cooperation on management and governance of the flyingfish (15 October 2010)
- Commission flyingfish assessments and initiate SAP activities (15 November 2010)
- Commission stakeholder analysis by (30 November 2010).
- Progress report (by December 2010)
- Commission policy, legal and institutional analysis (by 15 November 2010)
- Flyingfish assessments drafted (by August 2011)
- Submission of final version of flyingfish assessments (by 30 October 2011)
- Initial SAP activities report drafted (by 31 January 2011)

- Submission of final SAP activities report (by 15 June 2012)
- Initiate the implementation of the policy cycle recommendations which test the sub-regional decision-making mechanism (Preparation of Regional Declaration) (by 28 February 2012)
- Second Case Study Steering Committee Meeting (by 30 August 2012)
- Final report including progress on policy cycle implementation (by 30 October 2012)

11. MANAGEMENT STRUCTURE AND ACCOUNTABILITY

The Case Study will be led by CARICOM CRFM. CARICOM CRFM will establish a Case Study Steering Committee (CSC) comprising key partners including, but not be limited to, representatives of the 7 States involved in the Fisheries [Trinidad and Tobago, Grenada, St. Vincent and the Grenadines, Barbados, St. Lucia, Dominica and France (Martinique)] drawn from the national fisheries departments and / or related agencies, fishing industry representatives, regional research institutions and other regional organization with an interest in the fisheries including CERMES UWI, and FAO / WECAFC. The CRFM will be accountable to the Project Coordination Unit for all funds and pilot project outputs.

11.1 Composition of Case Study Steering Committee (CSC)

Case Study Steering Committee (CSC)	
STATES	ORGANISATIONS
BARBADOS	CRFM Secretariat
DOMINICA	OECS Secretariat
GRENADA	FAO / WECAFC
MARTINIQUE	CERMES UWI
ST. LUCIA	IFREMER
ST. VINCENT AND THE GRENADINES	FISHER'S ORGANISATION REPRESENTATIVE
TRINIDAD AND TOBAGO	

The CRFM Secretariat will function as the Secretariat of the CSC.

11.2 CRFM

The CRFM is a regional fisheries body established by the CARICOM Governments to promote sustainable use of the living marine and other aquatic resources by the development, efficient management and conservation of such resources. The objectives of the CRFM as stated in Article 4 of the Agreement establishing the Organization (CRFM, 2002) are:

- Efficient management and sustainable development of marine and other aquatic resources within the jurisdictions of Member States;
- promotion and establishment of co-operative arrangements among interested States for the efficient management of shared, straddling or highly migratory marine and other aquatic resources;
- provision of technical advisory and consultative services to fisheries divisions of Member States in the development, management and conservation of their marine and other aquatic resources.

CRFM is made up of three bodies as follows:

1. A Ministerial Council (Ministers Responsible for Fisheries of Member States) that has primary responsibility for, inter alia, determining the policies of the Organisation, resource allocation, cooperative agreements, and related decision-making;
2. The Caribbean Fisheries Forum (heads of national fisheries administrations) which provide technical leadership to the Organization, including the provision of scientific advice to the Ministerial Council, and oversight to the operations of the CRFM Secretariat; and
3. The CRFM Secretariat, which is the technical unit responsible for day-to-day coordination and execution of the work programmes; collaborating with national fisheries authorities; mobilizing resources; and managing the institutional networking to promote its optimal involvement and efficient functioning.

There are presently 17 Member States of the CRFM. These are: Anguilla, Antigua and Barbuda, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, The Bahamas, Trinidad and Tobago, and Turks and Caicos Islands.

The CRFM has established a number of fisheries resource working groups which have met annually (for 2 weeks duration) under the umbrella of the CRFM Annual Scientific Meetings. They compile and analyze available statistics and conduct assessment studies to determine the state of various fish stocks and provide management advice to the Member States. The working groups include: the Large Pelagic Fisheries Resource Working Group; the CRFM Small Coastal Pelagic Fisheries Resource Working Group (includes flyingfish); the Reef and Slope Fisheries Resources Working Group; the Conch and Lobster Resource Working Group; and the Shrimp and Groundfish Working Group. Six Annual Meetings have been held since the establishment of the CRFM in 2003 and more than 30 fisheries have been evaluated and management recommendations prepared (see www.caricom-

fisheries.com to access and obtain copies of the scientific and other technical reports produced by the CRFM).

12. REPORTING

The CRFM Secretariat will be required to report on all deliverables committed under section 10 as follows:

- 1) A bimonthly brief summary report (e.g. synthesis of achievements to be handled as CLME project news - so called Journalistic report (no more than two pages).
- 2) Quarterly report under the guidance of the PCU (quarterly report template to be provided by the PCU).
- 3) Annual report (including a financial report).
- 4) The CRFM Secretariat will produce a Progress Report in coordination with PCU, to be presented at the Caribbean Sea Commission (CSC) Meeting. CRFM will include an annual report to CLME PCU for the Steering Committee (SC) incorporation suggestions and recommendations. This report will describe progress of the Case Study based on the approved Strategic Results Framework. The Progress Report will be submitted to the Regional Project Coordinator for onward transmission to the Implementation and Executing agencies and the CLME Project Steering Committee. This report will provide a review of the work plan to identify achievements and deliveries versus the approved schedule, budget expenditures, and recommendations with respect to any amendments to work plan and budget, and any other information required by the Steering Committee and/or the Executing Agencies.

The Annual Reports will be presented to the PCU in MS Word format (including abstract and full version). In addition, a PowerPoint presentation will also be submitted to the PCU as part of the Annual Reports. The PowerPoint will include both an abstract and a full version of the report.

13. DISSEMINATION OF RESULTS

Results from the Case Study will be documented in scientific and technical reports and disseminated within and beyond the 7 Participating States and partners involved in the CLME Project through a number of existing information sharing networks and forums including but not limited to those currently used by the CRFM, FAO/WECAFC, CERMES UWI, and the CLME Project. In addition:

- The project will seek to participate in and contribute to IW:LEARN, the GEF's International Waters knowledge sharing programme, including participation in biannual GEF International Waters Conferences, preparation of IW "Experience Notes" documenting important lessons and good practice, and contributions to various IW:LEARN-mediated regional and thematic knowledge sharing activities, both virtual and in person.

- The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects.
- The CRFM Secretariat will contribute regularly to the CLME SPPE by exchanging and sharing relevant information and coordinating the publishing of news/technical documents on the CLME web sites.
- CRFM Secretariat will use the information provided by the case study to prepare a technical paper on the results and lessons learnt to be incorporated as part of a technical series of the CLME project. This will include the update of the CLME webpage with the information/data provided from the case study.

14. SUSTAINABILITY

The Case Study will be implemented in a manner that will promote its full integration into ongoing policies processes and programmes of national and regional organisations to ensure sustainability and continuity beyond the duration of the CLME Project inputs. The following elements of the Case Study will contribute to its sustainability beyond the end of the Case Study and the CLME Project:

- Increased awareness and commitment at political and decision-making levels regarding the value of the flyingfish resources and the transboundary management issues affecting them;
- The information base, tools, and models for management decision-making will have been increased and made more accessible to stakeholders,
- The Case Study will focus on enhancing and strengthening existing networks and institutions in the region rather than creating new ones;
- The Case Study will emphasize capacity building of the national and regional institutions involved in the governance and management of the fisheries;
- The Case Study duration should contribute to the establishment and sustainability of the proposed processes and mechanisms;
- The Case Study will seek to establish a culture of cooperation and networking among 7 Participating States and regional fisheries bodies in the region;
- Through “strengthening by doing”, the Case Study will create successes that serve as examples of how countries can collaborate to manage other transboundary living marine resources, and,
- The Case Study will promote the active engagement and participation by the private sector in all major activities to facilitate buy-in and long term sustainability.

15. REPLICABILITY

The Case Study will provide lessons that can be adapted to other transboundary fisheries in the region and to other parts of the world, particularly those where transboundary resources are exploited by small-scale fisheries, for example in Southeast Asia and West Africa. The approaches, results and experiences gained during this Case Study will be documented and disseminated using available media to a wide audience. The Case Study will seek to disseminate these lessons in a form that facilitates their replicability (such as IW Experience Notes), and will actively participate in GEF and other activities that seek to promote replication and share experiences, such as IW: LEARN and the Biennial GEF IW Conferences. The Case Study will also utilize the CLME Project Communication Strategy.

LOGICAL FRAMEWORK MATRIX

Activity #	Objectives / Activities	Implementation Strategy	Performance Indicators /measurable outputs	Assumptions for success
5.1.1	Improvement in availability of data, particularly total catch and catch rate data both from the food and bait fisheries	1) Review of data collection issues in the 7 States involved in the Eastern Caribbean flyingfish fishery, including issues pertaining to socio-economic data and those issues specifically identified by the WECAFC Working Group on Eastern Caribbean Flyingfish. 2) Formulate recommendations for improved monitoring in the future.	1) Report of review that includes recommendations for improving Eastern Caribbean flyingfish data collection systems 2) Updated assessments of flyingfish using improved datasets	Selected countries are committed to providing the data needed to develop improved datasets for assessment, and are willing to work with the CRFM.
5.1.2	Bioeconomic studies of the fishery to establish the bioeconomic criteria and set reliable management measures for the fourwing flyingfish	1) Conduct bioeconomic analysis of fishery using available data. 2) To the extent possible, gather additional data to inform bioeconomic analysis	1) Completed bioeconomic analysis, and established bioeconomic management criteria to guide management planning and decision-making.	Selected countries have sufficient bioeconomic data to facilitate the analysis, or are committed to gathering the required data in a timely fashion
5.1.3	Incorporate key predator-prey interactions and the interactions of fisheries for these resources into a bioeconomic evaluation of the fisheries, so as to inform refine the management for the fourwing flyingfish	1) Studies to gather and analyse the relevant social and economic data, and incorporate the results into fishery management advice. 2) Update fishery management advice to reflect EAF considerations to the extent possible	1) Evaluation study of the social impact and economic risk of the fishery 2) EAF management recommendations on the Eastern Caribbean fourwing flyingfish, taking into account social impact and economic risk information	Socio-economic studies will require cooperation by CRFM States involved. That expertise in developing EAF management advice can be accessed by the CRFM.
5.2.1	Stakeholder Analysis	1) Engage consultant to assist with stakeholder analysis. Identify key stakeholders and assess their capacity, level of influence and willingness to participate in sub-regional management process	Report of stakeholder analysis, with information on key, primary & secondary stakeholders; and an assessment of their importance and influence regarding the governance of flyingfish	National coordinators will assist consultant in identifying and meeting stakeholders in all participating countries in a timely manner

Activity #	Objectives / Activities	Implementation Strategy	Performance Indicators /measurable outputs	Assumptions for success
5.2.2	Review and analysis of existing policies, legal and institutional arrangements for governance and management of flyingfish, including application of the EBM approach. The analysis will take into account measures and institutional arrangements at the local, national and regional levels.	<p>(1) Visits to participating States to obtain, review and analyse existing policy and legal documents, and assess the strengths, weaknesses and linkages of institutional arrangements at the various policy cycles.</p> <p>(2)Analyses to identify and assess the capability of stakeholders at different stage of the policy cycle; reveal areas of common interests and compatibility, as well as identify constraints and conflicts that may exist between the local, national and sub-regional levels and thus hinder the effectiveness of the sub-regional policy cycle.</p> <p>(3) Review, discuss and agree on issues and root causes, and on the interventions needed to address them, using the CRFM Annual Scientific Meetings as the foundation for addressing the matter (all interested States and organisations would be invited to participate)</p>	Policy, legal and institutional analysis completed and reports prepared	Countries are prepared to meet consultants and willing to share relevant data and information on their policies, laws, regulations and other fisheries related agreements that have an impact on flyingfish and species related to or dependent upon the flyingfish fisheries.
5.2.3	Prepare Memorandum of Understanding (MOU) between CRFM and Martinique on Cooperation re governance of shared marine resources (flyingfish)	Negotiate a MOU to facilitate general cooperation between the competent organization in Martinique and the CRFM regarding marine resource governance and management	MOU prepared and executed	Political will exists to execute MOU
5.2.4	Prepare non-binding Sub-regional Declaration/Action Plan on the management and conservation of the Eastern Caribbean fourwing flyingfish prepared and adopted by the State Parties	1) Facilitate sub-regional consultation on and endorsement of sub-regional Declaration / action plan for Eastern Caribbean four-wing flyingfish, through the activities of the CFF and the CRFM Ministerial Council.	1) Sub-regional Declaration /plan of action completed, with the relevant political endorsement.	Several national management plans have not been finalized. Assumption that political will exist for the preparation of a sub-regional declaration / plan regarding governance of flyingfish
5.2.5	Convene national meetings with stakeholders	Convene national meetings with key and primary stakeholders to review the recommendations from the evaluation exercise, including the proposal for a sub-regional decision-making mechanism / forum,	Report of meetings with recommendations	Key and primary stakeholders are available and willing to participate in consultations and freely share

Activity #	Objectives / Activities	Implementation Strategy	Performance Indicators /measurable outputs	Assumptions for success
		and obtain their input and agreement		their ideas and provide comments on the reports submitted for consideration
5.2.6	Convene a joint meeting of the CRFM/WECAFC ad hoc Working Group on Flyingfish in the eastern Caribbean, with the appropriate representation, to guide and review the activities	Convene a joint meeting of the CRFM States and the WECAFC ad hoc Working Group on Flyingfish in the eastern Caribbean, with the appropriate representation, to guide and review the activities	Agenda and reports with recommendation available	States will send suitable technical personnel to analyse the issues and make recommendations on the way forward.
5.2.7	Convene meetings of the CRFM Ministerial Council (Ministers responsible for fisheries of the States interested in the flyingfish fishery) with appropriate representation from Martinique	Convene 2 meeting of the CRFM Ministerial Council (with Ministers responsible for fisheries of the States interested in the flyingfish fishery) with appropriate Ministerial representation from Martinique to endorse the Regional Declaration and provide policy guidance on the development of the SAP.	Agenda and report of ministerial meetings available	Ministerial representation available and willing to devote time to discuss and endorse declaration / action plan and provide guidance on SAP development.
5.2.8	Prepare SAP report with the findings and recommendations	<p>The report will synthesize information from the abovementioned activities and:</p> <ul style="list-style-type: none"> • incorporate the views of all stakeholders; • focus on the transboundary issues and concerns without minimizing the importance of national priorities; • identify policy, legal and institutional deficiencies and restrictions that may hinder effective transboundary governance of the flyingfish fishery; and • recommended reforms including the identification of a sub-regional decision-making forum and other policy, legal and institutional changes and investments needed at local, national and subregional levels for effective governance and management of the flyingfish fisheries using an ecosystem-based approach 	Copies of the SAP Report available	

CASE STUDY SCHEDULE

	ACTIVITIES	Year 1				Year 2			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
5.1	TDA ASSESSMENT ACTIVITIES								
5.1.1	Improvement of availability of data and information including catch/effort								
5.1.2	Bioeconomic studies of the fishery to establish the bioeconomic criteria								
5.1.3	Assessment of species interaction between flyingfish and large pelagic fishes, and incorporation into bio-economic evaluation								
5.2	SAP PREPARATION ACTIVITIES								
5.2.1	Stakeholder analysis								
5.2.2	Evaluate the existing policy cycles and linkages -Policy, legal and institutional frameworks								
5.2.3	Prepare Cooperation Agreement between CRFM and Martinique on Cooperation								
5.2.4	Prepare Regional Declaration on management and Governance of flyingfish								
5.2.5	Convene national meetings with stakeholders								
5.2.6	Convene joint CRFM / WECAFC meeting								

5.2.7	Convene 2 meetings of the CRFM Ministers Council with representation from Martinique								
5.2.8	Prepare SAP report with findings and recommended reforms								
	1st Meeting Case Study Steering Committee								
	2nd Meeting Case Study Steering Committee								
	Administration and coordination of the Case Study								

BUDGET SUMMARY

FLYINGFISH CASE STUDY SUMMARY BUDGET			US\$
5.1	TDA ASSESSMENT ACTIVITIES		
5.1.1	Improvement of availability of data and information including catch / effort		20,000.00
5.1.2	Single species bioeconomic evaluations of the fishery to establish the bioeconomic criteria		20,000.00
5.1.3 & 5.1.4	Expanded bioeconomic assessment of key predator-prey interactions and the corresponding fishery interactions		34,000.00
5.2	SAP PREPARATION ACTIVITIES		
5.2.1	Stakeholder analysis		15,000.00
5.2.2	Evaluate the existing policy cycles and linkages - Policy, legal and institutional frameworks		19,000.00
5.2.3	Prepare Cooperation Agreement between CRFM and Martinique on Cooperation		5,000.00
5.2.4	Prepare Regional Declaration on management and Governance of flyingfish		5,000.00
5.2.5	Convene national meetings with stakeholders		17,000.00
5.2.6	Convene joint CRFM /WECAFC meeting		20,000.00
5.2.7	Convene 2 meetings of the CRFM Ministers Council with representation from Martinique		36,000.00
5.2.8	Prepare SAP report with the findings and recommendations		19,000.00
	1st Meeting Case Study Steering Committee (15 persons, 2 day meeting)		20,000.00
	2nd Meeting Case Study Steering Committee (15 persons)		20,000.00
	Sub-total		250,000.00
	Administrative overheads	5% of Budget	12,500.00
	Coordination with other CLME Projects/activities	1% of budget	2,500.00
	TOTAL		265,000.00