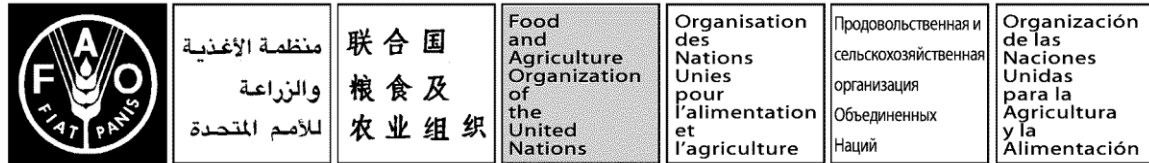


March 2014

E



WESTERN CENTRAL ATLANTIC FISHERY COMMISSION (WECAFC)

FIFTEENTH SESSION

Port of Spain, Trinidad and Tobago, 26-28 March 2014

Project proposals and concept notes

1. In the intersessional period (2012 -2013) major efforts have been towards resource mobilization. The WECAFC Trust Fund was prepared (WECAFC/XV/2014/Ref.15) and support from members to the Programme of Work of WECAFC was solicited.
2. The following projects and concept notes of regional significance to the WECAFC membership and stakeholders have been prepared by FAO and the WECAFC Secretariat, with support from the WECAFC Bureau and members of various Working Groups.
3. Projects in the hard pipeline (approved by the donor):
 - a. Supporting Ecosystem-Based Fisheries Management In The North Brazil-Guianas Shelf Large Marine Ecosystem – budget 75 000 USD - funding from the Inter American Development Bank (IDB). Project is expected to start in mid-2014. See appendix A.
 - b. Caribbean Billfish project (component of the Ocean Partnerships For Sustainable Fisheries And Biodiversity Conservation – Models For Innovation And Reform) (budget 2.1 million USD - World Bank funding under GEF International Waters). This project is expected to start in June 2014. For more information, please see: http://www.thegef.org/gef/project_detail?projID=4856
 - c. Climate Change Adaptation in the Eastern Caribbean Fisheries Sector (GEF Special Climate Change Fund supported) –budget 5.4 million USD including 150 000 USD for the Project Preparation phase in 2014. Full project is expected to start in 2015. For more information, please visit: http://www.thegef.org/gef/project_detail?projID=5667
 - d. Sustainable management of bycatch in Latin America and Caribbean trawl fisheries (REBYC-II LAC) – budget 5.8 million USD under GEF International Waters. This project is currently in the PPG phase. For more information, please visit: http://www.thegef.org/gef/project_detail?projID=5304
 - e. Lobster conservation and management in the Wider Caribbean Region – Budget 62 000 USD from NOAA. This project is expected to support a regional workshop

in May 2014. Please see appendix B.

4. Moreover, FAO and WECAFC participate actively in the CLME+ project: Catalysing Implementation of the Strategic Action Programme for the Sustainable Management of shared Living Marine Resources in the Caribbean and North Brazil Shelf Large Marine Ecosystems. This is a 12.5 million USD GEF International Waters supported project. More details on this project will be provided by the CLME+ team on Friday 28 March.
5. Projects in the soft pipeline (to be proposed to potential donors):
 - a. Port State Measures – developing best-practices for SIDS and overseas territories. Concept note/draft proposal is ready - 350 000 USD budget required. See appendix C. A search for interested donors is ongoing.
 - b. Strategic role of WECAFC regarding fishery statistics and information. Project to support FIRMS implementation in the region- USD 109 000 budget required. Concept note is ready. The proposal will be submitted in 2014 to the EU for potential support in 2015. See appendix D.
 - c. Investment planning study for the establishment of a Regional hatchery for native shellfish species. This project proposal was sent to the Caribbean Development Bank for funding in 2012. Budget required USD 120 000. The project is awaiting approval.
 - d. The Caribbean Blue Revolution. Estimated budget required USD 100 million. A first concept note is ready for submission to Petro Caribe and its members.
6. Additional information on the above projects and concept notes can be obtained from the WECAFC Secretariat at WECAFC-Secretariat@fao.org

Appendix A



Investing in ecosystem-based shrimp and groundfish fisheries management of the Guianas -Brazil Shelf

1. Background

The North Brazil Shelf Large Marine Ecosystem (LME), often called Guianas- Brazil shelf extends along northeastern South America from the Parnaíba River estuary in Brazil to the boundary with the Caribbean Sea and has a surface area of about 1.1 million km². Shelf topography and external sources of material, particularly the Amazon River with its average discharge of 180, 000 m³s⁻¹, exert a significant influence on the marine ecosystem. This discharge of freshwater is complemented by other rivers such as Tocantins, Maroni, Corentyne, and Essequibo. The large size of this continental shelf, macrotides and upwellings along the shelf edge are some other characteristics of this area. The shelf is considered part of a highly productive ecosystem (>300 gCm⁻²yr⁻¹). The extensive mangroves along the coastlines are an important wildlife habitat and play a crucial role in regional fisheries.

The Guianas- Brazil shelf is known for its valuable shrimp and groundfish resources. As a consequence, a large fisheries industry has developed over time targeting these resources. Recent assessments show however that of the main groundfish species the stocks were considered at least fully exploited and some were likely to be overexploited. The penaeid shrimp stocks show a large variation in stock condition; some species are at risk of over-exploitation. The Atlantic seabob is in a good condition in Suriname, which led in 2012 to Marine Stewardship Council certification. The stock status is often difficult to determine for many species of shrimp and groundfish due to the lack of data and recent stock assessments. Bio-economic models applied on the multispecies shrimp fishery of Venezuela and Trinidad and Tobago, indicated that the efforts of these fleets should not be expanded further. However, more recent data would be required, as industrial fishing was banned in Venezuela in 2009.

The countries of the Guianas-Brazil shelf have become increasingly aware of the need for better and an integrated management of the shared stocks of shrimp and groundfish. National consultations were held in Brazil, Guyana, Surinam, and Trinidad and Tobago in 2012. These consultations, carried out under the “case study for the shared stocks of the shrimp and groundfish fishery of the Guianas-Brazil shelf” have demonstrated this need and expressed the urgency to address this gap in management of these important resources.

The shrimp and ground fish fisheries of the Guianas-Brazil shelf provides employment to at least 150 000 fishers and many more in auxiliary jobs (processing, marketing/trade, vessel and gear repair and maintenance, etc.). The number of households that are economically dependent on

the income derived from working in the shrimp and groundfish fisheries sub-sector may well be over 1 million. Moreover, these fisheries contribute significantly to hunger eradication and the achievement of food security. Particularly in coastal communities, where fish and fishery products consumption is generally higher than 40 kg/capita/year, the average nutritional /dietary contribution of the shrimp and groundfish harvests can hardly be overestimated.

The Caribbean Large Marine Ecosystem (CLME) project, which issued above mentioned case study, prepared in 2013 a widely agreed and endorsed Strategic Action Programme (SAP). This SAP includes a strategy (No.6) to "Implement Ecosystem Based Management (EBM)/ Ecosystem Approach to Fisheries (EAF) of the Guianas-Brazil continental shelf with special reference to the shrimp and groundfish fishery".

The actions proposed in support of this strategy are numerous and include important issues such as the establishment of management arrangements for fisheries and protection of the marine and coastal environments, enhancing management capacity of regional fishery bodies and national institutions, alternative livelihood options development, combating Illegal, Unreported and Unregulated (IUU) fishing, addressing safety at sea of fishers and development of national action plans and a sub-regional ecosystem based management plan for these shared resources.

FAO's Western Central Atlantic Fishery Commission (WECAFC), the only Regional Fishery Body with a regional coverage and membership of all countries of the Guianas Brazil shelf, has been assigned a lead coordinating role for the establishment of a sub-regional ecosystem based management arrangement and management planning. That is a continuation of the long-term commitment from the Commission to this area and its fisheries resource. WECAFC has had a specific working group on shrimp and groundfish since 1984, which generated scientific advice. WECAFC, composed of the national fisheries authorities, has a good relationship with the fishing industry, as well as with other key stakeholders such as the Caribbean Regional Fisheries Mechanism (CRFM), CLME, and the UNEP – Caribbean Environment Programme (CEP).

2. Justification

With this funding from IDB, WECAFC will be able to start a sub-regional shrimp and groundfish management planning process. The information collected and strategies designed under the CLME project and scientific advice from the WECAFC Working Group will be presented to the fishing industry and all relevant stakeholders. This information will form the base for analysis of management options and formulation of management objectives and measures, in line with the principle of the Ecosystem Approach to Fisheries.

The WECAFC has high quality expertise on this subject, but limited resources to bring the stakeholders together. This project with IDB will enable the Commission to strengthen a participatory planning process, based on detailed assessments of the fisheries and its interactions with the ecosystem and building on activities undertaken within the CLME Project. It will increase understanding of management options that support sustainability of the targeted stocks and marine biodiversity, while safeguarding economic and social benefits for the population.

Recognizing that implementation of a sub-regional management plan will require major investment from both public and private sources, a preliminary economic valuation of the shrimp and groundfish stocks and an economic impact assessment of the related fisheries sector will be conducted. This will help the Guianas-Brazil shelf governments to better understand the ecosystem services provided by the shrimp and groundfish resources.

The combined outcomes from the management planning exercise and economic valuation will be integrated in a business-case/investment proposal for the IDB to promote and leverage public and private financing of investments in ecosystem based management and conservation of shrimp and groundfish resources of the Guianas –Brazil shelf. Finally, a small communication component will ensure that the project findings and investment proposal are disseminate to key stakeholders in the participating countries.

3. Goals, objectives and activities

Overall goal: To assess the value and management potential of shrimp and groundfish stocks and fisheries of the Guianas -Brazil Shelf in order to enable sustainable investments in ecosystem-based management of these marine resources.

Objective 1: Improve understanding of economic value of the shrimp and groundfish stocks and the economic impact of the related fisheries sector of the Guianas-Brazil shelf.

Activity 1.1: Bio-economic value of stocks and impact of fisheries assessed.

Information collected by the FAO case studies under the CLME project and using WECAFC and recent CRFM Working Group data and analyses will be used as base. Gaps in the data and information required will be filled by contacting experts of the countries concerned and fisheries industry representatives. The assessment methodology applied will include tools developed by FAO, World Bank and partners for earlier projects and programmes. Bio-economic modelling work carried out on the shrimp and groundfish resource by experts of the Working Group will be integrated in this activity.

Objective 2: Initiate an ecosystem-based shrimp and groundfish fisheries management of the Guianas -Brazil Shelf planning process.

Activity 2.1: Strengthening of the WECAFC Working Group on shrimp and groundfish fisheries of the Guianas -Brazil Shelf, in support of sub-regional coordination.

Stakeholder and governance assessments of the shrimp and groundfish sector, made possible by the CLME project will be used as base for ensuring that all relevant stakeholders will be invited to participate in the Working Group activities. New, practical, time-bound and realistic terms of references for the Working Group will be developed by the members and a Working Group convener will be selected. The Working Group terms of reference will be reviewed and formalized/approved by the 15th Session of WECAFC, which is scheduled to be held in Trinidad and Tobago in the period 24-28 March 2014.

Activity 2.2: Analysis and preparation of management options and formulation of management objectives and measures, using an ecosystem-based approach.

The information collected in the previous activities (see also objective 1) will be analyzed by the Working Group, which will prepare a first draft management plan for sub-regional discussion and review. The management planning process will be in line with the principles of the EAF and the FAO Code of Conduct for Responsible Fisheries. Insights and lessons learned from regional management of fisheries resources elsewhere (e.g. USA, Northern Europe, Pacific) will be evaluated in terms of their potential application in this region. Management approaches that assign tenure rights and responsibilities to the private sector, include conflict resolving mechanisms, co-management and regional stakeholder cooperation will be analyzed and management options will be prepared.

Activity 2.3: Organization of the 1st Regional shrimp and groundfish fisheries management investment planning workshop.

A regional workshop will bring together all key stakeholders of the Brazil, French Guiana, Surinam, Guyana, Trinidad and Tobago and Venezuela, including also Working Group members and representatives from the industry, governments, research institutions and NGOs. At the workshop awareness will be raised and capacity strengthened on the ecosystem services of the stocks and economic value or impact of the fisheries. Management options and potential measures will be presented and discussed, as part of the management planning process. Investment opportunities for the management of the fisheries will be outlined, discussed and preliminary agreements will be reached. Next steps in the management planning process will be determined and agreed upon by the workshop.

Objective 3: Develop and promote a business case/investment proposal for the IDB to promote and leverage public and private financing of investments in ecosystem based management and conservation of shrimp and groundfish resources of the Guianas –Brazil shelf

Activity 3.1: Preparation of an economically feasible business case with a value proposition that is attractive for external financial assistance.

It is foreseen that the business case/investment proposal will clearly demonstrate positive biodiversity and ecological consequences of improved shrimp and groundfish fisheries management and conservation, internalized within the economic choices of competent individuals, authorities, fisheries businesses and fishing communities in the Guiana-Brazil shelf states. Continuing linkages with the IDB and the early engagement of interested and appropriate investment / financing institutions will ensure that the investment proposal/business case will be bankable and meet the criteria of these institutions. Financial institutions will be part and actively involved in this project from the start to ensure buy-in and commitments to the results that emerge during implementation and particularly in the design of the investment proposal/business case.

Draft value propositions will be presented to Working Group and the regional workshop (activity 2.3) for analysis and review and to increase interest among potential investors.

Activity 3.2: Dissemination and communication of information of project findings and proposals to stakeholders of the Guianas –Brazil shelf.

Fluent and frequent communication between project partners will be ensured by the FAO-WECAFC Secretariat, based in Barbados. The Working Group and partner agencies will play a major role in dissemination of project findings and management options and proposals. A leaflet to promote the business case/investment proposal will be prepared in English, Spanish and Portuguese. Moreover a workshop report will be prepared and disseminated. Media will be informed through briefs and invited to participate in the regional workshop. The visibility of the IDB project support will be ensured in all project activities and products disseminated.

4. Outputs

The project will deliver the following outputs:

- a) Assessment report of the bio-economic value of shrimp and groundfish stocks and impact of the fisheries at the Guianas-Brazil shelf (1.1)
- b) Terms of Reference and Minutes of the WECAFC Shrimp and Groundfish Working Group meetings (2.1)
- c) Draft elements of a sub-regional Management Plan for the ecosystem-based shrimp and groundfish fisheries management of the Guianas -Brazil Shelf (2.2)
- d) Report of the 1st Regional shrimp and groundfish fisheries management investment planning workshop (2.3)
- e) A feasible business case/investment proposal in support of sustainable ecosystem-based shrimp and groundfish fisheries management of the Guianas -Brazil Shelf (3.1)
- f) A leaflet to promote the business case/investment proposal among potential investors (public & private)(3.2)

Appendix B



Lobster conservation and management in the Wider Caribbean Region

I. Executive Summary

The spiny lobster fishery in the Wider Caribbean Region is one of the most important fisheries in the region in terms of investment and employment. Concern has been expressed about reductions in captures and depletion of the species in some locations which has led countries and sub-regional organizations to require standards for minimum capture size. There is an urgent need for a scientific baseline for further action at a regional, sub-regional and national levels. The United States is a significant importer of lobster from the Wider Caribbean Region and we have adopted these standards as a requirement for import. However high levels of illegal, unregulated and undocumented (IUU) fishing for this species makes developing management decisions difficult. While looking for ways to mitigate this IUU fishing, it is important to take estimates of it into consideration in management plans.

Although some countries, such as Belize, the Bahamas and Colombia have prohibited its use, some countries, such as Honduras and Nicaragua, use SCUBA as their preferred gear. As populations of spiny lobster have been depleted in these countries, divers are forced into deeper water with equipment that is known to be inadequate and poorly-maintained. The rates of injury and deaths in these fisheries, while historically a cause for concern have increased in recent years.

A lobster working group was established at the most recent meeting of the Western Central Atlantic Fisheries Commission (WECAFC). The group is led by WECAFC, OSPESCA and the Caribbean Regional Fisheries Mechanism, making it the only group working on fisheries issues in the entire Wider Caribbean Region. The objectives of the working group include the following:

- Sharing available data and information about the spiny lobster fishery;
- Developing common methodologies for evaluating and monitoring of stocks of spiny lobster and better involving the private sector in these efforts;
- Compiling and analyzing catch and effort data and monitoring changes that occur;
- Compiling socio-economic information about the fishery;
- Developing proposals for fisheries management and implementation of regional regulations, such as those adopted in Central America through OSPESCA.

II. Project Approach

A. Background

The WECAFC Secretariat is organizing the work of the Lobster Working Group and has developed a thorough strategy that attempts to make the best use of electronic media to

collect and analyze information in order to lower the costs of the effort. While we support this thrifty approach, we strongly believe that an initial workshop to complete an assessment for the stock in question is an essential first step of the process. All participants would first provide appropriate data for their countries, including estimates of illegal take, in order for a realistic assessment to be done.

B. Goals and Objectives

- Collect appropriate catch and effort data for use in a Wider Caribbean Region stock assessment. Data would include fishery-dependent data (e.g., landings, effort, regulatory discards, biological) and fishery-independent data (e.g., indices of abundance, length frequency)
- Collect estimated information on levels of illegal, unregulated and undocumented take for the spiny lobster fishery through collaboration with enforcement officials and biological samplers
- Synthesize the data and determine what modeling approach best fits the level of data available.
- Conduct a stock assessment for spiny lobster
- Identify problem areas and recommendations for the sustainable management of the fishery for consideration by marine resource managers in the region.

C. SCOPE

This proposal calls for a workshop of approximately 30 people who will do the stock assessment and resulting recommendations. A pre-requisite for participation in the workshop requires that each participant prepare and submit data from their component of the region. This phase of the project will begin several months prior to the workshop with transmittal of a checklist of ideal information and data.

The FAO/WECAFC secretariat will convene the meeting, with the assistance of the caribbean fishery management council. The funds will be provided to wecafc by means of a grant.

Appendix C

CONCEPT NOTE

Port State Measures – developing best-practices for SIDS and overseas territories

BACKGROUND

Illegal, unreported and unregulated (hereafter “IUU”) fishing poses a major threat to global fisheries sustainability. IUU fishing occurs in almost all capture fisheries in all areas (under national jurisdiction and on the high seas) and regions. IUU fishing undermines national and regional efforts to conserve, manage or rebuild fish stocks. It has been estimated that in addition to resource and ecosystem impacts, the 11-26 million tonnes of fish that are caught illegally a year (corresponding to at least 15% of global output), leads to annual economic losses of the order of US\$2-15 billion (EU,2011). Moreover, developing countries which are heavily dependent upon coastal resources for poverty reduction and livelihoods are particularly vulnerable to vessels fishing illegally in their waters (Pomeroy and Andrew, 2011).

Recognizing the large and serious threat posed by IUU fishing the FAO Committee on Fisheries (COFI) adopted the International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU) in 2001. The IPOA-IUU identified a range of measure which all signatory states were obliged to implement to combat IUU fishing, these included: the implementation of international instruments, the development of national plans of action, enforcing jurisdiction over vessels without nationality, and strengthening monitoring, control and surveillance (MCS) mechanisms (Palma, Tsamenyi.M., Edeson,W., 2010). Since 2001 there has been an increasing focus on the role that both flag States and port States should play in combating IUU fishing. One outcome of this was the approval of The [Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing](#) (hereafter ‘PSM Agreement’) by the FAO Conference at its Thirty-sixth Session on 22 November 2009.

While the effective control of vessels (and, by extension, their operations) is the responsibility of the flag State, the emergence of a need for port state control can be found in the record of the failures of some states to discourage IUU fishing activities by their flagged vessels (Cartner, Fiske, and Leiter, 2009). As IUU fishers generally need to land or tranship their catches through a port, port controls are viewed as playing an ‘increasingly important role in enforcement of internationally accepted laws and standards for shipping’ (Oral, 2013). The PSM Agreement aims to prevent illegally caught fish from entering international markets through the ports ‘window’. Under the terms of the Agreement, foreign vessels must provide advance notice and request permission for port entry, countries will conduct regular inspections in accordance with universal minimum standards, offending vessels will be denied use of port or certain port services and information sharing networks will be created. The expectation is that the measures set out in the PSM Agreement will contribute to the growing global harmonization of PSM and, by helping to enhance regional and international cooperation, thereby block the flow of IUU-caught fish into national and international markets. This has not happened to date in the Western Central Atlantic (FAO area 31) fisheries region.

THE WESTERN CENTRAL ATLANTIC REGION AND IUU FISHING.

While a regional Needs Assessment Workshop for ACP Caribbean countries convened under the ACP Fish II Programme in October 2009 identified the need for studies to determine the extent to which national fisheries regulations complied with EU IUU Regulations, no funds were assigned, nor contracts signed, enabling this measure to be pursued under the resulting Regional Action Plan (ACPFish II, 2010). Nevertheless, there is a latent willingness to collaborate to tackle IUU fishing in the region, as evidenced by: (i) the Castries (St. Lucia) Declaration of 2010 – the signatories declaring their desire to work together [and with other stakeholders, including regional and multilateral partners] to identify, prevent, deter and eliminate IUU fishing; (ii) the Caribbean Community Common Fisheries Policy of July 2011 – Article 4.3 of which entrusts the members with the responsibility of preventing, deterring and eliminating IUU fishing in the region, and (iii) the Fourteenth Session of the WEC Fisheries Commission (WECAFC) of February 2012 – which emphasized the ‘importance of making progress in addressing IUU fishing given concerns relating to the declining trend in fish stocks and the catches of a number of commercially and recreationally important fish species’ (FAO, 2012). This prompted the approval of a WECAFC “Resolution on Strengthening the Implementation of International Fisheries Instruments” at the Fourteenth Session, with members being urged to become party to legally binding international fisheries instruments [including the PSM Agreement] where this was not currently so.

In conjunction the 15th session of WECAFC, which is scheduled to be held in Trinidad and Tobago in the period 26-28 March 2014, FAO and WECAFC are organizing a Workshop on Implementing the 2009 FAO Agreement on Port State Measures to Combat Illegal, Unreported and Unregulated Fishing. That workshop is expected to generate awareness and start building capacity in the region for implementing the Port State Measures Agreement.

A preliminary assessment of the situation however suggests that many of the WECAFC states in the Caribbean region will not be able to implement the PSM Agreement in the way it was intended without some external assistance in terms of:

- developing a legal basis and capacity for the implementation of effective port state measures at the national level;
- facilitating the discussion of wider regional plans to combat IUU and the sharing of ‘best practice’ in the design and implementation of PSM;
- providing technical assistance to strengthen institutional capacity so as to ensure the effective implementation of PSM in the member states.

The objective of this project/concept note then is to support the member states of the WECAFC to build capacity to both develop and implement effective PSM so as to deter and, in the longer-term, eliminate IUU fishing across the region. The project focuses on the Small Island Developing States (SIDS) in the Caribbean and overseas territories.

Proposed Activities:

1. To review:

- national and regional legislative instruments relating to the operation of ports and the control of fishing activities.
- fisheries activity – by country and port – and assess the likely extent of IUU fishing in the region.
- existing national control systems, human resource constraints and current institutional capacity.

2. To convene a Regional Workshop to:

- share the findings from Activity (1)
- to identify further capacity needs (at the regional and national levels) for implementing PSM in an effective manner.
- To develop capacity-building mechanisms/modules that could be used to inform national capacity-building strategies across the region.

3. To technically advice and build capacity on:

- PSM implementation in 3 SIDS and 3 overseas territories.
- effective capacity building initiatives in support of PSM implementation in 3 SIDS and 3 overseas territories.
- best practices in support of implementation of Port State Measures by SIDS and overseas territories.

Estimated Budget:

| | Unit | Number of units | unit costs (USD) | total (USD) |
|---|------|-----------------|------------------|-------------|
| 1. Staff (gross salary) | | | | |
| 1.1 Technical staff (P4 Caribbean) | days | 60 | 952 | 57120 |
| 1.2 Technical Staff (P4 Rome) | days | 30 | 943 | 28290 |
| 1.3 Administrative staff (G5) | days | 60 | 511 | 30660 |
| | | | | |
| 2. Contracts with EU institutions | days | 100 | 700 | 70000 |
| (external expertise) | | | | |
| 3. Activities | | | | |
| 3.1 workshops costs (reg. + nat.) | | | 65000 | 65000 |
| 3.2 travel | | | 80000 | 80000 |
| 3.3 per diem and accomodation | | | 60000 | 60000 |
| 3.4 translations and interpretation | | | 12000 | 12000 |
| 4. Sub-total | | | | 403070 |
| 5. Project support costs (13% of donor contribution) | | | | 52399 |
| 6. Evaluation | | | 8000 | 8000 |
| 7. Total cost of the project (4+5+6) | | | | 463469 |
| 8. Total donor contribution (7-1) | | | | 347399 |

Appendix D**CONCEPT NOTE ON THE STRATEGIC ROLE OF WECAFC REGARDING FISHERY STATISTICS
AND INFORMATION**

Prepared by: M. Taconet – with inputs from E. Balestri and A. Ellenbroek

EXECUTIVE SUMMARY

This document discusses the role which WECAFC can play in the domain of fishery statistics and information in its geographic area of competence. In a context where i) the fisheries governance landscape is sharply evolving with the emergence of sub-regional organizations with mandates in support to fisheries management, ii) the Ecosystem Approach to Fisheries (EAF) will require increasing provision of information across disciplines and institutional levels, iii) broader regional initiatives focussing on the State of the Marine Environment expect a strong contribution from fisheries agencies, and iv) FAO proceeds with a sharp reform having a strong focus on Food Security and Nutrition in which the global Blue Growth initiative will foster delivery efforts, WECAFC is seen as a key regional authority, which is in a position to define and implement a strategy for encouraging and coordinating the data collection, sharing, analysis and reporting on fisheries.

facts and context

WECAFC MANDATE

Among the functions of the Commission relevant to this concept note (see annex 1), are:

- to promote, coordinate and, as appropriate, undertake the collection, exchange and dissemination of statistical, biological, environmental and socio-economic data and other marine fishery information as well as its analysis or study;
- to facilitate the conservation, management and development of transboundary and straddling stocks;
- to contribute to improved governance through institutional arrangements that encourage cooperation amongst members;
- to promote the strengthening of institutional capacity and human resources;
- to seek funds and other resources and to serve as a conduit of independent funding to its members.

FAO GLOBAL STRATEGIES AND FRAMEWORK

Strategy-STF – role of information/ evidence base / role of regional organizations

The Code of Conduct for Responsible Fisheries (CCRF) states that knowledge of the status and trends of capture fisheries, including socio-economic aspects, is a key to sound policy-development, better decision-making and responsible fisheries management. It is necessary at the national level for the maintenance of food security and for describing social and economic benefits of fisheries. Data and information are also required at the national level for fisheries policy-development and management that is a dynamic interdisciplinary process that depends on adequate and reliable information. They are also required at both national and local levels to implement policy and management interventions and to assess the success of various policies and to monitor the performance of fisheries management.

Concerned with persistent deficiencies of fisheries data and information collection systems worldwide, FAO has introduced the "Strategy for improving information on status and trends of capture fisheries" (Strategy-STF) in order to provide a practical framework for the improvement of knowledge and understanding of fishery status and trends. It is a document that provides guiding principles for implementation arrangements, and sets forth objectives, policies, programmes, actions and decisions that define who will do what and why. FAO's Strategy-STF was endorsed by COFI in 2003 as well as UNGA in 2004. Since then, the main action areas through Extra Budgetary Funding (in particular the FishCode-STF Project) gave special emphasis on developing regions and countries, including:

- Setting up a global inventory of fish stocks and fisheries
- Development of data collection systems for small-scale and multispecies fisheries
- Development of criteria and methods for ensuring information quality and security
- Development of arrangements for the provision and exchange of information
- Support to and participation in the Fisheries Global Information System (FIGIS)
- Sustaining data collection and information systems
- Expanding the scope of information on status and trends of fisheries, including the need to incorporate ecosystem considerations into fisheries management
- Capacity-building in developing countries
- Participation in working groups in assessing the status and trends of fisheries

New FAO Strategic Framework, Blue Growth initiative, and HQ-FI services

Through five main Strategic Objectives, the new FAO Strategic Framework focuses on addressing countries needs through cross-disciplinary action, strong decentralization and promotion of partnerships. Through FAO's Global Agriculture Statistical Strategy, the fisheries data collection and analysis is increasingly interleaved with FAO's main data collection schemes such as Agricultural Census, natural resources or rural livelihood surveys, thus strengthening its socio-economic dimension, including for demonstrating the importance of fisheries to food security and nutrition.

In this framework, delivery is organized through Global and Regional initiatives. The Blue Growth initiative, led by the Fisheries and Aquaculture Department, will build on the above described cross-disciplinary and partnership capacities to promote sustainable use of aquatic ecosystems, with the aim to strengthen the contribution of fisheries to food security and poverty alleviation, and to mitigate the impacts of climate change through emergence of new ecosystem services.

Statistics and information services in the new FAO framework: in this context, FAO HQs will strengthen capacity to support developing countries needs through availability of global statistics and data frameworks implemented through i) stronger synergies/consistency across FAO's data collection schemes, and ii) building more systematic on partnerships.

In this context, the FAO Fisheries and Aquaculture Department (FI) is shaping a 'global fisheries data framework' including a consistent suite of approaches, methods and tools across the data value-adding chain, able to address EAF needs, and beyond, to encompass Blue Growth needs. This builds on FI's global extensive experience which has resulted in the availability of **methodological approaches** and **standalone tools** such as **ArtFish** for statistical data collection in SSF or **FishStatJ** for dissemination and analysis of fishery statistics, and **global information systems** enabled by **information sharing partnerships** such as **ASFA** for scientific bibliography including promotion of grey literature, and **FIRMS** for global monitoring of state of fishery resources and status of their management. This framework is being enriched by i) the recent and innovative partnerships organized around the **iMarine** data infrastructure platform, which supports the Ecosystem Approach to fisheries management and conservation of marine resources, ii) developments on the **Global Record** of fishing vessels and the related Vessel Records Management Framework (**VRMF**), and iii) increased capacity to assess the socio-economic importance of fisheries including small scale fisheries through inclusion of fishery and aquaculture aspects in the Agriculture statistical data collection frameworks including **Agriculture censuses**, System of Environmental Economic Accounting (**SEEA**), and natural resources and livelihood surveys. This FI 'global fisheries data framework' offer is further described in Annex 3. Consistently with FAO's mandate to support its Members including through regional bodies, this framework is designed to be configured or repurposed to fit the regional or national requirements needs and context.

REGIONAL CONTEXT

Other organizations and their mandate – OSPESCA and CRFM

The last two decades have seen the emergence in the region of Fishery Bodies at sub-regional level, shaped by groups of countries having common interests through sharing ecosystems and linguistic culture.

OSPESCA, the Organization of the fisheries and aquaculture sector of the Central American Isthmus, was founded in 1995, bringing together eight Hispanic countries of Central America. It aims to encourage the development and the coordinated management of regional fisheries and aquaculture activities, helping to strengthen the Central American integration process.

CRFM, the Caribbean Regional Fisheries Mechanism was founded in 2003 and social benefits of the current and future population of the region. There is a strong focus on efficient management of fisheries both inside areas of national jurisdictions and shared/straddling

marine resources, through technical advice to member states and promotion of institutional arrangements.

Regarding statistics and information, their policy and management focussed mandate indeed encompasses the collection of data and sharing of information indispensable for decision making. Unlike FAO however, these organizations are not knowledge organizations and cannot pretend to be backed with similar strong experience and capacity regarding approaches, methodologies, expertise and tools, and themselves or their members often call upon FAO's capacity.

Thus WECAFC can be seen as having a unique role in respect of fishery statistics and information in the Wider Caribbean region/Western Central Atlantic. Close collaboration is already taking place between WECAFC and these sub-regional organizations in various species specific and fisheries technology specific joint working groups.

, bringing together 16 countries mostly Anglophone of Caribbean islands. It aims to promote and facilitate the responsible utilization of the region's fisheries and other aquatic resources for the economic

Regional needs for statistics and information - CLME regional initiative

Through close collaboration, WECAFC, OSPESCA and CRFM aim at sustainably supporting regional or sub-regional stock assessments on the following 11 species: Queen conch, Spiny lobster, Penaeid shrimp, Four wing flyingfish, Dolphin Fish, Wahoo, Spanish Mackerel, Blackfin Tuna, Seabob, Nassau grouper, Goliath grouper; and at designing and implementing up to 6 regional fishery management plans within the next 5 years (queen conch, lobster, shrimp and flying fish within two years, and nassau grouper and marlin - blue and white - within five years). In this context, the need for a well functional Regional DataBase (RDB) is expressed; such RDB would require a capacity to easily collate, harmonize and store catch, effort and biological statistics; compile and analyse for stock assessment; and monitors fisheries status and trends.

These regional or sub-regional objectives constitute unique drivers for strengthening national capacities in fishery statistical data collection, compilation, exchange and analysis, hence opportunities for enhancing decision making in fisheries policy and management.

Beyond the strict fisheries focus, the Caribbean Large Marine Ecosystem (CLME) initiative is developing a Strategic Action Plan (SAP) aiming at sustainable use of the Caribbean Marine ecosystem. As overall encompassing programme, the SAP will require a system to monitor the state of marine environment coupled with a decision support system able to influence decision makers. For reaching this goal, the system will necessarily be decentralized linking-up all initiatives which can be useful for the programme, and will have to integrate indicators feeding competency questions which decision makers have.

The sixth session of the WECAFC Scientific Advisory Group (SAG VI) agreed in November 2013 that FIRMS could provide baseline indicators in term of fisheries resources for the CLME+ project, and for monitoring the impact of the CLME+ project and SAP as far as marine resources and fisheries are concerned. The iMarine data infrastructure, which has capacities to collect, share, compile, analyse and publish data across fishery, biodiversity and marine environment, would also offer a potential platform supporting the goals of CLME.

Justification

GENERAL ROLE FOR A WECAFC EFFICIENTLY BACKED BY A WELL-ESTABLISHED FAO'S 'GLOBAL FISHERY DATA FRAMEWORK'

The above described needs and context indicate that:

- WECAFC's mandate could be enlarged to relay the Global Blue Growth initiative, thus placing stronger emphasis on the socio-economic role of fisheries in support to food security and nutrition and environmental role in mitigating climate change effects.
- WECAFC's current functions of interest to statistics and information are still valid. Considering WECAFC limited Secretarial resources, this role is essentially that of promoting and coordinating with a neutral hat, backed by FAO's global statistics and information expertise and frameworks, and raising funds for implementation.

This role can be very well illustrated with the recent uptake of FIRMS in the region: through the organization of the WECAFC-FIRMS workshop and the validation of its outputs by SAG-VI, WECAFC took a leading role in promoting data exchange in support to marine resources and fisheries monitoring, by mobilizing the existing FIRMS global framework for which FAO-HQs provides the Secretariat; in leading the FIRMS implementation in the region, WECAFC contributes to improved governance since institutional arrangements encouraging cooperation amongst members and sub-regional organizations (e.g. OSPESCA and CRFM) are required (i.e. Annex2 of the FIRMS Partnership Arrangement); operationalizing FIRMS requires WECAFC, together with other sub-regional organizations, to seek funds in order to strengthen institutional capacity and human resources at members level and to enable the necessary backstopping support at FIRMS Secretariat level.

Another example is the recent project proposal developed by FAO-WECAFC for strengthening the fishery statistical information system for the Bahamas, and the mobilization of FAO's TCP funding resources. Here again, WECAFC can count on FAO's global expertise and frameworks for assisting the Bahamas in strengthening their capacity.

COMPONENTS OF A REGIONAL STRATEGIC APPROACH

SAG-VI agreed on the need for improvements in the field of statistical data collection, compilation, sharing and analysis and recognized in this respect FAO/WECAFC's expertise and role in coordinating, and in providing a neutral platform for the region. This effort should be part of a regional strategic plan, identifying priorities (e.g. to support regional working groups) and proceeding incrementally. In this respect, it was noted that the "WECAFC reorientation and strategic and mid-term planning" (Guadeloupe, January 2014) could constitute a milestone and the "SAP strategy 3 / Action: develop ad hoc policy for data collection harmonization and sharing" could serve as an implementation framework.

It is proposed that such a strategic approach should generally support the implementation of the global Blue Growth initiative in the WECAFC region.

This is very much in line with the proposed Focus area 3 of the WECAFC Strategic plan 2014 - 2020 "Increase regional information and collaboration in fisheries"

This approach will therefore include the following strategic components:

1. Implementation of the EAF through support to regional stock assessment working groups and fishery management plans. The specific objective would be that of setting up a Regional Data Base supporting data sharing and analysis required by these working groups. This regional objective will foster national level statistical data collection and compilation capacity, as well as sharing of fishery statistics at regional level; and the resulting state of stocks and status & trends of fishery management will be disseminated through FIRMS.
2. Fight against IUU, by implementation at national level of the Global Record of Fishing Vessels Refrigerated Transport Vessels and Supply Vessels (Global Record) and

- integrated monitoring of fisheries operations; this could start by selected pilot implementations in the context of ABNJ tuna and billfish projects;
3. Contribution of the fishery sector to the state of the environment (CLME+ project) through FIRMS implementation, including at sub-regional and national levels, and participation in the Global VME-database, as well as ensuring that the information will be accessible in the 3 languages of the Commission (English, Spanish and French)
 4. Contribution of the fishery sector to food security and nutrition (FSN), and the particular role of Small Scale Fisheries, through regional workshops aiming at the identification of relevant indicators for FSN and existing or necessary data sources to monitor them; followed by pilot implementation in selected countries which will aim at i) strengthening fishery statistics collection schemes at national level, and ii) mainstreaming relevant data flow towards global information system on food security and nutrition (ISFSN). This will be supported through approaches and tools listed under Annex 3 / point 1. "Support to data collection in small scale fisheries (SSF) and socio-economic assessments".

It should be noted here that the 'Global fisheries data framework' and tools which FAO-HQs can make available is in various stages of developments and customization ability. Investments in the WECAFC area would have to support the repurposing, extension, customization, or integration with existing local tools of this global framework, but would highly benefit from the advanced and broad maturity of the framework which FAO, with its Partners, can make available.

In this respect, the iMarine platform can be understood as the apex of the framework because of its gluing, overall integrative, and partnership fostering capacity. Participation in the iMarine Board, the user Community governing body, or its extended expression (the iMarine Extended Board) would be expected in order to contribute to the orientations assigned to the framework.

PRIORITIES AND EXPECTED IMPACT

The WECAFC reorientation workshop should provide a great opportunity to discuss priorities, resource mobilization, and implementation steps. Judging from recent developments under the aegis of WECAFC-SAG, FIRMS reporting and the development of a Regional Database would appear to feature high on the priorities.

Anticipated impacts

FIRMS offers a framework with proofed data exchange protocols for the sharing at regional level of state of stocks reports and fisheries data in support to management. Implementing FIRMS is expected to foster data exchange among countries and monitoring capacities. Availability in the public domain of a comprehensive collection of authoritative fishery status reports in national languages will improve involvement and participation of all stakeholders in fishery governance processes. Through CLME+ SAP, it will also contribute to the broader monitoring of the regional state of the marine environment, this mechanism being in turn expected to influence national decision makers towards implementation of sustainable fisheries. Indication of an overall budget for FIRMS implementation in the region is provided in Annex 5.

Implementation of a Regional Database in support to joint regional assessment and management working groups is eventually expected to enhance the efficiency of these working groups hence the reliability of the assessment results, or the capacities for adaptive management. In earlier stages, by fostering national level statistical data collection and compilation capacity, this objective will also contribute to improve fisheries monitoring and management at national level. Considering the investment both at national and regional levels, deciding to embark on such objective should not be done without a commitment by contributing parties to strive to implement the Ecosystem Approach to Fisheries. In terms of implementation, a stepwise approach would consist to identify a pilot for which success criteria indicate higher chances of success, hence organized around working groups where national and regional commitments are high, and where analytical capacities and national statistical system meet minimal functional capacities.

Annexes

ANNEX 1: CURRENT WECAFC FUNCTIONS

Mission

Objective: The general objective of the Commission is to promote the effective conservation, management and development of the living marine resources of the area of competence of the Commission, in accordance with the FAO Code of Conduct for Responsible Fisheries, and address common problems of fisheries management and development faced by members of the Commission.

The work of the Commission is guided by the following three principles:

- promote the application of the provisions of the FAO Code of Conduct on Responsible Fisheries and its related instruments, including the precautionary approach and the ecosystem approach to fisheries management;
- ensure adequate attention to small-scale, artisanal and subsistence fisheries; and
- coordinate and cooperate closely with other relevant international organizations on matters of common interest.

Functions: The Commission has the following main functions and responsibilities:

- to contribute to improved governance through institutional arrangements that encourage cooperation amongst members;
- to assist its members in implementing relevant international fisheries instruments, in particular the FAO Code of Conduct for Responsible Fisheries and its related International Plans of Action;
- to promote, coordinate and, as appropriate, undertake the collection, exchange and dissemination of statistical, biological, environmental and socio-economic data and other marine fishery information as well as its analysis or study;
- to promote, coordinate and, as appropriate, strengthen the development of institutional capacity and human resources, particularly through education, training and extension activities in the areas of competence of the Commission;
- to promote and facilitate harmonizing of relevant national laws and regulations, and compatibility of conservation and management measures;
- to assist its members in and facilitate, as appropriate and upon their request, the conservation, management and development of transboundary and straddling stocks under their respective national jurisdictions;
- to seek funds and other resources to ensure the long-term operations of the Commission and establish, as appropriate, a trust fund for voluntary contributions to this end;
- to serve as a conduit of independent funding to its members for initiatives related to conservation, management and development of the living resources in the area of competence of the Commission.

ANNEX 2 – FAO’S STRATEGY STF

Knowledge of the status and trends of capture fisheries, including socio-economic aspects, is a key to sound policy-development, better decision-making and responsible fisheries management. It is necessary at the national level for the maintenance of the food security and for describing social and economic benefits of fisheries. Data and information are also required at the national level for fisheries policy-development and management that is a dynamic interdisciplinary process that depends on adequate and reliable information. They are also required at both national and local levels to implement policy and management interventions and to assess the success or otherwise of the policies and to monitor the performance of fisheries management.

The collection and analysis of fisheries data is a costly and timely exercise. Hence, the need for fishery information and the objectives of the statistical system must be clearly defined, and through review of national statistical framework including their linkage with priorities and objectives, the requirements of data users must also be undertaken. However, chronic problems of institutional weaknesses, low priorities given, and deficiencies of conventional production oriented systems are prevalent in many countries in this region, and resulting unreliable poor quality of information lead to non- or limited use of statistics for fishery management and policy development. This would further result in dwindling support for the development of statistical systems. There is an urgent need to terminate this vicious cycle of problems. Concerned with those persistent deficiencies of fisheries data and information collection systems worldwide, FAO has introduced the "Strategy for improving information on status and trends of capture fisheries" in order to provide a practical framework for the improvement of knowledge and understanding of fishery status and trends. It is a document that provides guiding principles for implementation arrangements, and sets forth objectives, policies, programmes, actions and decisions that define who will do what and why.

The Strategy-STF¹ is a voluntary instrument that applies to all States and entities. Its overall objective is to provide a framework, strategy and plan for the improvement of knowledge and understanding of fishery status and trends as a basis for fisheries policy-making and management for the conservation and sustainable use of fishery resources within ecosystems. Following the introductory section, the nature and scope of the Strategy is specified. This is followed by the Strategy's objective, guiding principles and the required actions. These required actions fall under nine major areas, with a primary emphasis on the need for capacity building in developing countries. Finally, promotion and implementation mechanisms are specified, including the roles of States, regional fishery bodies and arrangements, the Food and Agriculture Organization of the United Nations (FAO), development partner agencies and non-governmental organizations

The FishCode-STF Project shares the global scope of the overall FishCode Programme, as well as its special emphasis on developing regions and countries. Actions under the project include:

- Setting up a global inventory of fish stocks and fisheries
- Development of data collection systems for small-scale and multispecies fisheries
- Development of criteria and methods for ensuring information quality and security
- Development of arrangements for the provision and exchange of information
- Support to and participation in the Fisheries Global Information System (FIGIS)
- Sustaining data collection and information systems
- Expanding the scope of information on status and trends of fisheries, including the need to incorporate ecosystem considerations into fisheries management
- Capacity-building in developing countries
- Participation in working groups in assessing the status and trends of fisheries

¹ See <http://www.fao.org/fishery/fishcode-stf/about/en>

ANNEX 3 – FAO’S GLOBAL FISHERIES DATA FRAMEWORK

1. Support to data collection in small scale fisheries (SSF) and socio-economic assessments
 - a. ArtFish; standalone application for stratified sampling schemes
 - b. AppliFish for Mobile Data Collection
 - c. Livelihood surveys of Local fisher folks communities (partnership TBTI – iMarine)
 - d. Agriculture census - Fisheries and Aquaculture modules
 - e. System of Environmental Economic Accounting (SEEA)
2. Fight against IUU through support to data integration of national commercial fisheries monitoring systems
 - a. Global Record and VRMF in support of fleet registries, fishery licensing systems
 - b. iMarine as facilitator of VMS data exchange and analysis
3. Support to regional implementation of EAF
 - a. Regional fishery statistics
 - i. iMarine Integrated Catch Information System (ICIS) in support to Time Series harmonization and integration workflow
 - ii. Statbase for collation and dissemination of web-based Regional Fishery statistics
 - b. Regional data base supporting scientific stock assessment
 - i. iMarine-FishFrame RDB
 - c. Biodiversity analysis
 - i. iMarine bionym and species occurrence data analytical framework
4. Support to LMEs monitoring
 - a. Global VME-Database and mapping infrastructure
 - b. FIRMS state of stocks and fisheries status and trends
 - c. Discovery, access and processing of Environmental and remote sensing data sources
 - d. Natural resource surveys – inland Fisheries and Aquaculture modules
5. General support to cross-systems harmonization , scientific collaboration, dissemination and publication
 - a. iMarine code lists management and mapping services
 - b. Fisheries Linked Open Data (FLOD)
 - c. iMarine workspace for collaborative analysis of scientific data
 - d. iMarine reporting and fact sheets collaborative editing facility
 - e. iMarine tools such as R, data mining and clustering
 - f. iMarine semantic-based cross-information systems search services, enabling regional integrated web-portals
 - g. AppliFish: a mobile phone interactive fact-sheet solution.

ANNEX 4 – CONCEPT NOTE FOR A REGIONAL DATABASE FOR THE WECAFC AREA

The reorientation of WECAFC offers an opportunity to develop a comprehensive vision on the development of a regional database. It also offers an opportunity to validate the opportunity to implement new data exchange mechanisms across the technical and human infrastructures in the region.

Recognizing that a Regional Database (RDB) is much more than a technological solution, this concept note sets out to list the required components to make a RDB a success, these are:

- A **clear understanding of the function** of the RDB, which is in the realm of providing a regional platform to generate data product in support of policy planning and decision making;
- A **shared view on the policy and governance** models supporting the data flows in an RDB;
- A **commitment by contributing parties** to strive to implement the Ecosystem Approach to Fisheries;
- The recognition that without support to **establish an Ecosystem Approach oriented Community of Practice** (EA-CoP) around such an RDB, the exploitation and benefits are both expected to be low;
- A technological solution to the data collection, compilation, sharing and analysis can only bring benefits if it clearly and cleverly supported by such a **community of local institutes and experts**.

Once such a human infrastructure is identified, the existing supply of data products and modules can be analyzed to compose an attractive and cost-effective solution to implement a RDB. This solution will have to extend existing solutions, and prefer step-wise improvement over new implementations. It might be based on a combination of:

- Field data collection tools such as ArtFish;
- Data presentation and repository tools such as SmartFish;
- A data reference and storage system such as offered through FiRMS partnerships;
- Analytical tools, such as Catch and Effort computing, LW-relationship analysis based on ad-hoc datasets that need to rely on scientists that use their own algorithms and tools;
- Data sharing and discussion tools to offer a comprehensive regional view over respective data sets to feed into regional reporting and analytical discussions.

The RDB thus is not a monolithic one-size-fits-all, but rather a network of compartmentalized solutions, which to some extent can rely on an infrastructure to marshal data-flows and assess data-quality and precision. An infrastructure can already be proposed that supports such a vision.

ANNEX 5 - INDICATION OF OVERALL BUDGET FOR FIRMS IMPLEMENTATION IN THE REGION

This budget is estimated on the basis of a full implementation of FIRMS in the WECAFC region during a two years period. It would concern 25 countries, and build on OSPESCA and CRFM sub-regional networks. The various components of this plan might be funded by various sources.

| Item | Estimated cost (\$) |
|---|---------------------|
| FIRMS translation in Spanish | 7.500 |
| Capacity building (2 sub-regional workshops, 25 countries overall) | |
| Participants travels | 48.000 |
| FIRMS Secretariat support | 12.500 |
| Attendance FIRMS SC meeting for the FIRMS regional focal point (Rome Feb. 2015) | 6.000 |
| FIRMS Secretariat support (networking and remote assistance) | |
| General networking support | 5.000 |
| Regional level reporting (regional stocks and fisheries) | 4.000 |
| National level reporting (25 countries) | 26.000 |
| TOTAL | 109.000 |