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WESTERN CENTRAL ATLANTIC FISHERY COMMISSION

Report of the

FOURTH MEETING OF THE WECAFC/CRFM/IFREMER WORKING GROUP ON SHRIMP AND GROUND FISH OF THE NORTHERN BRAZIL-GUIANAS SHELF

Virtual meeting, 18–19 November 2020



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Preparation of this document

This is the report of the Fourth Meeting of the WECAFC/CRFM/IFREMER Working Group on the Shrimp and Groundfish of the Northern Brazil-Guianas Shelf, which was held virtually on 18 and 19 November 2020.

Representatives from the following countries and regional partner organizations as well as projects participated: Brazil, France (French Guiana), Guyana, Suriname, and Trinidad and Tobago; the Caribbean Regional Fisheries Mechanism (CRFM); the Centre for Resource Management and Environmental Studies (CERMES) of the University of the West Indies (UWI); Conservation International; the CLME+ Project Coordination Unit; the REBYC II LAC project; and the Food and Agriculture Organization (FAO). The meeting was also attended by a fishing industry representative from Trinidad and Tobago.

The meeting was made possible through financial support provided by the FAO-UNOPS Inter-Agency Agreement on “Catalyzing Implementation of the Strategic Action Programme for the Sustainable Management of Shared Living Marine Resources in the Caribbean and the North Brazil Large Marine Ecosystems” (Project UNJP/RLA/217/OPS), which is focused on the shrimp and groundfish fishery resources of the Northern Brazil-Guianas Shelf, and the Sustainable Management of Bycatch in Latin America and Caribbean Trawl Fisheries (REBYC II LAC) project, which includes Brazil, Suriname and Trinidad and Tobago among the beneficiary countries.

The meeting was convened and chaired by Mr Fabian Blanchard of IFREMER. FAO technical assistance to the Working Group and meeting preparation was provided by Ms Tarub Bahri and Mr Jeremy Mendoza. Ms Sherry Heileman provided support in preparing the document.

This report contains a record of the meeting, including summaries of presentations and discussions, and recommendations.

Abstract

The Fourth Meeting of the WECAFC/CRFM/IFREMER Working Group on the Shrimp and Groundfish of the Northern Brazil-Guianas Shelf was held virtually on 18 and 19 November 2020. Among the 39 participants were Working Group Members, national fisheries officers and representatives of government organizations, academia, fishing industry, partner organizations and the FAO.

The final draft of the Sub-regional EAF Strategy and Fisheries Management Plan (FMP) for the shrimp and groundfish fisheries of the North Brazil-Guianas Shelf was reviewed. Among the issues discussed were options for the institutional mechanisms, including a technical and a decision-making body, required for implementation of the strategy and FMP. Representatives of Brazil, Guyana, Suriname, and Trinidad and Tobago presented an overview of the current status and outlook of their respective fisheries and national FMPs. While progress has been made toward management of the shrimp and groundfish fisheries, several challenges were encountered and some stocks continued to be overexploited.

Results were presented of the pilot application of the Governance Effectiveness Assessment Framework in fisheries, pollution, and habitats and biodiversity on the North Brazil Shelf. The need for improvement in data collection was highlighted. In addition, the key findings of a decent work assessment of the shrimp and groundfish fisheries in Guyana, Suriname, and Trinidad and Tobago as well as at the regional level were discussed and recommendations presented. A major concern is IUU fishing in the context of human and labour rights violations and undocumented migrant workers. An update of the FIRMS inventories indicated that 29 resource fact sheets and 35 fisheries fact sheets for the WECAFC region have been produced for the reporting period 2016–2020. A call was made for Member States to submit fishery inventory updates. The proposed revised structure of the list of main species for WECAFC as well as the preliminary boundary proposals regarding FAO Fishing area 31 were discussed by participants.

An update on vessel mapping for the WECAFC-proposed regional classification of fleet segments was presented. This is based on classifying fishing vessels according to the predominant gear used, to match the diversity of artisanal vessels and gear types that exist in the WECAFC region. The proposed modified structure of the interim Data Collection Reference Framework (iDCRF) and data policy were discussed. Participants reviewed and validated the WECAFC decision support system, which will support decision making in ecosystem approach to fisheries (EAF)-ecosystem based management (EBM) in the region. The current status of a concept for a follow-up Global Environment Facility (GEF) project was presented. Its aim is to strengthen capacity for implementing national and sub-regional shrimp and groundfish EAF management plans in Brazil, Guyana, Suriname, and Trinidad and Tobago. Participants were also introduced to the ongoing FAO process to improve the methodology used in the FAO State of Fisheries and Aquaculture (SOFIA) assessment. The intersessional work plan developed at the 3rd Shrimp and Groundfish Working Group meeting was finalized and the Working Group's recommendations to the 18th Session of WECAFC discussed and adopted.

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Abbreviations and acronyms

BRD	Bycatch reduction device
CERMES	Centre for Resources Management and Environmental Studies
CFMC	Caribbean Fishery Management Council
CI	Conservation International
CLME+	Caribbean and North Brazil Shelf Large Marine Ecosystems Project
CRFM	Caribbean Regional Fisheries Mechanism
DSS	Decision Support System
DCRF	Data Collection Reference Framework
EAF	Ecosystem approach to fisheries
EEZ	Exclusive economic zone
ETP	Endangered, Threatened and Protected (species)
FAO	Food and Agriculture Organization
FDS	Fisheries Data and Statistics (Working Group)
FIRMS	Fisheries and Resources Monitoring System
FMP	Fishery Management Plan
GEAF	Governance Effectiveness Assessment Framework
GEF	Global Environment Facility
ICM	Interim Coordination Mechanism
iDCRF	Interim Data Collection Reference Framework
IFMP	Integrated Fisheries Management Plan
IFREMER	Institut Français de recherche pour l'exploitation de la mer
ILO	International Labour Organization
iMARINE	Data e-Infrastructure Initiative for Fisheries Management and Conservation of Marine Living Resources
IUU	Illegal, unreported and unregulated (fishing)
MCS	Monitoring, Control and Surveillance
M & E	Monitoring and Evaluation
MFMP	Marine Fisheries Management Plan
MSC	Marine Stewardship Council
MSY	Maximum Sustainable Yield
NBSLME	North Brazil Shelf Large Marine Ecosystem

NGO	Non-governmental organization
NIC	National Inter-Sectoral Committee
OSPESCA	Organization of the Fisheries and Aquaculture Sector of the Central American Isthmus
REBYC II LAC	Project on Sustainable Management of Bycatch in Latin America and Caribbean Trawl Fisheries
RPOA	Regional Plan of Action
SAG	Scientific Advisory Group (WECAFC)
SAP	Strategic Action Programme (CLME+)
SDG	Sustainable Development Goal
SEDAR	Southeast Data, Assessment and Review
SOFIA	State of Fisheries and Aquaculture
TED	Turtle Excluding Device
TOC	Table of Contents
UWI	University of the West Indies
VMS	Vessel monitoring system
VRE	Virtual research environment
WECAFC	Western Central Atlantic Fishery Commission
WG	Working Group
WWF	World Wildlife Fund

Welcome and opening of the meeting

1. The meeting was opened by Ms Yvette DieiOuadi, Secretary of WECAFC, who welcomed the participants on behalf of the WECAFC. She was pleased that the Working Group has been very active and was convening its fourth meeting, following its establishment in March 2014 at the 15th session of WECAFC. She recognized the support that the WG has received from ongoing projects, notably the CLME+ and REBYC II LAC projects, which are ending soon. Therefore, it is important that additional financial resources are mobilized for the WG to continue its work.
2. Ms DieiOuadi reiterated the importance of the shrimp and groundfish resources on the North Brazil Shelf, with landings around 300 000 tonnes valued at USD 400 million. The shrimp and groundfish fisheries, which are both industrial and small-scale, contribute to food security, poverty eradication and livelihoods for thousands of persons along the value chain. In addition, exports of shrimp and groundfish to several parts of the world are an important source of foreign exchange for the countries.
3. She recalled that since the 1970s, FAO has been providing support to the countries for sustainable fisheries. She was pleased that discussions were continuing on the sub-regional Shrimp and Groundfish Fisheries Management Plan and considered the development of national fisheries management plans to be a real achievement. Ms DieiOuadi expressed satisfaction with the large turn-out and diverse participation at the meeting, including the representatives from countries among whom was a large delegation from Brazil, as well as NGOs and academia. She expressed gratitude to the CLME+ project and IFREMER for their support to the Working Group. She noted that the current phase is a transition, and an exit strategy is being sought.
4. Ms DieiOuadi wished participants a successful meeting and reiterated that she counts on the group to continue its work on sustainable fisheries management. The transcript of her welcoming speech can be found in Annex D.
5. Mr Fabian Blanchard, Shrimp and Groundfish Working Group Convener, stressed the importance of continuing the work despite the ongoing COVID-19 pandemic, which resulted in a virtual meeting being held. He reiterated the importance of the WG in contributing to food security, livelihoods, etc. in the WECAFC area. He hopes that the Working Group can meet face-to-face next year. Mr Blanchard thanked the countries represented, the CLME+ and REBYC II LAC projects and FAO staff.
6. Mr Blanchard recognized the work done including the good progress in stock assessment using models but stressed that the work must continue including the development of EAF implementation plans. He also recognized the Working Group's contribution to FIRMS. In 2019, work was done on the human and social dimension of fisheries while this year (2020) a study on working conditions in fisheries is being conducted. He encouraged the Governments to endorse and implement the Working Group recommendations for sustainability and underscored the need for more convincing communications among government ministries. He thanked participants and wished them a successful meeting. The transcript of Mr Blanchard's speech is given in Annex E.

Attendance

7. Meeting attendees comprised representatives from: Brazil, France (French Guiana), Guyana, Suriname, and Trinidad and Tobago, the fishing industry (Trinidad and Tobago), the Caribbean Regional Fisheries Mechanism (CRFM), the Centre for Resource Management and Environmental Studies (CERMES) of the University of the West Indies (UWI), Conservation International, the CLME+ project, the REBYC II LAC project, and FAO. The list of 39 participants, including Working Group Members and resource persons, is presented in Annex A.

Background

8. The current version of the Working Group (WG) met for the first time in September 2015 in response to the recommendation of the 15th Session of the Western Central Atlantic Fishery Commission to reactivate the WG. During this first session of the reactivated WG held on 7 and 8 September 2015, members discussed the status of the shrimp and groundfish stocks, investment options for shrimp and groundfish fisheries in the sub-region and opportunities to harmonize fisheries management measures that would increase financial and environmental sustainability of the sector. Among others, recommendations were made to increase collaboration between the countries on stock assessments of the shrimp and groundfish resources, to build capacity to carry out the necessary analyses in support of fisheries management decision making and to develop a regional plan of action to combat illegal, unreported and unregulated (IUU) fishing as well as a sub-regional shrimp and groundfish fishery management plan (FMP) for the Northern Brazil-Guianas Shelf countries.
9. During the first meeting, participants also agreed to the terms of reference for the WG, which was endorsed at the 16th Session of WECAFC, and called upon WECAFC, CRFM and IFREMER to ensure regular meetings of the working group, given the crucial social and economic impact of these fisheries, and upon all partners and projects in the region to work together to implement the CLME+ Strategic Action Programme (SAP).

Scope and goal of the working group

Scope

10. The scope of the WG is to provide scientific and management advice for the sustainable management of the shrimp and groundfish resources of the Northern Brazil-Guianas shelf in the WECAFC Region. In undertaking its work, the WG pays due attention to the Code of Conduct's Article 6.4 of the general principles and the principles of the Ecosystem Approach to Fisheries (EAF).

Goal

11. Using a multidisciplinary approach, the WG contributes to the sustainable management of the shrimp and groundfish resources of the Brazil-Guianas shelf by providing management advice to Members of WECAFC based on the best available knowledge. In pursuing this goal, the WG will contribute to the fulfilment of national and regional

responsibilities for the marine environment and for the management of the shrimp and groundfish resources and related or interacting species or fisheries in the WECAFC Region under the code of Conduct for Responsible Fisheries, in line with the principles of EAF and in accordance with agreed, documented management goals.

Previous meetings of the shrimp and groundfish working group

12. The Second Meeting of the WG was held in Bridgetown, Barbados, 17–18 May 2018. The participants reviewed and analyzed the current state of data collection and fisheries management for each country in the North Brazil Guianas Shelf. Also, an update was made on the WECAFC-Fisheries and Resources Monitoring System (FIRMS) partnership and the outcomes of the First Meeting of the Fisheries Data and Statistics Working Group that took place in Barbados, 14–16 May 2018. The assessment of data limited fisheries was presented as an approach to consider for the North Brazil-Guianas Shelf shrimp and groundfish fisheries. Additionally, the status and necessary steps to develop a sub-regional EAF management plan for shrimp and groundfish were discussed, as well as the need to enhance capacity in stock assessment techniques in the sub-region.
13. The Third Meeting of the WG was held in Paramaribo, Suriname, 26–27 November 2019. An update on stock status of shrimp and groundfish species for each country in the Northern Brazil-Guianas shelf was presented and showed decreasing trends in apparent abundance. The assessed stocks appeared to be fully exploited or overexploited. An update on genetic studies of shrimp populations in the region showed that no cryptic species were present and only the southern brown shrimp (*Farfantepenaeus subtilis*) was found in samples from Guyana, Suriname and Trinidad and Tobago. Regarding the Atlantic seabob (*Xiphopenaeus kroyeri*), a genetic analysis revealed a common population structure in samples obtained from French Guiana, Guyana and Suriname. Furthermore, an update was presented on the status of the WECAFC-FIRMS stocks and fisheries inventories and the related published and draft fact sheets. The need to complete draft records for the shrimp and groundfish fisheries of the North Brazil-Guianas shelf was underlined.
14. The member countries representatives also presented an update on the status and development of their national fisheries management plans, followed by a discussion about the status and necessary steps to develop a sub-regional EAF management plan for shrimp and groundfish. Additionally, advances in a gender analysis along the small-scale fisheries value chain in Guyana, Suriname, and Trinidad and Tobago were presented, as well as an update regarding progress with the development of the sub-regional Monitoring and Evaluation Framework and Indicators to inform policy making on governance effectiveness.
15. Working Group participants reviewed and discussed the draft regional strategy for bycatch management in the WECAFC Area developed by the REBYC II LAC project. Finally, they also discussed the needs and priorities to combat IUU fishing in the North Brazil-Guianas shelf.

Objectives of the fourth meeting

16. The purpose of the WG session is to continue enhancing collaboration and cooperation amongst WG partners to achieve Recommendations WECAFC/16/2016/5 and WECAFC/17/2019/11 on the management of shrimp and groundfish fisheries in the WECAFC area and achieve the WG's long-term goal. These recommendations call, inter alia, for the development of a sub-regional EAF shrimp and groundfish strategy and management plan and the related national implementation plans. Additionally, outcomes of the Second (virtual) Meeting of the WECAFC Fisheries Data and Statistics (FDS) WG (12–16 October 2020) related to shrimp and groundfish resources and the North Brazil-Guianas shelf geographic area will be reviewed and discussed. In particular, the interim Data Collection Reference Framework (iDCRF) and data policy, as well as the species list and proposed geographical areas for the region will be discussed and reviewed. Finally, an update on the decision support system (DSS) for fisheries management in the WECAFC area will be presented, as well as the current status of FIRMS inventories and vessel mapping.
17. For this session, the main objectives of the meeting are to:
- Present and review the final draft of the sub-regional fisheries strategy and management plan;
 - Present an update on status of national fisheries management plans;
 - Provide feedback on outcomes of the Second FDS WG meeting;
 - Present update on FIRMS inventories and vessel mapping; and
 - Review Monitoring and Evaluation indicators for the shrimp and groundfish fisheries in the North Brazil Shelf Large Marine Ecosystem (NBSLME).

The meeting agenda is given in Annex B.

Presentation and discussion of the final draft of the sub-regional ecosystem approach to fisheries strategy and management plan

18. Mr Paul Fanning (CERMES Consultant) presented the final draft of the Sub-regional EAF Strategy and Fisheries Management Plan (FMP) for the shrimp and groundfish fisheries of the North Brazil-Guianas Shelf. The CLME+ Strategic Action Programme (SAP) includes a strategy on the Guianas-Brazil shrimp and groundfish fisheries. Preparation of the draft strategy is based on extensive consultations with national stakeholders in Guyana, Suriname, and Trinidad and Tobago. The draft strategy was also presented at the Shrimp and Groundfish WG 3rd meeting in November 2019. Comments received were incorporated into the current draft, which will be finalized following review by this 4th WG meeting.
19. The approach includes two components: 1). A forward-looking sub-regional fisheries management strategy that addresses longer term issues and sub-regional objectives for the current FMP; and 2). A sub-regional FMP, which focuses on immediate and short-term objectives and specific measures and actions within a shorter timeframe to meet the objectives of the sub-regional strategy. The sub-regional strategy will provide guidance for development of the national FMPs.

20. Four strategic elements have been identified:
1. Multilateral fisheries institutional arrangements;
 2. Monitoring and evaluation: The Governance Effectiveness Assessment Framework (GEAF) has been established with a baseline period of 2011-2015 evaluating seven sets of indicators;
 3. Regional management of bycatch and discards: Being addressed by the REBYC II LAC project; and
 4. Regional Plan of Action (RPOA) for IUU Fishing in the WECAFC region.
21. Among the institutional requirements are a Sub-regional Technical Forum (for which the Shrimp and Groundfish WG is an appropriate body), a Sub-regional Decision-making Forum (possibly a ministerial forum), Technical Forum ad hoc subcommittees (for specific issues such as stock assessment and statistics), a Secretariat, and National Intersectoral Committees. A body needs to be constituted for the other policy cycle stages at the sub-regional level. Regarding a decision-making forum, the Shrimp and Groundfish WG is not mandated for sub-regional decision-making. Options include a ministerial forum for decision making.
22. Options for incorporating other existing policies and strategic directions (such as the IUU RPOA) into the sub-regional Shrimp and Groundfish strategy and FMP were discussed. Of the three options proposed, previous consultations favoured the selective incorporation of relevant policy and strategic documents in the sub-regional strategy.
23. The FAO template for an EAF management plan was presented. The sub-regional plan focuses on shared resources but there is little in the national plans on these resources. The sub-regional plan should identify shared resources and ecosystems and develop common management objectives and approaches to guide the parties in addressing these resources in national FMPs and implementation at the national level. Based on consultations in Guyana, Suriname and Trinidad and Tobago, there may be need to expand the strategy to reflect the entire NBSLME, i.e. include Brazil, French Guiana and Venezuela.
24. The national management plans fall into three groups:
1. Fishery specific: the seabob fishery management plans in Guyana and Suriname, geared towards Marine Stewardship Council (MSC) certification, which demands an EAF planning process.
 2. Other species: countries have a blanket marine plan (Guyana) or trawl fisheries management plan (Trinidad and Tobago). Guyana, Suriname and Trinidad and Tobago have FMPs for penaeid shrimps.
 3. Groundfish FMP: Guyana and Trinidad and Tobago have global objectives for the fisheries sector overall. Trinidad and Tobago is developing an Integrated Fisheries Management Plan (IFMP) to cover all of its fisheries, but with separate sections on management of the gear sectors (trawl, gillnet, pot and line, etc.). Suriname identifies specific objectives for the red snapper fishery. Venezuela's role in the red snapper fishery is critical.
25. The plans are expressed differently, which determines the ease by which they can be translated into the sub-regional plan.
26. Sub-regional management issues include:
- Stock structure and management units;
 - Stock-wide fisheries and biological data for shared stocks;
 - Differences in registration and licensing of fishing vessels at the national level;

- National and sub-regional fishing effort and addressing IUU fishing; and
 - Endangered, threatened and protected (ETP) species in mixed species fisheries.
27. A question was asked if the FAO template for the plan is expected to reflect the table of contents (TOC) of the plan, in which case it should show long-term and short-term objectives. Consideration should be given to how the long-term objectives can be reflected in the TOC and how the plan will keep people working on short-term planning focused relative to the long-term objectives. Mr Fanning responded that the template is a jumping off point and can be considered a TOC. He explained that the same model was applied in the three countries, i.e. the long-term strategy focusing on strategic issues and long-term objectives and actions as well as activities that are taking place in 1–2 years that should be in the sub-regional plan. Further, since this is an adaptive management process, the capacity to adapt is important. He reiterated that the intention is for the countries to implement provisions of the Sub-regional plan in their respective national plans.
28. The CLME+ project representative enquired about the status of the expected output of the CLME+ sub-project related to a sub-regional decision-making body for the North Brazil Shelf fisheries. In response, Mr Fanning noted that WECAFC is the only governing body with the necessary stature at this time, but the question is whether WECAFC will delegate the decision-making process to this sub-regional decision-making body. This may be addressed at the national level.
29. An FAO representative recalled the non-binding nature of WECAFC decisions, recommendations and management plans, implementation of which is left to the national governments, with CRFM or the Organization of the Fisheries and Aquaculture Sector of the Central American Isthmus (OSPESCA) making the rules, etc. for implementation at the respective sub-regional levels. She referred to the queen conch WG that has a dedicated technical and advisory group and suggested that consideration be given to a technical body within the wider Shrimp and Groundfish WG.
30. It was suggested that with respect to decision making, WG recommendations can be presented to the ministerial meeting for approval over a few cycles to see if this works. Another option is scaling up national intersectoral committees (NIC) to the sub-regional level since they have decision-making powers and are sustainable. Participants were reminded that this region is an LME, which can provide avenues for financial resources, and were urged to start thinking in the context of the LME.
31. One of the Brazilian delegates informed that Brazil is drafting a FMP for the North Brazil Shelf shrimp fishery and another for red snapper, in a similar direction as WECAFC but not in a coordinated manner. However, this will change so that the national FMPs are coherent and embedded in the sub-regional FMP.

Current status and outlook of national fisheries management plans

Brazil

32. Mr Jose Aragao informed the meeting that the two main components under the REBYC II LAC project deal with the introduction of bycatch reduction devices (BRD) and a management plan for shrimp fisheries for Brazil. He described the shrimp fisheries in the three states in the north of Brazil, all of which the FMP will cover. In a local workshop, participants identified problems and solutions, and constructed a problem tree for each of the three states. The aim is to have a

regional plan for the northern region of Brazil. Present studies suggest no overfishing of the shrimp stocks. Therefore, the plan will focus on problems of importance to fishers. The ecosystem approach revealed many problems that contributed to the lack of success of the FMPs. Experimental fishing with BRDs showed good results with the square mesh.

33. Overexploitation of the red snapper stock in the northeast of Brazil caused the fleet to move to the north. A red snapper management plan is required since this species is on the IUCN list of vulnerable species. Another concern about red snapper is that they are caught before maturity due to the high demand for small size red snapper (plate-size). Further, as the area where red snapper is fished is in the vicinity of the Amazonian reef, the plan is to do area-based management. Stock assessment using a data limited method shows that biomass has been decreasing. New regulatory measures in the Red Snapper FMP include limiting the fleet to licensed vessels in operation and limiting annual catch to 3 300 tonnes.
34. There is concern about the acoupa weakfish, and a management plan is urgently needed for this species. Catch reconstruction is needed since there is no data since 2007. There has been a change in the type and number of vessels, and CPUE is decreasing. Acoupa weakfish community-based management is being implemented (artisanal fisheries management and protected areas management by locals). Local fishers have proposed protecting some areas as fish spawning sites for the acoupa weakfish and other species.
35. To a question about any relationship between the Amazonian reef and the size of red snapper, Mr Aragao responded that research is needed to determine if there is an ontogenetic shift with area and if the spawning stock is being compromised.
36. The meeting was informed that FAO held a fisheries sustainability meeting in 2019 and there will be a global review with examples of successes, lessons learned and impacts. Participants were asked if there is any interest in putting together some examples for the global review before the end of the CLME+ project or in the next stage.
37. The CRFM delegate underscored the importance of communication and urged that advocacy be given greater focus in the sub-regional and national plans, which is important to achieve EAF. Additionally, non-fisheries stakeholders should be considered, and the fisheries advisory committees can be used for advocacy and to get buy-in for EAF.
38. The WG Convener acknowledged the contribution of the REBYC II LAC and the CLME+ projects, under which focal points were trained in EAF. Participants were urged to find synergies between projects – as done with the REBYC and CLME+ projects – and build on ongoing activities so as not to waste resources.

Guyana

39. Mr Kadeem Jacobs presented the status of the Guyanese fisheries management plans, which are the Marine Fisheries Management Plan (MFMP, 2013–2020) and the Seabob management plan (2015–2020) geared toward MSC certification. Under the MFMP there are separate plans – the Seabob Management Plan and the Artisanal Fishery Management Plan (the latter developed with help from the World Wildlife Fund, WWF), a Penaeid Management Plan, a Red Snapper Management Plan, Ecosystem Management Strategy and Shark Management Plan. He informed that Guyana had signed on the Port State Measures on IUU fishing, which contributed to development of the MFMP. In addition, several other national, regional and international policy and legislation have been adopted including a Green State Development Strategy.

40. A review of the MFMP in 2019 showed that the plan was only partially implemented, with the weakest implementation being in the artisanal sector. Revisions to the plans should put greater focus on immediate and achievable objectives with existing resources. The Seabob Management Plan was partially implemented, with MSC certification attained and maintained. Issues for the MFMP are monitoring, control and surveillance, piracy and building capacity. Outstanding action items are related to developing and implementing regulations for harvest control; and establishing and enforcing appropriate sanctions for breach of harvest control rules. Monitoring of the artisanal FMP is a challenge due to the large number of fishers and limited representation in meetings with the Fisheries Division; greater cooperation is needed to ensure compliance in this fishery. The industrial fishery for Atlantic seabob experienced a setback for MSC certification but this was being addressed. The next steps include review and updating of the MFMP and the Atlantic seabob management plan.
41. In response to the question about the next key steps for the artisanal sector, Mr Kadeem responded that this includes outreach to the artisanal sector stakeholders to inform them of what the plan entails and to get them more involved. A challenge for the Fisheries Department is that the sector is very big and scattered along coast, with only one active fishing cooperative.

Suriname

42. Mr Tomas Willems (REBYC II LAC project) presented the status of Suriname's fishing sector. It is comprised of three major fisheries, each determined by the area fished, targeted species and gear type: inland (in estuaries of large rivers), coastal fisheries and offshore industrial fisheries. The offshore fisheries include Venezuelan boats and foreign vessels that land longline catch in Suriname. Problems were being encountered with respect to the number of boats licensed in the context of the fishing agreement with Venezuela. The first integrated national FMP covered the period 2014–2018 and embraces EAF and co-management. A separate seabob FMP also exists and is in line with the national plan. The first FMP had clearly formulated policy measures, for example, on the use of turtle excluder devices (TED) in the fish trawl fisheries; and limits on the number of fishing licenses for the shrimp fisheries, with any increase in the number issued to be contingent on the recovery of the stocks to original levels. However, no road map for execution of the policy measures was agreed upon and there was a lack of official high-level political endorsement of the national FMP. This affected the implementation of the FMP, notably in relation to the effort limitation and number of licenses issued.
43. In 2019, the plan was evaluated through stakeholder consultations. Most of the policy measures have not been met, and measures related to limitation of effort/licenses have been largely violated (even by the Government itself in issuing licenses), leading to overcapacity in certain sub-sectors and mistrust between the sector and the Government.
44. Mr Zojindra Arjune explained that, currently, the 2nd FMP (2021–2025) is being drafted with support from the REBYC II LAC and CLME+ projects. Among the main objectives are restoring trust between the Government and the sector, establishing roadmaps for the policy measures, regular follow up on the action plan to ensure implementation, and ensuring integration with the sub-regional strategy and management plan. The new plan consists of a strategy for longer term objectives and an operational plan for shorter term actions, which include detailed measures per

fisheries category, including fleet capacity, TED and BRD requirements, Vessel Monitoring System (VMS) and use of reference values. The Marine Fisheries Council has been reactivated and a national Shrimp and Groundfish Working Group was established recently to facilitate inter-agency cooperation and ongoing discussion of issues affecting the fisheries. Building the capacity of the fisheries cooperatives and communities is a focus. The next steps are completion of the consultations and validation of the draft plan by stakeholders and its political endorsement.

Trinidad and Tobago

45. Ms Lara Ferreira presented a summary of a case study on the shared stocks of the shrimp and groundfish fishery of the Guianas-Brazil Shelf, which identified 22 priority issues of which piracy was the top priority followed by habitat damage. These priorities are addressed in the national FMP. Recent developments in the trawl fisheries in Trinidad and Tobago include Cabinet decisions on a complete ban on non-artisanal trawlers and a 2-month closed season for artisanal trawlers. However, because of protests against the ban, Cabinet decided on a phased implementation of the ban. Other government policies include prohibiting additional trawlers from entering the trawl fishery as of 1st September 2013 (vessel replacement policy).
46. FMPs developed in previous years are the Shrimp Trawl Fishery Management Plan, the Hard Substrate Demersal Fishery Plan and the Shark Management Plan. However, these plans were not approved at the highest level of government. The current emphasis is on updating the 1916 Fisheries Act and on the draft Fisheries Management Bill 2020. This bill contains several provisions including change from open access to a licensing system, and enhanced fisheries monitoring, control, surveillance and enforcement. The national FMP is being aligned with the sub-regional plan. Trinidad and Tobago's Integrated Fisheries Management Plan (IFMP) will cover all of its fisheries as, in general, the management objectives and policies apply to all the fisheries and these overarching issues are covered first. In addition, there is an action plan for the first 2 years, and a Strategic document for years 3–5, which provides context for the IFMP. The current focus is on shrimp and groundfish, which is close to full exploitation or overexploited. Previous measures such as a plan for the gillnet fishery are being incorporated into the new FMP. The next steps involve continuing development of the IFMP management activities and finalization of the IFMP based on stakeholder consultations.
47. A question was asked if these plans are conditional on approval of the new Fisheries Act by Parliament. Ms Ferreira explained that the new Fisheries Act was introduced to Parliament and is under review by the Joint Select Committee, which will report back to Parliament at the end of December 2020. This is the first time that a fisheries bill was submitted to Parliament in Trinidad and Tobago. Most of the measures in the 1916 Act are not enforced, and the New Bill will be a radical change from what the industry is accustomed to. The FMP is dependent on new legislation being in place.

Status of monitoring and evaluation framework and indicators for shrimp and groundfish fisheries of the North Brazil-Guianas Shelf

48. Mr Robin Mahon (CERMES) presented the results of the (pilot) application of the Governance Effectiveness Assessment Framework (GEAF) for regional monitoring and evaluation (M & E) in the CLME+ shrimp and groundfish project. The M&E framework consists of a set of indicators for the seven GEAF categories that were agreed by the WECAFC/CRFM/IFREMER

WG. These are governance architecture, process, pressure, state, stakeholder engagement, social justice and human wellbeing for fisheries, pollution, and habitats and biodiversity. A question to keep in mind – is a regional level of reporting useful?

49. The shrimp and groundfish GEAF pilot assessment (which is a baseline for 2011–2015 to be revisited in 3–5 years' time) is based on questionnaire responses from Brazil, French Guiana, Guyana, Suriname, Trinidad & Tobago, and Venezuela as well as from WECAFC and CRFM. An overview of the assessment results was presented for fisheries, pollution, and habitats and biodiversity. Much is still unknown and there is room for improvement in data collection. For fisheries, there is no agreed level of fishing effort or catch except for shrimp, and in general effort is at a higher level than agreed; the level of IUU fishing is unknown; there is much overexploitation; stakeholders are participating in regional fisheries processes but there is low participation by other regional fisheries and environmental/sustainable development intergovernmental organizations; no national/regional indicators for human wellbeing that focus on coastal communities are available from global data sets and data needs to be specifically collected by relevant agencies; and improvement in social justice is needed at the regional level.
50. For pollution/habitats and biodiversity, there is no mechanism to integrate sub-regional ocean governance policy cycles but the Shrimp and Groundfish WG might be adequate if it takes a broad perspective on EAF. Regional instruments that cover the major habitat/biodiversity and pollution issues are in place, and at the national level the highest number of instruments are for mangroves, coastal wetlands and deep slope. In most cases, there is no agreed level of protection for habitats and biodiversity in the countries, and where this exists, the protection is lower than the agreed level. Monitoring of the state of pollution and habitats/biodiversity is very low. There is high level of engagement by countries in global and regional habitats and biodiversity agreements. However, the majority of these agreements do not address social justice issues.
51. The GEAF indicators can be used in the FMPs, with consideration of how much of the monitoring should be national versus regional and which of the pollution and biodiversity/habitats indicators are appropriate and needed for EAF. A set of questions are put forward, which the Shrimp and Groundfish WG may take up in the planning process.
52. It was suggested that the human well-being aspect can help to grab stakeholders' attention and it may be useful to collect data at the local and national level. Further, there is need to think about links between trends over time and big messages such as a decrease in tourism and performance of the sector and to pay attention to signals in other sectors.
53. It was underscored that these indicators are necessary to evaluate the strategic success of the ecosystem approach and planning process at the national and regional level. Moreover, many of the indicators are repeated across various instruments, SDGs, etc. which can facilitate uptake by the countries.
54. According to the CLME+ representative, continued gravitation in the region to more fisheries elements and not EAF was apparent and there is need to ensure a more integrated approach. However, the meeting was reminded that this WG is for the sub-region, not for the entire region. A question was asked if the sub-regional process is for the shelf only or the entire LME. If for the shelf only, where is the connection between the shelf and open ocean taken up? What sub-regional governance mechanism would address the LME-related issues that are not addressed by this WG? For Suriname, most of the fishing takes place on the continental shelf with only a few boats targeting large pelagic species offshore. As such, perhaps there is not much difference if only the shelf is considered or if the ocean is included. However, Venezuelan boats are fishing

in deeper areas off the shelf. It was noted that interactions between fisheries, habitats and pollution are relevant to EAF and knowledge is needed to confirm if this is the case.

Study of working conditions in the shrimp and groundfish fisheries of the Guianas-Brazil Shelf

55. Ms Gabrielle Lout (FAO Consultant) presented the results of a decent work assessment of the shrimp and groundfish fisheries of Guyana, Suriname, and Trinidad and Tobago. The right to decent work is embodied in the UN Declaration of Human Rights and is linked to the SDGs. There is a shift towards more socially responsible practices driven by violations of human and labor rights in the sector. Decent work in fisheries is complex due to the different elements (artisanal, industrial, men and women, women rights, migrant workers, etc.). There is no comprehensive framework or guidance specific to the fisheries sector. While the International Labour Organization (ILO) Work in Fishing Convention sets standards for vessels at sea (mainly for the industrial sector), it pays limited attention to economic, social and cultural rights and women's rights. ILO guidelines fail to account for the post-harvest sector, which is female dominated.
56. The assessment utilized a set of Decent Work indicators. The three countries have ratified a range of conventions and agreements related to workers' rights, but none has ratified the ILO Work in Fishing Convention, which would set minimum standards for decent work onboard vessels. Advances around decent work in the shrimp and groundfish fisheries have focused primarily on at-sea operations. Women dominate the post-harvest operations and are essential for food security. However, they are often left out of instruments related to decent work, which focus on sea-based and on-board activities. Migrant workers are particularly vulnerable to exploitation. IUU fishing is also important since it is linked to issues such as forced labour. It is critical that future activities to advance decent work in the fisheries sector include increased attention to women and migrant workers.
57. Key findings from the country assessments were presented:
- Guyana: Human trafficking, which is a problem also in Suriname and TT. With borders being closed due to the pandemic, fishing vessels are being used to transport people illegally. Other issues are debt bondage (e.g., to pay for damaged gear) and low registration of vessels/IUU fishing.
- Suriname: Fishers are predominantly Guyanese migrants who lack legal status, which presents challenges for engagement, enforcement and safety. The high proportion of landings taken to Guyana creates issues of food security in Suriname. Overfishing also needs to be considered in the context of food security.
- Trinidad and Tobago: This country received an EU yellow card in 2017 for IUU fishing and there are cases of trafficking and forced labor on foreign vessels in territorial waters.
58. At the regional level, the three major concerns are: IUU fishing (top concern), safety and health, and limited engagement of fishers and fish workers. IUU fishing is linked to human and labour rights violations, undocumented migrant workers and unregistered vessels. The low compliance with fisheries regulations and policies can obstruct monitoring and enforcement. Safety and health standards vary between the industrial and artisanal sub-sectors. Regarding engagement, fishers feel that they not adequately engaged in decision making; there is a long way to go to get collaborative and sustainable fisheries and stakeholder engagement should be a priority.

Shared challenges and underlying drivers were discussed. The perceived illegitimacy of local and regional laws contributes to low compliance. How fishers perceive local laws can go a long way in monitoring and enforcement.

59. Recommendations and priorities include adopting a transboundary regional approach, which can be facilitated by an intergovernmental taskforce; addressing IUU fishing; increasing stakeholder engagement; labour and human rights education; and establishing minimum standards for the entire region.
60. A comment was made about physical work on land and the state of infrastructure for landings and processing in the context of decent work. Ms Lout noted that the ILO Convention has left out infrastructure and onshore work, which should be addressed in moving forward. It was proposed that decent work be incorporated in the FMPs. Also, gender is not seen as part of fisheries and there is need for the Ministry responsible for fisheries to engage with other relevant ministries (e.g., Labour, Human Rights) to explore how fisheries needs can be incorporated into their respective agendas and vice versa.

Update on fisheries and resources monitoring system inventories

61. Mr Aureliano Gentile (FAO) presented a summary of progress in the current year. FIRMS is an information-sharing partnership of 17 IGOs and 22 regional fisheries bodies to facilitate the monitoring of the status of fish stocks and fisheries. FIRMS provides access by decision makers and other stakeholders to high-quality information on the status and trends of marine resources and fisheries to enable the development of effective fisheries policies and management plans. The FIRMS database covers shared stocks under the mandates of Regional Fisheries Bodies as well as national stocks / assessment units and the status of national fisheries. It includes an inventory of marine resources and fisheries, published fact sheets, and known status of exploitation for fish stocks and fisheries. The WECAFC database was developed through a WECAFC-FIRMS partnership and is geared towards a dashboard of stock status indicators for the region and informing the SDG indicator 14.4.1 (Proportion of fish stocks within biologically sustainable levels).
62. Main sources of information for the status of stocks in the WECAFC region are reports prepared by WECAFC Scientific and Advisory Group (SAG); OSPESCA/WECAFC/CRFM/Caribbean Fishery Management Council (CFMC) Working Group; Southeast Data, Assessment and Review (SEDAR); and the CRFM Continental Shelf Fisheries Working Group. The fisheries contributions come mainly from the countries (Fisheries Departments and research institutions, among others). Mr Gentile showed the range of products available on the WECAFC-FIRMS platform along with the sources of information, with an update for each product. These include several marine resource and fisheries inventories and fact sheets as well as access to information on the status of the North Brazil-Guianas Shelf fisheries (the latter also through links to the external FIRMS website). The most recent published WECAFC marine resource fact sheet is for the Atlantic seabob in Guyana and Suriname, bringing to 29 the number of resource fact sheets published recently. In addition, there are 31 fisheries fact sheets for the WECAFC region produced by 10 countries for the reporting period 2016–2020. Some countries have already provided the 2nd update of their first fact sheets in 2020 for a total of 35 observations.
63. Mr Gentile recalled the Recommendation from the 3rd meeting of the Shrimp and Groundfish WG: “Countries provide, in a timely manner, available fishery data and information on the priority species - as delineated in the WECAFC and interim DCRF - and for the related stocks

and fisheries inventories, to populate and maintain the WECAFC regional database which supports needs for stock assessment, fisheries management plans and a decision support system.” Mr Gentile ended his presentation with a call for Member States to submit fishery inventory updates. He recommended that the data should be updated as much as possible and indicated that the FIRMS Secretariat is available to assist and offered to provide the draft Excel file with fields to be updated to all country participants. Brazil confirmed their availability for the data submission. It was agreed that Mr Gentile and Mr Mendoza will work together to help countries update their respective fishery inventories and fact sheets.

Review of interim data collection reference framework main species list and geographic sub-areas

Western Central Atlantic Fishery Commission (WECAFC) main list of species

64. Mr Yann Laurent (FAO) presented the outcomes of the second meeting of the Fisheries Data and Statistic Working Group (FDS WG 2) on discussions related to revision of the WECAFC preliminary list of main species. The FDS WG identified the need to list and reassign species in the sub-areas to facilitate reporting. The WG recognizes 4 bases for its species lists:
- Basis 1: listing species of key importance to WECAFC;
 - Basis 2 (new): listing species of interest to historical WGs such as coastal tunas, dolphinfish and wahoo;
 - Basis 3: species in high seas;
 - Basis 4 (new): listing other reference species for the WECAFC region originating from the 1978 working party on fishery statistics and/or of interest for other reasons; and
 - Basis 5 (new): Species with existing mandatory requirements. Species in this list, including tuna and High Seas species, should be excluded from any of the above Bases, and are not directly relevant to the mandate of the WECAFC/CRFM/OSPESCA Interim Coordination Mechanism (ICM).
65. Outstanding issues include continued review of the main list of species in the context of finalizing the interim Data Collection Reference Framework (iDRCF) for review by the Scientific Advisory Group XI and submission for endorsement to the 18th WECAFC Commission.
66. Expectation from the Shrimp and Groundfish WG were to review and comment on the revised structure of the species list in the context of the North Brazil Shelf; and contribution by WG Countries to the intersessional work on remaining items. Mr Laurent called for countries’ contributions to the list of species (Guyana, Brazil). He also asked the Shrimp and Groundfish WG to send the list of species for which FMPs are being developed so that these species can be moved to Basis 1
67. For the species list, it was suggested that the best option is for each country to review the list or provide a list of their own species to be included with annotation in the list about the sub-area. The final proposal for the North Brazil Shelf list of species is due by March 2021. So far, lists have been provided by Suriname and Trinidad and Tobago, and inputs from Brazil, Guyana and Venezuela are needed for the species list. In order to set the scene, participants presented the current status of fisheries management in their respective countries. They provided an overview of the institutional arrangements, existing management plans and ongoing projects and activities aiming at improving effectiveness of fisheries management and compliance.

Geographic sub-areas

68. Mr Yann Laurent presented Option 1 endorsed by FDS WG 2: Sub-areas and division definitions for the WECAFC preliminary boundary proposals. This proposes to base the statistical boundaries on officially recognized treaty lines and 200 nautical mile boundary lines, or simple longitudinal or latitudinal or oblique straight where no treaties exist. Regarding the southern limit of FAO Area 31, a comment submitted by the EU states that the southern limit of FAO Fishing Area 31 north of the mouth of the Amazon does not make sense from a fish stock perspective due to the common nature of the species and stocks among the Para/Amapa States in Brazil, French Guiana, Suriname, Guyana and of the eastern part of Venezuela. For this reason, the WECAFC Shrimp and Groundfish WG includes all these countries, along with Trinidad. A proposal from the European Union (supported by France) is to move the southern limit of Area 31 south by 10°. The FDS WG discussed the short and long-term strategies in each case. The short-term strategy includes assigning catches for French Guiana and Bermuda to a single, predominant, sub-area division to simplify data reporting. On the long-term, the current FAO Fishing Area 31 northern and southern boundary lines should be revised to better accommodate EEZ boundaries or ecoregions in the WECAFC region.
69. Brazil expressed a concern about moving the southern boundary further south for the same reason – it will create difficulty in assigning catches to one or the other Major Fishing Area. Brazil has made a proposal to move the triangle defined in French Guiana by the Area 31/41 boundary and the EEZ, to Area 31. In parallel, the larger triangle of Brazilian EEZ that is currently in 31.5 should be assigned to Area 41.
70. Mr Laurent recommended that a meeting be held with Brazil, French Guiana and the FDS WG to develop a recommendation. It was clarified that one of the reasons why France asked to review the southern boundaries is because they cut French Guiana into two parts. While assigning catch is not such an issue, there are relevant ecosystem and stock considerations – as they are exploiting the same stocks it makes no sense to report statistics for the same species in different areas; there is also influence from Amazonian inputs in the same ecosystem. Brazil's response was that they understand the ecosystem argument but for Brazil, it is not so simple to have the data organized and they support the triangle idea. Brazil is open to discussion but are unable to give a final decision at this time. Mr Laurent encouraged the Shrimp and Groundfish WG to review and provide feedback on the FDS WG's proposal for the southern boundary including the way forward.

Update on vessel mapping

71. Mr Yann Laurent presented the template structure for vessel mapping (<https://data.d4science.net/1mZr>) for the WECAFC-proposed regional classification of fleet segments. The purpose of the mapping exercise is to validate the proposed regional classification. The challenge in the WECAFC region is that 90 percent of the vessel types are multi-gear. To cope with the diversity of multi-gear fleet in the Caribbean, a refinement of fleet segment definition was proposed: for mapping purposes, the vessel type category is to be considered for local vessel types based on the gear being exclusively or predominantly used. An international classification is used for fishing vessels, but an extension of the classification has been proposed to include the predominant gear used regardless of the original vessel construction type.
72. This expansion was done to match the situation in the WECAFC region where there is a diversity of artisanal vessels and gear types. Three additional vessel types were added (Trollers,

Handliner vessels and Motherships). Thirteen contributions on vessel mapping have been received including from French Guiana, Suriname, and Trinidad and Tobago. Mr Laurent called for contributions from Brazil, Guyana and Venezuela, and he will liaise with Guyana and Brazil to get the information for vessel mapping. Based on the vessel mappings submitted by 13 countries at FDS WG2, the current fleet segment classification is in line with the actual WECAFC fleet topology.

Review of interim data collection reference framework and data policy

73. Mr Yann Laurent recalled the iDCRF (Interim Data Collection Reference Framework) needs, driving principles and structure (<http://www.fao.org/gfcm/data/dcrf/en/>). The WECAFC iDCRF lays the foundation of fisheries data and statistics collection and collation, and will contribute to the needs of developing, monitoring, assessing and reviewing regional fisheries policies. Importantly, the WECAFC iDCRF incorporates the specificity of the country-level challenges and practicalities related to the different types of data needs.
74. The iDCRF (Version 6) serves at least two purposes: 1) A capacity building tool; and 2) An instrument to support the mandates and priorities of the WECAFC/CRFM/OSPESCA ICM. Preliminary directions from the FDS WG2 were presented with respect to 1) List of species update proposal: the FDS WG currently recognizes 4 bases for its species lists: and 2) List of species implementation: there is need for a staged approach to full implementation of the iDCRF, given the complexity of region. Three out of the five Tasks were prioritized for implementation by the countries during stage 1: Task III – Fleet; Task II – Catch by species and effort, by fleet segment, sub-area/division; and Task IV – Biological data, length frequencies and catch at size. Tasks I (regional statistics) and V (socioeconomics) are secondary priority tasks that will be carried out in stage 1 using a best effort approach. The proposed modified structure of the iDCRF was discussed. The revision of the iDCRF will increase its scope to provide more guidance. It is expected that Version 6 will be adopted by the FDS WG2 by the end of March 2021.
75. Mr Laurent urged the Shrimp and Groundfish WG to review and comment on the iDCRF revised structures and recommended that the countries contribute to the iDCRF. The revised iDCRF will be presented to the next WECAFC meeting for final endorsement.
76. The Conservation International (CI) representative conveyed CI's interest in supporting the artisanal groundfish fishery in Guyana related to data collection needs. The response was that national implementation is outside of the scope of the iDCRF but reviewing national information systems and proposing a concept note on what FAO can do may be one solution. They can explore how CI can contribute to the next phase to improve data collection.
77. A question was asked if the Task on catch will include ETP (endangered, threatened and protected species) and bycatch, or if it will be linked with the databases of conservation organizations. Mr Laurent's response was that it depends on how bycatch is defined. For example, in tuna fisheries, bycatch is anything that is not targeted by the tuna boats whereas in artisanal fisheries it is incidental or accidental catches such as mammals and turtles. Further, ETP is part of the list of main species. Sharks are considered vulnerable species but not in the Dominican Republic, where sharks are targeted and consumed. Turtles are also harvested in some countries. Vulnerable species are a sensitive issue and should be included in national data, which is a regional requirement at the national level for the artisanal fleet, but usually data is not available.

Western Central Atlantic Fishery Commission (WECAFC) decision support system

78. Mr Yann Laurent introduced the WECAFC DSS, which is a key outcome of the CLME + project. It will be the repository of all information, data and documents to support decision making for the EAF-Ecosystem based management (EBM) approach. Outcomes of the CLME + FAO sub-project are expected to feed into the DSS. Different kinds of information will be accessible from the DSS, once fully functional, through the WECAFC regional database, FIRMS and iMarine VRE (Virtual Research Environment). New viewer features will allow access to the dashboard, which was explained on the viewer. It will include a dynamic popup to present dynamic information by country.
79. The proposal for integration of the DSS includes accessing regional data as well as national data from the viewer. Through the FIRMS-WECAFC partnership, effort is being made to get data from the countries. The DSS will not only include data and statistics but also meta data. It will also allow streamlining the access to data and information at the regional level. The timeline for DSS integration is to have the prototype with the regional view by mid-December and with the national view by the end of December 2020.
80. A comment was made about networking with other databases such as those on climate change and the environment, and the importance for governments and others to see the level of cooperation among stakeholders. According to Mr Laurent, there is already a planned linkage between regional databases/platforms and FIRMS. The DSS platform can provide links to many other platforms such as WWF, CI, etc. However, the databases must be acknowledged/endorsed by WECAFC as reliable sources. Institutional endorsements will be needed to put links in the Viewer.
81. The CLME+ representative asked about linking the DSS to the CLME+ Hub and the Regional Coordination Mechanism. She referred to the Cartagena Convention State of the Cartagena Convention Area report and the State of Marine Habitats report and enquired if information on the pollution impacts on fisheries and mangroves, for example, can be taken up in this database. The response was that the Viewer is an entry point to data stored in different places and if geospatial metadata standards are followed, other information can be added since this is a very flexible tool. Agreement will be needed at the WECAFC level to include linkages. It is possible to link the iDCRF with SOFIA to do rapid assessments, etc.
82. Mr Laurent stated that he would consider that the proposal has been validated by the Shrimp and Groundfish WG.

Current status of follow-up project proposal to Food and Agriculture Organization (FAO) Caribbean and North Brazil shelf large marine ecosystems project on shrimp and groundfish fisheries of the North Brazil shelf large marine ecosystem

83. Mr Jeremy Mendoza (FAO) presented the current status of a concept for a Global Environment Facility (GEF) 7 project: Enhancing capacity for the adoption and implementation of EAF in the shrimp and groundfish fisheries of the NBSLME. The aim is to continue the work of the CLME+ project to develop capacity for EAF in the region. This is in the context of Strategy 6 of the CLME+ Strategic Action Programme (SAP), with calls for the development of sub-

regional and national fisheries management plans for the shared shrimp and groundfish fishery resources of the Guianas-Brazil Shelf based on EAF.

84. The proposed project will strengthen countries' capacity in several areas (legal and institutional arrangements, technical and operational, and financial) for implementing national and sub-regional shrimp and groundfish EAF management plans. The beneficiary countries will be Brazil, Guyana, Suriname, and Trinidad and Tobago. Potential executing partners include the CRFM and IFREMER, among others. Technical support will be provided by FAO WECAFC and FAO Headquarters. The proposed logical framework consists of five components: 1. Proposed fisheries management information system; 2. Building co-management capacity; 3. Strengthen fisheries management; 4. Improve social and economic performance of SSF; 5. Visibility – communicate outcomes and knowledge sharing. Following discussions between FAO and the GEF Secretariat, it was decided to downscale the project from USD 5 million to USD 2 million. Expressions of interest with letters of endorsement will be needed from the countries. The concept note, which is being prepared by CERMES, will be shared with the countries for feedback.
85. In response to a query about the potential link between this proposed project and the Shrimp and Groundfish WG, Mr Mendoza stated that the project aims to support the WG and enhance its capacity for assessment and management.
86. All the country delegates at the meeting expressed interest in endorsing the proposal and indicated that they will consult with their respective governments in providing the endorsement letters, etc. It was suggested that the countries can indicate their priorities within the framework of the concept note, to guide the preparation of the medium size project proposal.
87. The meeting was informed that the CLME+ is developing a new follow-on project with UNDP, and FAO should ensure that there is coordination between the two projects. Mr Mendoza indicated that there will be synergies between these two projects as well as with other FAO projects in the region.

Western Central Atlantic Fishery Commission (WECAFC) and state of fisheries and aquaculture: areas of possible improvement?

88. This was a new agenda item. Ms Tarub Bahri (FAO) gave an introduction to the ongoing process to improve the quality of the FAO State of Fisheries and Aquaculture (SOFIA) assessment. The global-scale assessment only covers part of the stocks in the WECAFC region, but for logistical reasons and validity of the time series, the current list of stocks cannot be changed. However, FAO is working on updating the assessment methodology, including adding an updated list of stocks to improve the current list, with the help of Mr Rishi Sharma (FAO).
89. Mr Sharma recalled that FAO is the custodian for SDG 14.4 related to ending overfishing and IUU and restoring fish stocks. Global trends (based on SOFIA) show overfishing is decreasing and relatively stable. The FAO SOFIA methodology uses biological reference points based on the biomass related to the maximum sustainable yield (BMSY) and values relative to it that indicate whether a stock is overfished (<0.8 BMSY), fully sustainably fished (≥ 0.8 BMSY and ≤ 1.2 BMSY) or underfished (>1.2 BMSY). Using the same data sets that are used in the current SOFIA analysis, the new methodology shows more overfished stocks than the current methodology. The new methodology is expected to be released in 2024. The team is working

to improve the data sets and on doing rapid assessments on additional stocks and areas in the WECAFC region. Capacity building will also be provided on what data should be collected and how it should be analyzed to make inferences on stock status. Additional types of data will be needed and will depend on the complexity of the approaches used in the assessment at the regional and/or country level.

90. A question was asked about the extent to which FAO has worked with local and regional scientists doing stock assessments. More engagement is needed with the region in sharing expertise and working together. Ms Bahri replied that FAO collects information from assessments available in the region including WG assessments and the work of local scientists. The material is presented to the WECAFC SAG for validation, a process that FAO is looking to improve. The list of 40 species used needs to be updated but since the assessment is global, there is limited flexibility on this metric as it may invalidate the time series if additional stocks are introduced. However, FAO is working on approaches to improve this globally as well as in the WECAFC region.

Review and update of intersessional work plan

91. The intersessional work plan that was developed at the 3rd WG meeting in 2019 was reviewed. The revised work plan, based on the current meeting, is given in Table 1.

Table 1. Revised work plan

Activity	Timeframe	Responsibilities
1. Finalization, publication and dissemination of the Report of the WG meeting in Suriname	November 2020	CRFM/IFREMER/WECAFC and FAO with inputs from meeting participants
2. Finalization, publication and dissemination of the Report of the Virtual WG meeting	March 2021	CRFM/IFREMER/WECAFC and FAO with inputs from meeting participants
3. Provide technical and scientific advice to national governments and WECAFC Commission	December 2019– July 2021	WG members
4. Report to the: <ul style="list-style-type: none"> - 18th session of WECAFC, TBD - 11th meeting of the WECAFC Scientific Advisory Group (SAG), TBD 	As deadlines for reporting require	WECAFC Secretariat
5. Support initiatives at sub-regional level in the fight against IUU fishing in the Guianas-Brazil Shelf	December 2019– July 2021	Sub-regional countries, FAO, WWF
6. Collaborate with the Data and Statistics Working Group to update requirements presented at the Working Group's meeting. Review data access and sharing policy	December 2019– April 2021	Working Group Members supported by IFREMER/CRFM and WECAFC
7. Update WECAFC stocks and fisheries inventory for shrimp and groundfish of Guianas-Brazil Shelf	December 2019– July 2021	FIRMS Secretariat and working group members
8. Support and contribute to the development of a sub-regional strategy and management plan for shrimp and groundfish in the Guianas-Brazil Shelf	December 2019– March 2021	Working Group with Support from CLME+ and Members
9. Search for resources to continue work on: <ul style="list-style-type: none"> - Data Preparation - Training in stock assessment for WG Countries - Carry out planned periodic stock assessments 	December 2019– July 2021	IFREMER/CRFM/WECAFC in collaboration with NOAA, FIRMS and potential donors
10. Assist WECAFC to ensure stakeholder consultations on the draft Regional Strategy on Shrimp by-catch and introduce to 18 th Session of WECAFC. Working Group	December 2019– July 2021	Working group Members with Support from CRFM/WECAFC/IFREMER and REBYC-II LAC

Activity	Timeframe	Responsibilities
members to review draft Strategy and prepare update for next Working Group meeting.		
11. Review and suggest inputs, targets and indicators for the CLME + SAP and contribute to the indicators of the GEAF framework for ecosystem approach for shrimp and groundfish	December 2019– November 2020	CERMES to request input from Working Group Members
12. Develop communications and work strategy between Working Group members for inter-sessional period - Create common work-space and document repository with iMarine e-infrastructure	December 2019 - July 2021	WECAFC/CRFM/IFREMER
13. Further studies on mainstreaming human well-being (including gender and working conditions) in fisheries policies	December 2019– July 2021	Member countries
14. Revise working Group TORs in view of the proposed sub-regional strategy for management of shrimp and groundfish resources taking into account other drivers and pressures (Pollution, Sargassum, Piracy, etc.)	Draft: April 2021 Endorse: July 2021	Working group members prepare draft.
15. Strengthening and promoting the operation of National Intersectoral Committees (NIC) in member countries	December 2019– July 2021	Member countries
16. Support implementation of SSF Guidelines in member countries	December 2019– July 2021	Member countries, WECAFC/FAO and CRFM
17. Next Session of Working Group-intersessional meeting	November 2020	IFREMER in collaboration with WECAFC/CRFM and CLME+ and REBYC-II LAC
18. High level meeting of fisheries authorities for endorsement of sub-regional instruments (sub-regional strategy and management plan, and sub-regional data policy)	March 2021	FAO, CLME+ shrimp and groundfish sub-project and member countries

92. It was pointed out that the Shrimp and Groundfish WG has had little political support regarding political endorsement of and translation of the WG recommendations into actions at the national level, although this varies among the countries. Regarding gender and decent work, it was suggested that a high-level event be held to get political endorsement for and to raise awareness on these two elements. The next high-level meeting will be held in March 2021. The CLME+ representative advised that the terminal evaluation of the CLME+ project will begin in March 2021, and inputs will be needed from the countries from the beginning of March.

Wrap up, conclusions and closure

93. Recommendations that were agreed at the 2019 WG meeting were reviewed and some minor modifications were made. The WG recommendations to the 18th Session of WECAFC were adopted. The final recommendations are presented in Annex C.

Closure of the meeting

94. Mr Blanchard thanked the Working Group Members and other participants for their contributions, presentations and discussions.
95. The meeting was adjourned on Thursday, 19 November 2020 at 13.00 hours.

Annex A List of participants

Country/Organization	Name	Affiliation
Brazil		
	Fabio Hazin	Federal Rural University of Pernambuco
	Jose Augusto Aragao	Independent Consultant
	Beatrice Ferreira	Federal University of Pernambuco
	Carlos Eduardo Villaça	Secretariat of Fisheries and Aquaculture
	Bianca Neves Da Silva	Federal University of Para
French Guiana		
	Fabian Blanchard	IFREMER
	Camille Liegeois	Directorate of Maritime Fisheries and Aquaculture
	Aurelie Lotte	Directorate of Maritime Fisheries and Aquaculture
Guyana		
	Corwin D'Anjou	Fisheries Officer
	Rabani Gajnabi	Fisheries Officer
	Kadeem Jacobs	Fisheries Officer
	Desha Spelling	Fisheries Officer
	Mala Doolall	Fisheries Officer
Suriname		
	Anand Chotkam	Fisheries Officer
	Zojindra Arjune	Fisheries Officer
	Mario Yspol	Fisheries Officer
	Radjes Asraf	Fisheries Officer
Trinidad and Tobago		
	Lara Ferreira	Fisheries Officer
	Judy-Ann Bennett	Administrative Assistant, REBYC II LAC Project
	Marc Bejai	Fisheries Officer
	Azard Mohammed	Fishing Industry Representative
Caribbean Regional Fisheries Mechanism (CRFM)		
	Susan Singh-Renton	Deputy Executive Director

Country/Organization	Name	Affiliation
Centre for Resource Management and Environmental Studies (CERMES)		
	Patrick McConney	Director
	Robin Mahon	Professor emeritus
	Paul Fanning	Consultant
	Kerton Jobe	Consultant
CLME+ Project		
	Laverne Walker	Deputy Regional Project Coordinator
Conservation International		
	Pablo Obregon	Center for Oceans
	Curtis Bernard	Director Conservation International Guyana
FAO		
	Yvette DieiOuadi	WECAFC Secretary
	Tarub Bahri	Marine and Inland Fisheries Branch
	Aureliano Gentile	Fisheries and Aquaculture Information and Statistics Branch
	Yann Laurent	Fisheries and Aquaculture Information and Statistics Branch
	Jeremy Mendoza	FAO CLME+ Project Coordinator
	Rishi Sharma	Marine and Inland Fisheries Branch
	Maya Moure	REBYC II LAC Project Coordinator
	Tomas Willems	Suriname National Project Coordinator REBYC II LAC
	Gabrielle Lout	International Consultant
	Sherry Heileman	International Consultant
	Bert Keus	International Consultant

Annex B. Meeting agenda

Day 1: Wednesday 18 November 2020		
	Morning Session	Presenter
08.30–08.40	Call to order Instructions on Zoom Platform	
8.40–8.50	Welcome addresses and opening of the workshop - FAO Representative - Fabian Blanchard – Working Group Convener	Yvette DieiOuadi
08.50–09.05	Overview of workshop objectives and expected outputs - adoption of agenda	Fabian Blanchard
9.05–9.50	Presentation and discussion of final draft of sub-regional EAF strategy and management plan	Paul Fanning
09.50–10.05	<i>Coffee Break</i>	
10.05–11.20	Current status and outlook of National Fisheries Management Plans - Brazil - Guyana - Suriname - Trinidad and Tobago	Country representatives
11.20–11.50	Status of monitoring and evaluation framework and indicators for shrimp and groundfish fisheries of the North Brazil-Guianas shelf	Robin Mahon
11.50–12.20	Advances in study of working conditions in shrimp and groundfish fisheries of the Guianas-Brazil shelf	Gabrielle Lout
Day 2. Thursday 19 November 2020		
8.30–8.45	Wrap up day 1	Fabian Blanchard
08.45–09.15	Update on FIRMS inventories	Aureliano Gentile
9.15–9.45	Review of iDCRF main species list and geographic sub-areas	Yann Laurent
9.45–10.15	Update on vessel mapping	Yann Laurent

10.15–10.30	<i>Coffee Break</i>	
10.30–11.00	Review of iDCRF and data policy	Yann Laurent
11.00–11.30	Decision Support System/WECAFC	Yann Laurent Aureliano Gentile
11.30–11.45	Current status of follow-up project proposal to FAO CLME+ project shrimp and groundfish fisheries of the NBSLME	Jeremy Mendoza
11.45–12.15	Review and update of intersessional work plan	Fabian Blanchard
12.15–13.00	Wrap up, conclusions and closure - Adoption of Working Group recommendations to 18th Session of WECAFC	Fabian Blanchard

Annex C. Recommendations from the shrimp and groundfish working group for the 18th Session of the Western Central Atlantic Fishery Commission (WECAFC)

DRAFT RECOMMENDATION WECAFC/XVIII/2021/ ON THE MANAGEMENT OF SHRIMP AND GROUND FISH RESOURCES OF THE NORTHERN BRAZIL-GUIANAS SHELF IN THE WECAFC AREA

The Western Central Atlantic Fishery Commission (WECAFC),

RECALLING that the objective of the Commission is to promote the effective conservation, management and development of the living marine resources within the area of competence of the Commission, in accordance with the FAO Code of Conduct for Responsible Fisheries, the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication, and address common problems of fisheries management and development faced by members of the Commission;

RECALLING that most WECAFC members have endorsed the Caribbean and North Brazil Shelf Large Marine Ecosystem (CLME+) Strategic Action Programme (SAP) and that under its Strategy 6 “Implement EBM/EAF of the Guianas-Brazil continental shelf with special reference to the shrimp and groundfish fishery” the same members are required to “Strengthen the FAO-WECAFC-CRFM sub-regional arrangement for the management of the shrimp and groundfish fisheries, and establish a decision-making capacity for policy formulation and management”;

NOTING the long history of work of WECAFC (since 1975) on shrimp and groundfish resource assessment and biological and economic modeling of shrimp and groundfish fisheries, that guided the management of these resources by the members, as well as the more recent CLME project ‘Transboundary Diagnostic Analysis (TDA)’, which demonstrated the current challenges to the sector, including habitat damage and destruction of mangroves, land-based water pollution, Illegal, Unreported and Unregulated (IUU) fishing, overexploitation of some resources, piracy, and conflicts between stakeholders within the sector and with other sectors;

REAFFIRMING its commitments, made at the 17th session of WECAFC, to coordinate efforts through the WECAFC/CRFM/IFREMER Working Group on Shrimp and Groundfish in the Northern Brazil-Guianas Shelf to improve sustainability of these fisheries;

MINDFUL of the discussions and outcomes of the 3rd meeting of the Working Group held in Suriname on 26 and 27 November 2019, supported and financed by the CLME+ and REBYC-II LAC projects;

RECOGNIZING the significant contribution of the shrimp and groundfish fisheries to food and nutrition security, poverty alleviation, income generation, export earnings and employment for present and future generations in the WECAFC area;

RECOGNIZING the lack of gender-sensitive policies and limited attention to human and labour rights in fisheries and the importance of understanding the role of gender and social and cultural dimensions of income and livelihoods across the entire value chain;

REAFFIRMING the crucial need for continued action by all stakeholders to ensure the long-term sustainable use and management of the shared shrimp and groundfish fisheries resources in the region based on the ecosystem approach to fisheries (EAF);

NOTING the concerns of the WECAFC/CRFM/IFREMER Working Group on Shrimp and Groundfish in the Northern Brazil-Guianas Shelf that despite the steps undertaken to build capacity on stock assessment, available and shared information to inform fisheries management and decision-making processes at the sub-regional level has been reduced over the last years such that most management plans are in draft form and enforcement capacity and collaboration in fisheries management is weak;

NOTING that the availability of updated information on stock assessment of commercially important species in the North Brazil Shelf contributes to the sustainable management of shrimp and groundfish fisheries;

NOTING that the recent results of studies on population genetics and findings on stock structure of Atlantic seabob (*Xiphopenaeus kroyeri*) and Southern brown shrimp (*Penaeus subtilis*) suggest that some stocks are shared across the sub-region by two or more countries;

RECOGNIZING the need to improve data and information to reduce uncertainties in stock assessment methodologies currently used, to investigate further on stock structure through genetic studies and other methods such as morphometrics, tagging, otolith shape and microchemistry, to monitor the long-term impacts of the trawl and gillnet fisheries on the stocks;

RECOGNIZING the role of the two projects on Sustainable management of bycatch in Latin America and Caribbean trawl fisheries (REBYC-II LAC) and on Catalyzing Implementation of the Strategic Action Programme for the Sustainable Management of Shared Living Marine Resources in the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+), in increasing knowledge on the shrimp and groundfish resources, fostering regional collaboration and enhancing management practices encompassing bycatch reduction, fisheries co-management, combating IUU fishing and building national capacities;

HIGHLIGHTING the continued MSC certification of the Atlantic seabob fishery in Suriname and the recently approved MSC certification of the Atlantic seabob fishery in Guyana;

RECOGNIZING the need for a regional strategy that guides the implementation of the International Guidelines on Management of Bycatch and Discards for shrimp and groundfish fisheries of the North-Brazil-Guianas Shelf;

RECOGNIZING the WECAFC Regional Database and the FIRMS system as the tools to support outcomes achieved through stock assessments, bio-economic modeling and other relevant information on shrimp and groundfish fisheries for decision making process for the management of fishery resources in the sub-region;

RECOGNIZING the need of well-established and agreed protocols for data and information sharing compliant with data policies of the participating countries;

RECOGNIZING that countries are already sharing their fisheries related data to improve management in the sub-region;

NOTING that several management plans are under implementation in the sub-region and have undergone periodic reviews that led to adjustments in management measures;

HIGHLIGHTING that the national management plans are well aligned with the proposed sub-regional management plan for shrimp and groundfish fisheries;

NOTING that several WECAFC members have made substantial progress in the fight against IUU through enhanced Monitoring Control and Surveillance measures, policy and legislation;

ADOPTS in conformity with the provision of Article 6 (h) of the Revised Statutes of the WECAFC the RECOMMENDATION that.

Strengthen management, data collection and quality, periodic stock assessment and continue enhancing capacity on stock assessment including for data limited fisheries.

WECAFC members are encouraged to carry out joint stock assessments and design common management measures taking into account available scientific knowledge on stock identification;

WECAFC members continue the collaborative research to complement and refine results on stock identification and extend research to additional shrimp and groundfish species.

Support the establishment of a formal mechanism for technical advice, decision-making and implementation for the shrimp and groundfish resources of the North Brazil-Guianas Shelf.

Revise the terms of reference of the WG to reflect expected tasks on provision of advice to a formal shrimp and groundfish resources management mechanism in the North Brazil- Guianas shelf.

The national inter-sectoral committees (NICs) are strengthened and, where necessary and appropriate, special NIC sub-committees (e.g. Atlantic seabob Working Group) be employed to explore particular issues (e.g. pollution, piracy, Sargassum).

Develop studies in the social dimension in fisheries to further gender and gender gap analysis at the country and multi-country/sub-regional level in order to mainstream gender in fisheries policies. Further develop analysis of decent work and working conditions in order to mainstream decent work on vessels and along the value chains for small scale and industrial fisheries.

WECAFC to collaborate with OSPESCA and CRFM to develop a regional strategy for management of bycatch in shrimp/bottom trawl fisheries to be completed in a consultative process that includes all stakeholders with the support of the REBYC-II LAC project and presented to the 18th Session of WECAFC for its review and endorsement.

Countries provide, in a timely manner, available fishery data and information on the priority species - as delineated in the WECAFC and interim DCRF - and for the related stocks and fisheries inventories, to populate and maintain the WECAFC regional database which supports needs for stock assessment, fisheries management plans and a decision support system.

Adopt the sub-regional strategic and management plans on shrimp and groundfish fisheries in the North Brazil-Guianas Shelf that harmonize management practices within the sub-region

and define institutional mechanisms to increase inclusiveness and effectiveness of fisheries management.

WECAFC members contribute to the implementation of the RPOA-IUU by developing national plans of action as well as taking collaborative action in MCS measures at sub-regional scale.

WECAFC members support the implementation of the SSF guidelines as part of their efforts to improve food security, eradicate poverty and enhance sustainable livelihoods.

Annex D. Welcoming remarks by the Western Central Atlantic Fishery Commission (WECAFC) Secretary—Ms Yvette DieiOuadi

Distinguish participants from members' delegations, partners, FAO colleagues, Good morning. On behalf of the WECAFC, I would like to welcome you all to the 4th Meeting of the WECAFC/CRFM/IFREMER Working Group on shrimp and groundfish of the Northern Brazil-Guianas Shelf. I am pleased that the WG has been quite active as this is the fourth meeting since the WG was reactivated at the 15th Session of WECAFC held in Port of Spain in 2014. These meetings have been mainly supported through project funds such as the REBYC II LAC Project and the FAO CLME+ sub-project on shrimp and groundfish. In this regard, as these projects come to an end, it is important that resources are mobilized in order to continue supporting the activities of the WG and its contribution to sustainable management of the important shrimp and groundfish fisheries of the Northern Brazil-Guianas Shelf.

As you all know the Northern Brazil-Guianas shelf is one of the most productive areas in the Western Central Atlantic, accounting for approximately 300 000 tons of reported landings with an estimated value of USD 400 million, mostly derived from shrimp and groundfish resources. These important industrial and small-scale fisheries provide food security and support poverty eradication to the countries in the region, sustain the livelihoods of thousands of fishers and their families, as well as other fish workers along the value chains, and provides a noteworthy source of foreign exchange from significant exports to many parts of the world

FAO WECAFC has been supporting the countries in the region since the mid-1970s in order to improve the sustainable management of these resources. More recently, focus has been on fisheries governance and bycatch management in order to contribute to transition towards EAF management of these fisheries. I am pleased that advances have been made and that the group will be reviewing and discussing the Sub-regional management strategy and fisheries management plan for shrimp and groundfish resources, as well as the advances made at the national level in the development of their fisheries management plans.

It is very encouraging to see that this meeting counts with the presence of diverse stakeholders and large size of delegations, such as fisheries officers, fishers' representatives NGOs, and academia/research institutions. I would like to underline that the WECAFC and its partners will continue to support the WG efforts to ensure the sustainable exploitation of shrimp and groundfish resources. In this regard, an exit strategy is being explored, including follow up funding.

I look forward for you to have a very productive meeting.

Annex E. Welcoming remarks by the working group convener – Mr Fabian Blanchard

It is a great pleasure for me to welcome you to this fourth Meeting of the WECAFC/CRFM/IFREMER Working Group on Shrimp and Groundfish of the North Brazil-Guianas Shelf.

Of course, it is a virtual meeting because of the world sanitary crisis. And we had a discussion some months ago with Jeremy Mendoza about the opportunity to organize a virtual meeting in November as another option was to postpone the meeting after the crisis. Actually, it is considered more fruitful to meet physically as it allows a better quality of discussions, it makes it easier to forge collaborative links, and even the coffee breaks or lunch allow sometimes ideas to emerge for more efficiency. However, we don't really know when the crisis will end and we need to carry out our works further, not only because we have constraints in terms of fundings but also because, we think that our working group contributes to food and nutrition security, poverty alleviation, income generation, export earnings and employment for present and future generations in the WECAFC area. But I wish we could all get together and I hope it will be possible next year.

First of all, I want to thank all the people involved in the organization of this virtual meeting and recognise the work done by the FAO staff, and especially by Jeremy Mendoza and Tarub Bahri. I also want to thank you, all the people connecting to the workshop, Trinidad, Guyana, Suriname, Brazil, and from French Guiana. Of course, I don't forget the CLME+ and REBYC II LAC programmes for funding our works and meetings.

In terms of work done and to be done, I will not be exhaustive but we can say that we have made progress on stock assessment, especially last year, using models adapted to data limited stocks allowing to get some conclusions about the state of some stocks of the area, and we must go on this way to make steps further. We also contribute to define EAF sub-regional management and national implementation plans and a Regional Strategy on Bycatch Management. We also began to contribute to FIRMS, we participate to the definition of the content of the DCRF and these points will be discussed also during this virtual meeting. We had also interesting first discussions on the human and social dimension of the fisheries with gender studies and we will go on with a study on working conditions.

Finally, I will repeat what I said last year, our work, recommendations and advice will be efficient if our respective governments endorse them, and traduce them in national regulations, and better, implement some common management rules when necessary, for fisheries sustainability and equity between our populations. So that we need more convincing communication towards the ministries level about this and we will discuss this point tomorrow.

So once again, I am very pleased to be connected on this virtual meeting with you and I wish us a good and fruitful workshop.

The Fourth Meeting of the WECAFC/CRFM/IFREMER Working Group on the Shrimp and Groundfish of the Northern Brazil-Guianas Shelf was held virtually on 18 and 19 November 2020. It was attended by 39 participants including Working Group Members, national fisheries officers and representatives of government organizations, academia, fishing industry, partner organizations and the FAO.

Participants reviewed the Sub-regional EAF Strategy and Fisheries Management Plan (FMP) for the shrimp and groundfish fisheries of the North Brazil-Guianas Shelf and discussed options for the institutional mechanisms for implementation. Representatives from Brazil, Guyana, Suriname, and Trinidad and Tobago provided updates on the status of their respective fisheries and national FMPs. Results were presented of the pilot application of the Governance Effectiveness Assessment Framework for the North Brazil Shelf and of a decent work assessment of the shrimp and groundfish fisheries. Participants reviewed and discussed the boundary proposals on FAO Fishing area 31, the FIRMS inventories of marine resources, fisheries and other information as well as vessel mapping for regional classification of fleet segments. The structure of the interim Data Collection Reference Framework (iDCRF) and data policy were examined, following by validation of the WECAFC decision support system by the Working Group. A concept for a Global Environment Facility (GEF) project on enhancing capacity for EAF in the shrimp and groundfish fisheries was reviewed. Finally, the Working Group's draft recommendations to the 18th Session of WECAFC were discussed and adopted.

The meeting was supported under the FAO-UNOPS Inter-Agency Agreement on "Catalyzing Implementation of the Strategic Action Programme for the Sustainable Management of Shared Living Marine Resources in the Caribbean and the North Brazil Large Marine Ecosystems" (Project UNJP/RLA/217/OPS) and the Sustainable Management of Bycatch in Latin America and Caribbean Trawl Fisheries (REBYC-II LAC) Project.

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