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United Nations**

**Training on fishery statistical data, and fisheries status
data for the Fishery Committee for the West Central Gulf
of Guinea (FCWC) region and its member countries**

**REPORT OF THE FISHERIES AND RESOURCES
MONITORING SYSTEM (FIRMS) AND FISHERY
STATISTICS CAPACITY DEVELOPMENT DATA
WORKSHOP**

Virtual Workshop, 26–30 October 2020

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ABBREVIATIONS AND ACRONYMS

CECAF	Fishery Committee for the Eastern Central Atlantic
CWP	Coordinating Working Party on Fishery Statistics
ECOWAS	Economic Community of West African States
FAO	Food and Agriculture Organization of the United Nations
FCWC	Fisheries Committee for the West Central Gulf of Guinea
FIRMS	Fisheries and Resources Monitoring System
FMS	Fisheries Management System
FU	Fishing Units
ICCAT	International Commission for the Conservation of Atlantic Tunas
MS	Member States
OA	Open Artfish
PFRS	Policy Framework and Reform Strategy for Fisheries and Aquaculture
SSF	Small-scale fisheries
TCP	Technical Cooperation Project
UEMOA	Union économique et monétaire ouest-africaine
WAEMU	West African Economic and Monetary Union

Opening of the session

1. The Fisheries and Resources Monitoring System (FIRMS) and fishery statistics capacity development data workshop was held online, from 26 to 30 October 2020, and was chaired by Mr Seraphin Dedi (Fishery Committee for the West Central Gulf of Guinea [FCWC] Secretariat) and Ms Abena Asante (FCWC Fisheries Management Advisor).
2. The meeting was opened by Mr Dedi who welcomed the participants on behalf of the FCWC. He thanked the participants, FAO and supporting partners, including the translators, for their involvement in this online meeting. He stressed that although this meeting is virtual, the initiatives being presented and discussed regarding support for the gathering of fisheries information were very relevant. He recalled that this initiative has been on-going for two years, under the LoA agreement, and called attention to the previous meeting in Rome held in February 2020, highlighting the current gaps in the data collection framework as well as the need to protect and manage the threatened marine species. He further encouraged the FCWC Member States to continue with this close collaboration with the FAO colleagues. His opening statement is presented in Annex 4.
3. Mr Marc Taconet (FAO) welcomed the participants on behalf of the FAO and thanked them for their availability for the duration of the workshop. He stressed that FAO, the Fishery Committee for the Eastern Central Atlantic (CECAF) and FCWC should work together to improve the state of fisheries data collection and science of the region; to strengthen the region's capability for getting data through a more efficient processes; to improve communication between the main stakeholders involved in the collection and dissemination of fisheries statistics; and to improve the understanding of fisheries operation and management. His opening statement is presented in Annex 5.
4. Mr Carlos Monteiro noted that this workshop was an important opportunity to share and exchange ideas within this working group, as well as discuss problems and solutions regarding data and data collection for the monitoring of stocks and fisheries in the CECAF (Cabo Verde) region. He stressed the importance of facilitating the exchange of knowledge and experience, and highlighted the steps that CECAF was taking in terms of initiatives related to data collection, processing, and methods of monitoring and analysis. Mr Monteiro envisaged that this workshop would improve information sharing, as different states have different knowledge to contribute, as well as highlight issues in a number of different areas. Overall, he was looking forward to the contributions from all partners to improve the regional and national data collection capacities.
5. Mr Dedi conducted an introductory round table of all participants, FAO staff and interpreters, which included the participation of 19 countries participants, four officers from FCWC Secretariat, seven fisheries statistics and information experts from FAO and four interpreters. He noted that the FCWC-

FIRMS partnership was well supported by FAO Fishery Officers and statisticians and that the continuous collaboration between partners was the aim of this meeting. He thanked all participants joining the meeting and moved onto the agenda.

Presentation of the Agenda and Workshop objectives

6. Mr Dedi presented the Agenda. He suggested the inclusion of the group photo in the official agenda for item 1 (attached in Annex 3). The Agenda was adopted as the working document for the workshop.
7. Ms Asante presented the objectives of the meeting. She highlighted the main goal of the workshop was to improve the capacity to deliver high quality fishery statistics in a timely manner, maintain and manage the regional database of catch and effort at fishing unit level, and ensure that data was consistent and reporting standards were harmonized. The timeline of previous work was presented, including the signing of the LoA and previous training workshop following on from the TCP project 3512 (2016–2018) “Strengthening routine fisheries data collection in West Africa”.

Data needs for assessment and management of the CECAF stocks and fisheries in the FCWC Region

8. Mr Monteiro presented the evaluation and overview of the management of fish stocks in the CECAF area. He highlighted the key points on data gaps, as well as problems linked to fisheries data collection, overall improvements on the quality of fishing data and models, and stock assessment in the CECAF region. He pointed to the corrective and management measures, especially the need of promoting methods for monitoring, improving data analysis and standardizing fishing effort. He noted that Open ArtFish is a tool that supports the harmonization of sampling methodologies for artisanal fisheries across different member states, national data collection systems and methodologies of data analyses. It also ensures data compatibility and generates statistics that form the basis for the development of fisheries management plans and harmonization of fisheries regulations in the region.
9. To improve artisanal fisheries data collection and to be able to mobilize TCP resources to improve and put into action the catch and effort at the FCWC level, Mr Marc Taconet noted that improvements were to be brought in through the working group, adding that the cooperation of the different national institutions would be a great aid in the improvement of the catch and effort statistical data collection. He also expressed that FAO was well aware of the differences of the involved institutions, and although the conditions in the region had not been perfect and finding the proper solutions was not always possible, a lot of work was carried out by the CECAF assessment working groups as well as by FAO and other donors on statistical data collection. He encouraged participants to continue with

the hard work in order to improve results in the region and improve the ways of communications so all member states and relevant national and regional institutions are engaged in the process.

Status of FCWC Data Centre

10. Ms Asante preceded the presentation on the status of the FCWC Data Centre with an introduction of the FCWC and its fisheries data activities. A timeline of FCWC projects including the FCWC-FAO Technical Cooperation Project 'TCP 3512' (2016–2018), the current LoA between FAO and FCWC was recalled. It was explained that the TCP 3512 aimed at improving knowledge on fisheries and supporting fisheries management and decision-making. Project outputs were: the development of appropriate and cost-effective sample-based surveys for artisanal fisheries; the development of national and regional Fisheries Management System (FMS) collaboration between FCWC and its Member Countries, the data sharing with FIRMS; and the establishment of mechanisms for the exchange of information between FCWC and its Member Countries.
11. A post project workshop involving the project focal persons was conducted in Tema in March 2019, to review activities and challenges towards populating the FMS. Two key issues were highlighted: the need for Nigeria to extend their pilot project in Lagos State to all other coastal states and, secondly, the need for the redesign of the data collection scheme and improvement of Open ArtFish.
12. The FAO-FCWC LoA, one of the activities from Output 3 of TCP 3512, aims to improve the capacity of the FCWC and its member states in terms of the collation, harmonization and submission of fishery data. The FIRMS and FCWC Secretariats worked together for the preparation of this workshop, in particular harmonizing and enriching the matrix of fishing units after the training workshop in Rome, February 2020, for FCWC focal persons and the CECAF SSC Chairperson.
13. Mr Isaac Gatorwu delivered a presentation on the FCWC Data Centre, established with the aim to house all fisheries-related data submitted by FCWC member states. The Data Centre was currently focused on the Fisheries Management System (FMS) for artisanal fisheries catch and effort data and Gross Domestic Product, submitted annually by the member states. Any issues with data sent by member states were clarified with the respective focal persons within each country. Reference was made to external sources for additional checks such as the FAO Aquatic Sciences and Fisheries Information System (ASFIS) species list and FishBase.
14. A summary of the status of the data submitted by member states was provided. Data for 2017 and 2018 had been received for all countries with the exception of Nigeria (only 2017, as 2018 data was rejected due to discrepancies in the names of the fishing units) and Liberia (only 2018 was submitted). Togo and Benin also provided data for 2016, while Benin also submitted data for 2019.

15. During the discussions, a number of challenges were highlighted by countries in terms of the current status of their national databases. For example, Nigeria expressed a need for support with the provision of mobile phones/ODK application to replace the use of paper for data collection, as well as support to expand the collection to all coastal states. Ghana also reported issues with their server and the Open ArtFish application, and that funds were needed to integrate industrial catch data collection into the regional FMS.
16. Out of this project, the FCWC looked to:
 - Have all fisheries data from every marine fishery sector (i.e., marine, semi-industrial, and industrial) from the member states;
 - support Member States in analyzing their own fisheries data for policy and decision-making;
 - develop, share and maintain services for the collation, management and dissemination of information through FIRMS;
 - enable the development of fisheries research and the regional information system to support management measures in the FCWC 2021-2030 Strategic Plan; and lastly,
 - to extend the involvement of JICA by supporting ongoing data collection systems of FAO-funded pilot projects in FCWC countries, with mobile phones for the enumerators.
17. A discussion followed on whether the semi-industrial category should be added in the FCWC Regional database or not. It was clarified that CECAF is collecting data for artisanal, semi-industrial and industrial fisheries.
18. It was explained that in, view of the varying national definitions of fisheries, there was the need for further characterization of the fisheries in each country, and subsequent harmonization across the region before data from categories not already captured in the FMS could be sent to the regional database. In order to define the scope of the database, and to harmonize definitions, it was recommended to: 1) focus efforts at the fishing unit level (hence the interest to inventory them under the current FIRMS project), and 2) to test a new tool developed by FAO to characterize Small Scale Fisheries (the "SSF matrix"). So far the FMS is designed for artisanal vessels only. Benin and Togo did not have a semi-industrial fishery while Ghana had, but was not submitting data from that sector to the FMS.
19. It was confirmed that almost all catch and effort data for artisanal fisheries in the FCWC Regional database was processed and submitted through Open ArtFish. A standard and downloadable template containing the same fields as Open ArtFish was used to export data to the FMS. The template was accessible to the focal persons via the FCWC Data Centre and could be shared with the FAO team. The process for deciding which fields to be incorporated into the FMS was explained, reminding participants of the TCP project activities including the redesign of existing data collection schemes; capacity building; implementation testing; and analysis of data collection systems.

About FIRMS

20. Mr Aureliano Gentile presented the Fisheries and Resources Monitoring System (FIRMS), highlighting the benefits and opportunities of information quality improvement at a national level, the improvement of regional statistical databases, and provision of status and trends of marine resources and fisheries at a regional and global level. He recalled that the FIRMS products and services, supported by regional databases and national submissions, are a powerful tool for data sharing in support to fisheries management and could be also used for dissemination purposes of the public component of the FCWC regional database. Embedding capacities were also available for FIRMS partners and data providers, whereby fact sheets and applications could be displayed within other websites.

Status of FIRMS inventories for the FCWC region

21. Mr Gentile reported on the status of the FCWC-FIRMS fisheries inventories, which currently consisted of 56 national artisanal Fishing Units (FUs), aggregated into 43 regional FUs, under 22 categories. He reminded the participants of the expected activities under the partnership arrangement, including the data provided as statistical fishing units, which were validated by the FCWC for FIRMS (for Benin, Côte d'Ivoire, Ghana, Liberia, Nigeria, Togo), to be mapped with the catch and effort data submitted by the FCWC member countries.
22. Ms Bracken van Niekerk presented the work completed earlier in 2020, in close collaboration with the FCWC Secretariat, whereby a matrix was created, mapping the national FUs to the regional FUs and to the FCWC-FIRMS fishery inventory. This matrix included data on fishing gear type, vessel type and length, as well as the top five target species indicated by the largest annual catches in tonnes. This mapping was carried out in a way that could harmonize data for the whole of the FCWC region.
23. In the discussion that followed, participants were informed that the FAO-FIRMS team worked with FCWC on a further harmonization of the FCWC Regional database in order that the data submitted by countries could be directly transmitted into FIRMS in a consistent manner, thus ensuring that the data could be used for FAO, FCWC and CECAF.
24. Participants were also made aware that communication products/publications, to provide greater visibility and showcase the work being done, could be developed with the support of all stakeholders. A note was made that the number of statisticians dedicated to fisheries statistics was improving, however, in order to have a full picture of the fishing activity in the region, there was a need to harmonize the national statistical databases connecting them with the Fishing Units that were monitored. It was again noted that there was a need for clarification on what defines a semi-industrial fishery, and that it should be agreed between all member states of the region.

25. The importance of communication tools was underscored, specifically that there was occasionally poor communication between the people reporting and people conducting the statistical study. For the success of the discussed communication tool, CECAF members must first agree to standardized definitions.

Presentation of preparatory work done by countries

26. Mr Joel Ogou, the focal person of Benin, presented the Benin's preparatory work. Benin had five artisanal and two industrial fishing units and submitted data to FCWC, CECAF, FAO NS1 and to the West African Economic and Monetary Union (UEMOA). The collection of vessel information was performed with support from projects, and the last vessel registration was carried out in October 2019. Coverage of the surveyed or licensed artisanal/coastal vessels was estimated at 40 percent. Catch and effort sampling coverage was also at 40 percent. Data collection methods used to collect catch and effort data were port sampling and landing slips, fish auction. All fish species were sampled. The main barriers to estimating the number of artisanal/coastal vessels was limited budgets and limited personnel.
27. Mr Julien Djou the focal person of Côte d'Ivoire, presented his country's preparatory work. Côte d'Ivoire had seven artisanal and three industrial fishing units. They submitted catch and effort data to FCWC, CECAF, FAO NS1, the International Commission for the Conservation of Atlantic Tunas (ICCAT), the Economic Community of West African States (ECOWAS) and UEMOA. They also submitted export, import, size, frequency and other data to ICCAT. The data on vessel is collected via an annual/biennial census, national vessel license registration program and structured surveys performed every five years. The last survey was conducted in 2014 with support from UEMOA. Coverage of the surveyed or licensed artisanal/coastal vessels is estimated to 70 percent. Port sampling, landing slips/fish auction are the data collection methods used. Ten percent of landing sites are sampled and all species are sampled. Challenges with data collection are: the difficulty of using Open ArtFish during the upload and download of data; problems with the ODK server that does not give the needed flexibility to download or extract specific kinds of data; cumbersome and time-consuming manual entry of data; and the absence of a field for socioeconomic data in the Open ArtFish. The country was trying out a new software to handle data collection and analysis, and would adopt it fully in 2021.
28. In the ensuing discussion, the number of landing sites for data collection in Côte d'Ivoire was noted as inadequate. Mention was made of the PESCAO project and a plan to verify how much funds could be allocated from it, for data collection in UEMOA countries. The requirement to perform dynamic continuous maintenance of Open ArtFish was put forward, given the importance of the software in fulfilling the requirements of producing catch and effort data by sampling for artisanal fisheries. The

maintenance should include the update of the sampling strategy and stratification, for example such as adding or disaggregating fishing units, as well as expanding the sampling coverage, etc. This should be accompanied by routine training of managers to handle the database, and also training for the enumerators. It was noted that, conversely, industrial fisheries were less dispersed and data were collected by complete enumeration and reporting of landings. There remained a need for continuous training in the use and handling of fishing unit coding within the Open ArtFish.

29. Mr Nasi Broh, the focal point for Liberia, presented Liberia's preparatory work. Liberia had 17 artisanal and two industrial fishing units. They submitted nominal and retained catches data to the FCWC, FAO NS1 (including fleet characteristics), ICCAT (including compliance reports and biological data). Information on vessels were derived from annual/biennial censuses and a national vessel license registration program, which included full enumeration/registration of small-scale vessels across the 111 landing sites. The 2012 frame was being updated and was expected to take 45 days to complete. Another app was being developed to collect information on fishmongers and processors. Port sampling was used to collect catch and effort data, of which 30 percent of landings were sampled. All species were sampled and the data manually entered into the system. Challenges were limited funds and limited logistics.
30. Mr Kossi Ahoedo, the focal point, presented Togo's preparatory work. Togo had five artisanal and three industrial fishing units. They submitted catch and effort data to FCWC, CECAF, FAO NS1 (annually) and UEMOA (inland fishery). Data on artisanal vessels was collected with support from projects; the last vessel registration was carried out in October 2019 with the support of a project supported by the EAF-Nansen Programme. Some annual updates were done with the help of chief fishermen who would communicate the number of vessels at their sites to the Directorate of Fisheries. Sampling for catch and effort data was done three times a week for the 60 percent of vessels, and for the canoes in 5 out of 23 landing sites (23 percent coverage). Data was collected from all industrial vessels. Their challenges included: inadequate finances, logistics, lack of periodic vessel survey; lack of expertise to collect and analyze socioeconomic data; inadequate enumerators; and difficulty in uploading and downloading data to and from the Open ArtFish database.
31. Mr Charles Darko, the focal point, presented Ghana's preparatory work. Ghana had five artisanal, two semi-industrial and seven industrial fishing units. Data was submitted to FCWC, CECAF and ICCAT. Vessel data were collected by annual/biennial census and a national vessel license registration program. Coverage was 100 percent. Catch and effort data was collected by port sampling, with 30 percent of vessels or landings sampled. All species were sampled. Challenges included: finances; insufficient computers and accessories; inadequate permanent staff; internet connectivity challenges.

32. It was explained that in the current data collection system, ODK and Open ArtFish software were combined for artisanal fishery data collection and this needed constant access to the internet to be functional. Open ArtFish, however, as a standalone, is an MS Access program which functions independently of the internet and could be configured to allow for specific information downloads.
33. Mrs Idorenyin Okonji, the focal point, presented the Nigeria's (Lagos) preparatory work. Nigeria has four artisanal and five industrial fishing units. Data was submitted to FCWC, CECAF, FAO NS1 and ICCAT. There was no vessel data collection system in place. Six landing sites were visited three times a week. Challenges included: lack of financial support for human resources; logistics and working tools for enumerators; and current capacity of enumerators. A suggestion was made to harmonize the classification of the two dugout canoes in their data to allow for easy upload to the FMS database.
34. Mr Hunyinbo Idowu informed the group that the data collection system (sampling design) based on Open ArtFish set three administrative divisions in Lagos, Nigeria. Details were provided about the field daily activities to collect samples in the coastal and lagoon, and to produce data through Open ArtFish. Two enumerators in each zone collected either coastal or Lagoon fishery data. Data collection was randomly monitored by supervisors without prior notice. The data collected was submitted at the end of the month to a supervisor, who produced a summary of all the three senatorial divisions for the Statistician to input into the Open ArtFish templates for final processing. The enumerators were paid monthly after the submission of data. Data collection was strictly monitored to avoid any complaints.

Overview of FAO capture fisheries reporting requirements and review of the consistency of the FCWC database with the CECAF and Global Capture databases

35. Mr James Geehan presented an overview of FAO's capture fisheries statistics, including the data reporting requirements of the NS-1 questionnaire¹, and the coverage and dissemination of FAO's global capture fisheries available via the FishStatJ online database².
36. General issues with the reporting of capture fisheries data were discussed, including issues specific to small-scale fisheries, subsistence and recreational fisheries, and large-scale fisheries. In the context of FCWC, a detailed assessment of each country's NS-1 data submission was presented, including recommended actions to improve the coverage and completeness of the official data submitted to FAO by each country.

¹ <http://www.fao.org/fishery/statistics/global-capture-production/4/en>

² <http://www.fao.org/fishery/statistics/software/fishstatj/en>

37. General observations were made regarding the status of the official catches for each country, including a comparison between catches in the FCWC database and FishStatJ (FAO database), as well as noting the differences in the scope of data between each database:
- FCWC: currently includes only artisanal catches for marine fisheries.
 - FishStatJ: includes total catches from inland and marine capture fisheries, (including artisanal, subsistence, recreational, semi-industrial and industrial fisheries). Excludes all aquaculture.
38. It was emphasized that catches reported to FAO should be equal to, but in most cases higher than the (artisanal only) catches in the FCWC database, given the broader range of data required to be reported in the FAO NS-1 questionnaire
39. Regarding the observations for each country, the following points and suggested recommendations were noted:
- Benin: higher catches (artisanal only) appear to be recorded in FCWC database compared to the total marine and inland captures in FishStatJ. Comparison by species also indicated a number of missing species, or lower catches for reported species in the FAO data submissions compared to the FCWC database.
 - Recommendation: FAO to liaise with Benin to understand the reason for the discrepancies in the total catches and catches by species between the FCWC and FAO databases.
 - Togo: FAO database missing data for 2008; otherwise data generally in line between FAO and FCWC.
 - Recommendation: FAO to liaise with Togo and request re-submission of 2008 data to FAO for 2008.
 - Côte d'Ivoire: Large increases in inland water catches were noted from 2015 onwards in the FAO NS-1 submissions, as a result of improvements in the coverage and quality of inland water data.
 - Recommendation: FAO to liaise with Côte d'Ivoire to explore ways to improve the historical estimates of inland water catches in the FAO database to avoid current discontinuities in historical time series.
 - Liberia: No inland or marine capture data reported to FAO for 2009–2016 (estimated by FAO). In 2018, official inland water captures were estimated at 300 tonnes; significantly lower than previous FAO estimates (2 000 tonnes).
 - Recommendation: FAO to liaise with Liberia focal point to reconcile missing data for 2009-2016 in the FAO database. Also explore ways to improve previous years' estimates for inland water catches in line with current official estimates.

- Ghana: FAO inland water catches estimated since 2010 at around 90 000 tonnes per annum since 2010.
 - Recommendation: FAO to liaise with Ghana to improve current FAO estimates of inland water captures.
40. FAO agreed to follow-up with each country individually in order to resolve the issues highlighted above, and requested that each country nominate a focal point to liaise with FAO to continue discussions following the workshop (Table 1 below).

Review of fisheries data collection schemes and related responsibilities

41. Mr James Geehan provided a summary of the data collection mechanisms in place for artisanal fisheries in each FCWC country, highlighting any significant gaps or challenges collecting data for small-scale fisheries.
42. It was noted that port sampling was the main method used in collecting catch and effort data, although there was a wide variation in sampling coverage levels (for example 10 percent in Côte d'Ivoire, compared to 40 percent in Benin). No significant gaps in species sampled were identified. All countries collected vessel data on a regular basis, with the exception from of Nigeria which did not have a vessel data collection system in place, while Benin indicated that only boats associated with the main landing sites are covered by the vessel registration scheme/census.
43. It was further noted that limited human and financial resources available for data collection from artisanal fisheries were common constraints identified by most countries. Challenges with the use of Open ArtFish (OA) software to collect and analyze data were also a common constraint in all the countries.
44. Mr Geehan also highlighted the CWP catch concept diagram³ and explained the differences between the key concepts of retained catches, landings, and nominal catches. It was emphasized that countries needed to recognize and understand the differences between the types of catches that could be reported, even if the data collection systems that were in place might not be capable of collecting each type of catch.
45. The reporting obligations and requirements of various stakeholders were discussed. The use of a common methodology and common platform (Spearfish) permitted the data to be stored in a standardized way and allowed comparison between FCWC countries.
46. A number of recommendations were proposed to ensure that data was consistent with national, regional and international reporting standards:

- i. Understanding the scope and definition of data to be reported (e.g., retained catches compared to nominal catches). Familiarity with CWP harmonized concepts, definitions and codes.
 - ii. Ensuring consistency in the data reported covering similar scope (e.g., total catches and catches-by-species in FAO's NS-1 and Statlant A questionnaires).
 - iii. Clearly understanding any differences in reporting obligations (e.g., NS-1 questionnaire compared to ICCAT mandatory data submissions).
 - iv. Ensuring coordination at the country level in case of multiple national focal points or institutions when reporting the same or related datasets to external organizations.
 - v. Communicating any gaps in the data to users, or improvements in the data collection, to improve transparency and utility of the datasets.
47. During the discussions, the following points were noted as requiring action in order for the FCWC database to be in harmony with the international systems:
- Inclusion of additional fields (e.g., fishing areas, country code, reference to data source, etc.), pending agreement from member states, to improve the coherence with international reporting standards for capture fisheries.
 - Definition of a roadmap to incorporate or conform to CWP by identifying and scheduling activities.
 - MS Member states to liaise with Mr Aymen Charef (FAO) and share feedback on issues encountered and harmonization requirements.
48. In a discussion about mobile applications for self-reporting, Mr Gentile drew attention to the Smart Forms application developed by FAO to supplement the collection of data. The application is currently being piloted, and can be configured and tailored according to the needs of the data being collected. The link to the brochure for the mobile app was shared www.fao.org/3/ca7042en/ca7042en.pdf, along with a short description (attached as Annex 6).

Mapping reporting requirements of various international organizations (FAO, CECAF/CECAF SSC, ICCAT, FCWC, ECOWAS, UEMOA...) to CWP reference harmonization standard

49. Mr Charef reported on the CWP standard requirements (i.e., variables requested from countries) of reporting to FAO, ICCAT and CECAF. Mapping of fishing areas between NS1/Statlant A and ICCAT were discussed. Harmonization and coherence in definitions of catches to be reported (retained catches vs. nominal catches) were also discussed. A table was shown illustrating the key field to be reported, coherence between terms, sources /reporting obligations in relation to the CWP standards (e.g. FCWC / Open ArtFish / ICCAT / CECAF)

50. The need to establish robust definitions and parameters of harmonization was noted. A suggestion was made to harmonize fishing units at the regional level. The essential steps are the enhancement of country databases, the adaptation of nomenclatures to meet the needs of different agencies, and setup of regional classifications. It was noted that difficulties in handling IT issues and the analysis of data are common issues for most of the countries. Suggestions were made to add additional fields in Open ArtFish to capture length frequency information instead of setting up another two applications for to host this information. A suggestion was made to create a profile summarizing the characteristics of data collection schemes and fisheries of each Member State.
51. End of day recommendations to focal persons :
- To identify and understand the specific variables (scope, fisheries, species, fishing area, etc.) required to report on by each organization.
 - To request clarification of any fields that are not understood.
 - To communicate any gaps in the data to users, or improvements in the data collection, to improve transparency and utility of the datasets.
 - To ensure consistency in data reporting.
 - To ensure data does not differ when covering a similar scope, when a common data set is used.
 - To coordinate if there are different FPs reporting to different organizations using the same data sets.
52. Countries were requested to confirm FAO NS-1 Focal Persons in the table below:

Table 1. FAO NS-1 Focal Persons in FCWC Countries

Country	Focal point
Benin	Joel Ogou
Côte d'Ivoire	Julien Djou
Ghana	Emmanuel Dovlo
Liberia	Nasi Broh
Nigeria	Ibrahim Bako
Togo	Kossi Ahoedo

Identification of capacity building needs that are related to reporting requirements

53. Mr Geehan presented an overview of capacity building needs reported by FCWC member countries. He identified four main areas based on the discussions during the workshop, and also the challenges reported in the country presentations:
- i. Review and possible adjustment of existing sampling schemes for artisanal fisheries;
 - ii. Maintenance/support for Open ArtFish and connection with server/e-forms;
 - iii. Support in data reporting requirements;
 - iv. Lack of financial and hardware resources.
54. He highlighted in particular the situation of Nigeria that required specific support to establish another pilot project using a platform such as the FAO mobile-based application “SmartForms”; also that the support was highly dependent on the mobilization of resources (mostly hardware). However once resources were in place, FAO had the capacity and expertise to provide technical support in implementing the data collection in states beyond Lagos.
55. Mr Djou (Côte d’Ivoire) noted the need for one platform integrating data management of all fisheries data (i.e., inland, industrial and artisanal fisheries). The platform should serve FCWC requirements as well as other stakeholders. Clarification was provided that although Côte d’Ivoire was developing their own application, they were not moving away from Open Artfish. Their app would take into account all the indicators necessary to send data to FCWC and other agencies. He further clarified that the methodology and indicators would be the same, and that only the technology for the collection and transmission would change.
56. Mr Ogou (Benin) expressed his desire to continue to use Open Artfish, taking into consideration all the subsectors of fisheries. He also requested Open Artfish be improved to allow for downloading subsets of reports instead downloading entire reports. He also highlighted that periodic and regular training would help to improve the data collection process.
57. Mr Ahoedo (Togo) noted that the use of Artfish in Togo dated back to 1997. The former process of data collection involved paper questionnaires sent back to the office for entry into computers. Togo had no intention to develop any other application. The core challenge they faced was the difficulties in extracting data downloads using Open ArtFish, and that they were often required to contact Dr. de Graaf (TCP-3512) to address their challenges. The download process began from the old questionnaire to the new questionnaire. One workaround solution has been to perform regular downloads at short intervals, to reduce the size of downloads. On capacity building, his comment was

that staffing and financial resources aside, the equipment that was supplied for the initial mobile data collection needed to be replaced because they were now faulty.

58. Mr Charef suggested countries should be trained to manage the database and adjust the parameters required by each country. He stated that he would contact countries bilaterally to help with problems with ODK briefcase.
59. Mr Idowu (Nigeria) highlighted the lack of financial and logistic resources to enable the enumerators to work at producing good quality and consistent data. He emphasized that funds should be provided. It was highlighted that as part of the commitments made in the Policy Framework and Reform Strategy for Fisheries and Aquaculture (PFRS) at the AU level, countries' governments had a responsibility to fund collection of data. The regional fisheries organizations were required help with technical support, and where available, some financial assistance.
60. Mr Olumayowa Akinboro (Nigeria) commented that the process for the recruitment of enumerators needed to be improved; stating that there was a need to depart from analog data entry, and transition to the use of smartphones for enumerators. The benefit of being able to record the location where data was collected was also raised.
61. Mrs Okonji (Nigeria) stated the consistent and reliable data collection had been a challenge. She expressed her desire that FCWC explore if options for funding of enumerators at the landing sites could be possible. She opined that that was where the core of the problem exists. It was clarified that FCWC could assist in providing only technical support. Charles Darko further underscored the importance of funding enumerators. He suggested that the FCWC and FAO convince the countries to establish or make available funds for the enumerators in their respective countries. Attention was drawn to the relationship between enumerators performance with respect to data integrity on one side, and funding on the other; as poor funding will likely yield poor results. It was reiterated that FAO only provided technical support, and each country had a national responsibility to set up the requisite data collection scheme - including the funding of enumerators. The FAO circular "[International training course in fisheries statistics and data collection](#)" was recalled regarding the setup of a sustainable and cost-effective data collection scheme taking in consideration the available resources.
62. Mr Broh (Liberia) commented that Open Artfish was working well for them and they were not experiencing problems with data entry. He shared that although Liberia did not benefit from the Open Artfish Capacity Building during the TCP, Liberia had been fortunate to implement Open Artfish on their own and it was working well. There had been no issues with the server and Open Artfish. Liberia

had established an ODK Central server since Google had stopped supporting ODK Aggregate. Countries were encouraged to look into this option, noting that there is a USD160 monthly subscription fee. It was stated that the ODK application was better and should be improved upon so that all countries could use it.

Publishing protocol for the FCWC fisheries inventories (CECAF-harmonized)

63. Mr Gentile presented the proposed publishing protocol for the FCWC fisheries inventories document, recalling the FIRMS partnership arrangement, in particular in Annex 2, on the manner in which data is disseminated. Member states will maintain primary ownership and control of the fisheries inventories, in line with the protocol for fisheries inventories adopted by CECAF. The importance of the alignment of fishery inventory with the countries' submission in the regional database was emphasized.
64. Attention was drawn to the roles of the FCWC focal point, as a main actor in data calls, potentially facilitating semi-automated web services in support of data submissions. The need to be consistent with the CECAF region was underscored due to a pre-existing partnership that established the links between the target species in the FCWC-FIRMS fishery inventory and those indicated by CECAF as exploited marine resources.
65. It was proposed that the Publishing Protocol of the FCWC-FIRMS inventory be originated by the Member States, through the FCWC focal persons, with assistance of the FIRMS Secretariat and where needed by the CECAF-FIRMS focal persons. The FCWC focal persons would submit the updates to the FIRMS Secretariat who would create fact sheets to be reviewed by the FCWC focal point for signing off prior to public release. Once the FIRMS Secretariat has published the fact sheets, these products could be co-disseminated by FCWC, FIRMS and countries through their websites or social media channels. The CECAF assessment WGs should be also informed of latest updates for any contribution from their perspectives to the published inventories. It was agreed that the timing of the annual data call would be decided by Member States who should respect agreed deadlines and be punctual. The proposal was agreed.

Defining a roadmap and the expected activities for the arrangement of the completion of the FCWC-FIRMS inventories

66. Mr Gentile continued by defining a roadmap and expected activities for the completion of the FCWC-FIRMS fisheries inventories. The roadmap included the main actors; the FCWC MS, FCWC Secretariat, CECAF Chairperson, FIRMS Secretariat and FAO fishery statistics team; with the deliverables including the fisheries inventory, fisheries fact sheets and FIRMS interfaces.

67. The proposed deadlines and subject amendments from the participants for the completion of the FCWC-FIRMS fishery inventory were presented, whereby inventories were expected back at FAO by December 2020. As an example, the Togo Artisanal beach seine fishery report, with the current draft inventory missing a number of indicators, was highlighted. It was stated that through a second round of data submission through the FCWC focal point, further contributions (including management measures and other narrative information) from MS could be provided. A quick turnaround of this work with good contributions from member countries was envisaged.
68. The medium term objectives, including the implementation of an automated workflow for updating the FCWC-FIRMS inventory; the enrichment of the industrial fishery inventory; the development of new interfaces connecting fisheries and stocks, catch and other time series, as well as a map viewer and dashboard of indicators, were presented.
69. Discrepancies still outstanding within the FCWC-FIRMS inventory were brought to the attention of meeting participants, following the countries' contributions in their presentations on Day 1 and 2. The feedback was as follows:
- BENIN: Benin confirmed that the national FU “FMCF (Soovi; Tounga; filet à requin; filet à langouste; filet à raie)” should only be considered and that the regional FU “Planked gillnet” is no longer an active fishing unit and can be removed from the active fisheries of the inventory.
 - CÔTE D'IVOIRE: Côte d'Ivoire confirmed that the vessel length for the regional FU Ghana FM was 8–22m, and that FU Ghana type Gill net (FCWC) - Fanti Ring nets, be removed.
GHANA: Ghana confirmed the removal of Longlines as a gear type for the national fishing unit, confirming that Hook and Line fishing gear was the only gear being used currently. The duplications of FUs, one for FU Tuna Purse Seine and the other for FU Bottom Trawl correctly indicated that different vessels were targeting the same species with the same gear. For the FU Bottom Trawl, there appeared to be different vessels for the semi-industrial (25–30m) and industrial fisheries (22–40m), targeting the same species with the same gear.
 - LIBERIA: The representative from Liberia confirmed that the three national FUs (Kru Beach seine, shrimp net and Fanti shrimp net) could be removed from the matrix, and that NO DATA also meant an inactive fishery.
 - NIGERIA: Confirmation was received for the changes made to the FU Matrix, which included the removal of regional FU “Dug out Other” and the standardization of the label “Dug out canoe” (not canoes), so that “Dug out Other” (FCWC) = “Planked Canoe”. These changes, as well as the updates of the vessel lengths were also confirmed by Nigeria.

- TOGO: Togo confirmed that the vessel lengths for Togo are correct.
70. Member states adopted the proposed roadmap and confirmed to have draft inventories back to the FAO by December 2020. All member countries agreed with no further questions.
 71. Mr Gentile gave a short presentation on the FAO mobile app platform “SmartForms”, a fisheries information collection tool. The advantages of using this platform were that the data was collected in a harmonized way and standardized using international reporting standards. He explained that the data was collected offline on a mobile device in a customizable form, which was then pushed to the data hub, whereby it could be securely accessed and further used for dissemination purposes.
 72. In response to whether the list of species in the form could be customized, it was clarified that the form was built based on individual requirements for that specific data collection endeavor, and that different forms can have different species listed.
 73. Mr Kossi Ahoedo (Togo) asked how this app compares with Open ArtFish and what the added advantages were, if any, of using this application.
 74. A comparison with Open ArtFish and the advantages of SmartForms ensued, noting that the app had been developed with stakeholders’ specific needs and requirements in mind for on-board or landing sited data collection, while ArtFish was a comprehensive software for fisheries statistical monitoring. The value of the SmartForms app is that it is based on FAO standards, which are adaptable to local standards, including the mapping of national and regional data. This is of great use and support for FAO data collection, with many countries and regions using this same reporting tool. He stressed that FAO was a neutral platform that ensures a certain confidentiality in support of data collection activities within certain projects. He concluded that the use of this app was standardized, with certain regions sharing forms and results. Another advantage was the maintenance of SmartForms because as a FAO product, it was different from the ODK application; it was managed independently by a community of developers. It was made clear that the app is multilingual although the current user manual was in English, translations into the other languages were in the offing.

Defining a roadmap and the expected activities towards streamlined and harmonized fishery statistics workflow

75. Mr Charef presented the roadmap for streamlining and harmonizing fishery statistics workflow, including a number of short and long-term actions that directly addressed a number of the issues raised by the workshop. Specifically:

- i. Open ArtFish: FAO will follow-up with countries on maintenance of Open ArtFish/ODK settings to resolve performance/data download issues;
 - ii. Inconsistencies of data submissions between FAO-NS1 and FCWC database: FAO will liaise with national focal points in the coming weeks and also address improvements in the quality and completeness of data in FishStat];
 - iii. FCWC Regional database:
Develop regional reference framework of data standards and best practices in line with the CWP reference harmonization standard, to guide members towards harmonization of national databases and reporting;
 - iv. FIRMS fishing units:
In the long term, support the inclusion in the FCWC database of FIRMS harmonization of vessel classes, and fishing units, to support CECAF for analyses (e.g. fishing capacity, country profiles) and to develop regional best practices for the classification of fisheries;
 - v. FCWC database:
Support the proposed expansion of the FCWC database to include the industrial and semi-industrial fisheries. Depending on the availability of resources, pilot projects will be developed with selected members to tackle the expansion of the reporting framework.
76. It was recommended that the development of pilot projects in countries should be done in close consultation with FAO-FCWC-CECAF to ensure that the needs of the primary users (CECAF WGs) were met.
77. Mr Charef explained that the overall work of harmonization in the region delivered so far had provided timely data to a unified FCWC database through a common data collection scheme and one platform Open ArtFish. The FIRMS activity provided a common list of fishing units mapped to the international classification of fishing gears (ISSCFG). The work would continue to harmonize fishing vessel categories, length classes, etc., in close collaboration with CECAF which should provide requirements specific to their data needs (species, fishing gear, fishing days, etc.).
78. Member states also expressed the need for FAO to organize training on the completing the NS-1 questionnaire and Statlant A questionnaires required to report data to FAO.
79. Mr Charef recommended that the meeting participants refer to the CWP standard of reference harmonization www.fao.org/documents/card/en/c/ca6684en (See Appendix 5 Annex 1 "Data structures relevant to capture fishery statistics"). It was clarified that industrial fisheries data was commonly collected based on complete enumeration (e.g., logbooks) in contrast to a sampling scheme used to collect artisanal fisheries data.
80. It was recommended that relevant concepts pertaining to the CWP standard of reference harmonization be added to the FCWC database, for example: fishing area, fishing gear, effort types

and units, etc. It was recommended to all participants to refer to other, similar, databases of regional fisheries bodies to consider common fields to be added.

81. Mr Monteiro shared that a matrix was being developed by CEEAF for the harmonization of definitions at the level of artisanal fisheries. FAO was encouraged to develop similar matrices for industrial and semi-industrial fisheries.
82. Mr Geehan informed the group about the FAO SSF Matrix that was currently being evaluated and tested in the CEEAF area, including Nigeria, Ghana, Liberia. The results of the evaluation, and suitability for fisheries in the CEEAF region, were expected to be fed back to FCWC member states in due course to identify the characteristics of the artisanal fisheries.

Review of agreed decisions and key points, any outstanding questions

83. Ms Asante wrapped up the meeting and provided a general overview of the fisheries data development and capacity in FCWC Member States. The main areas of focus included:
 - Fisheries characterized by multi-species, multi-gear systems, using the same fishing vessel.
 - Difficulties in monitoring for fisheries data collection due to the very dispersed nature of the fisheries.
 - Data inconsistencies as a result of inadequate harmonized systems.
 - Data is routinely collected mainly on catch and effort. Biological and other fisheries data lacking.
 - A large part of fish stocks is not assessed fully and this uncertainty in the status of species is a potential threat to the fishery.
 - Limited human and financial resources.
84. The following needs and expected outcomes from this capacity development workshop were noted:

Needs:

1. To identify weaknesses in the indicators
2. To improve reporting consistency in the region
3. To include other fisheries characteristics data, e.g. biological
4. To perform rigorous analysis of fisheries data
5. To evaluate previous data processing methods for improvement
6. To establish a collective database for member states to contribute to and analyze
7. To harmonize a system that conforms to international standards
8. To develop a clear data workflow, i.e. who does what, when and how

9. To sustain financial, technical and human resource support from partners and governments

Expected outputs

- The Artisanal Fishing Units mapping is completed (National - FCWC Regional - FIRMS)
- The Artisanal Fisheries Inventory is compiled (key identity components)
- The Industrial Fisheries Inventory is compiled (key identity components)
- The FCWC-FIRMS Fisheries fact sheets are published
- Fishery fact sheets matching latest stocks updates from CECAF

85. The proposed roadmap of work to be carried out, relating to the fisheries statistics and other related tasks included:

Road Map – Statistics

- i. Open ArtFish:
FAO will follow-up with countries on maintenance of Open ArtFish/ODK settings to resolve performance/data download issues. (Short term)
- ii. Inconsistencies of data submissions between FAO-NS1 and FCWC database:
FAO will liaise with national focal points in the coming weeks and also address improvements in the quality and completeness of data in FishStat]. (Short term – end Dec. 2020/Early 2021)
- iii. FCWC Regional database:
Develop regional reference framework of data standards and best practices in line with the CWP reference harmonization standard, to guide members towards harmonization of national databases and reporting. (Long term)
- iv. FIRMS fishing units:
In the long term, support the inclusion in the FCWC database of FIRMS harmonization of vessel classes, and fishing units, to support CECAF for analyses (e.g. fishing capacity, country profiles) and to develop regional best practices for the classification of fisheries. (Long term)
- v. FCWC database:
Support the proposed expansion of the FCWC database to include the industrial and semi-industrial fisheries. Depending on the availability of resources, pilot projects will be developed

with selected members to tackle the expansion of the reporting framework. It was suggested that aquaculture data be added to the database. (Long term)

vi. Other related tasks:

To enrich fisheries inventories with narrative components: management measures, characteristics of the fishing grounds, means of production, exploitation, post-harvest use, etc.

vii. Communications activities:

To publish deliverables on all FCWC communications channels (leaflets, newsletters, social media. etc.) once the deliverable is achieved.

viii. Formulation of requirements for the development of new web applications for the dissemination of the accrued data (dashboard of indicators, map viewer etc.).

Conclusions and closure of the meeting

86. Mr Gentile thanked the FAO colleagues, the FIRMS and the FCWC Secretariats and their staff, the CECAF SC Chairperson and the participants of the FCWC Member States for their commitment and very active participation over the five days in the online data workshop. With the agreed roadmap on the fisheries inventory and statistics, the expected outputs would be promoted in the context of other projects and activities relevant to the FCWC region so as to further develop the FCWC fisheries regional database.

87. In his concluding remarks, Mr Taconet acknowledged that a lot of work for the short term had already been completed. It was stressed that the inputs and validations (relating to FIRMS) from MS and other stakeholders were imperative and that their inputs were eagerly awaited. He further noted that FAO will continue to work closely with the member states on the follow up activities, especially regarding the issues with Open ArtFish. He also stressed that FCWC was to communicate clear instructions on the types of variables in their database. He highlighted the potential of the PESCAO project framework in the evaluation of follow up pilots or actions. It was also mentioned that future discussions were to be had with FCWC regarding follow up actions in 2021, as a result of 2020's activities. It was concluded that by enabling good communication, whereby all actors brought their best assets, this collaboration would nurture and bring positive impacts in the knowledge and information dissemination, as well as aid with stock assessments. The FCWC Secretariat, FAO staff and all participants were thanked for their good participation and attendance.

88. Focal points from the different member states took turns to express their gratitude and hoped that this information sharing and analysis would be continued. It was noted that the harmonization across these is essential.
89. Ms Asante, on behalf of Mr. Dedi (FCWC Secretary-General) thanked FAO for their assistance and the individual commitment of the FAO staff. It was recalled that data collection was the member states responsibility and that FAO and FCWC were there to assist to achieve this task. The focal persons were thanked for their cooperation, and were encouraged to fully seize this opportunity to improve their daily work and share available data at regional and international levels to raise the status of the fisheries sector in the West Africa region. It was hoped that, with their contribution and commitment to continue improving their work, further support might be provided to the region and their individual countries. The commitment of FCWC staff to pursue this work and sustain the FMS center activity to support CECAF and FAO FIRMS fisheries data workflow was underscored.
90. The meeting closed at 1.13 p.m. on 30 October 2020.

Annex 1 – Adopted Agenda

(Time is UTC/GMT)

Monday 26 October 2020	
09.45–10:00	Call to order – Zoom session open for connection Please contact Milos Vojar in case of issue Quick technical introduction to Zoom functionalities
10.00–10.15	1) Opening of the Session Welcome - FAO, CECAF, FCWC Virtual group photo taken
10.15–10.30	2) Presentation of Agenda and Workshop Objectives
10.30–10.45	3) Data needs for assessment and management of the CECAF stocks and fisheries in the FCWC region a) Key points on data gaps b) Areas for improvements c) Recalling outcomes from 1st Meeting (February 2020) and prioritization of activities
10.45–11.15	4) Status of the FCWC Data Centre a) Types of data: fisheries (SSF, industrial, recreational, scientific surveys...), census, socio-economic, household, frequency of data submission (month, trimester...) b) Data quality checks c) Update on the use of Open ArtFish
11.15–11.30	5) About FIRMS
11.30–11.45	Break
11.45–12.15	6) Status of FIRMS inventories for the FCWC region a) FIRMS fisheries inventories b) Mapping with FCWC's regional database
12.15–13.15	7) Presentation of preparatory work done by countries a) Mapping local vessel classification b) Mapping gears with vessels/fishing units when applicable c) Present current data submission workflow for FCWC, CECAF (Statlant A, and the assessment WGs), FAO NS1, ICCAT, ECOWAS + names of focal points d) Any issues faced in such submission
13.15	Adjourn for Day
Tuesday 27 October 2020	
09.45–10.00	Call to order – Zoom session open for connection
10.00–11.30	8) FCWC data and FAO fisheries statistics a) Provide an overview of FAO capture fisheries reporting requirements and- R review of the consistency of the FCWC database with the CECAF and Global Capture databases b) FishStatJ
11.30–11.50	Break
11.50–12.30	9) CWP standard for reference harmonization; CWP streamlining principles and best practices, in the context of reporting obligations of FCWC members

12.30–13.30	10) Review of fisheries data collection schemes and related responsibilities a) Who collects and reports on what and when b) Which existing data exchange mechanisms at national level
13.30	Adjourn for Day
Wednesday 28 October 2020	
09.45–10.00	Call to order – Zoom session open for connection
10.00–12.00	11) Mapping reporting requirements of various international organizations (FAO, CEEAF/CECAF SSC, ICCAT, FCWC, ECOWAS, UEMOA...) to CWP reference harmonization standard
12.00–12.15	Break
12.15–13.00	12) Identification of capacity building needs that are related to reporting requirements
13.00	Adjourn for Day
Thursday 29 October 2020	
09.45–10.00	Call to order – Zoom session open for connection
10.00–11.30	13) Publishing protocol for the FCWC fisheries inventories (CECAF-harmonized)
11.30–11.50	Break
11.50–13.00	14) Defining a roadmap and the expected activities for the arrangement of the completion of the FCWC-FIRMS inventories
13.00	Adjourn for day
Friday 30 October 2020	
09.45–10.00	Call to order – Zoom session open for connection
10.00–11.30	15) Defining a roadmap and the expected activities towards streamlined and harmonized fishery statistics workflow
11.30–11.50	Break
11.50–12.30	16) Review of agreed decisions and key points, any outstanding questions
12.30–13.00	17) Conclusions and closure of the meeting
13.00	Meeting closure

Annex 2 – List of participants

Member States participants and CECAF Representative

Name	Country	Title	Organisation
Joël Ogou	Benin	Chargé statistiques	Direction de la production halieutique
Gbètongninou gbo Anthelme Dohounkpan	Benin	Coll Point Focal Suivi et Évaluation	Direction de la production halieutique
Daba Dagnoko	Côte d'Ivoire	Chargé d'études	Direction de l'aquaculture et des pêches
Julien Djou	Côte d'Ivoire	Chef de service, statistiques et documentation	Direction de l'aquaculture et des pêches/MIRAH
Ebenezer Ekuban	Ghana	Sn. Research Manager	Fisheries Commission
Charles Darko	Ghana	Assistant Fisheries Manager	Fisheries Commission - MOFAD
Samantha Vida Osei	Ghana	Senior Fisheries Research Manager	Fisheries Scientific Survey Division- Fisheries Commission
Nasi Broh	Liberia	Statistics Manager	NaFAA
Robert Wilson	Liberia	Fisheries Statistician	National Fisheries Authority
Bako Imbrahim	Ghana	Fisheries Data Management	Federal Department of Fisheries
Hunyinbo Idowu	Nigeria	Field officer	Federal Department of Fisheries (FMARD)
Adedayo Akinbobola	Nigeria	Assistant Chief Fisheries Officer	Federal Department of Fisheries and Aquaculture
Collette Sani	Nigeria	Fisheries Officer	Federal Department of fisheries, Abuja,
Olumayowa Akinboro	Nigeria	Senior Programme Analyst	Federal Ministry of Agriculture and Rural Development
Idorenyin Okonji	Nigeria	Fisheries Statistics and Fisheries Trade	Federal Ministry of Agriculture and Rural Development
Akanbi Williams	Nigeria	Chief Research Officer	Nigerians Institute for Oceanography and Marine Research
Carlos Monteiro	Portugal	Tecnico	Imar
Kossi Ahoedo	Togo	Chef section promotion des pêches	Direction des pêches et de l'aquaculture
P'hamBeigue Alfa	Togo	Biologiste	Direction des pêches et de l'aquaculture

FCWC Participants

DEDI NADJE Seraphin
Secretary-General

ASANTE Abena
Fisheries technical advisor

GATORWU Isaac
IT Officer

TAYLOR-HAYFORD Kofi
Communication officer

BIO BATA Joel
Financial and administrative assistant

FAO Fisheries Division

TACONET, Marc
Head, Fisheries Statistics and Information Branch (NFIS)

GEEHAN, James
Fishery Statistician, NFIS

GENTILE, Aureliano
Information Officer, NFIS

CHAREF, Aymen
Fishery Statistician, OCS-NFIS

van NIEKERK Bracken
Consultant fisheries information (FIRMS), NFIS

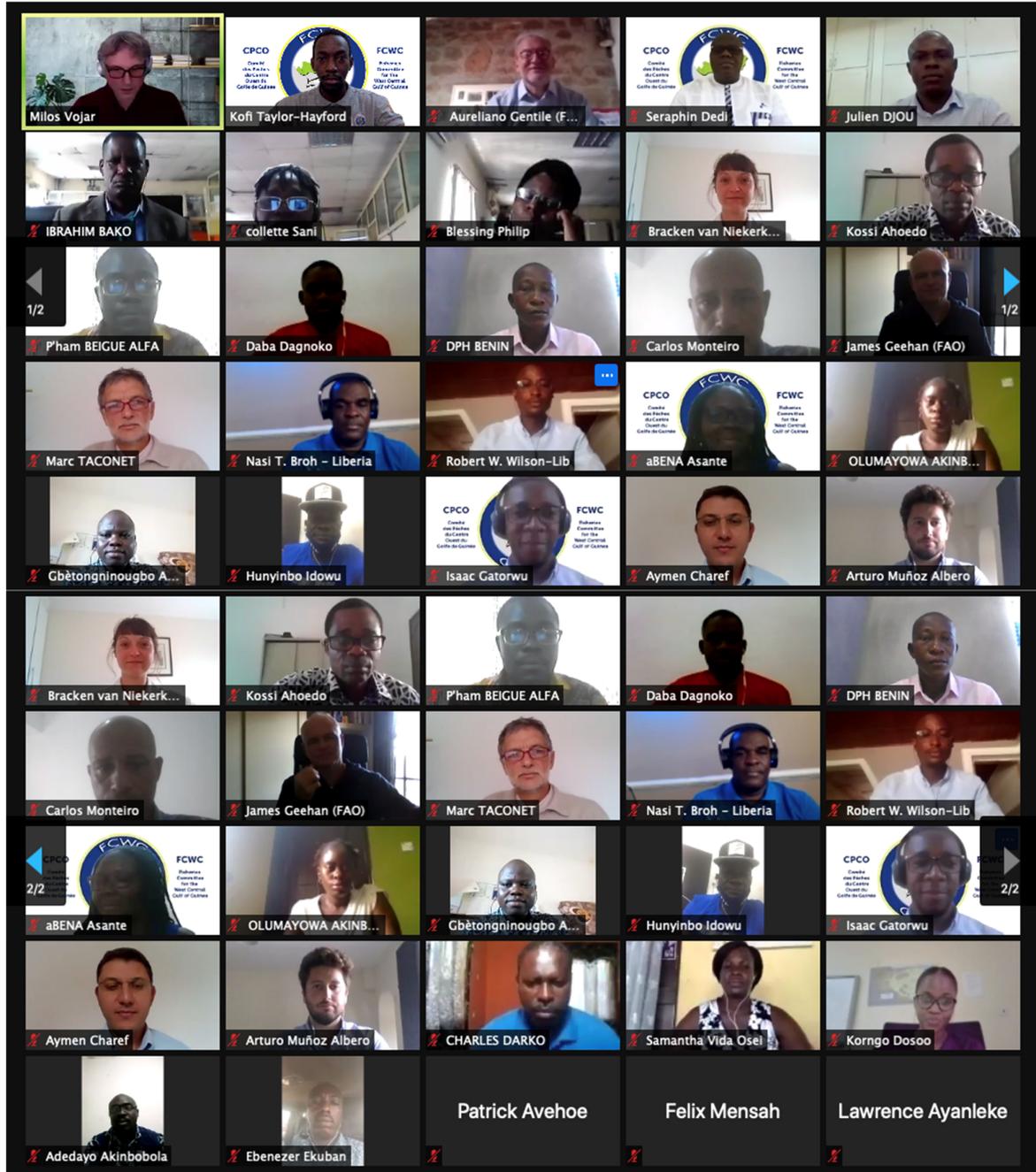
VOJAR, Milos
Consultant Fisheries Information, NFIS

MUNOZ ALBERO, Arturo
FIRMS information expert (Data analyst), NFIS

Interpreters

Lawrence Ayanleke
Felix Mensah
Korngo Dosoo
Patrick Aveho

Annex 3 – Group photograph



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**Annex 4 – Opening Speech by Mr Seraphin Dedi
(in French only)**

Déclaration du Secrétaire général du CPCO
à l'atelier régional de
Formation sur les données statistiques sur les pêcheries et les données sur l'état des pêcheries pour
la région du CPCO et ses pays membres
26-30 Octobre 2020

Mesdames et Messieurs les représentants des Administrations des pêches des États Membres du CPCO,

Mesdames et Messieurs les représentants de la FAA FIRMS Institutions Partenaires,

Monsieur le Président du COPACE

Messieurs les partenaires techniques en charge la gestion de cet atelier e ligne ainsi que les interprètes

Chers experts et collègues du CPCO invités;

Avant tout propos, je voudrais souhaiter la bienvenue à toutes les délégations à cette plateforme en ligne pour la tenue de cet atelier régional de **formation sur les données statistiques et l'état des pêcheries pour la région du CPCO**

Et en votre nom à tous, **permettez-moi, d'exprimer toute notre gratitude à la FAO et en particuliers à Messieurs Taconet, Marc ;)** et Mr Gentile, Aureliano Division de la politique et des ressources de la pêche et de l'aquaculture (FIAS).

Mesdames et Messieurs,

Comme vous le savez, le CPCO a pour mission de promouvoir la coopération entre les États membres et de garantir, par une gestion appropriée, la conservation et l'utilisation optimale des ressources marines vivantes dans les eaux marines sous la juridiction des États membres et d'encourager le développement durable de la pêche.

A cet égard le CPCO développe des initiatives en liaison avec les États membres et des partenaires pour l'attente de ses objectifs, l'appui à la pêche artisanale maritime, dans tous les pays du Comité des Pêches du Centre-Ouest du Golfe du Guinée (CPCO) souffrant d'une absence de structuration et d'une insuffisance d'informations quantifiées, fiables et régulières.

Ce déficit d'informations ne permet pas, ni aux comptaibles nationaux, ni aux administrations du secteur de la pêche, de rendre compte de la réalité sectorielle. La conséquence immédiate d'une telle situation est que le rôle et la place du secteur de la pêche artisanale maritime dans l'économie nationale ne sont pas bien perçus et reflétés. De plus, l'élaboration des politiques et stratégies représente un exercice difficile et risqué pour les décideurs.

Mesdames et messieurs,

C'est dans ce contexte que le Projet TCP/RAF/3512 « Renforcer la collecte systématique de données sur les pêches en Afrique de l'Ouest : Benin, Côte d'Ivoire, Ghana, Liberia, Nigéria, Togo et CPCO a été initié pour améliorer la disponibilité et la qualité des données statistiques sur le volume et la valeur commerciale des débarquements de la pêche artisanale maritime.

La mise en œuvre de ce Projet TCP/RAF/3512 a abouti à un Centre de collecte régulière de données de la pêche artisanale, qui est pleinement fonctionnel depuis juin 2018. Ce centre enregistre des données de prises et d'effort ainsi que des indicateurs socio-économiques permettant d'estimer la contribution de la pêche artisanale au PIB.

Mesdames et messieurs,

L'adhésion du CPCO au FIRMS en Mai 2019 suivi de la signature d'un protocole CPCO-FAO FIRMS vise donc à renforcer les capacités du CPCO et de ses États membres pour la poursuite des activités du Centre. Ainsi les activités suivantes ont été retenue dans ledit protocole, ainsi :

Deux représentants du CPCO ont assisté à une session de formation au siège de la FAO en Mars 2020 et ont examiné les inventaires des pêcheries FIRMS, leur cohérence avec les statistiques de la pêche et le flux de travail de publication.

La présente « formation sur les données statistiques sur les pêcheries et les données sur l'état des pêcheries pour la région du CPCO et ses pays membres », permettra l'harmonisation et la soumission des données de pêche et suivre l'état / les tendances des stocks et des pêcheries. Enfin, Il contribuera également à améliorer la fourniture de données à la FAO-COPACE.

Mesdames et messieurs,

Vue l'importance des questions à discuter, je voudrais exhorter les différents points focaux nationaux en charge des statistiques et des données des pêches à saisir cette opportunité de renforcement des capacités pour l'amélioration collecte et la fourniture régulière des données de capture de la pêche artisanale dans notre région.

A vous-même, Collègues et Experts de la FAO FIRMS, Nous disons merci pour votre disponibilité et votre soutien technique avéré, à l'œuvre de développement du secteur des pêches, notamment la collecte des données de la pêche dans l'espace CPCO et du COPACE.

Je vous remercie de votre aimable attention !

Annex 5 – Opening Speech by Mr Marc Taconet

In May 2019 when FCWC signed FIRMS Partnership arrangement, thus joining CECAF, an already existing FIRMS partner.

Intent was to strengthen the reporting capacity on the status of fisheries in the region, and to do this in close coordination with CECAF (also a FIRMS member), and thus help improve the governance in terms of generation of knowledge (data, statistics and information). We aim at delivering the best science-based evidence available for decision makers and all stakeholders involved in the management of fishery resources, and this would come with training. Let's not forget that the knowledge workflow originates from countries, be they members of FCWC, FAO, CECAF, ICCAT, ECOWAS, UEMOA, ... so the action needs to be taken primarily with the full involvement of the countries. The vision is to optimize the cycle: data to science, and science to management action; this cycle includes:

- the statistics produced by member countries, accompanied by qualitative information on the fisheries and the way they operate,
- the availability of these data and statistics in timely ways to scientists for them to integrate in their assessment of stocks,
- the dissemination of scientists' findings on stock status available to the public with proper advice on management of fisheries that exploit these stocks,

If we manage to achieve this, we have looped with optimal impact on the data value chain.

So our expectation is that this training will constitute an important milestone in improving consistency and efficiency in reporting. As you know, an important issue which needs to be tackled in the region is that of multiple reporting requirements. These have increased in the past decades. If this situation is not properly addressed, this will not only create additional burden but also increase confusion because of discrepancies among reports provided to the different organizations. Our general objective is to reduce burden, increase consistency, and optimize complementarity or synergies where possible.

The workshop will examine what we can do for that?

First: pause a diagnostic on who needs which type of data or information and who reports what to whom, and when? This may seem obvious, but past experience tells that the communication is limited and that if all relevant actors were properly informed and able to interact appropriately, much could be gained in terms of increasing the efficiency of existing data flows, at the level of production as well as at the usage level.

Second: adopt a FAO methodology – developed through the CWP and through FIRMS, to harmonize reporting structures based on global and regional standards, and to apply proper Metadata.

Third: with good diagnostic paused, and with the learning gained on the FAO methodology and your feedback, let's reflect on how to apply this methodology, and let's develop the strategies to more efficiently streamline workflow, with proper tools, communication and data sharing agreements.

This week will also be an opportunity for you to convey your views on gaps and weaknesses, and we look forward to a fruitful exchange which can pave the way to future capacity building actions.

This workshop follows a first training session in Rome which took place in February 2020, and consequently this workshop and its material was prepared jointly between FCWC, CECAF and FAO.

So let me finally address my warm thanks to all the colleagues in FCWC, CECAF and FAO who closely collaborated to prepare the material needed for this workshop.

I thank you for the time you set apart and wish you a fruitful workshop week.

Annex 6 – SmartForms

About the FAO SmartForms App

“SmartForms: Support to data collection programs”; a mobile App to collect and review fishery and observer data. A new FAO App developed within the context of the mobile data collection initiative. The objective is to release a system for the dynamic collection of fishery observers’ data on-board fishing vessels or at landing sites by establishing a robust infrastructure to collect, validate, amend, archive and share data. SmartForms is a platform that combines: A mobile App to collect and review fishery data, a Forms builder for mobile App customization, and a Hub for data management. The Forms are: i) Harmonized - based on CWP and other FAO endorsed standards, ii) Autonomous - every organization securely collects fishery data, iii) Replicable - builds on specialized data elements, and iv) Mobile-first - for field, landing sites and on-deck data collection. An open source version is also expected to serve a community of interest. The deliverables include data input forms suitable for use on a tablet or mobile phone that satisfies the requirements of the regional fisheries organizations and other partner organizations in initiatives on sustainable fisheries management and biodiversity conservation.

SmartForms brochure: <http://www.fao.org/3/ca7042en/ca7042en.pdf>