**WORKING GROUP FOR THE DEVELOPMENT OF AN
ONLINE REPORTING SYSTEM 2017 STATUS REPORT 2017**

Overview of Working Group Activities for 2017

The Commission adopted *Recommendation by ICCAT for the Development of an Online Reporting System* [Rec. 16-19] at its 2016 Annual meeting. Rec. 16-19 established the Online Reporting Technology Working Group (WG), in collaboration with the Secretariat, and tasked it with developing an online reporting system covering ICCAT reporting requirements, with an initial focus on elements of the required CPC Annual Reports. The Working Group (WG) was further tasked to specify what information the system will collect, the format and structure of the user interface, and the underlying technical specifications, as well as a cost-benefit analysis of options for system development and maintenance. In January 2017, the WG convened virtually and began developing a draft document laying out the topics that needed to be considered by the Group in the development of an online reporting system. A model schematic was also developed to assist the Group in visualizing what an online reporting system could look like and how it might work. All agreed the document and schematic were helpful in advancing discussions.

The WG identified two existing projects with common objectives: 1) work requested by the SCRS to provide an online reporting system for handling statistical information, and 2) work being conducted through the GEF/Areas Beyond National Jurisdiction (ABNJ) Common Oceans Program for an online reporting prototype for handling catch & effort submissions. The WG saw the need to coordinate with these projects so as to avoid duplication, converge the systems if needed, and leverage resources. Given the timelines for these two projects, new updates should be produced by September 2017. The WG agreed to wait until this information was available to continue discussions. See **Appendix 1** for more details on these projects.

The Group compiled and uploaded a number of background documents to the ICCAT Cloud for the use and information of the WG, including examples of online reporting systems being developed and/or used by other RFMOs that clearly showed how those systems operate, and other information relevant to the work of the WG.

In addition to coordinating through electronic means, the WG met informally on the margins of the three back-to-back ICCAT intersessional meetings in Madrid, Spain, in June 2017. A report on the discussion together with the meeting agenda is attached as **Appendix 2**.

The completion goal for the WG is 2019 per Recommendation 16-19. In order to meet this deadline, it is anticipated that one or more additional in-person meetings of the WG will be needed. Costs associated with such meetings are anticipated to be relatively small as they can be convened at ICCAT headquarters. To help further limit costs, the WG can meet in conjunction with another ICCAT intersessional meeting in 2018. The Commission is asked to consider WG needs when deciding on the 2018 intersessional meeting schedule.

Appendix 1

1. *ICCAT Online Reporting System for handling statistical information.* The ICCAT database information system (ICCAT-DB) is an integrated system that manages all the structured information received by the Secretariat. In addition to the statistical and scientific information managed, the ICCAT-DB system also manages a large portion of the information associated with the Commission's compliance requirements. In 2014 the SCRS recommended the JAVA project which aims to improve the ICCAT-DB system in general. This project was developed entirely by the ICCAT Secretariat (IT Department). Currently, the system operates online (fill out, read, validate, allow for corrections, and submit for automatic storage in the ICCAT database system) six SCRS statistical EXCEL forms (ST1-ST6, available at https://www.iccat.int/Forms/ST01-10-TRI.zip) and is fully based on open-source technologies (JAVA 8 (backend) and JAVASCRIPT (frontend)). Several elements (tests, optimizations, tools, etc.) still need to be implemented. The Secretariat will demonstrate the system during the next SCRS meeting (October 2017). For more background information, please refer to document: Secretariat Report on Statistics and Coordination of Research in 2016, under section 11, Java Project (http://www.iccat.int/com/2016/PLE_105_ENG).

2. *GEF/Areas Beyond National Jurisdiction (ABNJ) Common Oceans Program for an online reporting prototype for handling catch & effort submissions.* In 2016 the GEF/ABNJ Common Oceans Program proposed funding for a project where an online reporting prototype for handling catch & effort submissions is developed for ICCAT. Specifically, the project will produce a feasibility study to develop web data submission and validation systems. In March 2017 the ICCAT Secretariat put out the request for a contract for a "Feasibility Study for an ICCAT Online Reporting System", including the design and development of a working prototype (case study) based on catch and effort reporting. The contract also included a cost benefit analysis of the system. The project aims to be finalized and presented to the SCRS Sub-Committee on Statistics by the end of September 2017. The WG aims to use the information presented to continue discussions on developing an online reporting system.

WORKING GROUP ON ONLINE REPORTING
Meeting Report
(Madrid, 29 June 2017)

1. Overview of Working Group - Current status

The Chair of the Online Reporting Working Group, Ms. Oriana Villar, welcomed the participants and opened the meeting. The Agenda was adopted without amendment (**Annex 1**). The List of Participants is included as **Annex 2**.

The Chair provided an overview of the purpose of the Working Group and activities to date.

- The Commission agreed to *Recommendation 16-19 for the Development of an Online Reporting System* at the 2016 Annual meeting.

- GEF/ABNJ Common Oceans Program proposed funding for a project to develop a fisheries online reporting information system in 2016.

- The ICCAT Online Reporting Working Group convened in January 2017.

- In February 2017 the Group began developing a draft discussion paper as well as a model schematic, which attempted to lay out discussion topics specific to an online reporting system for the Group to discuss and visualize what a system could look like. All agreed to use the documents to help guide discussions.

- In March 2017 the ICCAT Secretariat put out a request for a contract, stemming from funding from the ABNJ/GEF Common Ocean Program, which calls for the development of a "Feasibility Study for an ICCAT Online Reporting system", including the design and development of a working prototype (case study) based on catch and effort reporting. The contract also requests a cost benefit analysis of the system. The project aims to be finalized by the end of September.

- Since the Group convened, all background documents have been compiled and uploaded to the ICCAT Cloud with the objective to inform Working Group participants what other systems RFMOs are using and how these are working as well as other information specific to the Working Group's needs.

2. Updates

2. 1 System Updates

The Secretariat provided an overview of the two projects it is managing: 1) work requested by the SCRS to provide an Online Reporting system for handling statistical information, and 2) work being conducted through the ABNJ/GEF project for an online reporting prototype for handling catch & effort submissions (feasibility study to develop a web data submission and validation systems).

Status update on 1. This project was developed entirely by the ICCAT Secretariat (IT Department). Currently, the system operates online (fill out, read, validate, allow for corrections, and submit for automatic storage in the ICCAT database system) six SCRS statistical EXCEL forms (ST1-ST6, available at https://www.iccat.int/Forms/ST01-10-TRI.zip). The system, fully based on open-source technologies, was implemented using JAVA 8 (backend) and JAVASCRIPT (frontend). Much of the backend (server-side) implementation uses the same code base (reusability of JAVA libraries developed in 2015) as the application developed/used by the Secretariat (in production since 2015) to read, validate, and store data arriving from the six forms into the ICCAT database system. Statistical data can also be entered manually as an alternate option (directly database validated/storage). The system can also generate data, summaries (charts, tables, maps, etc.) and querying facilities. Several elements (tests, optimizations, tools, etc.) still need to be implemented. The Secretariat will demonstrate the system during the next SCRS meeting (October 2017).

For more background information, please refer to document: Secretariat Report on Statistics and Coordination of Research in 2016, under section 11, Java Project (http://www.iccat.int/com/2016/PLE_105_ENG). Further updates will be provided at the SCRS and annual meetings.

Status update on 2. The project start state was delayed, so there is not much information provided in regards to progress. The Secretariat noted that the project is really focused on an online reporting prototype for catch and effort data, and specifically aims to incorporate deadlines, traceability components, and how these data sets can be applied within a system. The Secretariat highlighted that there are two components to this project; a feasibility study and the actual prototype being developed, which is the proof of concept demo. Initially the contractor spent two weeks compiling information on the different types of system architectures the different RFMOs are using and the different types of technologies. It was noted that CCSBT as well as WCPFC have the most advanced systems. It is anticipated the project will be completed by the end of September. The Secretariat informed the Group that the results to the study will be presented at the upcoming SCRS Sub-Committee on Statistics meeting.

The Secretariat noted that the three projects, the above two, plus the Online Reporting Working Group, share common objectives and need to be coordinated in a way where duplication does not happen, convergence is foreseen, and where the different systems can possibly work in concert with each other.

A number of questions and concerns were raised, including the following, which fomented a general discussion on online reporting and different systems.

- Data exchange standards: the need for the systems to meet international data reporting standards (FLUX).
- Standard coding systems: Currently ICCAT is using codifications that are not in line with international codifications. It was explained that this was a decision the SCRS had made because they did not think the international standards were specific enough (example: FAO gear codes known as ISSCFG and do not have gear types such as baitboat and rod & reel). CPCs discussed the need to align ICCAT to international standards.
- The need to facilitate communication between systems. An example was provided where through the eBCD system information is uploaded online, yet there is still the need to download that data and send it weekly and monthly to the Secretariat, resulting in duplicative processes. There was a discussion on streamlining processes as the development moves forward.
- The need to fix certain specifications/requirements within the existing ICCAT Recommendations/Resolutions.
- The need to use, if possible, open source technologies.
- The need to maximize automatic communications.
- The need to use a modular approach (code reuse etc.).
- The importance of initial costs, associated costs, and maintenance costs.

The Group discussed the pros and cons of the ABNJ program in general. It was noted the program will not be able to fund projects specific to ICCAT, funding has to go to projects which encompass all tuna RFMOs. There was a discussion about how the ABNJ program may be able to fund components of other projects if these can be linked to the need from all RFMOs. It was also noted that funding may be available for targeted projects or capacity building overall, such as the exchange of technicians or training.

The Secretariat confirmed that it could not support the maintenance of a future online reporting system with its current workforce and workload. The Group should keep in mind maintenance of the system.

2.2 Overview of the WCPFC online reporting system/showcasing the system

The Chair provided an overview of the current WCPFC online reporting system as an example of an existing online reporting system being used by a tuna RFMO. It was noted that although the WCPFC has many similarities to ICCAT, differences between the two tuna RFMOs would need to be reflected in the ICCAT online reporting system. The Working Group discussed the possibility of building from the WCPFC system or tailoring it to ICCAT's needs.

The Working Group expressed concerns regarding the WCPFC system, including:

- How the Sharepoint platform (currently used by WCPFC) is not an easy system to develop (to serve/handle 160 information requirements) and possibly not fully compatible with the ICCAT Secretariat's current systems.
- How some design elements (components, functional aspects, etc.) could be replicated to meet ICCAT needs, and lessons learnt.
- Overall concern, in particular for developing countries, about having an online system at all. Due to bandwidth constraints a lot of countries depend on the ability to download forms to complete offline and then upload and submit.

The Working Group began discussing items that the ICCAT system should include and prioritize. These included having a system that can handle both non-structured information such as documents and structured data, is dynamic, a system with no redundancies, be modular, and a certain level of automation.

3. Discussion document item 2.3.1 (Annual Report, Part II, section 3) and initial comments provided (20 March email)

Due to timing this Agenda item was not discussed.

4. Next steps for Working Group

The Working Group discussed next steps and agreed to:
- Wait for the outcomes of the ABNJ project. These outcomes will help further inform the Group.
- The Chair would put out an email to compile information from Group participants on the pros and cons of an online system and what attributes the structure of the system should have.
- The Working Group would aim to meet during the Annual meeting (pending scheduling).
- The Chair would draft up a report of the Working Group activities in 2017 to present at the Annual meeting, which would be distributed ahead of the Annual meeting to the Working Group participants for comment.

Annex 1

Agenda

1. Overview of Working Group - current status
2. Updates
    2. 1 System Updates
    2. 2 Overview of the WCPFC online reporting system/showcasing the system
3. Discussion on Discussion document item
    3.1 (Annual Report, Part II, section 3) and initial comments provided (20 March email)
4. Next steps for Working Group
5. Other items

Annex 2

List of Participants

South Africa - Sven Kerwath
South Africa - Qayiso Mketsu
Tunisia - Hamadi Mejri
USA - Terra Lederhouse
USA - Oriana Villar
Côte d'Ivoire - Julien Djou
EU - Thierry Remy
Japan - Masahiro Akiyama
Morocco - Mohammed Zahraoui (via skype)
Secretariat - Paul de Bruyn, Jenny Cheatle, Carlos Palma