

## **REPORT OF THE ONLINE REPORTING TECHNOLOGY WORKING GROUP**

*Madrid, Spain 26-27 March 2018*

### **1. Opening of the meeting and logistical arrangements**

The meeting was opened by the Chair, Ms. Oriana Villar (USA) who welcomed all the participants. The Secretariat informed the participants about the meeting arrangements and timetable. The Secretariat was nominated to act as rapporteur. The Agenda was adopted and is attached as **Appendix 1**. The List of participants is attached as **Appendix 2**.

The Chair gave a brief overview of the progress to date and expressed the hope that the Working Group would make good progress and develop a concrete plan for future work.

### **2. Review of projects carried out under Area Beyond National Jurisdiction (ABNJ) Common Oceans Program**

The Secretariat presented an overview of the Fisheries Online Reporting System (FORS) project which had been carried out under the financing of the ABNJ. The FORS had two main components: a) the feasibility study with a general outline for a reporting system presented by Olivier Roux and which had some similarities to the eMARIS system being developed at IOTC; b) the development by Ole Petter Lindstad of a prototype for ICCAT that implemented some of the characteristics of such a system for reporting catch and effort data. The FORS prototype developed (b), is in the process of being merged with the system developed by the Secretariat (see item 3).

The Group discussed technical aspects of these systems and how they could be applied to an ICCAT online reporting system for Annual Reports. In response to questions from the group it was clarified that the system currently used the most advanced security protocols available, but that user profiles and role management were determined by the Secretariat, although some CPCs indicated that they would like to have control over the administration of user assignment.

Only registered users would be able to access the system, and CPCs would only be able to see the details of their own data. It was further clarified that the system would have in-built verification processes which would check the data before accepting it and the system would show error messages as appropriate.

The FORS prototype had not taken very long to develop mainly because it had been done by an outside contractor on a very tight deadline, but that such could not be extrapolated to future developments.

It was noted that any further development of the system for ICCAT would require separate funding since the ABNJ funds have been exhausted and are targeted at projects generic enough to be applicable across tRFMOs. It was further noted that future ABNJ funding is dependent on the current ABNJ program continuing into phase 2, which had not yet been confirmed, and that all future proposed projects would need to apply across the tRFMOs.

### **3. Review of ICCAT's internal SCRS online reporting system (Java-based)**

The Secretariat presented a brief demonstration of the online reporting system for Task I and Task II statistical data (ICCAT forms) which had been developed by the Secretariat. Tests with volunteer CPCs have been scheduled for 2018 (testing phase before entering into production). It was explained that the FORS prototype uses the "ICCAT forms" system for processing catch-and-effort datasets (directly into the ICCAT databases) and thus, the two systems are complementary.

The system, as presently designed, only allows for the submission of one statistical form type at a time, although it will be updated to handle multiple forms to be uploaded simultaneously. Currently only six (ST01 to ST06) of the 9 statistical forms can be processed (read, validated, stored) by the system. It was also foreseen that in the future data could be submitted on a computer to computer basis which would allow CPCs to directly upload data to the ICCAT databases, without having to manually complete data submission forms.

#### **4. Review of progress made by other tuna RFMOs and consideration of any pertinent outcomes of the Tuna Compliance Network (TCN) on data management**

The Chair presented a brief overview of progress to date by the other tRFMOs on online reporting. It was noted that the Tuna Compliance Network had expanded discussions to include IT experts from the various tRFMOs to discuss progress and exchange ideas on data systems and management. An online information group had been established in order for communication to continue, but funding for the TCN will only be available until early 2019. It was agreed that the Working Group should recommend that the Commission consider exploring possible funding opportunities in the future in order to allow the TCN to continue its work.

#### **5. Determination of first elements for inclusion in the online system**

The Secretariat put forward a proposed ICCAT Integrated Online Management System (IOMS) to modify and adapt the FORS to process the ICCAT Statistical Forms, the design of which would then serve as a foundation for the construction of the IOMS. This system will adopt a modular architecture design pattern and have a main application manager (the IOMS application platform). All the dependent application modules, such as the module that will manage the reporting of the Annual Reports, would then be included and managed by the main IOMS platform application. This modular architecture would simplify and allow further expansion of modules (including the incorporation of the current 32 databases the ICCAT Secretariat maintains) that will handle the information related to about 160 reporting requirements.

The Secretariat IT team indicated that it has the expertise to develop the IOMS but that it does not currently have the capacity to do so considering its already full annual workload. The Secretariat estimated that it would take approximately 12 months to develop the IOMS and the Annual Report module at a cost of €163,000 and annual maintenance of €7,200. It was further noted that approximately 60% of the costs would go toward developing the IOMS platform, and 40% toward the Annual Report module, but that developing the overall platform first will save significant funds in the future.

The Working Group had an extensive discussion on technical specifications that would be included in the development of the IOMS and the Annual Report module, including a discussion on the example user interface presented by the United States in August 2017. The Working Group also discussed reviewing and eliminating unnecessary or duplicative reporting requirements before developing the IOMS or Annual Report module. The Working Group agreed that the Secretariat should move forward with developing a more thorough proposal of the IOMS and the Annual Report module for presentation to the Working Group at the 2018 Annual Commission meeting and that the Working Group should further consider streamlining reporting requirements in coordination with other ICCAT subsidiary bodies tasked to coordinate similar activities by the Ad Hoc Working Group to follow up on the Second ICCAT Performance Review.

#### **6. Consideration of online reporting system development**

The Working Group discussed and agreed that the IOMS and modules developed will incorporate the following specifications: 1) a centralised session manager (web-app platform: user profiles and roles, security, modularity, etc.); 2) a system that can manage recommendations and requirements (relationships); 3) a system that can manage structured (data on forms) and non-structured data (text, figures, diagrams, others); 4) a system that accounts for versioning through threads of data submission and messages and through data handling (validation, integration, storage) and loggers (data processing); 5) a system that provides user editing capabilities and session storage; 6) a system that manages message threads; 7) a system that provides querying facilities (raw data, transformations, history trends and scores); and 8) a system based on the progressive enhancement development approach (Progressive Web Apps).

The Working Group discussed the Annual Report part II, section III template and identified the following as technical specifications that should be considered when developing the online system. These include:

1. The module will allow different ways to input data. Some examples may be where data can be directly introduced via an online interface, where users can download a template, input data into the template and upload it (using web services) directly into the system, and a direct data exchange between CPCs and the IOMS (web services);
2. Develop a system where automation and data validation are a priority;
3. Allow for an option to save data or automatically having the system save data as it is imputed;
4. Allow for links to be included which will direct the user to existing data forms or reports (eventually these links would direct the user to other modules as they are developed);
5. Allow for data input up until the date of the reporting requirement and provide for capabilities where the Secretariat can reopen data submissions when appropriate;
6. Develop a system that is both dynamic and flexible to allow for ongoing maintenance and enhancement; and
7. Use, as applicable, international standards (UNCEFACT) while taking into account the current ICCAT coding system.

## **7. Consideration of next steps and assignation of tasks**

The Working Group considered next steps and these include:

1. In an effort to help improve reporting rates and reduce tasks for the Secretariat, the Chair of the Working Group request the Working Group participants to submit, by 30 of June 2018 initially, information on what are considered to be data reporting requirement redundancies. This information will be compiled and presented to the Commission Compliance Committee and SCRS for further review. The review of redundancy should be an ongoing exercise by the Working Group and/or all ICCAT subsidiary bodies.
2. The Working Group tasked the Chair to coordinate with SCRS, PWG, and STACFAD Chairs on the completion of similar streamlining tasks as identified in the Second ICCAT Performance Review recommendations 7, 85, and 86, and report back to the Working Group.
3. The Working Group will coordinate and work towards reviewing and identifying possible improvements of the formats/structures for reporting and validation. If necessary, proposed improvements will be presented to the relevant subsidiary bodies of ICCAT.
4. The Working Group requests that the Secretariat develop a completed model (specifications of the web-app platform, the core database and its content) of the Integrated Online Management System and design the specifications of the Annual Report part II, section III module by the next Annual Commission meeting (November 2018). The Secretariat will use the current Annual Report part II, section III as a template and will incorporate the additional technical specifications identified by the Working Group.
5. The Working Group tasks the Secretariat to develop a thorough budget alongside the model.

The Online Reporting Working Group identified a number of recommendations, including:

1. The Working Group supports the Integrated Online Management System (IOMS) presented by the Secretariat and recommends that the Commission adopt this system as the overarching online management system integrating all of the different reporting information collected and maintained currently by the Secretariat, taking into account the redundancies to be identified.
2. The Working Group supports the ongoing efforts by the Secretariat on the implementation of the online statistical validation system for the submission of statistical forms (Task I and II data) and in the near future it will be integrated into the IOMS. For these purposes, the Working Group recommends that the Commission fully fund the Secretariat's needs for the completion of this work.
3. The Working Group recommends that the Annual Report (part II) be developed as a module within the IOMS, and that the module build from the existing template, as well as incorporate the technical specifications identified under agenda item 6.
4. The Working Group recommends that the Commission fund the initial development of the IOMS (both the web-app platform and the first module, the Annual Report part II) and further look into long term funding for the development of additional modules.
5. The Working Group recommends the Commission explore funding opportunities under the ABNJ Common Ocean Program.
6. The Working Group recommends that the Commission consider exploring possible funding opportunities in the future in order to allow the TCN to continue its work.

## **8. Other matters**

The Working Group took note of the Performance Review recommendation relating to the possible extension of the IOTC ePSM to ICCAT. The Secretariat reported that some progress had been made in that South Africa now uses the IOTC system to send reports to ICCAT, as IOTC had kindly updated the referential tables to include additional information needed for the ICCAT area. The only disadvantage was the fact that the reports arrive with IOTC header and name rather than ICCAT, but the information collected is the same. Other CPCs could opt to do the same, but the Commission may need to look at ways that the information could be extracted into an "ICCAT" headed form in the future, as well as additional modification which would be required if this system were to be used in the future.

The Working Group agreed that exploration of developments in other fora would be appropriate before any decisions were taken, such as the forthcoming FAO workshop which would also give consideration to Port State Measure implementation or the next Kobe meeting. The Working Group agreed to await the outcomes of this workshop and to address this issue during the year.

The Working Group noted that although no further formal meetings have been formally planned, it would be helpful to hold a meeting on the margins of the Commission meeting in November, to review progress and update the work plan if appropriate.

## **9. Adoption of report and adjournment**

It was agreed that the report would be circulated to participants and adopted by correspondence. The meeting was adjourned.

**Agenda**

1. Opening of the meeting and logistical arrangements
2. Review of projects carried out under ABNJ
3. Review of ICCAT's internal SCRS online reporting system (Java-based)
4. Review of progress made by other tuna RFMOs and consideration of any pertinent of outcomes of the Tuna Compliance Network on data management
5. Determination of first elements for inclusion in the online system
6. Consideration of online reporting system development
7. Consideration of next steps and assignation of tasks
8. Other matters
9. Adoption of report and adjournment

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