

**Report of the Meeting of the
Online Reporting Technology Working Group (WG-ORT)**
(Online, 7-8 February 2023)

1. Opening of the meeting

The Chair, Ms. Terra Lederhouse, welcomed the participants to the Online Reporting Technology Working Group (WG-ORT).

2. Adoption of Agenda and meeting arrangements

The Agenda was adopted and attached as **Appendix 1**. The List of Participants is attached as **Appendix 2**. The Chair announced that this would be her last meeting of the Working Group and that election of the Chair would be taken up under agenda item 10, Other Matters. The ICCAT Executive Secretary, Mr. Camille Jean Pierre Manel, welcomed the participants and briefly informed on the meeting logistics.

3. Appointment of Rapporteur

Jessica Kerwin (Canada) was appointed as Rapporteur for day one and Eleni Bintoudi (EU) was appointed as Rapporteur for day two.

4. Review of ICCAT regulations with implications on the Working Group's mandate

The Chair reviewed the mandate of the Online Reporting Technology Working Group (WG-ORT) and provided an update on relevant decisions from the 23rd Special Meeting of the Commission held in 2022. The Commission adopted [Recommendation by ICCAT on the application of the Integrated Online Management System \(Rec. 22-17\)](#), which requires that CPCs (1) to register at least one user in IOMS; (2) submit Part I, Annex 1 and Part II, Section 3 of the Annual Report directly into IOMS beginning in 2023; and (3) use IOMS to submit additional reporting information in the future as new modules enter into production. In addition to [Rec. 22-17](#), [Recommendation by ICCAT to continue the development of an Integrated Online Reporting System \(Rec. 21-20\)](#) and [Recommendation by ICCAT for the Development of an Online Reporting System \(Rec. 16-19\)](#) remain in place to direct the work of the WG.

5. Status update of the Integrated Online Management System (IOMS) (Phases 2 and 3)

The ICCAT Secretariat presented a short historical review of the IOMS since the foundation of this WG in 2016 as established by [Rec. 16-19](#), passing through the initial IOMS study and prototyping phases in 2017 and 2018, respectively. As the development of IOMS has occurred across multiple phases, the ICCAT Secretariat provided a brief overview of each phase and the associated timelines. A detailed overview of the various phases can be reviewed in the WG-ORT workplan (Phases fixed start/end dates in **Table 6**, providing complementary information on IOMS phases).

5.1 Review of current status

The ICCAT Secretariat presented a review of the current IOMS development status and provided helpful statistics related to the first two years in production to allow the WG-ORT to better understand the improvements made and to identify potential weaknesses arising from the completion of the Annual Reports.

Phases 1 and 2

The outcome of the development of Phase 1 (two modules: IOMS core components; Annual Report manager [P1A1: Part I/Annex 1; P2S3: Part II/Section 3] (in production for general testing on 1 August 2021)) and Phase 2 (two modules: Vessel Manager containing the integration of UN/FLUX (development still ongoing, extended into Phase 3); Dynamic Help System), was evaluated by the WG-ORT. During both phases, IOMS developers also performed various tasks to ensure the proper functioning of the management system. These tasks include bug corrections, short/mid-term enhancements, and other fine-tuning to further improve the IOMS. During the first two phases, the ICCAT Secretariat was also engaged in two IOMS complementary tasks, the continuous user support (with two training courses held in 2022 and several CPC-ICCAT back-to-back meetings), and the continuous IOMS overall maintenance (update of cloud servers, code refinements, automation processes, security, backups, etc.).

Phase 3

Phase 3 is ongoing, currently focusing mainly on the Vessel Manager module, including the integration of UN/FLUX (the latter financed by EU). This module, with its several components and functionalities, including the integration of UN/FLUX, has been and continues to be under heavy development and was carried over from Phase 2 due to its complexity and the anticipated delays associated with the prioritization of the launch of the IOMS into production in August 2021. Regarding the integration of UN/FLUX in the Vessel Manager module, two implementation documents (vessel registration and fishing authorizations) are now being drafted by EU and ICCAT. These documents contain all the specifications and business rules for the vessels and authorizations managed inside the IOMS. The enhancements to the dynamic help system module (generalising it to serve existing and future modules), which is also financed by EU, are virtually complete (requiring only minor adjustments) with the most recent version already functioning in the IOMS. From now on, only the content of each module (manuals in the three ICCAT official languages) will be updated as the IOMS development progresses. Three additional modules were planned for the second year of Phase 3, including the Port manager, the T1NC (nominal catches) manager and the compliance tables manager. However, due to the additional time needed to develop the Vessel Manager module and the UN/FLUX integration in it (estimated to be approximately 10 additional months), the WG agreed to defer some of this planned work to later phases (see workplan discussion in section 8.3).

Submission of Annual Reports via IOMS in 2021 and 2022

In the second year of the IOMS in production, the majority of the 2022 Annual Reports were submitted using the IOMS. In review of the number of CPCs that submitted 2021 and 2022 Annual Reports (details in **Table 1**) via IOMS, great progress was observed, with the submission rate increasing from 70% (40 of 57 CPCs) to 77% (44 of 57 CPCs) for Compliance (P2S3) sections. For Statistic (P1A1) sections, there was also a substantial increase, from 68% (39 of 57 CPCs) to 77% (44 of 57 CPCs). As more CPCs submit the relevant sections of their Annual Report via IOMS, there has been a commensurate decrease in the number of uploads made by the ICCAT Secretariat (reduction of 40 in 2021 to 6 in 2022) in both sections. The incomplete reports stored in the IOMS have decreased slightly (4 to 3) and the number of Annual Reports not yet stored in the IOMS (pending) were also reduced (P1A1: 13 to 10; P2S3: 14 to 10). The incompleteness (5% of a total of 57) and pending (18% of a total of 57) cases (detailed in **Table 2**), can only be solved by the respective CPCs with the support of the ICCAT Secretariat. At the time of presentation, the WG-ORT was informed by the ICCAT Secretariat that five CPCs (Angola, Ghana, Guinea Republic, Syria, and Colombia) had not yet registered any user in the IOMS. The WG-ORT recommended that the ICCAT Secretariat together with WG-ORT Chair to contact these five CPCs as soon as possible in order to register at least one user in the system, consistent with [Rec. 22-17](#) paragraph 1.

IOMS Budget

Regarding the budget of the IOMS, the ICCAT Secretariat elaborated that currently the team that is devoted to the IOMS comprises 2 developers that are funded by ICCAT's regular budget (agreed biennial; currently at about €200,000/year) plus 1 developer that is currently funded via the voluntary contribution of the EU. Furthermore, there are two additional main roles that the IOMS team carries out besides the development of the IOMS: maintenance and user support. Maintaining these three important roles with the current team is unsustainable in the long run. The ICCAT Secretariat stressed that it is imperative to request an increase

in ICCAT's regular budget for the IOMS, with the goal of having a permanent team of highly specialised dedicated IOMS experts comprising optimally three or four developers. Options discussed included:

- 1) *Option 1 (short-term)*: extend to 3 experts (50% increase in the regular budget dedicated to IOMS). An increase of €100,000/year.
- 2) *Option 2 (mid/long-term)*: extend to 4 experts (100% increase in the regular dedicated to IOMS). An increase of €200,000/year.

The WG-ORT acknowledged that the IOMS is a large, long-term project that requires more than the current available capacity and funding (covering 2 software developers working full-time) to deal with the three major operational tasks (new development, maintenance, user support). IOMS development has been supported by an annual budget, as well as supplementary support from individual CPCs that is greatly welcomed but cannot be guaranteed on an annual basis. These supplemental funds provided as a voluntary contribution allowed the ICCAT Secretariat to hire an additional expert during the last two years. Considering the increasing scope and functionality development needed to support the work of the Commission, additional staff support and a more consistent, sustainable budget are required in order to ensure timely development of current and future planned phases. The WG-ORT discussed potential budget increases that it could request from the Commission at the next Annual Meeting.

The ICCAT Secretariat informed that, due to the crucial importance of the IOMS in the ICCAT's long-term working model (the largest amount of information managed by ICCAT will be centralised and managed by the IOMS), option 2 favours the IOMS development in two major aspects: increased resilience (duplication of back-end and front-end expertise), and potential to accelerate the development process timely, efficiently and sustainably. The WG-ORT agreed to advance Option 2. The WG Chair will present a budget request that reflects this option to the Compliance Committee and STACFAD at the 28th Regular meeting in November 2023. Furthermore, the WG-ORT highlighted that it would be best if the roles inside the IOMS team were more distinct and clear and the boundaries between developments in the IOMS and all other roles were more clearly set. The WG-ORT agreed that such a budgetary request would include this level of detail.

5.2 Potential enhancements based on the current knowledge

The ICCAT Secretariat presented to the WG-ORT a list of potential enhancements (eleven in total) aimed to improve the functionality of the IOMS. These suggestions, gathered during 2022, were mostly proposed by IOMS users, including the ICCAT Secretariat. Each potential enhancement was assessed by the WG-ORT in terms of usefulness, development cost (time), and the feasibility of implementation, without affecting the workplan. The ICCAT Secretariat recalled the need of the WG-ORT to decide if these suggestions are useful as some of them could be expensive and time consuming to develop. While some enhancements are complete (suggestions 1 and 2) or nearing completion (suggestions 4, 8 and 9), it was requested that a cost and time summary be provided to the WG-ORT before the remaining suggestions were considered for adoption. The ICCAT Secretariat prepared a list of all the suggested enhancements (see **Table 3** below) containing these indicators. Of the remaining enhancements requiring a decision (suggestions 3, 5, 6, 7, 10 and 11), the WG-ORT chose to adopt all of them, with the exception of suggestions 7 and 11. The former was deemed as "Not Applicable" as the current version already takes this into account. The latter was not adopted as the WG-ORT chose to maintain all traceability whenever data were edited by the ICCAT Secretariat staff (at the request of the CPC/original submitter). These decisions, as shown in **Table 3** below and described above, were adopted by the WG-ORT with adoption of this report. The progression of the enhancement work will be made intersessionally.

Suggestion 10 in particular, was discussed in detail and the WG-ORT agreed that the language should be changed from a negative response (Not Applicable: Yes/No) to a positive (Applicable: Yes/No). Its implementation would require updates to the IOMS (database code, form template) and to the [ICCAT Guidelines for the preparation of Annual Reports \(Ref. 12-13\)](#). This enhancement, planned to be made intersessionally, should be ready for the submission of the 2023 Annual Reports. In addition, the ICCAT Secretariat agreed to work with the Compliance Chair to confirm those reporting requirements for which a "No" response is appropriate (to "Applicable: Yes/No"). It was also noted that any "No" response must be accompanied by an explanation. If no explanation is provided, the report should be flagged as incomplete or the IOMS should require the entry of an explanation to save and submit the report.

An additional ongoing enhancement is related to the improvement of the Annual Report “standard responses”, which are mandatory when a given data requirement does not apply to a given CPC. The first version of the standard responses was completed by the ICCAT Secretariat in 2022, aiming to be integrated in the IOMS in time to be used in the 2022 Annual Reports. This goal was achieved, but the ICCAT Secretariat recommended a revision by the WG-ORT. In this regard, the Chair of the Compliance Committee (Derek Campbell, USA) offered his assistance, with the support of the ICCAT Secretariat, in revising and complementing the existing standard responses.

5.3 Review of the 2023 ICCAT data requirements for IOMS integration

With the new management measures adopted by the Commission in 2022, new reporting requirements will enter into force by the time of submission for the 2023 Annual Reports and some reporting requirements will no longer be required. These updates are included in the [2023 List of Reporting Requirements](#), which were already uploaded to the IOMS. The list includes a total of 168 requirements (122 compliance requirements and 46 statistical requirements). The main differences between the new 2023 requirements and those of 2022 can be seen in the first two charts on the IOMS main dashboard. The requirement list of any year can also be exported in EXCEL (an example given by the ICCAT Secretariat: the 2023 compliance and statistical requirements can be found in the shared meeting folder in NextCloud). During the demonstration, the ICCAT Secretariat noted some data are deemed “mandatory.”

5.4 Update to dynamic help system enhancements (1 year: April 2022 - March 2023)

The ICCAT Secretariat provided a brief presentation and informed the WG-ORT that the enhancement work on the Dynamic Help System is nearly complete. The ICCAT Secretariat then provided a few examples of the functionality of the improved dynamic help system. From now on, only the help content of each module (XML documents: 1 manual per module in the 3 official languages of ICCAT) are required to be made in the case of new modules, or updated in the case of existing modules with changes in functionality.

6. Review of IOMS roles and user rights in data access

The ICCAT Secretariat gave a presentation on the updated user roles and rights for accessing data in the IOMS. New roles included: CPC Flag Administrator, CPC Flag Officer and ICCAT Chair. The user rights were updated with higher level of detail (user rights per module/section/element) for IOMS core, Annual Reports module, as well as the new Vessel Manager module. The final user roles and rights (see **Tables 4 and 5** below) were adopted by the WG-ORT with adoption of the meeting report.

The ICCAT Secretariat demonstrated how a CPC administrator can access all CPC Annual Report data. The ICCAT Secretariat suggested developing a functionality that allows an IOMS user to export the information of the Annual Reports of all CPCs of one given year. The Chair agreed this functionality would be useful if it is exported in a usable format. The Chair of the Compliance Committee supported this proposal, considering it very useful for a broader combined analysis of all the CPCs. The WG-ORT concluded that the IOMS developers should work towards completion of this task intersessionally.

There was also discussion on what data should be available and how for non-CPCs and the general public, with the aim of maintaining transparency. The ICCAT Secretariat recalled the main goal of the IOMS (to manage the ICCAT data provision in a centralised database). Opening the system up to the public could amount to thousands of potential new users, which would entail additional complexity and scaling up the IOMS cloud infrastructure. Given that the IOMS servers are used to submit and store data, one solution offered by the ICCAT Secretariat was to publish the data online using the IOMS as the source of these data. This solution would result in a similar product to what is currently available to the public, so the Annual Reports and other data that are published on the ICCAT website. This way the IOMS cloud infrastructure would not be overwhelmed and implementation would be neither time consuming nor costly. The WG-ORT

responded positively to this option and the Chair stated that this issue should be monitored while a workable solution that does not increase the cost and the server load significantly is being developed.

7. UN/FLUX system explained (vessel record and beyond)

A representative of the European Union gave a presentation on the UN/FLUX standard. It is a harmonised and unattended way to exchange any kind of fisheries information between stakeholders. The ICCAT Secretariat presented its current work on the integration of UN/FLUX into the IOMS Vessel Manager module (up and running: ICCAT's FLUX_TL end node; currently in progress: drafting the 2 Implementation Documents (all specifications and business rules for the vessels and authorisations that are managed inside the IOMS) in close collaboration with EU). Regarding the voluntary contribution of EU, the ICCAT Secretariat informed that it is currently working with EU towards the approval of this year's grant, which specifically targets both the Vessel Manager module and the integration of UN/FLUX. As many meeting participants were new to the WG-ORT, the Chair confirmed that while some CPCs can benefit from the UN/FLUX integration into the IOMS, the use of UN/FLUX is not mandatory and that the IOMS also has the options of either online or offline manual completion of the forms. One CPC further inquired into the authorization process for vessels fishing for ICCAT species. The ICCAT Secretariat provided helpful clarification as to the scope of the authorization and the role of the module in fulfilling reporting obligations for the Commission.

8. Update and approval of the IOMS workplan

8.1 Review of the current modules in development and planned

The ICCAT Secretariat reviewed the current status of Phase 3 – year 1. The enhancement of the Dynamic Help System module is virtually completed (IOMS developers are finalizing tests and tuning). Moving forward, only the help content of each module will be continuously updated, as required. The Vessel Manager module (including the UN/FLUX integration) is currently under heavy development.

The ICCAT Secretariat presented a demonstration of the Vessel Manager module and welcomed the CPCs to share their feedback. The ICCAT Secretariat also clarified that, regarding the Vessel Manager module, the policy for the access rights to data remains unchanged (see **Table 5** for details) and that certain business rules apply for data quality control.

The ICCAT Secretariat presented the progress made so far on the Vessel Manager module, which is currently only available in the ICCAT development/testing environment. The module consists of five sections. The "Registered Vessels" section shows a table with the number of active, inactive, and inoperable vessels by flag. The "Vessel Authorizations" section shows the number of authorizations by flag and type of authorization list. The "Vessel Dashboard" section includes two vertical bar charts that represent the data of registered vessels and vessel authorizations. The ICCAT Secretariat mentioned that more charts will be added as required. In these three sections it is possible to filter by a particular flag or export the data in the desired format. The Owners and Operators section is a master management component accessible only by ICCAT Secretariat users (administrators and officers) and will be very useful in the future for detecting duplicates in user records. Finally, the most complex section, "Vessel Management", was discussed, which for the moment allows viewing the details of all vessels or filtering them by a given flag. The detailed view of a vessel was also explained; it was indicated that the functionalities for updating, creating, and restoring vessels are still under development. One CPC requested further clarifications regarding the permission system for viewing vessels and authorization lists. It was clarified that only the ICCAT Secretariat users can view and edit all vessels and authorizations. The CPC users will have permission to add/edit only the vessel information associated with their CPC flags and a flag CPC user will have permission to add/edit only the vessel information of their respective flag. One CPC requested to include, if possible, a chart in the "Dashboard" section in order to represent the authorization lists by catch. The ICCAT Secretariat indicated that it had to study the feasibility of such a chart. The Chair of the WG-ORT asked whether the current website would be taken down, which would limit the accessibility to the database. The ICCAT Secretariat explained that the data can be published on the ICCAT website after it has been received and processed in

the IOMS. The usefulness of Application Programming Interfaces (APIs) and web services was highlighted here as an important way to continue maintaining transparency.

8.2 Proposal of new modules for Phases 3 and 4

The ICCAT Secretariat proposed a new Form Manager module (still at concept phase) to manage and track all the ICCAT standard electronic forms (initially, only the ones of type CP, ST and TG) that are reported by the CPCs. This proposed module would allow the forms to be collected and stored in a standardized and centralized process, i.e., to use it to handle all the events associated with each form (form upload, data validation, data storage, ICCAT Secretariat's final approval, etc.) inside the IOMS. Regarding the resources required, the ICCAT Secretariat confirmed that the development of this new module would not affect the development of the Vessel Manager module (including the integration with UN/FLUX). It will be developed in parallel with the Vessel Manager module functionality that handles the offline completion (of ICCAT form CP01) process, which will benefit both modules due to technical and functional synergies (e.g.: CP01 form in EXCEL, will require capabilities such as import, read, validate, export, others) of both modules. This module was particularly welcomed by the Chair of the Subcommittee of Statistics, with CPCs also offering their support. The inclusion of the Form Manager module in the IOMS roadmap was accepted by the WG-ORT by consensus. One CPC requested further details on this module, when the complete specifications are made. The Chair of the Subcommittee of Statistics informed that similar modules are already in use in other RFMOs (IOTC, GFCM) and proposed that the Form Manager module should not be limited to handle Microsoft file formats (EXCEL) but should also consider standard CSV formats, in order to allow the future use of R-CRAN scripts for uploading data to the IOMS, which will potentially increase automation. The ICCAT Secretariat agreed to study and verify its feasibility in the near future. The ICCAT Secretariat also offered additional benefits of the Form Manager module, such as auto-completing sections of the Annual Reports upon submission of the relevant forms.

8.3 Rescheduling the IOMS roadmap for Phase 3 and Phase 4 (module priorities)

The WG-ORT used the latest adopted workplan (Table from [2022 Report of the Meeting of the Online reporting Technology Working Group, WG-ORT](#)) as the basis for rescheduling phases 3 and 4.

The Vessel Manager module (including the integration of UN/FLUX) was extended into the second year of Phase 3 maintaining priority 1 and is expected to go into production for general testing in October-November 2023. The new Form Manager module was also inserted into the second year of Phase 3 (priority 1), as the second priority after the Vessel Manager module (including the integration of UN/FLUX). This entailed that the Port Manager module was deferred to the end of Phase 3 (year 2) and T1NC (nominal catches) Manager and Compliance Tables Manager modules were moved from Phase 3 to Phase 4. The Shark and Billfishes Check Sheets module has advanced from Phase 4 (priority 1) to Phase 3 (maintaining priority 1); a study on the possibility to reuse the code that is already developed for the Annual Reports module was proposed by a CPC. The ICCAT Secretariat will study this code-reuse potential in detail and present it at the next meeting. Another CPC expressed the opinion that the IOMS roadmap would be more efficient if a more elaborate standardised methodology was employed (workload required for each module to reach production, targeted human resources and funding, detailed time plan, risks, etc.). The ICCAT Secretariat agreed and committed to study and improve the roadmap structure.

The updated workplan presented in **Table 6** below, was adopted by the WG-ORT with the meeting report adoption.

The Chair reminded the participants that there was a correction pending for the IOMS Roadmap table in the 'Status Report for the Online Reporting Technology Working Group for 2022' [COC_320/2022 – Annex 1, dated 15 November 2022]. The ICCAT Secretariat informed the WG-ORT that, after confirming the feasibility of correcting a document (COC_320/2022) presented to the Commission without major implications, the correction was already made to the final version that is included in the Report of the Biennial period, 2022-23 (2022), Part I, Vol. 1.

8.4 Planning the training for IOMS users (training courses, workshops)

The WG-ORT agreed that the next training session for IOMS users will be 5 October 2023. The subject of the training will be the Vessel Manager module so that the CPCs can initiate testing. The ICCAT Secretariat noted that it would be pleased to continue to offer the complementary CPC user support for submitting Annual Reports with 1-day back-to-back (ICCAT-CPC) online training sessions on specific subjects, upon request. The ICCAT Secretariat stressed that there are still a few CPCs that have not yet registered any user in the IOMS, which is a mandatory requirement to receive IOMS user support. In addition, online recordings of the 2022 workshops on IOMS training remain available for CPCs to review.

To facilitate the planning and development of the 2024 meetings calendar, the WG-ORT decided to hold two additional training sessions in 2024. The exact dates will be agreed at the next intersessional WG-ORT meeting.

9. Status update of the GEF-ABNJ II project on the IOMS (4 years starting in 2023)

ICCAT applied for 5 capsules (sub-projects), under the Phase II of the Common Oceans ABNJ Program and the Tuna Project (GEF-ABNJ Tuna II); Capsule 2 (project: “Enhancement of Online Reporting (OR) systems”) was associated with the IOMS. This complementary project aims to enhance the IOMS through the development of extensions (standard RESTful public APIs – web services) for automatic data interoperability, with a focus on public data provision (one-way standard data to be consumed by any “end user”). The “end user” has a large spectrum of possibilities ranging from a single user who wants to download this information, passing through a web site that wants to publish it, to complex projects wanting to use more than one type of dataset. Two major end users of ICCAT information stored in the IOMS will be the [ICCAT website](#) and the [TUNA-ORG website](#). Other end users considered are the 5 t-RFMOs and their CPCs, FAO (e.g.: Global Tuna Atlas), and virtually any potential stakeholder.

The GEF-ABNJ Tuna II total budget delivered to the IOMS development of extensions is nearly €500,000 and is planned for a total duration of five years. The effective development cycle accounts for about four years. The beginning of the project, planned for the second half of 2022, was delayed by about one year (GEF-ABNJ II restructuring) and is now planned to start in the second half of 2023. During this delay, ICCAT made adjustments to the periodic progress report indicators (quantitative measures scoring the project evolution over time) to reflect the 2023 IOMS development status. Three indicators (instead of 1), redrawn to be obtained automatically from the IOMS, will now be used on the bi-annual project progress reports to FAO.

The ICCAT Secretariat confirmed that this project will not affect the IOMS workplan, given that an additional developer will be hired via the GEF-ABNJ Tuna II. The WG-ORT acknowledged the importance of this project on the IOMS public data dissemination process, with benefits to ICCAT and many potential “end users”.

10. Redundancy on data requirements

10.1 Status update on “elimination of redundancy”

The elimination of redundant requirements is one of the main long-term tasks stated in the ToRs of the WG-ORT ([Recommendation by ICCAT to continue the development of an Integrated Online Reporting System \(Rec. 21-20\)](#) para 2b). The ICCAT Secretariat presented a status update on the topic, noting its high complexity.

The ICCAT Secretariat has received feedback from multiple CPCs on this subject. Overall, little progress has been made since the last [Meeting of the Online Reporting Technology Working Group \(WG-ORT\)](#). However, the ICCAT Secretariat has continued its work on the characterisation/classification of the structures of each data requirement (similarities, differences, complementarity, overlapping, etc.). An example was given in relation to two annual catch provisions of previous years (S:GEN03 – Task 1 nominal catches; M:GEN03 –

compliance reporting tables), each one aimed to provide similar data but with incompatible structures (number of fields/characteristics, level of detail) and metrics (examples: as opposed to S:GEN03 with all the quantities caught/landed/discarded clearly in “live weight”, these quantities are not always clearly defined in M:GEN03 (various options: live weight, dressed weight, gilled & gutted weight, etc.); unclear definition/differentiation of the catch component in M:GEN03: only landings, landings + dead discards, etc.). In order to eliminate redundancies, the ICCAT Secretariat highlighted that the ICCAT reporting requirements would need to be synchronised, which would be a very complex exercise. The example described above will serve as the basis for the elaboration of the WG-ORT strategic plan to eliminate redundancy on data provision.

10.2 Strategic plan to eliminate redundancy

The ICCAT Secretariat’s next goal is the first draft of the Guidelines for the Strategic Plan on redundancy elimination, using as reference the 5 points agreed at the last WG-ORT intersessional meeting (copied below from [2022 Report of the Meeting of the Online Reporting Technology Working Group, WG-ORT](#)). The ICCAT Secretariat will continue working on this intersessionally.

1. Define redundancy: “similar information required by different data requirements with slightly different structures”;
2. For all 2022 data requirements, study all the data structures and identify similarities between them (structural level);
3. For similar groups, check if, with minor adjustments on data structures, the data requirements can be merged;
4. Analyse the implications on the existing “ICCAT regulations” (Recommendations, Resolutions, etc.);
5. Prepare a “consolidated response” to the Commission.

11. Intersessional work required in 2023 (Group and ICCAT Secretariat)

In addition to the various IOMS enhancements discussed/adopted (summarized in **Table 3** below) the WG-ORT together with the ICCAT Secretariat has planned the following list of intersessional work:

- a. Review and approve¹ updated user roles and rights (especially for the Vessel Manager module and flag States).
- b. Review and approve¹ modifications to the workplan.
- c. Review and adopt February 2023 meeting report.
- d. ICCAT Secretariat to review the possibility of using annual report module to complete shark and billfish check sheet at an earlier date (before the next WG-ORT intersessional meeting).
- e. Plan and participate in Vessel Manager module training and testing (planned October 5, 2023)
- f. Draft and approve budget increase request to present to COC and STACFAD in 2023 (in advance of 90 days deadline/June 2023).
- g. ICCAT Secretariat to continue the study potentially redundant reporting requirements with the aim of developing a strategic plan to eliminate such redundancies (show progress at next meeting).
- h. Review and provide feedback on the standard responses of the annual report (31 July 2023 with assistance from the Chair of the Compliance Committee).
- i. ICCAT Secretariat to continue developing the ability for IOMS users to export all Annual Reports for a given year (prior to 15 September 2023).

12. Other matters

The Chair requested nominations for her replacement. Canada nominated Dr Bryan Keller (USA). The nomination was seconded by the European Union (EU), Japan, and United Kingdom. Dr Bryan Keller (USA) was elected as the new Chair of WG-ORT by consensus.

¹ Approval will be undertaken as part of the adoption of this meeting report.

13. Adoption of report and adjournment

It was agreed that the report would be adopted by correspondence. The Chair adjourned the meeting.

Table 1. Number of 2021 and 2022 Annual Reports stored in the IOMS by category (Compliance, Statistics), completion rate (0% to 100%), and completion source (CPC, Secretariat, pending). The total number of expected Annual Reports is “57” (52 Contracting Parties + 5 non-Contracting cooperating), in each category (P1A1: Part 1/Annex 1, P2S3: Part 2/Section 3). Shaded light-blue cells, indicate the number of Annual Report sections fully completed (100%) but in a pending status (not yet submitted as “final”).

Requirements Group	Party	Completion status ratio (%)	Year / Final version submitted by							
			2021				2022			
			CPC	SEC	pending	Total	CPC	SEC	pending	Total
Compliance (P2S3: Part 2/Section 3)	CP	0%			12	12			6	6
		3%					1			1
		82%						1		1
		92%	1			1				
		95%			1	1				1
		96%						1		1
		98%			1	1				
		99%			2	2				
		100%	3	33		36	35	4	3	42
		NCC	0%			1	1			
		100%		4	4				5	
Sub-total			4	40	13	57	41	6	10	57
Statistics (P1A1: Part 1/Annex 1)	CP	0%			10	10			3	3
		2%			1	1				
		4%							3	3
		17%								1
		85%					1		1	2
		91%						1		1
		95%			1	1				
		98%	1	2		3				
		100%	2	33	2	37	35	4	3	42
		NCC	0%			1	1			
		1		4	4				5	
Sub-total			3	40	14	57	41	6	10	57

Table 2. CPCs with IOMS pending (shaded blue cells) Annual Reports in 2021 and 2022 in each category (P1A1: Part 1/Annex 1, P2S3: Part 2/Section 3). Field “Remarks” indicate the CPC actions needed and the time required.

Status	PartyCode	2021		2022		Remarks
		Compliance (P2S3)	Statistical (P1A1)	Compliance (P2S3)	Statistical (P1A1)	
Complete (100%) (pending submission)	BARBADOS		1			Submit "pending" version (10 minutes)
	GUATEMALA				1	
	HONDURAS			1		
	SIERRA LEONE			1	1	
	SYRIA			1	1	
	UNITED STATES		1			
Incomplete (requires revision)	ANGOLA		1		1	Requires CPC revision (mid-term)
	CÔTE D'IVOIRE			1	1	
	GUINEA BISSAU				1	
	NIGERIA				1	
Nothing received (CPC need to be contacted)	ANGOLA	1		1		Requires CPC submission (long-term)
	BARBADOS	1				
	CHINA PR	1	1			
	CÔTE D'IVOIRE	1	1			
	GABON	1	1			
	GAMBIA	1	1	1	1	
	GRENADA	1	1	1	1	
	GUINEA BISSAU	1	1	1		
	GUINÉE REP.	1	1			
	Guyana	1	1			
	NICARAGUA	1	1			
	NIGERIA			1		
	S. TOMÉ E PRINCIPE	1	1	1	1	
	SIERRA LEONE	1	1			

Table 3. List of IOMS enhancements proposed, discussed, and adopted to be developed interessionally. The development time is a preliminary qualitative indicator.

No	Enhancement (short description)	Cost (dev. time)	Adopted (Yes/No)	Intersessional work (Yes/No)	Status (current)
1	Allow formatting (rich text) of non-protected cells of the exported Annual Report in EXCEL	low	Yes	No	Done
2	Make the cells bigger, font smaller or wrap text to be able to see what is required	low	Yes	No	Done
3	Automatic message to the IOMS user informing the submission has been successful (cc to: info@iccat.int)	medium	Yes	Yes	Studying
4	Change "organization" to CPC	low	Yes	Yes	Almost complete
5	Show percentage of CPCs which have completed the Annual Report (e.g., 19 CPCs out of 57 = 33.3%, particularly on the deadline + 1)	medium	Yes	Yes	Studying
6	Order alphabetically those with 100% complete, not in order of completion, and add "date submitted" column to graph	medium	Yes	Yes	Studying
7	Option to cancel an "importing" file	high	No	No	N/A (current version satisfies this request)
8	In the management files, the redundant requirements do not appear, but they do appear in the scientific extract; they should not appear in either	low	Yes	Yes	Almost complete
9	Cabo Verde should be Cabo Verde (same for Côte d'Ivoire and Türkiye)	low	Yes	Yes	Almost complete
10	Invert the "not-applicable" (negative) response to "applicable" (positive) response (choices: Yes/True & No/False), with the "No/False" response requiring an explanation	high	Yes	Yes	Ongoing (completion target date: 30-06-2023)
11	If requirements are edited manually by the Secretariat Staff at the request of the CPC/original submitter, is it necessary to save it as a new version and that our name appears?	medium	No	No	

Table 4. Current IOMS user roles adopted (added the last three additional roles).

CURRENT model (roles/users)			
UserCode	Description English	Description Spanish	Description French
ICCATSEC_ADMIN	Admin user in the ICCAT Secretariat. You will be able to register users of all roles and CPCs, add new roles, organizations, data requests, requirements, regulations, consult the audit table that collects the information of the web services consumed by the user, edit the main menu and consult the api used for the IOMS web services.	Usuario administrador de la Secretaría de ICCAT: Podrá registrar usuarios para todos los roles y las CPC, añadir nuevos roles, organizaciones, peticiones de datos, requisitos, regulaciones, consultar la tabla de auditoría que recoge la información de los servicios web utilizados por el usuario, editar el menú principal y consultar la api utilizada para los servicios web del IOMS.	Utilisateur administrateur du Secrétariat de l'ICCAT. Celui-ci pourra enregistrer les utilisateurs pour tous les rôles et CPC, ajouter de nouveaux rôles, organisations, demandes de données, exigences, réglementations, consulter le tableau d'audit qui recueille les informations des services Web utilisés par l'utilisateur, modifier le menu principal et consulter l'API utilisée pour les services Web de l'IOMS.
ICCATSEC_OFFICER	Regular officer in the ICCAT Secretariat. You will have permissions to use all IOMS functionalities, except for administration tasks.	Usuario regular de la Secretaría de ICCAT: contará con permisos para utilizar todas las funcionalidades del IOMS, exceptuando las tareas de administración.	Utilisateur régulier du Secrétariat de l'ICCAT. Celui-ci aura l'autorisation d'utiliser toutes les fonctionnalités de l'IOMS, à l'exception des tâches d'administration.
CPC_ADMIN	Admin user in a CPC. You can register CPC Officer users that are within your own CPC.	Usuario administrador de una CPC. Podrá registrar usuarios que sean funcionarios de su propia CPC.	Utilisateur administrateur d'une CPC. Celui-ci pourra enregistrer les utilisateurs qui sont fonctionnaires de sa propre CPC.
CPC_OFFICER	Regular officer in a CPC. You will have permissions to use all the IOMS functionalities of your own CPC, except for administration tasks.	Usuario regular de una CPC. Contará con permisos para utilizar todas las funcionalidades del IOMS de su propia CPC, exceptuando las tareas de administración.	Utilisateur régulier d'une CPC. Celui-ci aura l'autorisation d'utiliser toutes les fonctionnalités de l'IOMS de sa propre CPC, à l'exception des tâches d'administration.
CPC_FLAG_ADMIN	Admin user of a Flag CPC. You can register CPC Flag Officer users that are within your own Flag.	Usuario administrador en una CPC de pabellón. Podrá registrar a los usuarios de la CPC de pabellón de su propia CPC de pabellón.	Utilisateur administrateur d'une CPC de pavillon. Celui-ci pourra enregistrer les utilisateurs de la CPC de pavillon de sa propre CPC de pavillon.
CPC_FLAG_OFFICER	Regular officer of a Flag CPC. You will have permissions to use all the IOMS functionalities of your own Flag, except for administration tasks.	Usuario regular de una CPC de pabellón. Contará con permisos para utilizar todas las funcionalidades de IOMS de su propia CPC de pabellón, exceptuando las tareas de administración.	Utilisateur régulier d'une CPC de pavillon. Celui-ci aura l'autorisation d'utiliser toutes les fonctionnalités de l'IOMS de sa propre CPC de pavillon, à l'exception des tâches d'administration.
ICCAT_CHAIR	ICCAT Chairs of a subsidiary body. You will be able to access with read permissions all the IOMS information.	Presidente de un organismo auxiliar de ICCAT. Tendrán acceso de lectura de toda la información de IOMS.	Président d'un organe subsidiaire de l'ICCAT. Celui-ci pourra accéder avec des autorisations de lecture à toutes les informations de l'IOMS.

Table 5. Adopted changes to the map of IOMS user's rights and access levels (descriptors in legend below). The new category "Edit (v)" added for future updates requiring CPC posterior validations of preliminary work.

Module	Section	Element	ICCATSEC_ADMIN		ICCATSEC_OFFICER		CPC_ADMIN		CPC_OFFICER		CPC_FLAG_ADMIN		CPC_FLAG_OFFICER		ICCAT_CHAIR	
			Own data	Others	Own data	Others	Own data	Others	Own data	Others	Own data	Others	Own data	Others	Own data	Others
IOMS core	Main dashboard	Main dashboard	-	Read	-	Read	Read	Read	Read	Read	Read	Read	Read	Read	-	Read
IOMS core	Data request	Data requests	-	Read	-	Read	-	Read	-	Read	-	Read	-	Read	-	Read
IOMS core	Data request	Data Request by CPC	-	Read	-	Read	-	Read	-	Read	-	Read	-	Read	-	Read
IOMS core	Data request	Requirements	-	Read	-	Read	-	Read	-	Read	-	Read	-	Read	-	Read
IOMS core	Messaging	Inbox/Outbox	Edit	Read	Edit	-	Edit	-	Edit	-	Edit	-	Edit	-	Edit	-
IOMS core	Messaging	New thread	Edit	-	Edit	-	Edit	-	Edit	-	Edit	-	Edit	-	Edit	-
IOMS core	Administration	Users	Edit	Edit	Edit	-	Edit	-	-	-	Edit	-	-	-	-	-
IOMS core	Administration	Roles	-	Edit	-	-	-	-	-	-	-	-	-	-	-	-
IOMS core	Administration	CPCs	-	Edit	-	-	-	-	-	-	-	-	-	-	-	-
IOMS core	Administration	Data Requests	-	Edit	-	-	-	-	-	-	-	-	-	-	-	-
IOMS core	Administration	Flags	-	Edit	-	-	-	-	-	-	-	-	-	-	-	-
IOMS core	Administration	Requirements	-	Edit	-	-	-	-	-	-	-	-	-	-	-	-
IOMS core	Administration	Standard responses	-	Edit	-	-	-	-	-	-	-	-	-	-	-	-
IOMS core	Administration	Regulations	-	Edit	-	-	-	-	-	-	-	-	-	-	-	-
IOMS core	Administration	Audit	-	Read	-	-	-	-	-	-	-	-	-	-	-	-
IOMS core	Administration	Manage menu	-	Edit	-	-	-	-	-	-	-	-	-	-	-	-
IOMS core	Administration	Feedback	Edit	Read	Edit	Read	Edit	Read	Edit	Read	Edit	Read	Edit	Read	Edit	Read
IOMS core	Administration	API Documentation	-	Read	-	Read	-	Read	-	Read	-	Read	-	Read	-	Read
IOMS core	Administration	API Documentation Vessels	-	Read	-	Read	-	Read	-	Read	-	Read	-	Read	-	Read
IOMS core	Administration	Change log	-	Edit	-	-	-	-	-	-	-	-	-	-	-	-
IOMS core	Administration	Help Manager	-	Edit	-	-	-	-	-	-	-	-	-	-	-	-
IOMS core	User menu	Profile	Edit	Edit	Edit	-	Edit	-	Edit	-	Edit	-	Edit	-	Edit	-
IOMS core	User menu	Send feedback	Edit	Read	Edit	-	Edit	-	Edit	-	Edit	-	Edit	-	Edit	-
IOMS core	User menu	Help	-	Read	-	Read	-	Read	-	Read	-	Read	-	Read	-	Read
IOMS core	User menu	Theme	Edit	-	Edit	-	Edit	-	Edit	-	Edit	-	Edit	-	Edit	-
IOMS core	User menu	Notifications	Edit	-	-	Read	-	Read	-	Read	-	Read	-	Read	-	Read
IOMS core	User menu	Alerts	Edit	-	-	Read	-	Read	-	Read	-	Read	-	Read	-	Read
IOMS core	User menu	Language	Edit	-	Edit	-	Edit	-	Edit	-	Edit	-	Edit	-	Edit	-
Annual report	Annual report	Annual reports Dashboard	-	Read	-	Read	Read	Read	Read	Read	Read	Read	Read	Read	-	Read
Annual report	Annual report	Edit/add report	-	Edit	-	Edit	Edit	-	Edit	-	-	-	-	-	-	Read
Annual report	Annual report	Summary reports	-	Read	-	Read	Read	Read	Read	Read	Read	Read	Read	Read	-	Read
Annual report	Annual report	Status by requirement	-	Read	-	Read	Read	Read	Read	Read	Read	Read	Read	Read	-	Read
Annual report	Annual report	Guidelines	Read	-	Read	-	Read	-	Read	-	Read	-	Read	-	Read	-
Annual report	Annual report	Export Annual Report (*testing)	-	Read	-	Read	-	-	-	-	-	-	-	-	-	Read
Annual report	Annual report	Export All Annual reports	-	Read	-	Read	-	-	-	-	-	-	-	-	-	Read
Vessel Manager	Vessels dashboard	Vessels dashboard	-	Read	-	Read	Read	Read	Read	Read	Read	Read	Read	Read	-	Read
Vessel Manager	management	Vessels management	-	Edit	-	Edit	Edit	-	Edit	-	-	-	-	-	-	Read
Vessel Manager	Vessels registered	Vessels registered	-	Read	-	Read	Read	Read	Read	Read	Read	Read	Read	Read	-	Read
Vessel Manager	Vessels authorizations	Vessels authorizations	-	Read	-	Read	Read	Read	Read	Read	Read	Read	Read	Read	-	Read
Vessel Manager	Owners/operators	Owners/operators	-	Edit	-	Edit	Edit	-	Edit	-	Read	-	Read	-	-	-

Legend (rights):

Grant	Meaning
Read	Reading rights
Edit	Editing rights
Edit (v)	Editing rights, subject to validation by CPC Officer or CPC Admin
-	No rights / Not applicable

Table 6. Revised IOMS workplan adopted by the Group, covering ongoing and future development phases. Shaded cells indicate the major updates made to the 2022 workplan. Details of each phase are shown at the bottom. Phases 4 and 5 are preliminary module references.

Phase start	Priority	Module /Task	Description	Data requirements	Dev. Status	Date start	Date end	Phase end	Budget	Remarks
1	1	Module	IOMS core/database	n/a	COMPLETE	2019-06-01	2021-08-01		2 COM-18	
1	2	Module	IOMS annual report (Part II/Section 3, Part I/Annex 1)	S:GEN01, M:GEN01	COMPLETE	2019-06-01	2021-08-01		2 COM-18	
1	3	Task	IOMS in production		COMPLETE	2019-06-01	2021-08-01		2 COM-18	
1	1	Task	Training/workshop sessions (Phase 1)		COMPLETE	2022-04-28	2022-09-01		2 COM-18	Two sessions (4 hours each)
1	1	Task	Maintenance (including improvements & error fixing)		Ongoing	2019-06-01	n/a	n/a	COM-18	Continuous task (maintenance)
2	1	Module	Dynamic Help system (module)	n/a	COMPLETE	2021-03-31	2022-03-31		2 CPC (EU)	EU voluntary contributions (2021, 2022)
2	1	Task	Adjustments to the new roles definition	n/a	COMPLETE	2022-02-15	2022-03-15		2 COM-19	Adopted by WG-ORT 2022
2	1	Module	ICCAT Vessel Manager	Up to 21 data requirements (Vessel registration, 11 authorisation lists, carriers, chartering arrangements, transshipment authorizations, previous year activity)	Ongoing	2021-03-01	2023-10-31		COM-19 3 & CPC (EU)	Development extended to Phase 3 (10 additional months) jointly with UN/FLUX integration. Partially covered by EU voluntary contributions (2021, 2022, 2023)
2	1	Task	UN/FLUX integration into Vessel Manager	All requirements of Vessel registration and authorizations (11 lists)	Ongoing	2022-04-01	2023-11-30		3 CPC (EU)	EU voluntary contributions (2021, 2022, 2023)
2	2	Module	Enhancements to Dynamic Help system (generalization)	n/a	Ongoing	2022-04-01	2023-03-31		3 CPC (EU)	Near completion (final tests)
2	1	Task	Vessels training/workshop session(s)	n/a	Planned	2023-10-05	2023-10-05		3 COM-19	IOMS users preliminary tests on Vessel module (1 session)
3	1	Module	Form Manager	Module to upload and manage all ICCAT forms (ST, CP, TG)	Planned	2023-07-01	2023-12-31		3 COM-21	Start & end dates: estimates
3	2	Module	Port Manager	M:BFT21, M:SWO10	Planned	2024-01-01	2024-05-31		3 COM-21	Start & end dates: estimates
3	1	Task	Form manager & Port manager training/workshop sessions	n/a	Planned	TBD	TBD		3 COM-21	To decide of 1 session each
3	1	Module	Shark/Billfish Check Sheets Manager	M:SHK05, M:BIL01	Planned	2024-05-01	TBD		4 COM-21	To study the possibilities of re-using AR module code / Start date may change
3	1	Task	Shark/Billfish Check Sheets training/workshop sessions	n/a	Planned	TBD	TBD		3 COM-21	
4	1	Module	T1NC (Task 1 nominal catches) Manager	S:GEN03	Planned	2024-06-30	TBD		COM-23	Start date may change (pending study on time required)
4	2	Module	Compliance tables (COCT) Manager	M:GEN03	Planned	2024-06-30	TBD		COM-23	Start date may change (pending study on time required)
4	1	Task	T1NC/COCT training/workshop sessions	n/a	Planned	TBD	TBD		COM-23	
4	1	Task	Improvements and error fixing	n/a	Planned	TBD	TBD		COM-23	
5	1	Module	SDP programs (SWO, BET)	M:TRO06, M:SWO01	Planned				COM-23	
5	2	Module	Bluefin tuna (BFT) weekly and monthly reports Manager	M:BFT22, M:BFT23, M:TRO14 weekly BET	Planned				COM-23	
5	3	Module	Task 2 - Catch and effort	S:GEN04	Planned				COM-23	
5	1	Task	Improvements and error fixing		Planned				COM-23	

Complementary information on IOMS Phases:

Phase	Start	End	Budget (months)	COM meeting	Budget Year	Budget Type
Phase 1	2019-06-01	2020-05-31	12	annual	2018	Extraordinary
Phase 2	2020-06-01	2022-05-31	24	biennial	2019	Regular
Phase 3	2022-06-01	2024-05-31	24	biennial	2021	Regular
Phase 4	2024-06-01	2026-05-31	25	biennial	2023	Regular

Agenda

1. Opening of the Meeting
2. Appointment of Rapporteur
3. Adoption of the agenda and meeting arrangements
4. Review of ICCAT regulations with implications on the Working Group's mandate
5. Status update of the Integrated Online Management System (IOMS) (Phases 2 and 3)
 - 5.1 Review of current status
 - 5.2 Potential enhancements based on the current knowledge
 - 5.3 Review of the 2023 ICCAT data requirements for IOMS integration
 - 5.4 Update to dynamic help system enhancements (1 year: Apr 2022-Mar 2023)
6. Review of IOMS roles and user rights in data access
7. UN/FLUX system explained (vessel record and beyond)
8. Update and approval of the IOMS workplan
 - 8.1 Review of the current modules in development and planned
 - 8.2 Proposal of new modules for Phases 3 and 4
 - 8.3 Rescheduling the IOMS roadmap for Phase 3 and Phase 4 (module priorities)
 - 8.4 Planning the training for IOMS users (training courses, workshops)
9. Status update of the GEF-ABNJ II project on the IOMS (4 years starting in 2023)
10. Redundancy on data requirements
 - 10.1 Status update on "elimination of redundancy"
 - 10.2 Strategic plan to eliminate redundancy
11. Intersessional work required in 2023 (Group and Secretariat)
12. Other matters
13. Adoption of report and adjournment

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