Food and Agriculture Organization of the United Nations

Indian Ocean Tuna Commission
Commission des Thons de l'Ocean Indien
iotc ctoi

IOTC–2019–WPDCS15–06

PROGRESS MADE ON THE RECOMMENDATIONS OF WPDCS14

PREPARED BY: IOTC SECRETARIAT, 04 NOVEMBER 2019

PURPOSE

To provide participants at the 15th Working Party on Data Collection and Statistics (WPDCS15) with an update on the progress made in implementing the recommendations from the previous WPDCS, which were endorsed by the Scientific Committee (SC), and to provide alternative recommendations for the consideration and potential endorsement by participants.

BACKGROUND

At the 14th Session of the WPDCS, participants agreed on a series of actions to be taken by participants, CPCs, and the IOTC Secretariat on a range of issues. The subsequent table developed and agreed to by the WPDCS was provided to the SC for its endorsement at its 2018 meeting.

DISCUSSION

The Rules of Procedure of the Scientific Committee include the following seven core tasks, which are to be supported by the various Working Parties.

a) recommend policies and procedures for the collection, processing, dissemination and analysis of fishery data;
b) facilitate the exchange and critical review among scientists of information on research and operation of fisheries of relevance to the Commission;
c) develop and coordinate cooperative research programmes involving Members of the Commission in support of fisheries management;
d) assess and report to the Commission on the status of stocks of relevance to the Commission and the likely effects of further fishing and of different fishing patterns and intensities;
e) formulate and report to the sub-commission, as appropriate, on recommendations concerning conservation, fisheries management and research, including consensus, majority and minority views;
f) consider any matter referred to by the Commission;
g) to carry out other technical activities of relevance to the Commission.

Noting the core tasks of the SC, and hence the WPDCS, participants are reminded that any recommendations developed during a Session, must be carefully constructed so that each contains the following elements:

1) a specific action to be undertaken (deliverable);
2) clear responsibility for the action to be undertaken (i.e. a specific CPC of the IOTC, the Secretariat, another subsidiary body of the Commission or the Commission itself);
3) a desired time from for delivery of the action (i.e. by the next working party meeting, or other date).

Recalling that the SC, at its 16th Session adopted a set of reporting terminology SC16.07 (para. 23), which was subsequently endorsed by the Commission at its 18th Session in 2014 (S18, para 10), to further improve the clarity of information sharing from, and among the science bodies, the following two term levels should be noted when interpreting the Reports and Appendix A to this paper:

Level 1: From a subsidiary body of the Commission to the next level in the structure of the Commission:

RECOMMENDED, **RECOMMENDATION**: Any conclusion or request for an action to be undertaken, from a subsidiary body of the Commission (Committee or Working Party), which is to be formally provided to the next level in the structure of the Commission for its consideration/endorsement (e.g. from a Working Party to the Scientific Committee; from a Committee to the Commission). The intention is that the higher

body will consider the recommended action for endorsement under its own mandate, if the subsidiary body does not already have the required mandate. Ideally this should be task specific and contain a timeframe for completion.

Level 2: From a subsidiary body of the Commission to a CPC, the IOTC Secretariat, or other body (not the Commission) to carry out a specified task:

REQUESTED: This term should only be used by a subsidiary body of the Commission if it does not wish to have the request formally adopted/endorsed by the next level in the structure of the Commission. For example, if a Committee wishes to seek additional input from a CPC on a particular topic, but does not wish to formalise the request beyond the mandate of the Committee, it may request that a set action be undertaken. Ideally this should be task specific and contain a timeframe for the completion.

In addition to the Recommendations endorsed by the SC at its 20th Session, the SC also made several requests which, although are not passed to the Commission for its endorsement, are considered actions which the Scientific Committee has the mandate to issue. The revised recommendations are contained in Appendix A for the consideration and potential endorsement by the WPDCS15.

RECOMMENDATION

That the WPDCS:

1) **NOTE** paper IOTC–2019–WPDCS15–06 which detailed the progress made in implementing the recommendations of the WPDCS14, taking into consideration the recommendations from the SC and decisions of the Commission;
2) **AGREE** to consider and revise as necessary, the recommendations, and for these to be combined with any new recommendations arising from the WPDCS15, noting that these will be provided to the SC for their endorsement.

APPENDICES

Appendix A: Progress made on the recommendations of WPDCS14

APPENDIX A

Progress made on the recommendations of WPDCS14

WPDCS14 Rec. No.		SC21 Rec. No.	Recommendation adopted / agreed by the SC21	Endorsed at S23	Commission response / suggestions for consideration at WPDCS15
WPDCS14.01 (para. 146)	***Revision of the proposed updates to standards and data fields*** The WPDCS **NOTED** that all changes to the proposed ROS Minimum Standard Data Fields are captured within the summary table in appendix to this document and **RECOMMENDED** that the ROS Minimum Standard Data Fields in Appendix VII are adopted by the Commission	SC21.27 (para. 169)	The SC **RECOMMENDED** that the ROS Minimum Standard Data Fields in Appendix 6a are adopted by the Commission		***Update:*** The Commission **ENDORSED** the IOTC Regional Observer Scheme (ROS) standards in principle in order for the Secretariat to implement the ROS (Para 120). Minimum data collection fields were not discussed.
WPDCS14.02 (para. 149)	The WPDCS **RECOMMENDED** that the SC evaluate the validity of alternative data collection tools, and combinations of these (such as the use of crew as observers, electronic monitoring and port sampling), as potential alternatives to onboard human observer coverage for the collection of the minimum standard data fields for small-scale vessels.	Para. 170	The SC noted that there is a lack of data for small-scale fisheries that are currently unable to deploy human observers and other means of data collection are required. The SC **REQUESTED** the WPDCS to continue to evaluate the validity of alternative data collection tools to onboard human observers (such as the use of crew as observers (i.e. self-sampling), electronic monitoring (e.g. cameras) and port sampling), and combinations of these, as potential alternatives to onboard human observer coverage for the collection of the minimum standard data fields for small-scale fisheries. The SC acknowledged that the results of the ROS should inform this evaluation		***Update***: None
WPDCS14.03 (para. 150)	The WPDCS also **RECOMMENDED** that the SC considers and endorses the list of species considered of special interest (SSI) as defined by the Expert Workshop and reported in Appendix VIII.	Para. 171	For the purpose of improving the voluntary collection of information on the post release mortality of discarded species of special interest, the SC considered and **ENDORSED** the list of species considered of special interest as proposed by the expert workshop and reported in Appendix VIII of the WPDCS14 report, noting that the SC agreed to simplify the list according to Appendix 6b.		***Update:*** None
WPDCS14.04	The WPDCS **NOTED** the draft programme	SC21.28	Noting concerns with the overlap between	Para 118.	The Commission NOTED that several CPCs had

WPDCS14 Rec. No.		SC21 Rec. No.	Recommendation adopted / agreed by the SC21	Endorsed at S23	Commission response / suggestions for consideration at WPDCS15
(para. 151)	standards developed by the ROS Expert Workshop and **AGREED** that there was insufficient time during the meeting as well as lack of appropriate expertise to fully review these standards and therefore **RECOMMENDED** this draft be discussed at Commission level.	Para. 174	scientific, compliance and legal issues in relation to the draft programme standards, the SC **RECOMMENDED** that the Commission form an ad hoc technical committee representing the breadth of mandates to specifically address this issue to ensure the relevant expertise is available to discuss scientific and operational aspects of the draft Programme Standards and Guidelines to be presented to the SC and Ccompliance Committee before it is provided to the Commission for endorsement.	Para 119. Para 120.	provided the Secretariat with comments which were used to develop a revised document, although some CPCs expressed their concern that not all their comments had been taken into consideration. The Commission **RECOGNISED** the need to have standards for the IOTC observer scheme, but that the standards for similar schemes being implemented by other tuna RFMOs should also be acceptable to IOTC. The Commission **AGREED** that the standards required for vessels operating under the Western Central Pacific Fisheries Commission (WCPFC) Regional Observer Programme meet IOTC standards, and therefore those CPCs whose observer programs have been already accredited by WCPFC are exempted from the application of the IOTC standards. The Commission **ENDORSED** the IOTC Regional Observer Scheme (ROS) standards in principle in order for the Secretariat to implement the ROS, on the understanding that further comments can be made, and that the standards will be reviewed based on these comments and other feedback made during the implementation phase
WPDCS14.05 (para. 153)	***Proposals for new IOTC ROS data collection and reporting templates*** The WPDCS **RECOMMENDED** the development of minimum standards on EMS for IOTC. The WPDCS further **NOTED** the WCPFC are currently drafting standards on EM and **ACKNOWLEDGED** that it would be pertinent for IOTC to follow this process and utilise the outcomes where relevant.	SC21.26 Para. 168	The SC **RECOMMENDED** the development of minimum standards for EMS (including, for example, cameras) for IOTC. The SC noted that the WCPFC are currently drafting standards on EM and acknowledged that it would be pertinent for the IOTC to follow this process and utilise the outcomes where relevant.		***Update:*** None
WPDCS14.06 (para. 194)	***Revision of the WPDCS Program of work (2019–2023)*** The WPDCS **RECOMMENDED** that the	Page 231	The SC adopted the WPDCS PoW in Appendix 35F.		

WPDCS14 Rec. No.		SC21 Rec. No.	Recommendation adopted / agreed by the SC21	Endorsed at S23	Commission response / suggestions for consideration at WPDCS15
	Scientific Committee consider and endorse the WPDCS Program of Work (2019–2023), as provided at Appendix V.				
WPDCS14.07 (para. 197)	***Date and place of the 15th and 16th sessions of the WPDCS: 2019 & 2020*** The WPDCS **NOTED** that there has been an increase in participation and submission of documents to the WPDCS in recent years. The WPDCS further **NOTED** that the current duration of the meeting (3 days) is not sufficient to facilitate the presentation and discussion of these documents. The WPDCS therefore **RECOMMENDED** that future sessions of the WPDCS be extended to four days.	SC21.25 Para. 166	The SC noted that there has been an increase in participation and submission of documents to the WPDCS in recent years. The SC acknowledged that the current duration of the meeting (3 days) is not sufficient to facilitate the presentation and discussion of these documents. The SC therefore **RECOMMENDED** that future sessions of the WPDCS be extended to four days.		***Update:*** The Commission approved the proposed meeting schedule including a four day meeting for the WPDCS.

WPDCS14 Report	WPDCS14 REQUESTS	Update/Progress
Para. 30	***IOTC Secretariat Report*** The WPDCS **NOTED** that the format of cannery data reported to IOTC Secretariat by ISSF participating companies, used for the verification of nominal catches, are submitted in a number of different formats that are time-consuming for the IOTC Secretariat to process and in some cases as data sets which are sub-optimal (e.g., catches aggregated over several vessels). The WPDCS **REQUESTED** that the IOTC Secretariat liaise with ISSF to develop a standardized format for the submission of the cannery data, facilitate the processing of the data and improve the utility of future analyses	***Update****:* *[pending]* While the importance of this information is well understood by the Scientific Community, lack of resources from the IOTC Secretariat has prevented this standardization exercise to be performed. Cannery data is still regularly received by the IOTC Secretariat and stored – exactly as provided – within the Secretariat's premises.
Para. 36	The WPDCS **REQUESTED** that the IOTC Secretariat liaise with WWF-Pakistan and the Government of Pakistan to resolve the outstanding questions on the reconstructed catches, and that Pakistan provide an update at the next WPDCS meeting	***Update****:* a paper specifically dedicated to clarify the re-estimation process and jointly authored by WWF-Pakistan and FAO / IOTC will be presented at the WPDCS15.
Para. 34	***IOTC Secretariat Report*** **NOTING** that the fisheries detailed above (para. 30) account for a substantial quantity of catches of IOTC species, the WPDCS **REQUESTED** that all of the listed CPCs address the issues identified, and report progress made at the next WPDCS.	***Update****:* *Sri Lanka [pending]* Trialling of EMS onboard six gillnet – longline vessels is currently ongoing. Sri Lanka has further extended the outreach and capabilities of its electronic logbook programme, that now is also used to collect biometric information. *Japan [pending]* Results of a consultancy dealing with revisions of size-frequency data (including information submitted by Japan) is expected for March 2020. *Indonesia [pending]* Catch-and-effort as well as size-frequency data have been provided for the first time in 2019 (reference year 2018) in accordance with Resolution 15/02 requirements for some industrial and coastal fisheries, although the original logbook coverage is still low. *India [pending]* Indian scientists from the Fishery Survey of India and Central Marine Fisheries Research Institute, as well as representatives from the Department of Fisheries of India have been attending the IOTC Working Parties in 2019, and expressed their intention of being engaged with the IOTC process from now on: further discussions on the statistical information available to India and how this could be best provided to the IOTC Secretariat were held during the WPM10 and WPTT21 and follow up data compliance missions are expected during 2020. *Pakistan [pending]*: officially reconstructed catch series are still to be endorsed. The importance of crew-based data collection (to replace "traditional" logbooks, that were never fully implemented in the country) has been reaffirmed also in the context of the ROS, although a proper complementing data collection mechanism has yet to be identified. Issues with biological data collection (size-frequency) still persist.

		Oman [pending]: a data compliance mission in September 2019 confirmed Oman's intention and capability to provide timely and accurate statistical data in the near future (nominal catch as well as catch-and-effort data). Historical biological and operational data (size-frequency data as well as standardized CPUEs) are available at national level and expected to be provided to the IOTC Secretariat during 2020. Oman is considering the possibility to introduce electronic logbooks for some segments of its fisheries (mostly, semi-industrial vessels and dhows fishing using gillnets) and is looking for support and advice on this matter from IOTC / FAO. *Seychelles[pending]*
	Alternative data series	***Update**:*
Para. 42	The WPDCS **ACKNOWLEDGED** the work of the IOTC Secretariat to develop and improve current estimates of catches of Indonesia's fresh longline fleet. **RECOGNIZING** the need for the Secretariat to report a single nominal catch series for each CPC prior to the IOTC Working Parties, the WPDCS **AGREED** that the catch series provided by the Secretariat is likely the best available information on Indonesian fresh longline catches at present and **REQUESTED** that the possibility of revisions for years prior to 2014 be explored in order to ensure consistency in the catch trends over the longer time period.	*[pending]* The revised catch series goes back to 2012, therefore any further revision attempt should focus on years before 2012.
Para 43	The WPDCS **ENDORSED** the current methodology developed by the Secretariat to produce the new catch series for scientific use and **REQUESTED** that this methodology be subject to frequent review so as to provide the best available information, given the on-going uncertainties with the quality of Indonesia's official statistics.	*[pending]* No updates to the methodology since 2018.
Para 44	The WPDCS **NOTED** that the uncertainty inherent in the catch series estimation process is not adequately captured and **REQUESTED** the IOTC Secretariat to facilitate the provision – upon request – of official catches, alternative and revised catch series to the stock assessment scientists where the impact of these could be of particular relevance.	*[pending]* No specific request on this matter was addressed to the IOTC Secretariat in 2019, therefore all concerned working parties (WPB, WPNT, WPTmT and WPTT) were using the currently endorsed revision to Indonesia catch series presented in 2018.
Para 46	The WPDCS **REQUESTED** Indonesia to further investigate these issues as a priority, as the number of active vessels is one of the key elements used to reconstruct catches for Indonesia, and to provide an update at the next meeting of the WPDCS.	*[pending]* Indonesia to provide updates, if any.
Para 47	In terms of the inconsistencies between vessel positions from logbooks and VMS, the WPDCS **NOTED** that Indonesian VMS data have been officially released in the public domain in collaboration with Global Fishing Watch and **REQUESTED** that the IOTC Secretariat liaise with Indonesia to access detailed spatial information to address the question of the number of fresh longliners in operation in recent years in	*[pending]* As of November 2019, Indonesian VMS data has not yet been released to the public (in the context of the Global Fishing Watch initiative).

Para 48	line with the data confidentiality rules set out in IOTC Resolution 12/02. The WPDCS also **NOTED** the changes to the Taiwanese small-scale longline fleet, including increases in the average catches per vessel (from 101 tons per year in 2013 to 174 tons per year in 2016) and also changes in the species composition, notably increases in the proportions of swordfish, and **REQUESTED** that Taiwan,China, in collaboration with IOTC Secretariat, revise the catches for small-scale longliners for years prior to 2014 to ensure consistency in the historical catch series.	*[pending]* Taiwan,China and Indonesia to provide updates, if any. No catch for small-scale (fresh) tuna longliners was received from Taiwan,China for years prior to 2014.
Para. 59	***Iran's essential measures to improve catch & effort data*** The WPDCS **ACKNOWLEDGED** the recent improvements in the reporting of time-area catches by I.R. Iran, with the assistance of the IOTC Secretariat, and **REQUESTED** that the IOTC Secretariat continue to provide support to I.R. Iran in terms of submission of time-area catches for the historical years	***Update****:* the Iranian Catch-and-Effort data from 2007 onwards have been successfully incorporated in the IOTC database. Further support from the IOTC Secretariat is expected to clarify: 1) the reason for a complete lack of bigeye tuna recorded in the catch-and-effort dataset (while captures for the species are regularly available in the nominal catch dataset), 2) a better spatialization of efforts / catches recorded in offshore waters / high seas, that would be particularly important to support the estimation of Yellowfin tuna captures subject to Resolution 18/01 (superseded by 19/01)
Para. 102	***Biometric and allometric relationships for large pelagic species collected in Reunion Island: contribution to an IOTC database*** The WPDCS **CONSIDERED** the utility of developing a common database to store Indian Ocean specific biological information, but **REQUESTED** further details on the kinds of information that should be included, and who should be assigned responsibility of the collation and maintenance of a common database	***Update****:* *[pending]* Similar information to what requested here was also collected by other fleets and provided to the IOTC Secretariat as part of the regular ROS data submissions. The idea of building a common database of IOTC Species biological information is largely supported by the Scientific Community, yet before proceeding with its implementation, it should be evaluated whether or not such a common database could potentially overlap in extent with the ROS database. No further discussions on the responsibility of collating and maintaining the information were undertaken.
Para. 110 Para 111 Para 113	***Resolution 17/05 On the conservation of sharks caught in association with fisheries managed by IOTC*** As such, the WPDCS **REQUESTED** that the Secretariat extracts the recommendations that are relevant to the second point and make them available to the WPEB in 2019. The WPDCS subsequently **REQUESTED** that the WPEB discuss these extracted recommendations during their meeting in 2019 and provide feedback as to which could be endorsed by the SC, providing any additional comment, input or recommendations as necessary. For the latter scenario, the WPDCS **ACKNOWLEDGED** that fin identification tools are required to verify the fins and it was **NOTED** that these tools already exist (FAO iSharkFin). The WPDCS therefore **REQUESTED** that these be reviewed and	***Update****:* At its 15th session, the WPEB RECOMMENDED that *"several initiatives be implemented to address this problem, including (i) holding regional workshops to improve shark species identification, shark data sampling and collection (fisheries and biological) and IOTC data reporting requirements. (ii) data mining to fill historical data gaps (iii) develop alternative tools to improve species identification (genetic analyses, machine learning, and artificial intelligence)*" (see para. 14 of the WPEB15 report). Furthermore, the WPEB noted the development of FishIDER, (Fish Identification Database & Educational Resource - www.fishider.org) a freely available, multilingual tool to assist with identification of fisheries resources in Indonesia as well as providing a learning platform for users that includes images of species in the condition that data collectors will be encountering at landing sites or fish markets. FishIDER authors expressed the idea of extending the platform more broadly in the Indian Ocean region as well as of investigating Artificial Intelligence

	made available to help improve species identification.	technology to facilitate the species identification process.
Para. 120 Para 121	***Resolution 18/08 Procedures on a fish aggregating devices (FADs) management plan, including a limitation on the number of FADs, more detailed specifications of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species*** Therefore, the WPDCS **REQUESTED** that harmonization of terminology and data collection / reporting requirements for FOB and instrumented buoys is considered for inclusion as one of the topics to be addressed during the agenda of the forthcoming joint tuna RFMOs FAD working group. The WPDCS also **REQUESTED** that outcomes from this working group be considered and further discussed by the IOTC Secretariat and the scientific community to help the WPDCS identify potential actions to improve and rationalize IOTC FOB and instrumented buoys terminology and data collection / reporting requirements and fully enable a science-based approach to FOB management.	***Update****: [pending]* The need of harmonizing and improving FOB categories as well as FOB activities has been re-iterated at the WPTT21 (see para. 244-245 of the WPTT21 report). For this reason, the WPTT RECOMMENDED (see para. 260 of the WPTT21 report) that the IOTC FAD Working Group be reactivated with a clear mandate to discuss FAD-related issues.
Para. 191	***Best Practices for (Meta)Data Access and Visualization*** The WPDCS also **NOTED** that the Secretariat is working to take inventory of the confidential assets currently under its management as well as the types of requests for access that have been received in recent years, and is also in the process of providing updated guidelines on information confidentiality and access to sensitive resources. Therefore, the WPDCS **REQUESTED** that the Secretariat table a report on the outcomes of this work at its meeting in 2019.	***Update****: [pending]* A relatively limited amount of requests to access several confidential information held by the Secretariat has been received in recent years, yet in almost all circumstances (bar one – see the Birdlife incident) the provided information was explicitly aggregated according to Resolution 12/02 criteria. The list of requests falling under the latter category includes: access to aggregated ROS data (prior to their dissemination during the WPEB15 in 2019) and to raised catch data for the five major IOTC species, as well as access to raw and unpublished ROS data that is still being evaluated. Guidelines on information confidentiality and access to sensitive resources have not yet been updated.
Para. 198	***Date and place of the 15th and 16th Sessions of the WPDCS: 2019 & 2020*** The WPDCS **REQUESTED** that the IOTC Secretariat liaise with CPCs to determine the host country for the 15th and 16th sessions of the WPDCS respectively	***Update***: *[partially completed]* The 15th session of the WPDCS is going to be held in Karachi, Pakistan. No country has yet expressed the intention of hosting the 16th session of the WPDCS in 2020.