

IOTC DATA SECTION ACTIVITIES AND PROGRESS MADE ON THE RECOMMENDATIONS FROM WPDCS

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Introduction

A key function of the IOTC is to gather, analyse and disseminate scientific information, catch and effort statistics, and other data relevant to the conservation and management of the IOTC stocks and the fisheries dependent on them. Following Article XI of the [Agreement](#) for the establishment of the IOTC, the CPCs are required to collect and report fisheries data in accordance with the CMMs (see document [IOTC-2024-WPDCS20-05](#)).

This paper provides an overview of the Data Section's activities for the year 2024, including updates on data-related requests from other Working Parties and progress on recommendations from the previous WPDCS (see [IOTC-2023-WPDCS19-R](#)). As part of its activities, the Secretariat provides technical assistance and support to the CPCs to enhance their capacity to report fisheries data in compliance with the CMMs. This encompasses direct requests for assistance from CPCs, as well as the identification of outstanding issues related to data collection, processing, and reporting of fisheries data that need to be addressed, which are incorporated into the programme of work and priorities set by the WPs and the SC

Data Section Activities

The Data Section of the IOTC Secretariat carries out various activities aimed at improving the quality of data reported by CPCs, with a major focus on coastal fisheries. These activities primarily involve the CPCs and other organisations interested in IOTC data (e.g., FAO, NGOs, Universities). In cases where the Secretariat observes consistent issues in data availability and quality from a CPC, it will request closer collaboration with the CPC to address and improve the data collection and reporting processes.

In 2024, the Data Section participated in 15 major activities, categorised into technical support, workshops, and external meetings. These activities took place through in-country missions, webinars, or meetings with CPC representatives at the Secretariat headquarters (**Table 1**).

Tab. 1. Summary of Data Section activities in 2024

Category	Country / CPC	Mode	Dates
Technical Support Mission	Tanzania	In Country	26 Feb-1 Mar 2024
	Bangladesh	In Country	17-22 Mar 2024
Capacity Building Workshop	Thailand	In Country	15-18 Apr 2024
Technical Support Mission	Indonesia	In Country	19-26 Apr 2024
	Mozambique	In Country	3-8 May 2024
Capacity Building Workshop	Kenya	In Country	27-30 May 2024
External Meeting	EU RCG on Large Pelagics	Online	24-26 Jun 2024
	Open ASFA Working Group	Virtual	3 Jul 2024
	Seychelles International Fisheries Workshop	Seychelles	19 Jul 2024
Technical meeting	Oman	IOTC Secretariat	29-30 Jul 2024
External Meeting	G16 International Fisheries Workshop	Online	22-26 Jul 2024
Technical meeting	EU,France	IOTC Secretariat	3 Sep 2024
External Meeting	EU Liaison meeting	Online	24-25 Sep 2024
Technical Support Mission	Indonesia	In Country	15-18 Oct 2024
	Sri Lanka	In Country	30 Oct-4 Nov 2024

Technical Support

Providing support to CPCs is crucial for enhancing the quality of data used for assessments. In 2024, the section conducted seven in-country missions and two technical meetings with CPCs at the Secretariat office. The section also participated in data-related meetings, primarily online, to stay updated on developments across various domains of the fisheries sector. Details of the main activities, categorised by type and date, are provided in [Appendix 1](#).

Meetings at IOTC headquarters

A two-day meeting was held at the Secretariat's headquarters with representatives from Oman's Ministry of Agriculture, Fisheries, and Water Resources to discuss the status of the national fishery data collection and reporting system in relation with tuna resources and IOTC CMMs. During the meeting, the Secretariat was informed that a comprehensive review was planned to assess and possibly improve their data management system. Preliminary results of the review were presented at the 26th session of the WPTT (see document [IOTC-2024-WPTT26-07](#)) and will be discussed during the 20th session of the WPDCS (see document [IOTC-2024-WPDCS20-15](#)).

A meeting was organised with Ifremer to discuss ways to improve data reporting for the coastal fisheries of Mayotte and Réunion, France. While there have been notable improvements in data submissions in recent years, some issues persist, primarily due to the multi-gear nature of small-scale coastal fisheries. Additionally, a comprehensive review of historical data held by the IOTC and Ifremer was planned to enhance and harmonise both data sources.

Mission in Tanzania, February 2024

Tanzania has received support for its data collection and reporting systems over the past two years. The technical mission in 2024 followed up on the mission conducted in 2023. While Tanzania is among the CPCs with relatively low catches of IOTC species from coastal fisheries, its industrial fisheries are expanding. Despite the low catches, the reported data remain inconsistent in terms of species and fisheries, and some datasets are still not being reported.

In 2019, Tanzania launched a pilot project called eCAS, a mobile app enabling data collectors (enumerators or samplers) to record data at landing sites and upload it directly to a central database. During the Secretariat's most recent visit, it was noted that eCAS has been upgraded, expanded to additional landing sites, and developed into a fisheries management platform. While the system is well-suited to small-scale fisheries, it records limited information on tuna fisheries. Furthermore, it is designed exclusively for coastal fisheries and does not cover industrial fisheries, which are expected to use logbooks for data collection.

Conflicting information is often found between different reported datasets. For instance, Tanzania's shark data include both data collected by samplers and data provided by the Wildlife Conservation Society (WCS), which is also collaborating with the Tanzanian government on the National Plan of Action (NPOA) for sharks and rays.

During the 2024 mission, the Secretariat learned that Tanzania plans to conduct a frame survey and undertake a comprehensive revision of its data collection system. A key objective of the mission was to train data reporting officers to enhance the quality of their submissions by addressing errors in previous reports. The training covered techniques for extracting, compiling, and incorporating the required data into the updated reporting forms. As the Secretariat is developing new reporting tools, the training emphasised their effective use.

The recommendations from the mission were as follows:

- Consolidate data available from the WCS with sample data on sharks and rays and raise the total catch figures reported to the Secretariat
- Integrate data reporting requirements for tuna and tuna-like species into the Fisheries Information Platforms (FiPs)
- Conduct a comprehensive assessment and re-estimation of coastal fisheries catch data for previous years
- Follow up with industrial fisheries companies to ensure the timely submission of required data in accordance with reporting guidelines.

Mission in Bangladesh, March 2024

The technical mission to Bangladesh was conducted following a request for technical support in implementing IOTC CMMs related to statistical data requirements. As one of the newest IOTC members, the mission involved meetings with various officers across multiple locations engaged in data collection. Additionally, landing sites were visited to better understand the structure of Bangladeshi fisheries. During the mission, Secretariat officers gained knowledge of the data collection and reporting systems in Bangladesh, particularly those managed by the Marine Fisheries Survey Management Unit (MFSMU). MFSMU oversees a variety of fisheries assessment activities, including stock assessments for various species, vessel-based surveys, land-based surveys, data management and reporting, analysis of both fishery-dependent and fishery-independent data, and preparation of materials for various meetings, including IOTC scientific sessions.

However, due to the nature of the fisheries, Bangladesh faces several challenges in its data collection system, which hinder the reporting of accurate data. These challenges include:

- Insufficient manpower for future data collection efforts
- Inadequate, inappropriate, or partial data from certain districts (upazilas)

- Lack of budget and logistical support in upazilas for data collection
- Misinterpretation of data collection forms.

The outcomes and recommendations from the mission were as follows:

- The Secretariat gained a better understanding of the institutions involved in fisheries monitoring and management, including technical staff and various infrastructures
- The main fisheries targeting tuna and tuna-like species include gillnets, set bag nets, and mid-water trawlers, with several species not currently reported to the Secretariat
- The Sustainable Coastal and Marine Fisheries Project (SCMFP) has helped improve the data collection system, resulting in large variability in the reported catches in recent years. This suggests that previous data available to the Secretariat and FAO may have been underestimated
- Support Bangladesh in adopting the new IOTC reporting forms
- Bangladesh needs to estimate catches based on the calendar year rather than the fiscal year
- Follow up on the status of industrial trawlers to determine whether they should be listed under the RAV (Record of Authorised Vessels)
- Promote the use of the Calipseo platform to the Department of Fisheries (DOF) as an appropriate tool for managing data collection and reporting for tuna and tuna-like species.

Missions in Indonesia, April and October 2024

Indonesia's catches are highly significant in the Indian Ocean, with substantial landings of several IOTC species. However, the complexity of Indonesian fisheries has hindered the collection of accurate fisheries data, resulting in poor quality reporting. In 2024, the Secretariat held several webinars with Indonesia, as well as two in-person missions. The technical support provided to Indonesia focused on re-estimating the catch data for both coastal and industrial fisheries. This is necessary because: (i) all fisheries operate within the National Jurisdiction Area (NJA), (ii) retained catches are estimated broadly for all fisheries, (iii) changes in the catch data of one fishery category affect all other fisheries, and (iv) any modifications to estimation strategies in particular years can lead to inconsistencies in other years. The 2024 missions were prompted by data presented during WPDCS19, which revealed several inconsistencies likely due to gaps in the data collection and/or processing systems over time.

The missions in Indonesia involved reviewing the approach used to address issues identified in the historical catch estimates. It also aimed at developing a methodology for re-estimating catches prior to 2010. During the mission, the Secretariat reviewed the format used for re-estimation, the level of coverage for landing data from logbooks and manual data collection, and the fleet structure used to categorize fisheries. This exercise was hindered by limited historical data collection, scattered repositories, and inconsistencies in data processing.

Indonesia will provide feedback to the WPDCS on the progress made on the re-estimation of the historical catch (see document [IOTC-2024-WPDCS20-16](#)).

Mission in Mozambique, May 2024

The mission to Mozambique was conducted following a request for technical assistance to enhance their statistical capabilities and optimize the use of electronic platforms for data submission. This support aims to address the challenges Mozambique faces in fully meeting the data reporting requirements. The last technical data mission in Mozambique was in 2016, which led to some improvements in data reporting. However, in recent years, the quality of the reports from Mozambique has deteriorated, which is concerning, especially as Mozambique is chartering industrial vessels without a clear understanding of the reporting requirements.

The focus of the mission was to review Mozambique's fisheries data collection and processing systems. Prior to the in-person mission, a preliminary webinar was held with fisheries officers involved in data processing. The meetings revealed several challenges that hinder accurate data reporting.

Mozambique established a taskforce consisting of statistical officers, scientists, and managers from various fisheries departments and institutions to address IOTC reporting requirements, including data submission. Fisheries in Mozambique vary by fishing technique and region, and not all fisheries target tuna and tuna-like species. As a coastal state with vast marine areas, fish consumption is vital for local communities, but tuna species account for only a small percentage of total landings. The limited contribution of tuna fisheries means there is less resources on data collection for tuna and tuna-like species. Like other countries, Mozambique is working toward e-collection of data from landing sites.

Currently, data collection is done by enumerators using paper forms, which are then entered into a database system. With the support of other institutions, Mozambique is trying to adopt a common data collection system used by several countries, [OPEN ARTFISH](#), to improve the digitalization of artisanal fisheries. However, Open ArTfish has limitations in the types of data it collects and processes, particularly in biological sampling data. To compensate for the lack of biological data, the fisheries department relies on the Oceanographic Institute of Mozambique (InOM).

Although Mozambique uses the reporting forms to submit data, the reports are often incomplete and lack key information. Secretariat officers also conducted training for local officers on how to properly fill in the IOTC forms, particularly focusing on the main data reporting requirements such as retained catches, catch and effort, and size frequency. Since Mozambique also has industrial fisheries (both purse seine and longline), the training also covered data reporting for these fisheries. However, it was challenging to fully complete the forms, as the databases lack some of the essential data for coastal fisheries. Furthermore, the fisheries department is not receiving all required information from the industrial fisheries companies.

The following outcomes and recommendations were outlined:

- The Secretariat gained a comprehensive understanding of the institutions involved in the management and monitoring of fisheries in Mozambique, covering the main sectors of the fisheries industry and their respective data collection systems.
- The progress being made to updates on the ongoing database management platform, with the potential integration of a mobile app for data collection
- Follow-up with Mozambique on the use of various data reporting tools and how these tools can enhance their reporting obligations
- Encourage Mozambique to participate more actively in IOTC scientific meetings and upcoming regional training on species identification to improve the accuracy of size frequency data reporting.

Mission in Sri Lanka, September 2024

The Secretariat conducted a support mission in Sri Lanka to assist fisheries officers in understanding the new reporting processes and using the new IOTC reporting tools and updated template forms. In addition to improving data reporting, the mission included assessing the status of the Electronic Monitoring (EM) pilot project in Sri Lanka and reviewing gillnet fisheries data collection for CPUE analysis, with the support of IOTC consultant Dr. Paul Medley.

The main outcomes and recommendations of the mission were as follows:

- The Secretariat gained an insight of Sri Lanka's data collection and processing systems, managed by the Department of Fisheries and Aquatic Resources ([DFAR](#)) and of the National Aquatic Resource Research and Development Agency ([NARA](#))

- The Secretariat reviewed Sri Lanka's historical data on tuna and tuna-like species with the aim of improving the accuracy of previously reported data
- Sri Lanka will collaborate with the IOTC consultant to extend the CPUE analysis for developing abundance indices, which will complement those used for the assessments of skipjack and yellowfin tuna
- Sri Lanka aims to continue assessing the interest of EM to monitor their offshore fisheries. This will require to develop and use cost-effective, reliable materials as well as the creation of AI-based methods to support EM data review.

Data Reporting Workshops

In 2024, the Data Section of the Secretariat conducted two regional data reporting workshops aimed at familiarizing the CPCs with the newly implemented data reporting system. The workshops were held in two regions:

- [Eastern Regional Reporting Workshop](#): Held in Thailand from April 15 to 18, 2024, with 12 participants from eight countries: China, Indonesia, Malaysia, Maldives, Pakistan, Sri Lanka, Philippines, and Thailand.
- [Western Regional Reporting Workshop](#): Held in Kenya from May 27 to 30, 2024, with 17 participants from 12 countries: Comoros, European Union, Islamic Republic of Iran, Kenya, Madagascar, Mozambique, Oman, Seychelles, Somalia, Tanzania, Bangladesh, and India.

The workshops the different aspects of the data reporting flow:

- [New Data Reporting Forms](#): Excel spreadsheets with separate worksheets for metadata and data reporting
- [Reference Data Catalogue](#): A comprehensive list of codes used for reporting fisheries data, accessible on the website, with descriptions of each code
- [Fisheries Identification Wizard](#): A tool to assist CPCs in defining fishery codes based on the characteristics of each fishery
- [Data Reporting Guidelines](#): An online document outlining the reporting requirements for each dataset
- [Data Validators](#): A tool for CPCs to validate data before submission to the Secretariat.
- [Spatial Reference Layers](#): Guidelines to define the spatial areas of fishing for each CPC.

Participants in both workshops were highly engaged and provided valuable recommendations and proposals for improving the new reporting system. The Secretariat also identified some limitations, particularly with the codes describing fisheries and fishing effort.

Data Requests from Scientific Meetings

To improve the quality and availability of data for stock assessments of IOTC species, the Working Parties made specific requests to the WPDCS to provide or improve certain data. In many instances, this involves liaising directly with CPCs to fulfil these requests. The Data Section occasionally needs to initiate specific projects or develop specialised formats to request data. However, not all CPCs are willing to provide the required information. In addition to the Working Parties, the SC may also submit follow-up requests to the WPDCS. During the most recent SC session and subsequent Working Parties, 16 data-related requests were made (see [Appendix 2](#)).

Progress Made on the Recommendations from WPDCS19

During the WPDCS19, seven recommendations were made to the SC20. Some of these recommendations were endorsed by the SC, while others were forwarded to the Commission (S28) for further approval. [Appendix 3](#) lists the recommendations with reviews of the progress made, and, where applicable, proposes alternative recommendations for the participants to endorse.

Conclusions

The recommendations from the WPDCS19 meeting were thoroughly reviewed by SC26, with most being endorsed or sent for further consideration by S28. While careful attention was given to the new data reporting forms, some CPCs did not approve the transition during S28. However, with additional training provided to individual CPCs, the Secretariat expects that all CPCs will successfully transition to the new system. The intersessional working group established to define the ROS data fields was pivotal, and SC26 endorsed this initiative, with outcomes to be presented at WPDCS20.

Requests made to WPDCS from various working parties primarily focused on the Secretariat collaborating closely with CPCs to review and improve data collection practices.

In 2024, the data section carried out several activities, particularly capacity-building efforts, aimed at improving the quality of data reporting. Notably, many capacity-building missions required follow-up actions to monitor the progress made by the CPCs. CPCs such as Indonesia, with complex fisheries, require continuous support, while for coastal African countries, where tuna fisheries are not as prominent are challenging, as limited efforts and resources are allocated to improving data collection practices.

Appendix I: Main Activities related of the Data Section carried out in 2024

Category	Country / CPC	Dates	Executing agencies / staff	Mode	Description of activities
Technical Support Mission	Tanzania	26 Feb-1 Mar 2024	IOTC Fishery Officer; IOTC Data Assistant	In Country	Assess the progress made following the recommendations of the mission conducted by the Secretariat in July 2023 Review the Fisheries Information Platforms in use and their integration to fill in data reporting gaps Evaluate the best approach to harmonise the time series of historical Tanzanian catches and efforts
	Bangladesh	17-22 Mar 2024	IOTC Fishery Officer; IOTC Fisheries Statistician	In Country	Assess the status of the data collection and reporting systems in place Have a better understanding of the fisheries that catch tuna and tuna-like species in Bangladesh Provide technical advice to improve the collection and reporting of data to the IOTC
Capacity Building Workshop	Thailand	15-18 Apr 2024	IOTC Fishery Officer; IOTC Data Assistant; IOTC Fisheries Statistician; 12 participants from China, Indonesia, Malaysia, Maldives, Pakistan, Sri Lanka, Philippines, and Thailand.	In Country	Capacity Building Workshop (Eastern Indian Ocean) to assist CPCs in effectively formatting and reporting fisheries data to the Secretariat in accordance with IOTC data reporting requirements
Technical Support Mission	Indonesia	19-26 Apr 2024	IOTC Fisheries statistician; IOTC Data Assistant	In Country	Continuation of the previous remote / in person meetings held in 2021, 2022, and 2023 to discuss the current state-of-the-art in terms of re-estimation procedures for Indonesia's annual catches Review the approach used by Indonesia to address the issues in historical catch estimates Provide feedback and technical assistance on the method, with a major focus on coastal fisheries Develop a methodology to re-estimate the catches of all fisheries for the period prior to 2010 to have a continuity in the time series of catch
	Mozambique	3-8 May 2024	IOTC Fishery Officer; IOTC Data Assistant	In Country	Assess the status of the existing data collection and reporting systems, to better understand the fisheries targeting tuna and tuna-like species in Mozambique Provide technical advice to improve data collection and reporting to the IOTC Give an overview of data reporting requirements to the IOTC and present the tools recently developed by the Secretariat to assist in data submission
Capacity Building Workshop	Kenya	27-30 May 2024	IOTC Fishery Officer; IOTC Data Assistant; IOTC Fisheries Statistician; 17 participants from Comoros, European Union, I.R. Iran, Kenya, Madagascar, Mozambique, Oman, Seychelles, Somalia, and Tanzania, Bangladesh, and India.	In Country	Capacity Building Workshop (Western Indian Ocean) to assist CPCs in effectively formatting and reporting fisheries data to the Secretariat in accordance with IOTC data reporting requirements

Category	Country / CPC	Dates	Executing agencies / staff	Mode	Description of activities
External Meeting	Annual meeting of the EU RCG on Large Pelagics	24-26 Jun 2024	IOTC Fisheries Statistician	Online	Presentation of a summary on data needs and gaps regarding large pelagic data in the IOTC, with a summary of EU data reporting status
	Open ASFA (Aquatic Sciences and Fisheries Abstracts) Working Group	3 Jul 2024	IOTC Fishery Officer; IOTC Data Assistant	Online	Revision of the ASFA terms of reference, updates and collaboration with partners
	Seychelles International Fisheries Workshop	19 Jul 2024	IOTC Fisheries Statistician	Seychelles	Overview presentation on IOTC mandate, functioning, fisheries, and data reporting obligations and workflow
Technical meeting	Oman	29-30 Jul 2024	IOTC Fishery Officer; IOTC Data Assistant; Ministry of Agriculture and Fisheries of Oman	IOTC HQ	Overview of Oman's fishery statistics system and catch estimation methodology for Omani artisanal fisheries, and discussions on review project of data sampling and processing procedures, with a focus on yellowfin tuna
External Meeting	G16 International Fisheries Workshop (Dubai, UAE)	22-26 Jul 2024	IOTC Fishery Officer; IOTC Data Assistant	Online	General presentation on IOTC mandate, functioning, and activities related to science, compliance, and data collation and management
Technical meeting	EU,France	3 Sep 2024	IOTC Fisheries Statistician; IOTC Data Assistant; Dr. Sylvain Bonhommeau (Ifremer)	IOTC HQ	Review of the data status and gaps for the coastal fisheries of Reunion and Mayotte (EU,France) to revise and harmonise historical catch and effort data and improve future data submissions
External Meeting	EU Liaison meeting	24-25 Sep 2024	IOTC Fishery Officer	Online	Overview presentation on the status of the statistical data available at the Secretariat for EU fisheries, including identification of issues and improvement prospects
Technical Support Mission	Indonesia	15-18 Oct 2024	IOTC Fisheries Statistician	In Country	Review and finalisation of the work on historical catch estimation of Indonesian tuna fisheries covering the period 1950-2022
	Sri Lanka	30 Oct-4 Nov 2024	IOTC data assistant; IOTC Fisheries statistician	In Country	Assess the status of the fisheries of Sri Lanka in the context of IOTC data requirements. Work would also focus on the transition to the new IOTC forms for reporting data to the Secretariat Evaluate the availability of fisheries data for deriving indices of abundance from gillnet CPUE time series as requested by the SC26 and S28 Assess the status of the EM project and determine which support could be provided by the Secretariat for its continuation

Appendix II: Data-Related Requests from Other Meetings

Meeting	Para	Description
SC26	30	The SC ACKNOWLEDGED the sudden and steady increase in catches of yellowfin tuna reported for the handline fishery of Oman since 2014, despite constant effort trends and REQUESTED further explanations on the matter. The SC QUERIED whether issues with species identification between longtail tuna and yellowfin tuna could be one of the driving factors
	146	ACKNOWLEDGING that Res. 23/08 requires the revision of the ROS data fields, the SC ENDORSED the request of setting up an intersessional working group (either by correspondence, or remotely) convening interested WPDCS and WGEMS participants to discuss and review: <ul style="list-style-type: none"> a) The scientific need for each ROS data field (as proposed by the ROS expert workshop of 2018) b) The status (mandatory / mandatory when feasible / optional) of each ROS data field c) The possibility of adding EMS-specific elements to the list of ROS mandatory data fields d) The inclusion of proper mechanisms / classifications, within the ROS data fields, to better capture details on fins naturally attached to sharks e) The summary of capabilities, advantages, and drawbacks of collecting ROS data fields through alternative methods such as EMS, human onboard observers, port-sampling, self-reporting, etc. (as well as a combination of these). and REQUESTED that this group reports to the next session of the WGEMS and WPDCS
WPEB20_DP	81	The WPEB NOTED that the level of catches presented do not contain data on discards reported through form 1DI by some CPCs. NOTING that Resolution 15/02 currently requires CPCs to report estimates of total catch by species, separated whenever possible into retained catches and discards, the WPEB NOTED that discard data are very seldom reported to the Secretariat and are usually not raised to the total catch. Therefore, the WPEB REQUESTED CPCs to fully comply with Resolutions 15/01 and 15/02 to ensure reporting of scientific estimates of discards for IOTC species as well as the most commonly caught sharks (as listed in Resolution 15/01 for longline fisheries), and that details on the estimation methods should be provided to the Scientific Committee
WGEMS03	34	The WGEMS NOTED that there was insufficient time to extract information about the coverage of pole and line fisheries from the observer database but further NOTED that the Secretariat intends to complete the work including this fleet as soon as possible. The WGEMS REQUESTED the Secretariat to present an update document including the pole and line at the WPDCS
	35	The WGEMS NOTED that this document provides a summary of the data currently available in the ROS database but further NOTED that the Secretariat has received more data than is currently available in the ROS database but many of these data have been submitted in formats that cannot easily be input into the database such as in pdf format or aggregated over several trips. The WGEMS NOTED that many CPCs have been improving their submissions in recent years, with more using the required formats so these will be input into the database and there is hope that some will resubmit past data in suitable formats so they can also be included in the analysis
	36	The WGEMS NOTED the intention of the Secretariat to repeat this exercise routinely in an automated way to better monitor the contents of the ROS database. The WGEMS REQUESTED the Secretariat to continue with this work
	31	The WGEMS NOTED that geo-referenced catch, effort, and size-frequency data have been collected in Pakistan for the year 2022 but not yet transmitted to the Secretariat due to administrative issues. The WGEMS URGED Pakistan to report the data at their earliest convenience
WPNT14	11	The WPNT REITERATED its REQUEST for CPCs to report size and weight data for neritic (and all) species, to the Secretariat. The WPNT NOTED that the Secretariat has been working to harmonise the code lists for different length types which necessitates each fish to be identified with its corresponding length and weight measurements. This effort aims to streamline the reporting process for these data

Meeting	Para	Description
WPB22	42	ACKNOWLEDGING the importance of morphometric relationships in harmonising size-frequency data collected using different measurement types for billfish, due to varying dressing procedures, the WPB REQUESTED the Secretariat to develop a new voluntary form for reporting individual morphometric data, to enhance the IOTC reference morphometric relationships
WPEB20(AS)	12	The WPEB REITERATED the importance of the recommendation made by the group in 2023: "ACKNOWLEDGING that the current ROS data requirements already enable the recording of shark fins attached / non-attached to carcasses, the WPEB RECOMMENDED that the SC identifies proper mechanisms to ensure this information is regularly collected and reported to the Secretariat through the ROS." The WPEB REQUESTED that this is discussed by the WPDCS at its meeting later this year as this may be a more appropriate forum for this discussion
	20	The WPEB RECALLED that the information on total catch for those CPCs who do not report their catch (e.g., Yemen) is either repeated from the previous years, or recovered from other data sources that include, among others, FAO official catch statistics which are also known to be incomplete and are not available by fishing gear/fishery. The WPEB REQUESTED the Secretariat to consult with the relevant CPCs whenever utilising alternative sources of data for fulfilling the non-reported components or modifying the reported catch
	51	The WPEB REQUESTED that the WPDCS and WGEMS note the study presented by the authors (IOTC-2024-WPEB20(AS)-14), and REQUESTED assistance from the WGEMS for collecting information related to the current status of AI-based species identification
	54	ACKNOWLEDGING that this initiative would encompass a broader scope than that addressed by the WPEB, the WPEB REQUESTED the WPDCS to explore ways to establish collaboration across t-RFMOs and with other interested organizations. The goal is to compile images for developing these tools, including the formulation of Terms of Reference and a work plan for initial activities
	152	The WPEB NOTED that mainline material is consistently being submitted by CPCs in their ROS data. The WPEB NOTED that the ROS minimum data requirements are currently under revision by the WGEMS/WPDCS and that the current working draft review for longline vessels suggested that collecting detailed branchline configuration information should be "mandatory" at the trip level, however, branchline materials and leader materials for catches of sensitive species should be "mandatory" but this should include the possibility to record this information as "unknown" due to the practical difficulties of collecting this information both by onboard human observers and by EMS. The WPEB further NOTED that collecting data on leader material for each fishing set as part of the ROS remains "optional" and includes the possibility of recording this information as "unknown" due to the practical difficulties of collecting this information both by onboard human observers and by EMS. The WPEB NOTED that these points will be further discussed at the WPDCS and the WPEB REQUESTED that the WPDCS consider these recommendations in their discussions
	162	The WPEB REQUESTED the WPDCS to examine the online digital atlas project to receive additional feedback to what has been expressed by the WPEB, in order to design a consolidated project to be presented at SC27

Appendix III: Progress made on WPDCS19 recommendations

Section	WPDCS	Recommendation	SC	Scientific Committee follow-up	COM	Commission follow-up
Data reporting	WPDCS19.01 (para. 38)	The WPDCS RECALLED the RECOMMENDATION made at SC25 that “the Commission ENDORSE the mandatory reporting of fishing craft statistics and that this change is included in the next revision of Res. 15/02”, further RECALLING that the Commission ENDORSED the Scientific Committee’s 2022 list of recommendations as its own. Therefore, the WPDCS REITERATED the importance of this issue and NOTED that it has not yet been addressed and therefore should be brought to the attention of the Commission again in 2024	SC26.20 (para. 138)	Updates: The SC ACKNOWLEDGED the request to clarify the issues with data reporting requirements identified with Res. 12/02 and 19/07, as well as the request to change the status of reporting of fishing craft statistics from voluntary to mandatory in Res. 15/02 and RECOMMENDED that the Commission takes these requests in due consideration at the next revision of all concerned resolutions	S28 (para. 33)	Update: The Commission NOTED that in 2023, the SC endorsed new data reporting forms to enhance clarity and to facilitate the reporting of mandatory fishery statistics as per Resolutions 15/01 and 15/02. The Commission NOTED two regional workshops have been organized in 2024 to train CPCs in using the new forms. The Commission NOTED that adaptation to the new reporting forms may require time and AGREED that implementation should start in 2025
	WPDCS19.02 (para. 101)	Data reporting (to the IOTC Secretariat) Following the discussions and endorsements on data-reporting aspects discussed so far, the WPDCS RECOMMENDED that the Scientific Committee: a) endorse the proposed updates to the IOTC data submission processes, and namely: <ul style="list-style-type: none"> the introduction of Form 3-DA / 3-DA-multiple for the reporting of detailed activities on drifting FOBs the introduction of Form 3-AA / 3-AA-multiple for the reporting of detailed activities on AFADs the decommissioning of the old, recommended forms 3-AR, 3-FA, 3-SU, and 1-RC-YFT that the ad interim data reporting workflow and the accompanying electronic tools and formats (interactive validators, ad interim forms, etc.) become mandatory for the submission of statistical fisheries data to the IOTC starting with the 2024 reporting cycle (deadline of 30 June 2024) that the study on the matrix approach for the characterisation of IOTC fisheries is further extended to cover all IOTC coastal nations and their fisheries, and that outputs of 	SC26.23 (para. 137)	Updates: The SC ACKNOWLEDGED the request to clarify the issues with data reporting requirements identified with Res. 12/02 and 19/07, as well as the request to change the status of reporting of fishing craft statistics from voluntary to mandatory in Res. 15/02 and RECOMMENDED that the Commission takes these requests in due consideration at the next revision of all concerned resolutions. Updates: The SC ENDORSED the proposed updates to the IOTC data submission processes, and more specifically: <ol style="list-style-type: none"> the introduction of Form 3-DA and 3-AA the decommissioning of Form 3-AR, 3-FA, 3-SU, and 1-RC-YFT the entry into force of the ad-interim data reporting workflow and supporting tools starting with the 2024 data reporting cycle (i.e., by the deadline of 30 June 2024) that the trial of the FAO matrix approach for the characterisation of IOTC fisheries are extended to cover all Indian Ocean fisheries that ROS data be reported to the 	S28 (para. 28)	Update: The Commission ENDORSED the Scientific Committee’s 2023 list of recommendations as its own

Section	WPDCS	Recommendation	SC	Scientific Committee follow-up	COM	Commission follow-up
		<p>the study are presented to the next session of the meeting</p> <ul style="list-style-type: none"> that ROS data be exclusively submitted through the consolidated ROS Excel data reporting forms or as .ros files, for those CPCs using the ROS electronic data collection tools and b) further clarify the issues identified within Res. 12/02 and 19/07 that have an impact on the collection, reporting, and dissemination of IOTC datasets 		<p>IOTC exclusively through the consolidated ROS Excel data reporting forms or as .ros files produced by the ROS electronic data collection tools</p>		
<p>Data processing</p>	<p>WPDCS19.03 (para. 220)</p>	<p>The WPDCS NOTED the improvements made in the quality of the estimated data (e.g., reduction in volatility for some species such as bullet tuna and blue shark) and ACKNOWLEDGED that the updates of official catches better reflect the status of the catches in Indonesian fisheries as they provide an accurate separation of artisanal and industrial fisheries according to IOTC definitions. Nevertheless, the WPDCS NOTED that there are still issues in some of the species-specific reconstructed historical time-series of catches (2010-2021) that require further analysis: i) large inter-annual fluctuations, ii) discrepancies in scaling, and iii) potential errors in the input data used for some years (e.g., 2018). The WPDCS ENCOURAGED Indonesia to identify the root causes explaining the identified issues and seek support from the Secretariat to further progress on their resolution. The WPDCS RECOMMENDED that the SC provide general guidance on addressing the following points:</p> <ul style="list-style-type: none"> - issues of continuity with the historical time series of catch (pre-2010) which might affect the stock assessments and would require some inter-calibration; - current differences between revised official national catch statistics and scientific best estimates used for supporting the IOTC science process and decision-making 	<p>SC26.23 (para. 142)</p>	<p>Update: The SC ACKNOWLEDGED the progresses accomplished by Indonesia in re-estimating their historical catch series from 2010 to 2021, and while ENDORSING the proposed general methodology, NOTED that there still are issues in some of the species-specific reconstructed historical time series such as: significant fluctuations in the revised catch statistics for several species, inconsistent patterns for specific years (e.g., 2018) and issues in continuity and magnitude with the historical catches pre-2010 (Fig. d)</p>	<p>S28 (para. 28)</p>	<p>Update: The Commission ENDORSED the Scientific Committee’s 2023 list of recommendations as its own</p>

Section	WPDCS	Recommendation	SC	Scientific Committee follow-up	COM	Commission follow-up
Data dissemination	WPDCS19.04 (para. 243)	<p>ACKNOWLEDGING the potential benefits of a climate-ocean web portal for the SC and its Working Parties, the WPDCS RECOMMENDED a scoping study into how ocean-climate information (as shown through the initiative of the Seychelles Digital Ocean Atlas as well as the various indicators presented in paper IOTC–2018–WPDCS14–36) could be developed and made available by the IOTC and how this information would be presented to the SC and its working parties. The scoping study should also consider the resources needed to develop online ocean-climate indicators for the IOTC area of competence</p>	SC26.25 (para. 140)	<p>Update: The SC NOTED the status of the digital ocean atlas developed for Seychelles, which provides detailed ocean-climate information, CONSIDERED the resources necessary to develop online indicators for the whole Indian Ocean, and ENDORSED the implementation of a scoping study to further develop all presented indicators, possibly through an online atlas, and devise the most effective ways to present these to the SC and its Working Parties</p>	S28 (para. 28)	Update: The Commission ENDORSED the Scientific Committee’s 2023 list of recommendations as its own
EMS	WPDCS19.05 (para. 284)	<p>The WPDCS RECOMMENDED that an intersessional working group is organised (by correspondence or through online meetings) to convey interested WPDCS and WGEMS participants and review:</p> <ul style="list-style-type: none"> • the scientific need for each ROS data field proposed by the 2018 ROS expert WS; • ROS data fields collection and reporting status (e.g., mandatory/optional, etc.); • potential specific EMS fields to be added to ROS mandatory requirements; and • summarise the capabilities, and advantages and drawbacks to collect ROS data fields across gears by different alternative methods (e.g., EMS, human onboard observers, self-reporting, port sampling) and a combination of those. <p>and further REQUESTED that this group report to the next sessions of the WGEMS and WPDCS</p>	SC26 (para. 146)	<p>Update: ACKNOWLEDGING that Res. 23/08 requires the revision of the ROS data fields, the SC ENDORSED the request of setting up an intersessional working group (either by correspondence, or remotely) convening interested WPDCS and WGEMS participants to discuss and review:</p> <ol style="list-style-type: none"> a) The scientific need for each ROS data field (as proposed by the ROS expert workshop of 2018) b) The status (mandatory / mandatory when feasible / optional) of each ROS data field c) The possibility of adding EMS-specific elements to the list of ROS mandatory data fields d) The inclusion of proper mechanisms / classifications, within the ROS data fields, to better capture details on fins naturally attached to sharks e) The summary of capabilities, advantages, and drawbacks of collecting ROS data fields through alternative methods such as EMS, human onboard observers, port-sampling, self-reporting, etc. (as well as a combination of these). <p>and REQUESTED that this group reports to the next session of the WGEMS and WPDCS</p>		Update: None

Section	WPDCS	Recommendation	SC	Scientific Committee follow-up	COM	Commission follow-up
PoW	WPDCS19.06 (para. 308)	The WPDCS RECOMMENDED that the Scientific Committee consider and endorse the WPDCS Program of Work (2024–2028), as provided at Appendix V	SC26 (para. 182)	Update: The SC NOTED the proposed Program of Work and priorities for the SC and each of the working parties and AGREED to a consolidated Program of Work as outlined in Appendix 35a-g and in accordance with the IOTC Strategic Science Plan 2020-2024. The Chairpersons and Vice-Chairpersons of each working party will ensure that the efforts of their respective working parties are focused on the core areas contained within the appendix, taking into account any new research priorities identified by the Commission at its next Session		Update: None
Report	WPDCS19.07 (para. 316)	The WPDCS RECOMMENDED that the Scientific Committee consider the consolidated set of recommendations arising from WPDCS19, provided at Appendix VI	SC26.38 (para. 196)	Update: The SC RECOMMENDED that the Commission consider the consolidated set of recommendations arising from SC26, provided at Appendix 38	S28 (para. 28)	Update: The Commission ENDORSED the Scientific Committee’s 2023 list of recommendations as its own

