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COORDINATING WORKING PARTY ON FISHERY STATISTICS

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IOTC activities report to CWP

Author: IOTC Secretariat

I. Introduction

The Indian Ocean Tuna Commission ([IOTC](#)) is an intergovernmental organisation responsible for the management of tuna and tuna-like species in the Indian Ocean. Its main objective is to promote cooperation among [Contracting Parties \(Members\) and Cooperating Non-Contracting Parties \(CPCs\)](#), with a view to ensuring, through appropriate management, the conservation and optimum utilisation of stocks covered by the organisation's establishing [Agreement](#) and encouraging sustainable development of fisheries based on such stocks.

The Commission has four key functions and responsibilities which enable it to achieve its objectives. They are drawn from the United Nations Convention on the Law of the Sea (UNCLOS), and are:

- to **keep under review the conditions and trends of the stocks** and to gather, analyse, and disseminate scientific information, catch and effort statistics and other data relevant to the conservation and management of the stocks and to fisheries based on the stocks;
- to encourage, recommend, and **coordinate research and development activities in respect of the stocks and fisheries** covered by the IOTC, and such other activities as the Commission may decide appropriate (such as transfer of technology, training and enhancement) having due regard to the need to ensure the equitable participation of Members of the Commission in the fisheries and the special interests and needs of Members in the region that are developing countries;
- to **adopt – on the basis of scientific evidence – [Conservation and Management Measures \(CMM\)](#)** to ensure the conservation of the stocks covered by the Agreement and to promote the objective of their optimum utilisation throughout the [IOTC Area of competence](#);
- to **keep under review the economic and social aspects of the fisheries** based on the stocks covered by the Agreement bearing in mind, in particular, the interests of developing coastal States.

II. Review of relevant IOTC activities since CWP-26i (2021)

Improvement in the quality and timeliness of statistical data submitted by CPCs

[[SDG 14.4](#)¹] Late or incomplete reporting of the main IOTC statistical data sets (i.e., nominal catches and discards, catch and effort and size-frequency as per [IOTC Resolution 15/02](#)) compromises the data validation and verification process performed by the IOTC Secretariat, affecting the input data for stock assessments and eventually management advice. Several activities aimed at improving both the timeliness and the quality of the reported information have been performed since CWP-26i and include:

1. Development of an approach of “Submission Feedback Reports” aimed at providing summary information on the quality and limits of the data sets submitted to the Secretariat (IOTC 2020);
2. Further revisions of IOTC data reporting templates and guidelines, including a revision of the definition of IOTC fisheries;
3. Ad-hoc support to CPCs transitioning towards more streamlined data collection and reporting processes at national level, to facilitate the reporting of mandatory data according to IOTC requirements;
4. Revision of historical time series for fisheries operating in the IOTC area, in collaboration with national scientists and FAO (e.g., Pakistan gillnet fisheries, Japan longline fisheries, United Arab Emirates);
5. Delivery of remote workshops to discuss the rationale and the procedures implemented by the IOTC Secretariat to estimate artisanal catches for some CPCs, and clarify discrepancies with official sources (e.g., Indonesia);
6. Contribution to the 2020, 2021, and 2022 sessions of the Regional Coordination Group on Large Pelagics (RCG-LP) and EU DCF Liaison Meeting;
7. Delivery of the 2nd IOTC ad-hoc FAD Working Group ([WGFAD02](#)) in October 2021 to improve and streamline the provision of data assets related to the use of drifting fish aggregating devices (FADs) to the IOTC Secretariat (including standardization of classifications and nomenclature, and long-term plan for the management of daily buoy positions);
8. Pilot release of the e-MARIS platform, supporting IOTC CPCs with the electronic reporting of statistical data;
9. Support of a research project in Pakistan led by Duke University in collaboration with WWF-Pakistan to assess the ability of estimating fishing effort and bycatch of gillnetters from high-resolution satellite data.

Support to the implementation of the IOTC Regional Observer Scheme (ROS)

[[SDG 14.4](#)] [IOTC Resolution 11/04](#) (“On a Regional Observer Scheme”, 2011) aims at collecting verified catch data and other scientific information related to the fisheries for tuna and tuna-like species in the IOTC area of competence. Since its inception, implementation of the ROS remained very low among CPCs due to a number of different factors.

With the entry in force of [IOTC Resolution 16/04](#) (“On the implementation of a pilot project in view of promoting the Regional Observer Scheme of IOTC”, 2016) a number of initiatives to promote and support scientific observer data collection and reporting have been carried on by the IOTC Secretariat, including:

1. Support to the service provider in the preparation and the delivery of training and support material for the ROS pilot programme;
2. Further development of electronic tools to facilitate data collection, management and reporting of ROS data at national and regional level (i.e., ROS e-tools, developed in collaboration with the [US National Oceanic and Atmospheric Administration](#), [World Wildlife Fund](#), and the [Sustainable Indian Ocean Tuna Initiative](#) Fisheries Improvement Project);
3. Continued incorporation of historical observer data within the IOTC ROS database, previously reported to the IOTC Secretariat in hard-copy or other electronic formats unsuitable for automated processing;

¹ SDG 14.4 : By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics

4. Finalization of a pilot project on the deployment of electronic monitoring systems on-board small-scale coastal gillnet and gillnet / longline vessels in Sri Lanka;
5. Preparation of draft minimum standards for designing and implementing Electronic Monitoring Systems in Indian Ocean tuna fisheries (in collaboration with the [International Sustainable Seafood Foundation](#));
6. Organization of the 1st and 2nd IOTC ad-hoc Working Groups on the development of Electronic Monitoring programme Standards ([WGEMS](#)) in November 2021 and June 2022, respectively.

Capacity building activities

[**SDG 14.4, SDG 14.A²**] Delivering activities in support of developing coastal states is one of the main goals and functions of the IOTC Secretariat. Capacity building has been directly provided to members by the IOTC Secretariat or in collaboration with external partners (e.g., Overseas Fishery Cooperation Foundation of Japan, , European Commission's Directorate-General for Maritime Affairs and Fisheries) in different fields such as data compliance and technical support missions and joint projects implementation (e.g., IOTC-OFCF).

On-the-field activities in the intersessional period have generally stopped due to the insurgence of the CoViD-19 pandemic in early 2020, and replaced – where possible and appropriate – with remote meeting that focused on:

1. Contributions on fisheries-related aspects of the Agriculture and Fisheries Development Project in Tanzania funded by the International Fund for Agricultural Development;
2. Assessment of the current-state-of-the-art for fisheries data collection systems in Somalia and Yemen;
3. Collaboration with Indonesia and the [International Pole and Line Foundation](#) (IPNLF) to review the status of historical data submissions in relation with IOTC data requirements and the rationale for the re-estimation of national nominal catches by the IOTC Secretariat.

Improvement in the dissemination of all relevant data sets and related assets

[SDG 14.A] All information received, validated, managed and produced by the IOTC Secretariat (e.g., statistical data sets, stock assessment input files, scientific documents and reports) is usually disseminated through the IOTC website, in a relatively unstructured and non-interoperable way that does not yet fully comply with the FAIR principles (Findable, Accessible, Interoperable and Reusable).

Several initiatives from the IOTC Secretariat have been put in place since CWP-26 to ensure that access to all publicly available IOTC assets of scientific relevance can be streamlined and improved, by:

1. Feedback to the CWP *ad-hoc* TG on matters related to reference harmonization for capture fisheries;
2. Feedback to the FIRMS ad-hoc Technical Working Group on the Global Tuna Atlas, including further standardization of data provisions to the Global Tuna Atlas (Level 0 data set);
3. Streamlining the provision of IOTC stock statuses to FIRMS (including GRSF);
4. Continued contribution to the OpenAIRE project (in collaboration with the [French national Research Institute for Sustainable Development](#) (IRD)), to identify best practices for the assignment of a [Digital Object Identifier](#) to all relevant data sets and scientific papers managed by IOTC;
5. Release of an interactive data browser to simplify the retrieval and analysis of IOTC public data sets;
6. Implementation of a data import and cleaning tool for ISSF-affiliated cannery data, including its accompanying database (Pierre et al. 2021);
7. Dissemination of scientific observer information through the ROS Regional Database (e.g., IOTC 2021a);

² SDG 14.A - Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries

8. Drafting of reporting templates for the provision of information on sampling and raising procedures used by IOTC CPCs to prepare the statistical datasets submitted to the Secretariat (IOTC 2021b);
9. Collaboration with FAO-GLOBEFISH and the Pacific Islands Forum Fisheries Agency (FFA) to access and disseminate socio-economic data held and curated by the teams (IOTC 2021c);
10. Use of data from the Global Tuna Atlas to put IOTC fisheries into perspective (IOTC 2022);
11. Improvement of metadata description of the [IOTC size data sets](#) in collaboration with IRD and FAO;
12. Development of automated reports to derive robust length-weight relationships for tuna based on a preliminary template for sharing morphometric data among IOTC CPCs.

Other science and compliance-related activities

The IOTC Secretariat is also involved in other sub-projects and activities that do not necessarily fall into the categories above, yet are of relevance to the CWP audience, namely:

1. [**SDG 14.C**] Updating the IOTC Record of Authorised Vessels (RAV) as well as the IOTC list of IUU-Vessels and the list of Authorised Supply Vessels (as per [IOTC Resolution 18/03](#));
2. [**SDG 14.C**] Support the operation of the Consolidated List of Authorised Vessels (CLAV), a tuna-org initiative in which the IOTC Secretariat acts as both data and service provider (through dedicated hosting of the platform);
3. [**SDG 14.C**] Manage the information collected through the e-PSM platform, an IOTC-specific electronic implementation of the Port State Measures Agreement;
4. [**SDG 14.4**] Maintain the IO-RTTP database, containing the tagging information collected through the Regional Tuna Tagging Program;
5. [**SDG 14.1**] Contribute to the FAO study on Abandoned, Loss or otherwise Discarded Fishing Gears (ALDFG) by providing background information and facilitating the liaisons between the authors and all responsible stakeholders in Seychelles (Seychelles Fishing Authority) and Pakistan (World Wildlife Fund-PAK).

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