
IOTC CAPACITY BUILDING ACTIVITIES IN SUPPORT OF DEVELOPING COASTAL IOTC CPCs: 2018 ACTIVITIES

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Purpose

To provide the IOTC Working Party on Data Collection and Statistics with an overview of the activities that, independently or along with other partners, the IOTC Secretariat initiated during the last year in support of developing coastal states, and the main results of those activities.

Background

Since its inception the Commission has allocated funds from its regular budget to assist developing coastal CPCs in the Indian Ocean in the implementation of the IOTC data requirements. In addition to the funds allocated by the Commission, the IOTC Secretariat has also secured funding from external sources; in recent years, funds sourced from third parties have been well above those allocated by the Commission.

Since April 2002, the Overseas Fisheries Cooperation Foundation of Japan has been assisting developing coastal states in the IOTC Area of Competence with their statistical data collection, processing, and reporting systems, with a view to enhancing the capacity of institutions in those countries and improve their compliance with IOTC requirements for statistics and other scientific data used on the assessments of IOTC species. In recent years, the IOTC has also received substantial funding for capacity building activities from other sources, including the Bay of Bengal Large Marine Ecosystems Project (BOBLME), the IOC-SmartFish Project and, more recently, the GEF-Areas Beyond National Jurisdiction Project (ABNJ) and EU DG-Mare.

This document presents the activities undertaken by the IOTC and its partners during the last year (2018), including those activities that will extend to 2019 and following years, where appropriate.

Recommendation

The WPDCS is invited to review the Progress of activities undertaken by the IOTC and its partners and recommend that the IOTC Scientific Committee considers to endorse the future work plan by the IOTC Secretariat. In addition, the WPDCS is invited to consider, where necessary, recommending the implementation of other activities that to its view will lead to improved statistics for IOTC and associated species, including identification of agencies that may be prepared to fund such activities.

The report covers the following areas:

- Introduction
- Summary of countries and activities undertaken in 2018
- Activities planned for 2019 and following years (where applicable)

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Introduction

Table 1 presents an overview of the data capacity building activities that the IOTC and its partners implemented during 2018 to assist developing coastal CPCs in the Indian Ocean, by country and type of activity. Further details of the activities can be found further below.

Country	Date	Executing Agencies / Staff	Description of activities
Seychelles	Mar, Jun, Aug-Sep, Nov 2018	IOTC-OFCF Project Manager	IOTC-OFCF Project implementation for experimental compilation of Fisheries Satellite Account
Sri Lanka	Feb 2018	IOTC Fisheries Statistician IOTC Fisheries Officer Cap Marine Environmental	i.) <u>Regional Observer Workshop</u> : in collaboration with Cap Marine Environmental, provide a comprehensive observer training workshop including observer briefing and debriefing protocols, health and safety, and training in IOTC data collection forms. ii.) <u>ROS Pilot Project activities (ROS e-Reporting tools)</u> : follow-up training for the implementation of the IOTC electronic ROS data collection, reporting and management tools. The first workshop was delivered to Sri Lanka in December 2017.
Indonesia	Apr-May, Jul 2018	IOTC-OFCF Project Manager	Preparatory missions for the IOTC-OFCF Project implementation, including: i.) Reviewing the current data collection and compilation systems. ii.) Technical advices to One Data.
Indonesia (Bali)	July 2018	IOTC Fisheries Statistician, IOTC Consultant IOTC-OFCF Project Manager	i.) <u>ROS e-Reporting tools (ROS e-Reporting tools)</u> : delivery of a second training workshop implementing the new IOTC electronic ROS data collection, reporting and management tools. ii.) Data evaluation workshop of Indonesia's longline fisheries.
Pakistan	Dec 2018 (TBC)	IOTC Fisheries Statistician IOTC Data Coordinator	i.) Provide technical support for the collection, and reporting of WWF-Pakistan's crew based observer scheme. ii.) Data compliance and support mission: evaluation of the reconstructed catch series submitted by the Government of Pakistan in 2017.
Sri Lanka	On-going throughout 2018	IOTC Fisheries Statistician	<u>ROS Pilot Project activities (EMS)</u> : Development of a feasibility study trialing electronic monitoring systems on-board small-scale coastal gillnet/longline vessels.

Funding Agencies

The following section includes a description of the main agencies that contributed funds and other support to IOTC data capacity building during 2018:

IOTC: The Indian Ocean Tuna Commission allocates funds from its regular budget to the implementation of capacity building activities in developing coastal states that are IOTC CPCs. Staff of the Data and Statistics Section of the IOTC Secretariat were involved in one or more of the capacity building activities referred to in Table 1.

IOTC-OFCF Project²: The Memorandum of Understanding between the IOTC and the Overseas Fishery Cooperation Foundation of Japan (OFCF) was initiated in April 2002, with the purpose of enhancing the capacity of developing coastal states in the Indian Ocean region to improve their fisheries statistical systems. Phases I (April 2002 - March 2007), II (June 2007 - March 2010), III (June 2010 – March 2013), and IV (June 2014-March 2017) of the Project ran for fifteen consecutive years.

A Memorandum of Understanding (MOU) between the IOTC and the OFCF was signed in June 2017, for the commencement of a Phase V, including the provision of the OFCF Project Manager to coordinate and lead the activities of the Project, with the support of staff of the IOTC Secretariat, as required. After a consultation, the IOTC and the OFCF agreed to focus its Phase V Activities on exploration of socio-economic indicators suitable to assist the IOTC resource and fishery management.

The Project has kept the following three main principles since 2002:

- i. The activities undertaken under the Project follow the recommendations of the IOTC Commission and its relevant subsidiary bodies: the Working Parties and the Scientific Committee.
- ii. There will be no direct financial implications for IOTC Member countries.
- iii. The activities of the Project should be directed towards reinforcing the statistical systems of developing countries from the region.

European Commission – DG for Maritime Affairs & Fisheries (DG MARE)

The mission of the Directorate-General for Maritime Affairs and Fisheries is:

"To develop the potential of the European maritime economy and to secure sustainable fisheries, a stable supply of seafood, healthy seas and prosperous coastal communities – for today's Europeans and for future generations."

Since 2015, DG-MARE has provided the IOTC Secretariat with capacity building grants to fund projects that foster compliance of Conservation and Management Measures (CMMs), in addition to funding activities that enable assistance for developing coastal states in the IOTC area to improve the implementation of the at-sea observer scheme, compliance with IOTC mandatory data collection and reporting standards, technical assistance support missions to CPCs, as well as support for national fisheries scientists to attend IOTC science meetings.

DG-Mare funding was utilized to support many of the activities conducted in 2018, notably the implementation of the Regional Observer Scheme Pilot Project (i.e., development of e-Reporting tools and piloting of electronic monitoring systems (EMS), which are both aimed at facilitating improvements in the data collection, reporting and timeliness of observer data to the IOTC Secretariat).

ABNJ Project³: The Global sustainable fisheries management and biodiversity conservation in the Areas Beyond National Jurisdiction (ABNJ) Program promotes efficient and sustainable management of fisheries resources and biodiversity conservation in the ABNJ.

² <http://www.iotc.org/data/iotc-ofcf>

³ <http://www.thegef.org/gef/ABNJ>

The 5-year ABNJ Program is comprised of 4 projects. In particular, the Sustainable Management of Tuna Fisheries and Biodiversity Conservation in the ABNJ pilots Rights-Based Management systems and other sustainable fishing practices; reduces illegal, unreported and unregulated (IUU) fishing; and reduces bycatch and other adverse ecosystem impacts on biodiversity.

The IOTC is among the five tuna regional fisheries management organizations that is receiving support from the ABNJ Project.

Summary of countries and activities undertaken in 2018

Data related capacity building activities undertaken by the IOTC Secretariat can be broadly categorized into the following work streams:

- a) Data compliance and support missions: aimed at facilitating improvements in the validation and reporting of core IOTC datasets to the IOTC Secretariat (i.e., nominal catches, catch-and-effort, and size data); also to assess current shortcomings concerning the collection and management of fisheries data, and whether additional assistance is required to implement those actions; agree a plan of action with the CPC required to deliver improvements on the levels of reporting.
- b) Technical assistance missions: capacity building in data collection, support for the development of national fisheries databases and statistical systems, or other issues related to fisheries data management.
- c) Support for implementation of the Regional Observer Scheme and implementation of the ROS Pilot Project: capacity building activities cover a number of components, including the development of the IOTC's electronic reporting tools, and feasibility study implementing EMS on small-scale fisheries.

The following data capacity building activities were implemented by the IOTC and its partners in 2018 (up to November 2018), to support a number of priorities identified by the IOTC Working Parties and Scientific Committee:

1. ROS Pilot Project: e-Reporting tools

The IOTC Regional Observer Scheme is a high priority for reducing the level of uncertainty associated with the status of many target stocks and associated bycatch species. However current low levels of reporting of ROS data to the IOTC Secretariat are confounded by ROS data returns which are often reported in non-electronic or un-standardised format, including .doc, .pdf or scanned documents that are not easy to validate and compile in statistical databases.

The Project aims to facilitate improvements in the data capture, processing and timeliness of reporting of ROS data to the IOTC Secretariat by the development of electronic data entry interface, national database for storage and processing of data, and regional ROS database hosted by the IOTC Secretariat. E-reporting is now becoming increasingly mainstream as a method for collecting data, managing and processing for timely analysis. The Project is targeted particularly at developing country CPCs which have not yet developed observer data collection and where data management processes and will be an important capacity building tool for these countries, and aims to deliver a fully integrated system from the point of data entry to transmission of the processed ROS data to the IOTC Secretariat.

Project update: Development of the E-Reporting interface and regional database was completed in 2017, and the IOTC Secretariat has been organizing workshops for a number of CPCs participating in the ROS Pilot Project to begin testing and evaluation of the information collected using the new data reporting tool. To date, workshops have been conducted in Sri Lanka (Dec-2017; Feb-2018) and Indonesia (July-2018).

2. ROS Pilot Project: Electronic Monitoring Systems on small-scale fisheries

The project is aimed at improving the quality of observer data and coverage of small-scale fisheries where there are practical difficulties deploying on-board observers (e.g., due to safety issues, lack of space, logistics, etc.) – particularly in the case of coastal fleets. Given the successes of EMS in other oceans and fisheries (i.e., mostly industrial large-scale vessels), it is important that EMS is trialed for gillnet fleets in the Indian Ocean, particularly where no observer coverage has yet been implemented.

Project update: Procurement of EMS for 6 vessels in Sri Lanka (i.e., coastal longline and gillnet vessels between 15-21 metres LOA) has now been completed, and delivery and installation of the equipment is now in process. Formal commencement of the EMS trials is scheduled in early-2019.

3. IOTC Data Compliance and Support missions

Data compliance and support missions are conducted by staff from the IOTC Secretariat, with the assistance of staff from the government institutions concerned in each country, and are focused on the following objectives:

- i.) Assess CPC compliance with IOTC Requirements for scientific data, including IOTC species and other bycatch, and provisions for the collection of logbook data, implementation of the IOTC Regional Observer Scheme, and data requirements with regards to FAD management plans.
- ii.) Recommend the type of actions that will need to be undertaken to address any issues identified in (i).
- iii.) Agree on a Plan of Action to address any issues identified impending compliance with IOTC data related resolutions, including a time frame for the implementation of those actions and the type of indicators to be used in each case to assess progress.

During 2018, the following activities were carried out (or planned) by staff of the IOTC Data Section:

- Pakistan: since 2012 WWF-Pakistan has provided funding for a crew-based observer scheme, however, to date, no information has been officially submitted to the IOTC by the Government of Pakistan due to issues entering the data into electronic format. The IOTC Secretariat is also providing support in terms of a review of Pakistan's reconstructed catch series which was submitted to the IOTC in 2017, and are in the case of some species substantially higher than previous official catches estimates. The new catches remain pending upload to the IOTC database subject to a comprehensive appraisal of the catch estimation methodology. A Data support mission is planned for December to provide assistance with the processing and quality assurance of the crew based observer data, and also to conduct an evaluation of the revised catch series.
- Kenya (Catch Assessment Survey): In 2016, the IOTC Secretariat received a request from Kenya for assistance in the processing and analysis of results of a Catch Assessment Survey of artisanal fisheries. Ad-hoc support has been provided during 2018 in order to finalize the catch estimates for 2014 and 2015 (the two complete years that sampling data was collected for). The IOTC Secretariat also continues to offer support, as needed, for

Kenya's new integrated fisheries database data collection activities (intended to incorporate the results of the CAS, including in-built functionality for raising to total (artisanal) catches), in addition to support in establishing an electronic data capture in the field to reduce delays in the data capture and improve timeliness in reporting.

4. Socio-economic indicators to support IOTC management (IOTC-OFCF Collaborative Project)

Aim of the project is to identify appropriate socio-economic indicators to support the integrated management of the IOTC resources and fisheries and its long-term sustainability including the social and economic aspects. The project focuses on i.) reviewing the existing information and ii.) evaluating the feasibility and utility of a Fishery Satellite Account through experimental compilations.

Project update: The project provided technical assistance for the Seychelles in developing its Fishery Satellite Account, which was presented to the WPDCS-14. The economic contribution of the IOTC resources was estimated using the publicly available data for the individual CPCs.

Activities planned for 2019

Below is a provisional (and non-exhaustive) list of the capacity building activities planned for 2019. Several of the activities have been postponed from 2018 – either due to limited resources available at the IOTC Secretariat, or delays in securing funding for the activities detailed below:

a) IOTC Data compliance and support Missions:

The IOTC Secretariat is committed to delivering additional Data Compliance and Support missions in 2019, aimed at improving levels of data compliance of CPC's in the IOTC region – given the on-going and persistent issues with non-reporting of mandatory IOTC datasets. The missions also aim to provide an assessment of the status of current data collection and reporting systems. Two missions are planned for 2019, funded by the European Union (DG-Mare) and the IOTC regular budget (targeted countries to be confirmed in due course).

b) Regional Observer Scheme Pilot Project – related activities:

- e-Reporting tools training workshops: 2019 there will be the continuation of support for the implementation of the IOTC ROS e-Reporting tools; specifically the further roll-out of the e-Reporting interface and in 2 or 3 developing coastal CPCs (e.g., Mauritius, Tanzania) including the delivery of training workshops, testing of the e-Reporting interface by CPCs, and evaluation of ROS data submitted by the E-Reporting using the new data reporting. The e-Reporting interface is also currently being updated to reflect the latest changes to the data collection and reporting standards following the ROS data collection and reporting standards workshop in September 2018.
- e-Monitoring pilot Project: The project is aimed at improving the quality of data and coverage of fisheries where there are practical difficulties deploying on-board observers (e.g., due to safety issues, lack of space, logistics, etc.) – particularly in the case of small-scale coastal fleets. Following the finalization of procurement of the EMS and installation of the equipment on-board vessels by end-2018, activities in 2019 will include the formal commencement of data collection, processing, and initial reporting of trip

level data captured by the EMS. Training will also be arranged in early-2019 for Sri Lanka's land-based observers to facilitate the processing, analysis and reporting of the EMS data to the IOTC Secretariat.

c) Biological sampling of albacore tuna in Mauritius:

Port Louis in Mauritius is one of the main landing places for albacore tuna in the Indian Ocean. A mission was conducted in August 2016 to address concerns from the IOTC Scientific Committee regarding the quality of size data for albacore available for the longline fleet of Taiwan,China. During the mission discussions were held regarding longer term capacity building in relation to biological sampling of albacore to supplement the lack of biological information from the Indian Ocean in the current albacore stock assessments. The objective of the project is to provide technical and logistical support to Mauritius to strengthen the capacity for biological sampling of albacore from domestic and foreign flagged (e.g., Taiwanese longline vessels) unloading at Port Louis.

Update since last WPDCS meeting: The project has been delayed due to issues securing funding, and which have now been resolved. Terms of reference have now been drafted and a consultant will be hired in early-2019 to conduct the initial scoping study prior to implementation of the sampling program (currently planned from mid-2019 onwards).

d) Continued support for Fishery Satellite Account compilation (IOTC-OFCE Project):

Experimental compilation in the Seychelles indicates the Satellite Account approach to be useful and powerful to better understand an overall economic impacts to national economy caused by changes in tuna fisheries management. The project intends to continue providing support in 2019 to other interested CPCs.

The implementation of the activities listed above are subject to final confirmation of support by the agencies concerned.