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Committee
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MoU for the accreditation and coordination of Southwest Indian Ocean
Coastal State Scientific Observers at sub-regional level
and the exchange of Observer data

Relates to agenda item: 5.2

Working paper Info paper

SIOFA SECRETARIAT

Abstract

The Indian Ocean Commission (IOC) has since 2015 set up, a working group bringing together the managers of the national observer programs of the IOC and SWIOFC countries.

A Memorandum of Understanding (MoU) for the certification and coordination of scientific observers from the South-West Indian Ocean States at the sub-regional level and the exchange of observer data is being developed.

SIOFA has been invited to comment on this revised version of 'MoU for the accreditation and coordination of Southwest Indian Ocean Coastal State Scientific Observers at sub-regional level and the exchange of Observer data'.

This MoU has been developed to benefit the Coastal States of the Southwest Indian Ocean, setting out processes for the planning and coordination of observer deployments with the regional large pelagic fleets (Industrial Tuna Purse-seine and Pelagic Longline) and sharing of this data. The main objectives are to compile an accredited list of Southwest Indian Ocean participating coastal States observers and a system for sharing data aggregated per EEZ. As such there seems to be limited connectivity between the stocks and geographical area of this MoU and the stocks and geographical area of SIOFA. Whilst Article 6 provides opportunity for Regional Fisheries Management Organizations and Agreements to contribute, there seems to be no obligation for SIOFA to participate. SIOFA is neither mentioned within, nor requested to be a party to this MoU.

This will be circulated to MoP HoD for comment. Deadline for submitting comment is one month.



MEMORANDUM OF UNDERSTANDING

for the accreditation and coordination of Southwest Indian Ocean Coastal State Scientific Observers at sub-regional level and the exchange of Observer data

The Coastal States of the Southwest Indian Ocean Represented by their competent authorities

RECALLING Article 62 (*Utilization of the living resources*), Paragraph 4, sentence (g), of the United Nations Convention on the Law of the Sea (UNCLOS), defining coastal States rights and obligations in the placing of observers or trainees on board vessels fishing in the exclusive economic zone of the coastal State.

CONSIDERING Article 64 (*Highly migratory species*), of the United Nations Convention on the Law of the Sea (UNCLOS), defining the right and obligation of coastal States to cooperate directly or through appropriate international organizations with a view to ensuring conservation and promoting the objective of optimum utilization of highly migratory species throughout the region, both within and beyond the exclusive economic zone.

IN VIEW of Indian Ocean Tuna Commission (IOTC) area of competence (all the waters of the South West Indian Ocean within the national jurisdiction of coastal States) objectives and functions including “to provide advice and promote co-operation on monitoring, control and surveillance, including joint activities, especially as regards issues of a regional or sub-regional nature”.

IN VIEW OF IOTC Resolution on a Regional Observer Scheme (ROS), paragraph 2, asserting ROS percentage of coverage of at least 5 % of the number of operations/sets for each gear type by the fleet of each CPC¹ while fishing in the IOTC area of competence for vessels of 24 meters overall length and over, and under 24 meters if they fish outside their Exclusive Economic Zone (EEZ).

REITERATING IOTC Resolution on a Regional Observer Scheme², paragraph 5 and 6, of the IOTC, stating that CPC’s shall have the primary responsibility to obtain qualified observers; that they may choose to use either deployed national or non-national Observers of the flag State of the vessel on which they are deployed and; that they shall meet the costs of the Observer Scheme.

¹IOTC Contracting Parties and Cooperating Non-Contracting Parties

² IOTC Resolution 11/04

CONSIDERING Southwest Indian Ocean Coastal States national legislation, that provides for the mandate and authority to place Observers on national and foreign vessels.

DETERMINED to apply the decisions and recommendations taken by the relevant regional fisheries management organizations (RFMOs) and agreements.

IN VIEW OF the interest and desire of all Southwest Indian Ocean Coastal States to develop their capacity for cooperative action to promote the sustainable exploitation of fisheries resources and to collect independent and reliable scientific and fisheries data, through joint and concerted action.

CONSIDERING of IOTC Resolution of the implementation of a pilot project³ in view of promoting the Regional Observer Scheme of IOTC aiming to raise the level of compliance to the implementation of IOTC Resolution on the recording of catch and effort data by fishing vessel in the IOTC area of competence⁴ and Resolution on mandatory statistical reporting requirements for IOTC CPCs⁵.

GIVEN Declaration of the Ministerial Conference 2017 in Madagascar for Combating Illegal, Unreported and Unregulated Fisheries in the Southwest Indian Ocean, noting the establishment of the Working group of Observer Program Managers established by the IOC mechanism PRSP (“Plan Régional de Surveillance des Pêches”).

Have agreed on the following provisions:

Article 1

Definitions

→ “*Foreign fishing vessel*” means any foreign flagged vessel engaged in “fishing,” as defined in this Protocol, for tuna and tuna-like species within the Exclusive Economic Zone of a SWIO States other than its flag State, except those foreign vessels that are involved in “fishing”, as defined in this protocol under joint ventures with private companies based in coastal States, under the fishing legislations of the coastal state.

→ “*Fishing*” means:

- (i) to search for, locate, catch, take, harvest or transport fish;
- (ii) to attempt to search for, locate, catch, take, or harvest fish;
- (iii) to engage in any other activity, which can reasonably be expected to result in the locating, catching, taking or harvesting of fish;
- (iv) any operations at sea directly in support of or in preparation for any activity described in sub-paragraphs (i) to (iii);

³ IOTC Resolution 16/04

⁴ IOTC Resolution 15/01

⁵ IOTC Resolution 15/02

- *“Fishing trip”* means any period, during which a fishing vessel is searching for, attracting, locating, catching, taking or harvesting fish or any activity which can reasonably be expected to result in the attracting, locating, catching, taking or harvesting of fish or is in operation in support of, or in preparation for, fishing, including the landing, packaging, processing, transhipping or transporting of fish that have not been previously landed at a port, as well as the provisioning of personnel, fuel, gear and other supplies at sea, that—
- a. Commences when the vessel—
 - i. Leaves any place at which that vessel is moored or berthed or launched; or
 - ii. After transhipment of part or whole catch.
 - b. Ends when the vessel—
 - i. Returns from the sea to a place at which the license holder using the vessel is licenced/authorized to land fish and any fish are removed from the vessel or the vessel with the fish on board is removed from the water; or
 - ii. When a vessel tranships at sea under the overall coordination of the IOTC and/or under the relevant Regional Fisheries Bodies.
- *“By-catch”* means all species, other than the 16 species listed in annex B of the IOTC agreement, caught or interacted with by fisheries for Tuna and Tuna like species in the IOTC area of competence.
- *“Discards”* means any part of the catch that is returned to the sea (target or non-target catch), whether dead or alive.
- *“Fish aggregating device”* (FAD), means any device, whether natural, or partially man-made, man-made, whether anchored or not, that is deployed and monitored for the purpose of aggregating fish to assist with “fishing” operations;
- *“Fishing vessel”*: any vessel or boat used or equipped for fishing, including support vessels and any other vessels directly engaged in fishing operations or in the support of such operations;
- *“Sub-regionally certified Observer”*: an observer from one of the Parties that successfully undergoes sub-regional observer accreditation process as per defined under this agreement and that is therefore provided with an official document attesting to a status of sub-regional observer authorized, by all Parties signatory to this MoU, to conduct cooperative observation in the cooperative zones.
- *“Observer Accreditation Process”*: the action or process a national observer must be trained or recognized at sub-regional level, before being considered as qualified to conduct cooperative observation. The details of the certification are given in Annex 5.

This is a sub-regional certification, at the IOC-PRSP level, that does not prevail for any RMFO.

- “*Cooperative observation*”: observation and data collection mission conducted by a sub-regionally certified observer, deployed on board with the authorization of one of the Parties within the Cooperative zones.
- “*Cooperative zones*”: fishing zones or exclusive economic zones as defined in [Annex 1](#);
- “*Data*”: consist an elemental coded description of an event or information (fishing geographical location, species identification, fishing method, biometric measurements...etc.), logged in paper and/or in computer collected in the framework of the sub-regional observer program.
- “*Raw data*”: correspond to the verified input of observations conducted by observers on-board. These data, collected in the framework of the sub-regional observer program, may have explicit elements of private nature (fishing events geographical position for example), being therefore strictly confidential and are not to be disclosed, made available to all Parties or external entities to this MoU, without the express agreement of all Signatory Parties.
- “*Aggregated data*”: is the result of the combination and processing of raw data. These data is obtained through a statistical process and provide general information on groups that have common characteristics. Contrary to raw data, aggregated data collected in the framework of the sub-regional observer program, can be made available to all Signatory Parties.

Article 2

The delegated authorities responsible for the management and coordination of the National Fisheries Observation Programs of the South West Indian Ocean Coastal States⁶

→ For the Union of Comoros

The « **Centre National de Contrôle et de Surveillance des Pêches (CNCSP)** », under the supervision of the « Direction générale des ressources halieutiques de la Vice-Présidence en charge du Ministère de l’Agriculture, de la pêche, de l’environnement, de l’aménagement du territoire et de l’urbanisme ».

→ For France

The « **Direction de la Mer Sud Océan Indien (DMSOI)** », under the supervision of the “Ministère de l’Agriculture et de l’Alimentation”.

⁶ Yemen can join the MoU one in position of doing so

→ For Madagascar

The « **Centre de Surveillance des Pêches (CSP)** », under the tutelage of the « Ministère des Ressources Halieutiques et de la Pêche ».

→ For Mauritius

The **Fisheries Research Division (FRD)**, under the supervision of the Ministry of Ocean Economy Marine Resources, Fisheries and Shipping.

→ For the Seychelles

The **Seychelles Fishing Authority (SFA)**, under the supervision of the Ministry for Fisheries and Agriculture.

→ For Kenya

The **Kenya Fisheries Service (KeFS)** under the supervision of the State Department for Fisheries and Blue Economy of the Ministry of Agriculture, Livestock and Fisheries.

→ For the United Republic of Tanzania

The **Deep Sea Fishing Authority (DSFA)**, under the supervision of the Government of the United Republic of Tanzania.

→ For Mozambique

The **Fisheries Research Institute (IIP)**, under the supervision of the Ministry of the Sea, Inland Waters and Fisheries.

→ For South Africa

The Directorate of Offshore & High Seas Fisheries of the **Department of Agriculture, Forestry and Fisheries (DAFF)**, under the Chief Directorate of Marine Resources Management

→ For Somalia

The **Planning Department** under the supervision of the Federal Ministry of Fisheries and Marine Resources.

→ For the Maldives

The **Fisheries Compliance Section (FCS)**, under the supervision of the Fisheries Division of the Maldives Ministry of Fisheries and Agriculture.

Article 3

The present MoU has per objective to develop and maintain:

- Minimum criteria for the accreditation of Southwest Indian Ocean (SWIO) coastal State Observers at the level of the SWIO region and/or via the establishment of a

training standard;

- Joint training or a common training program for national observers in their country; observation of flag vessels of the coastal States and the artisanal fleet to achieve a minimum of 5% compliance required by IOTC Resolution on a Regional Observer Scheme;
- Facilitation of exchange of certified observers to assist signatory States to comply with IOTC Resolution on a Regional Observer Scheme;
- Recognition for observer training and National Observer Programme (NOP) for Coastal States already having an operational program;
- A certification process for the accreditation of Southwest Indian Ocean coastal State Observers at the level of the SWIO region;
- A data sharing process for the quick and regular exchange of observation data among the Southwest Indian Ocean coastal States;
- Processes for the planning and coordination of observer deployments with the regional large pelagic fleets (Industrial Tuna Purse-seine and Pelagic Longline);
- Joint refresh training of Southwest Indian Ocean coastal State Observers to be certified to conduct cooperative observation at the level of the SWIO region;
- Joint training of Southwest Indian Ocean coastal State National Observer Programme staff to standardize observer briefing, debriefing and management procedures.

Article 4

The role of the IOTC

- Provide technical and scientific support to the SROP (training and others asper required);
- Receive a list of Southwest Indian Ocean (SWIO) coastal State Observers accredited to operate at the level of the SWIO region;
- To participate, to the extent possible, in the Southwest Indian Ocean coastal State NOP Managers Working Group.

Article 5

The Role of the Indian Ocean Commission via Regional Fisheries Surveillance Plan (IOC-PRSP)

The role of the IOC-PRSP is to facilitate the implementation and coordination of the activities, including, inter alia:

- To provide the necessary financial and technical support for the:
- a. development, maintenance and hosting of data sharing tools for the quick and regular exchange of observation data among the Southwest Indian Ocean coastal States, as per defined under the [Annex 2](#) of this MoU;
 - b. assist in planning and coordination of observer deployments both in coastal States for National, commercial and small scales fleets and in cooperative with the industrial vessels and their flag States wishing to embark an observer from the programme, in regional large pelagic fleets (Industrial Tuna Purse-seine and Pelagic Longline);
 - c. joint training of Southwest Indian Ocean coastal State Observers accredited to operate at the level of the SWIO region;
 - d. joint training of Southwest Indian Ocean coastal State National Observer Program (NOP) management teams;
 - e. organization of SWIO Coastal States NOP Managers Working Group annual meetings.
- To participate to Southwest Indian Ocean coastal State NOP Managers Working Group.
- To forward list of Southwest Indian Ocean (SWIO) coastal State Observers accredited to operate at the level of the SWIO region to the IOTC.
- Sub-regionally certification of observers and issuance of accreditation with ID card, carrying the logo of the IOC.

Article 6

The role of the Regional Fisheries Management Organizations and Agreements

- Opportunity to contribute to Southwest Indian Ocean coastal State NOP Managers Working Group.

Article 7

The Role of the Southwest Indian Ocean participating Coastal States

The role of the Southwest Indian Ocean participating coastal States is to:

- Nominate national Observers that meet minimum criteria as defined in [Annex 4](#), to undergo a sub-regional certification process, as per stipulated under [Annex 5](#), in order to be able to join the pool of sub-regionally accredited Observers;
- Nominate a National Observer Program Coordinator and Data Manager, who shall be the contact points on matters related to the implementation of the activities under this MoU, including the participation to the SWIO NOP Managers Working Group;

- Coordinate Observer deployment in association with the IOC and the other Southwest Indian Ocean participating coastal States;
- Respect the obligation of IOTC Resolution on a Regional Observer Scheme and report to it on the rate of compliance of its national fleets.

Article 8

The Role of the Southwest Indian Ocean NOP Managers Working Group

The role of the Southwest Indian Ocean NOP Managers Working Group would be to:

- Share observer deployment planning at the regional level
- planning observer deployments at regional level and the observers of this MoU within the coastal States for the small scales fleets
- develop Observer Scheme standards;
- develop formal certification processes i.e. training and observer recognition and effective quality assurance related to the standard Observer Scheme;
- other, as per required;

As defined by the Terms of reference (ToR) for the Southwest Indian Ocean NOP Managers Working Group, in [Annex 6](#).

Article 9

Cooperative observation

Cooperative observation missions make it possible to pool and optimize the means of observation of the Signatory Parties. Cooperative observation missions shall be subject to the conditions stipulated in this Memorandum of Understanding.

As part of this mission, the observers concerned will continue to report to their delegated authority, which will share aggregated observer data with the IOC, and the delegated authorities of the other coastal states of the southwest Indian Ocean, as stated under Article 2.

Article 10

Data sharing and confidentiality

Sub-regionally certified Observers will deliver all data (physical and digital data), collected during their cooperative observation mission, to their national delegated authority.

Signatory Parties NOP delegated authority will be responsible for the debriefing of sub-regionally Observer, observer data verification and the storage and the forwarding of raw data, as per confidential rules of the coastal states where appropriate and aggregated data (aggregated per EEZ, month and vessel flag) and other data considered for sharing to the

IOC-PRSP for storing, aggregation (if still required) and sharing with the delegated authorities of the Signatory Parties of this MoU, via the StaRFISH database.

Raw data collected by sub-regionally certified Observers is the property of the party responsible for its collection. Upon request of the flag state and/or the state of the EEZ the data will be transmitted in sufficient detail to allow their use for reporting purposes to the IOTC and/or scientific purposes.

Raw data made available to the IOC by one Party, for aggregation and sharing (after being aggregated) via IOC-PRSP Internet tool “StaRFISH”, can’t be shared or used for other purposes (ex: MCS purposes) than the ones provided under this MoU without the explicit approval of the Party responsible for its collection.

Aggregated data collected by sub-regionally certified Observers during their cooperative observation missions, can be shared with the Signatory Parties of this MoU as provided for under Annexe 2.

Aggregated data collected by sub-regionally certified Observers during their cooperative observation missions, can only be shared with non-signatory Parties of this MoU if data sharing is approved by all signatory parties. Sharing of aggregated data with non-signatory Parties will have to be conducted in line with IOTC Resolution on Data Confidentiality Policy and Procedures⁷.

Any scientific publication shall contain only aggregated data and shall mention the common origin of the data. Copy of any publication made by one Party shall be transmitted to the other Parties.

Article 11

Amendment

The delegated authorities may, by mutual agreement, in particular at a meeting of the Working Group of NOP Managers of the South-West Indian Ocean Coast States, define other procedures for the application of this Protocol. Nothing in this Memorandum of Understanding shall be interpreted as derogating from the rights and obligations of the Parties to other international agreements to which either of them is a party on the date of signature of this MoU.

Any Party may, at any time after the entry into force of this MOU, propose amendments to this Agreement and its Annexes by communicating the text of its proposal to the Depositary 3 months before the WG meetings, which shall promptly circulate any such proposal to all Parties.

Amendments shall be adopted during a meeting of the States Parties by consensus of the Parties represented.

⁷ IOTC Resolution 12/02

Amendment shall enter into force thirty (30) days after the Depositary has received instruments of acceptance or approval from all of the Parties.

Article 12

Depositary

The original of this Agreement shall be deposited with the Indian Ocean Commission Secretariat/IOC-PRSP which shall serve as the Depositary.

The Depositary shall transmit certified copies of the Agreement to all signatories.

Article 13

The Cooperative Zones

The annexed Cooperative Zones ([Annex 1](#)) is an integral part of this Memorandum of Understanding. The purpose of this annex is to provide the delegated authorities responsible for the coordination and management of national fisheries observer programs with the necessary references to conduct operational work. Nothing in the said MoU shall be deemed to affect the rights, claims or views of any of the signatory parties with respect to the limits or extent of jurisdiction in relation to fishing.

Article 14

Entering into force

This Memorandum of Understanding shall enter into force on the date of its signature by all the Parties and by the IOC Secretariat. This Agreement may be withdrawn by either Party by written notice of such intention with ninety (90) days' notice to the IOC through diplomatic channels.

Article 15

Settling of disputes

Disputes between the parties which may arise from the implementation of this Protocol shall be settled through diplomatic channels.

Article 16

Non contracting parties

Non contracting parties can take part in the WG meetings with prior approval of the Working Group.

Article 17

Validity

The MoU shall automatically renew after the period of five (05) years if none of the participating countries objects to the renewal.

If a participating country objects to the renewal of the MoU, the current MoU shall remain valid until the adoption of new MoU.

Article 18
Withdrawal

Any participating country may withdraw from this MoU upon the expiration of twelve (12) months from the date of a written notification to the Depositary.

IN WITNESS WHEREOF, THE UNDERSIGNED, DIRECTLY AUTHORIZED BY THEIR RESPECTIVE GOVERNMENT, HAVE SIGNED THIS MEMORANDUM OF UNDERSTANDING.

Done in three (3) copies, in French, English and Portuguese, the texts being equally authentic.

Date:

Signatories:

For the Union of Comoros

For Kenya

The Director General of the “Direction générales des ressources halieutique”

The Director General of the Kenya Fisheries Service (KeFS)

For France

For the United Republic of Tanzania

The Director of the « Direction de la Mer Sud Océan Indien

The Director General of the Deep Sea Fishing Authority (DSFA)

For Madagascar

For Mozambique

The Executive Director of the “Centre de Surveillance des Pêches (CSP)”

The National Director of the Maritime and fisheries Policy

For Mauritius

The Director of Fisheries

For South Africa

The Deputy Director General: Fisheries Branch, Department of Agriculture, Forestry and Fisheries

For the Seychelles

The Chief Executive Officer of the Seychelles Fishing Authority (SFA)

For Somalia

The Director general of Fisheries and Marine Resources

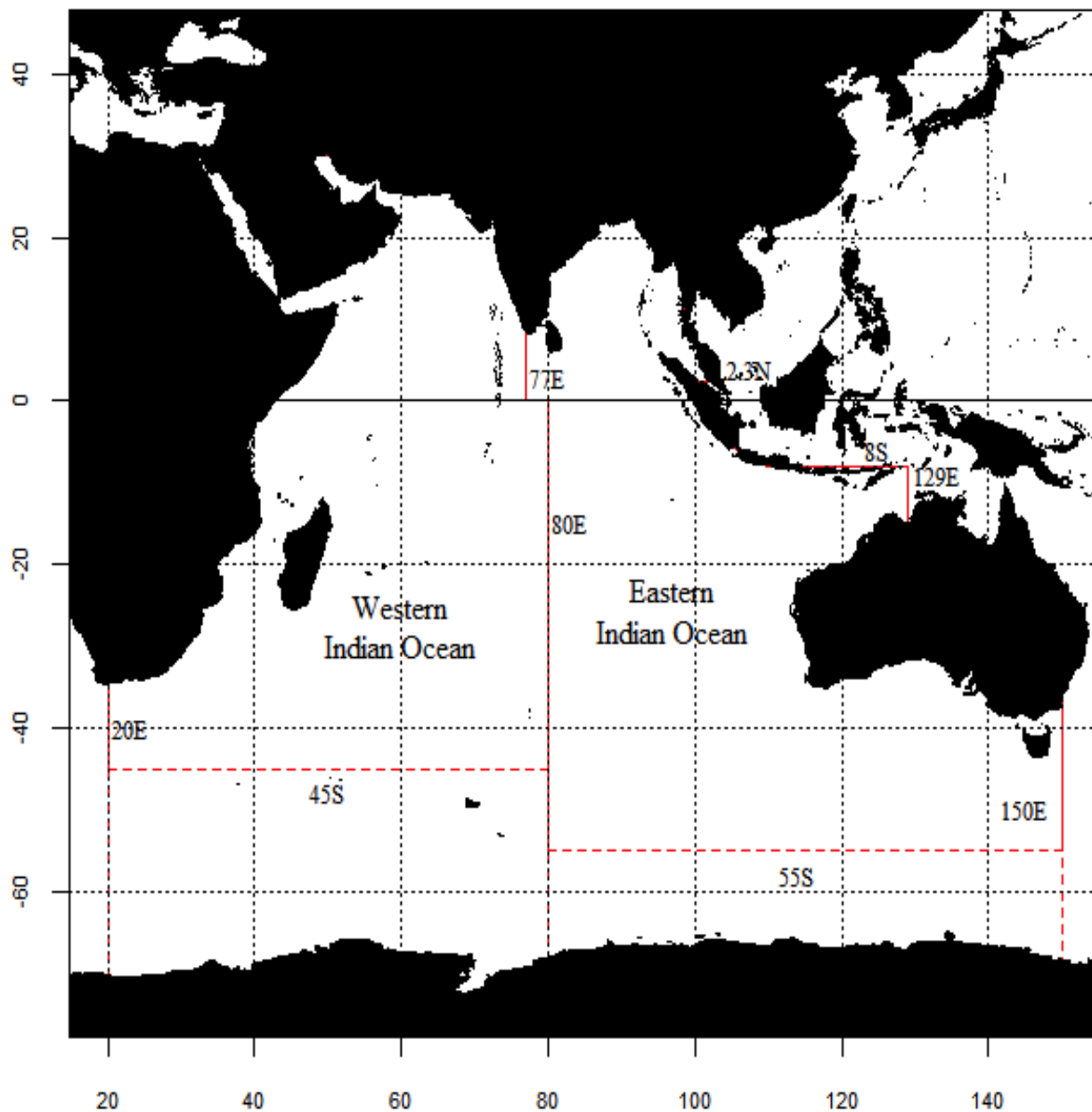
For the Maldives

The Director of the Fisheries Compliance Section (FCS)

For the Indian Ocean Commission (IOC)

The Secretary General of the IOC

Annex 1: Cooperative zones - the area of cooperation agreed between the parties.



Annex 2 - Data, procedures and tools for the sharing of observation data collected during cooperative observation trips

Data

1. The primary objective of sharing observation data collected during cooperative observation trips is that each Party has knowledge of the catches (target and incidental) made in the waters under his authority.
2. To achieve this objective, the following raw or aggregated observation data will need to be provided:
 - a) Raw data can be collected through documents referenced below:
 - i. SWIOFP Manual
 - ii. IOTC Manual
 - b) Aggregated data (to be directly integrated into the StaRFISH database):
 - i. Retained catches (number or tonnes) by species (FAO code), date, EEZ and flag, and by school and association type;
 - ii. Discarded catches (number or tonnes) by species (FAO code), date, EEZ and flag, and by school and association type;
 - iii. Bycatch (number or tonne) by species (FAO code), date, EEZ, flag, by school and association type and by fate and health status

Procedures

1. That the observation data to be shared between the signatory Parties is grouped by EEZ, sorted by month and by ships flag, before being shared.
2. That data sharing is carried out in such a way that the activities or catches of the vessels cannot be located in space or time;
3. Each signatory Party may only have access to data collected in its own EEZ. Upon request of the flag State and/or the State of the EEZ the data will be transmitted in sufficient detail to allow their use for reporting purposes to the IOTC and/or scientific purposes.
4. That the exchange of observation data takes the form of a trip report as established by the IOTC, where data grouped by 1° x1° is replaced for a grouping by EEZ;
5. The sharing of aggregate data should require minimum work from observers or the National Observer Programs.
6. All observer data related to cooperative observation activities be transmitted by the signatory Parties, to the IOC-PRSP, in an electronically format defined by the IOTC to

facilitate their subsequent use by the signatory States.

7. The exchange of data is conducted in a confidential manner in accordance with the confidentiality standards stipulated in IOTC Resolution.

Tools

8. Observation data is to be stored in the Internet tool, named StaRFISH, created by the IOC under the regional cooperation for the sharing of Marine Monitoring, Control and Surveillance (MCS) data.
9. This tool must:
 - a) Ensure different levels of use and access to data by different users and groups;
 - b) Ensure the traceability, security and confidentiality of shared data;
 - c) Allow for the export of raw or aggregated observation data from the DBs in use by the different Parties (SWIOF, ObServe, IOTC, etc.) to the StaRFISH DB.
 - d) Process GIS (Geographic Information System) raw observation data in order to group it by EEZ and stratify it by vessel flag (Note: this process can be carried out by the NOP and / or the administrator of the StaRFISH DB).
 - e) Integrate and store all aggregated observation data into the StaRFISH DB Observer module, allowing each country to access the data collected in its EEZ without access to data collected in the EEZ of other countries.
 - f) Develop queries allowing each country to consult the observed catches made in its EEZ by:
 - i. Flag
 - ii. Over a chosen period of time (month, quarter or year)
 - iii. Species
 - iv. Quantity (tonnes, numbers)
 - v. Other
 - g) Share among the signatory Parties information such as:
 - iv. Information on the observer
 - v. Information on vessel itinerary
 - vi. Trip summary (number of days in the fishing zone, number of days of navigation, number of fishing days, number of days lost, total number of sets / spinning)
 - vii. Ship sighting

Annex 3 - Tools for on-line planning and coordination of observer deployments

1. An observer deployment calendar, carried out with the agreement and in cooperation with the vessels or flag State requesting the embarkation of observers, must be included to StarFISH Observer Module, to enable the follow up and coordination of deployments of certified sub-regional observers.
2. Bilateral agreements established by the Parties signatory to this MoU should indicate that observers deployed under these agreements may come from any existing Southwest Indian Ocean NOP, under the condition that the observer is certified at sub-regional level to conduct cooperative observation trips;
3. Bilateral agreements established by the Parties signatory to this MoU, should indicate that observation data collected during cooperative observation trips by observers certified at sub-regional level will be shared with the signatory Parties to this MoU, as stipulated in [Annex 2](#).
4. Deployments of observers of signatory Parties are to be coordinated:
 - a. during the 1st meeting of the SWIO NOP Managers Working Group (SWIO-NOPM-WG);
 - b. by means of a calendar included in the StarFISH DB; and
 - c. by mail;
5. NOP Managers of the Signatory Parties to this MoU, are to regularly update the shared observer deployment calendar (at least once a week) in order to avoid problems between Parties concerning the coordination of observer deployments;
6. The deployment of sub-regionally certified observers by one of the Parties on national ports of another Party should be supported by the NOP Manager of the country where the certified observer is expected to embark/disembark.
7. The signatory Parties agree to exchange each other with observers as necessary in order to meet their national or international obligations. In this case, observation costs shall be the subject to a bilateral agreement to be established between the two Parties.

Annex 4 - Minimum criteria for the certification of Observers at sub-regional level

- **Education** MINIMUM 10 YEARS OF EDUCATION Holder of the Secondary School Certificate⁸ or equivalent and able to carry mathematical calculations and computer literacy (user Word and Excel).
- **Age** Minimum of 21 years.
- **Health** Holder of a valid IMO (STCW-F) compliant Certificate of Medical Fitness⁹ issued by an authorised medical practitioner.
- **Literacy** Evidence of literacy competency in at least one of the following languages: English, French, Portuguese. Able to communicate with the Captain and to write comprehensive reports on activities on-board a vessel.
- **Safety** Holder of a valid STCW₂₀₁₀ Basic Safety Training Certificate¹⁰
Compulsory Training Modules:
 - Personal Survival Techniques (≈4 days)
 - Personal Safety and Social Responsibilities (≈1.5 days)Recommended training modules:
 - Medical 1 (PSC1 HPR + remote medical) (≈3 days)
 - Marine Basic Prevention and Fire Fighting (≈3 days)Optional training modules:
 - Radio Telephone Operators certificate
- **Ethics** Clear police record with a history of strong socially acceptable ethical standards in the areas of honesty and public behaviour. The Observer should be impartial and have no financial links with fishing companies.
- **Conditions** Able to work at sea for long periods. Sea time can be from 7 to 100 days but is generally from 30-60 days on Industrial Tuna Purse seiners and 10 to 100 days on Pelagic Longliners.
- **Experience** Previous sea going experience, fishing experience, data collection experience and /or fisheries law and legislation experience is essential.
- **Training** Have undergone Basic Observer Training Course as per IOTC proposed training curriculum¹¹ ([Annex 7](#)).

⁸ Document attesting that the candidate has fulfilled secondary education requirements of his country

⁹ Ensures that the Observer is able to endure normal conditions of life at sea and that its health status will not endanger the health and safety of the other people aboard

¹⁰ To comply with “international safety standards for merchant seaman and fishermen” to embark on-board any commercial fishing vessel, observers are required to undertake a number of STCW₂₀₁₀ certified courses.

¹¹ IOTC Regional Observer Scheme. Observer Manual. Appendix IV – Observer Training, page 140 to 142.
Version 1.2 2015.

Annex 5 - Observer accreditation process (training and recognition)

The Southwest Indian Ocean NOP Managers Working Group (SWIO-NOPM-WG) will be tasked with overseeing observer accreditation process: obtaining certification, maintaining certification, decertification and re-certification as per described below.

Obtaining certification

1. National Observer Programme Managers from the signatory Parties will propose a list of candidates to be certified at sub-regional level to the SWIO-NOPM-WG.
2. Candidates that meet the “*Minimum criteria for the certification of Observers at sub-regional level*” will integrate sub-regional refresh training.
3. Candidate must satisfactorily complete sub-regional refresh training.
4. By derogation from point 3, when observers from one of the Coastal States have already received training recognized as equivalent in their State of origin, they shall be considered as observers trained at sub-regional level.
5. Successful candidates will be certified at sub-regional level by the IOC and provided with a recognized ID card attesting their level of training.
6. Observer certification at sub-regional level (and training) will be fishing gear-type specific.
7. Observers will be certified for each gear type separately.
8. Certified Observers will have the possibility to conduct “Cooperative observation” trips and collect observation data in all the Maritime zones (i.e. fishing zones or areas under authority) included in this MoU at the request of the coastal State or flag State concerned.
9. Certified Observers are under the direct responsibility of the delegated authority responsible for the coordination and management of the National Observer Program that proposed them for regional certification and under which they are employed.
10. National Observer Programme Managers and Coordinators are responsible for providing rigorous and regular debriefing, conducting observer competency based assessments and to ensure that data collected by their sub-regionally certified observers fully accomplishes signatory parties common goals, meet IOTC obligations, and is of consistent high standard. The information collected by NOP Managers and Coordinators during observer regular debriefings and competency based assessments can be used in three main ways:
 1. Diagnostic: to identify educational or training needs.

2. Formative: to provide feedback on the work of the Observer to the other Parties;
3. Summative: to evaluate Observer performance.

Maintaining certification

11. To maintain national Observers fishing gear-type specific certification, NOP Managers will need to present recommendations on sub-regionally certified Observers to the SWIO-NOPM-WG on an annual basis or recognized national training organization. Such recommendations should prove that observers have complete a minimum of one trip per year (12 month period), on each gear-type specific vessel that they want to maintain their training, and to provide evidence of Observer current competency (successful Observer debriefings and competency based assessments) or that training organizations are always of an equivalent or higher level;
12. Recommendations will be reviewed by the SWIO-NOPM-WG on a yearly basis with a view to automatically renewing Observer certification or the training organization (per gear-type specific vessel) on the basis of current competency.

Decertification

13. A certified Observer will be considered, by its NOP Manager or the SWIO-NOPM-WG, has not competent to conduct “Cooperative observation”, when not able to apply its knowledge and skills to successfully conduct activities in a range of situations and environments, in accordance with the standard of performance expected by the signatory Parties to this MoU.
14. A certified Observer for a particular gear type will, upon formal notification, will be decertified and no longer eligible to conduct “Cooperative observation” on that particular gear type vessels when:
 1. It hasn't complete an at-sea deployment for a period greater than 12 months;
 2. Its debriefings and competency based assessments results have been considered sub-standard;
 3. Its debriefings and competency based assessments results have been compared against the trip data in a randomly selected trip audit and found to be, in the eyes of its NOP Manager or the SWIO-NOPM-WG, sub-standard;

Notes on de-certification

15. *De-certification requires formal notification following a review of the circumstances involved with particular view to ensuring that effective observers are not unnecessarily removed from the sub-regional observer pool;*

16. If an observer's work has been deemed unsatisfactory by a single person, another person approved by the SWIO-NOPM-WG should re-evaluate observer work;

17. If a valid cause prevents an Observer from completing an at-sea deployment for a period greater than 12 months, resulting in decertification of that observer, all reasonable efforts will be made to ensure that the then ex-certified observer is re-certified as soon as possible

Recertification

18. As long as the quality of previous observation data, debriefings and competency based assessments has been of good standard, an observer who has been decertified under decertification reason 1, above, can be recertified following a refresher interview with a NOP Manager endorsed by the SWIO-NOPM-WG;

19. An observer decertified because the quality of their work had been considered unsatisfactory (decertification reason 2. and 3., above) may be recertified under the following conditions:

→ the NOP Coordinator or Manager under which they work provides a written recommendation that the ex-certified observer be considered for re-training

→ the ex-certified observer successfully undertakes a second training and assessment programme when next such a training is offered.

Terms of Reference for the Working Group of National Observer Program Managers of Southwest Indian Ocean (WG-SWIO–NOPM)

Rationale

To meet the need for the conservation and management of marine living resources, the development of modern day observer program, is identified in the United Nations Convention on the Law of the Sea of 10 December 1982, Part 5, Articles 61 to 65.

The 1982 Convention laid the foundation for a new era in international fisheries law that was followed by several major agreements that were drawn up to enhance the legal status of the management and conservation of marine living resources, the most important of these were:

- The 1993 FAO Compliance Agreement, to promote compliance with international conservation and management measures by fishing vessels on the high seas
- The 1995 FAO Code of Conduct for Responsible Fisheries;
- The 1995 United Nations Fish Stocks Agreement.

These three instruments complement and mutually reinforce each other, highlighting the pivotal role of Regional Fisheries Management Organisations (RFMO's), in establishing a responsible international fisheries regime to promote and enhance data-collection and the exchange of data for assessing marine fisheries resources potentials and developing profiles of all target and non-target stocks. In line with these instruments, the framework was set for meaningful advances in fisheries management and establishing observer programs for monitoring, control and surveillance and scientific data collection.

Information collected by the Sub-regional Observer Scheme (SROS) shall, as appropriate, be used to support the Commissions of which SWIO States are members of the MoU, such as the South West Indian Ocean Fisheries Commission (SWIOFC), the Indian Ocean Tuna Commission (IOTC), and the Indian Ocean Commission (IOC).

The provision of observers by this program does not relieve Coastal States, members of MoU, of their responsibilities towards the IOTC and in particular its Resolution 11/04 which requires each CPC to ensure that minimum of 5% fleets are subject to scientific observation and submit the corresponding reports annually to IOTC. This responsibility rests solely with CPC, the only authority to transfer data concerning its EEZ or its vessels to any other organization or organization.

Historical Background

Large pelagic resources (tunas and tuna like species) constitute the largest shared marine resource at the level of the Indian Ocean basin and one of the most economically important marine species globally. In 2012, almost 20% (1,5 million tons) of world tunas were caught in the Indian Ocean (FAO, 2014), of which 65% (\approx 1 million tons) were fished in the West Indian Ocean (FAO, 2014), and almost 40% of total landings being caught in the EEZs of coastal countries, where tunas are of major importance for the food security of coastal populations and a socio-economic pillar for the development of port communities.

The SWIO region has a large fishing area, where several SWIOFC coastal states EEZs merge together, all around Madagascar, creating the largest area of continuous territorial waters in the Indian Ocean. In 2012, 60% of tuna and tuna like species fished in the EEZs of the above mentioned countries were caught by foreign industrial fleets, 34% by national small-scale fleets (mainly artisanal and subsistence), and only 6% were fished by national industrial and semi-industrial fleets.

The obligation of the IOTC country member states to deploy observers on-board their small scale and industrial national fleets has created the need for NOPS to coordinate observer deployments in order to meet their national and international obligations, and respect private agreements established with the industry.

As a result, the Indian Ocean Commission (IOC) member states NOPS requested the support of the IOC to organise two yearly meetings to coordinate NOP deployments and to study present and future challenges for the implementation of a Sub-regional Observer Scheme at the level of the SWIO region, including the standardization of observer training and data collection and the development of tools for the fair exchange of data collected by observers deployed on-board fishing vessels operating in this area.

Presently the SWIOFish1 project, with the support of the SWIOFC and of the IOC, has stepped in to take on board all SWIO States in the organisation and future implementation of a SWIO Sub-regional Observer Scheme (SWIO-SROS), in accordance of resolution IOTC 16/04.

The SWIOFC, the IOC and the IOTC work closely on large pelagic fisheries and support countries to meet their Regional Fisheries Body (RFB) obligations. The Commissions acknowledge the importance of the best scientific evidence available to support the conservation and management decisions for fisheries and recognize the value of monitoring and verification of fishing operations. Consequently, they recognized the importance of high quality standards through the adoption of guidelines to collect and report relevant fisheries data.

Such guidelines can become binding through the implementation of Conservation and Management Measures on standards for the collection, reporting, verification and exchange of data. In this context, the role that properly implemented observer programmes have played, to obtain the required information, has been globally recognized. The use of such programmes has supported the management and conservation of fisheries resources and

marine ecosystems around the world. Observers can provide high quality data and, additionally through their work, observers can promote good communication between scientists, managers, RFMOs and fisheries users.

Establishment

In order to develop the SWIO Sub-regional Observer Scheme (SROS), a Working Group of NOP Managers of SWIO needs to be formalised under the IOC PRSP mechanism.

The Working Group of SWIO NOP Managers (WG-SWIO–NOPM) will comprise, at least, of:

- Two representatives of the Indian Ocean Commission (IOC)
- Two representatives of participating member countries national observer programmes (NOP coordinator and database manager)

It will be able to accommodate observers, including RFMO and agreements representatives from the region.

The Working Group is to be chaired by the participating countries for maximum one year, supported by the SROS Coordinator and respective Coordination Team by the IOC.

Objectives of the WG-SWIO-NOPM

The objectives of the Working group is to implement a Regional Observer Scheme in order to coordinate the deployment of observers from member countries and thereby improve the catch and effort data and other relevant information in line with the CMMs of RFMOs and Agreements.

Functions

The items to be addressed by the WG-SWIO–NOPM shall at a minimum include, but not be limited to the following:

- Scope of the SWIO Sub-regional Observer Scheme (SROS);
- Recognition of the role of the observers and the WG;
- Source(s) of observers (state observers, independent observers, etc.);
- Minimum information and data to be collected;
- Level of coverage for different gear types or fisheries;
- Management of the SWIO-SROS;
- Funding of the SWIO-SROS (participating countries, IOC and donors);
- Develop SWIO Sub-regional Observer Scheme standards
 - a. Development of minimum standards for observer’s qualification, training, certification, and debriefing;

- b. Development of minimum standards for debriefers qualification, training, and certification;
 - c. Development of minimum standards for trainers qualification, training, and certification;
 - d. Development of minimum standards for coordinators / managers qualification, training, and certification;
 - e. Development of minimum standards for training institutions / providers qualification, training, and certification;
 - f. etc.
- Develop formal certification and effective quality assurance processes with regard to the SWIO Sub-regional Observer Scheme:
 - a. Certification of observer;
 - b. Certification of debriefers;
 - c. Certification of trainers;
 - d. Certification of observer coordinators / managers
 - e. Certification of training institutions / providers;
- Development of [or guidelines for] Code of Conduct of observer behaviour;
- Data sharing, transmission, access;
- Coordination with other Regional, Sub-regional and National Observer Programmes;
- Development of minimum standards for supplies and equipment that should be provided to the Observers;
- Development of minimum standards for placement, and health and safety, including the ability to independently communicate with the appropriate entities;
- Development / review of Observer Manuals, training materials, other support material and Species Identification Guides;
- Requirements concerning observers on board for vessels operating in the cooperation zone (SWIO), including accommodation, safe conditions, and full access to and use of relevant facilities and equipment;
- Elements of an annual reporting on the implementation of the NOP/SROP; by NOP Coordinators and by the SROS Coordination Team;
- Confidentiality of the data.
- Coordinate observer deployments at regional level;
- Other, as per required;

- The WG-SWIO–NOPM may modify the above items and identify priority issues for inclusion to WG-SWIO–NOPM ToR.

Timeline

The WG-SWIO–NOPM will discuss intersessionally (by email) and will meet twice a year (February and September) on rotation basis.

The February meeting shall have per main objectives to:

- present SROS/NOP yearly report;
- scrutinise the list of candidates proposed by NOPs, to undergo SROS certification process;
- coordinate SWIO-SROS yearly deployments;
- review RFBs Commission’s recommendations and conservation and management measures (CMMs) of relevance to observers
- ensure that data procedures for the sharing of observation data collected during cooperative observation trips are being followed and that data tools are fully operational;
- ensure that procedures for the live coordination of observer deployments are being followed and that coordination tools are fully operational;
- review applications for recognition for national training organizations.

The September meeting shall have per main objectives to:

- scrutinise the list of candidates proposed by NOPs, to undergo SROS certification process;
- plan yearly joint refresh training of candidates selected to undergo SROS certification
- evaluate SROS certified observer performance based on evidence of Observer current competency provided by NOP Coordinator;
 - a. renew individual SROS observers’ certification (per gear-type specific vessel) on the basis of evidence of observer current competency;
 - b. decide on the decertification or re-certification of individual SROS certified observers (per gear-type specific vessel) on the basis of evidence of observer current competency;
- develop SWIO Sub-regional Observer Scheme standards;
- develop formal certification and effective quality assurance processes with regard to the SWIO Sub-regional Observer Scheme;

- review applications for recognition for national training organizations;
- other, as per required.

Funding

The meetings of the Working Group are to be provisionally funded by the IOC under the PRSP mechanism and the participating States. However long-term funding should be sourced for the Working Group meetings and related activities, the appointment of a SROS Coordinator and respective Coordination Team.

Annex 7 - Basic Observer Training Course as per IOTC proposed training curriculum

“CPCs should include the following basic content in their training of observers. Assessment criteria that the observer has acquired these skills should be provided with the submission of candidates to the IOC for accreditation” (IOTC ROS Observer Manual, Version 1.2, 2015).

Modules	Modules
The role of the Observer	Describe the role of observers and the objectives of different categories of observers. (Scientific data collection officers / Compliance – monitoring)
Observer Protocols	In the context of data collection note the value of their work in fisheries management.
Conduct on board	Introduce on-board expected observer conduct. Protocol when interacting with the officers and crew.
Cultural awareness	Cultural training, provide a list of do and don'ts Elements of communication and conflict resolution
Ship layout and terminology	Describe the basic layout of fishing vessel of different designs and used in the different fisheries. Understand the common use of nautical terminology. Provide advice where relevant information can be collected that the observer will be required to record. Explain working and observation areas and where best to carry out routine sampling and monitoring observations. Provide a breakdown of the different personnel on-board their responsibilities and seniority.
Observer Health and Safety practices	Explain importance and procedure to undertake a pre-sea safety inspections and vessel safety tour.
Supports formal certified survival training	Introduce observers to safe working practices on-board a vessel. Run through safety protocols, emergency communication and contact information. Advise observers on various health issues that can be experienced on-board and personal first aid.

	<p>Provide advice on dangers in collecting samples or moving around on-board a vessel engaged in active fishing</p> <p>Advice observers on the procedures to follow and potential dangers that may be encountered during personnel transfers from one vessel to another.</p>
Fishing methods, gear and related equipment	<p>Present a detailed description of different fishing methods, equipment and the terminology and functions of each of the gear components.</p> <p>Describe different target species and by-catch associated with the different fishing methods used.</p> <p>Observers need to know what gear components to measure and how to take such measurements.</p>
Species identification and sampling methods Identification of commercial fish species and the main by-catch species caught per fishing sector	<p>Observers need to be taught the basic nomenclature for recording family, genus and species and the danger of incorrect identification from using common names</p> <p>The main species targeted in the Indian Ocean region will be covered together with the most prevalent by-catch species.</p> <p>Observers will be taught methods to identify fish, from specific diagnostic features using ID guides provided.</p> <p>Observers will be taught methods to sample fish.</p> <p>Method of recording and preserving samples of un-identified species will be described.</p>
Sampling methodologies	<p>Provide instruction to estimate weight / numbers of catch from various techniques (volume of hold / volume of wells / brails etc.)</p>
Observer gear, care and maintenance	<p>Provide instruction on the use and calibration of sampling equipment and recording data in working situations and the care and maintenance of sampling equipment.</p>
Navigation and navigational aids	<p>Provide instruction on the basics of navigational theory to understand positioning, (latitude and longitude), course and speed.</p> <p>Provide instruction to record position and depth data from various electronic navigation systems such as, GPS, plotters, echo-sounders and sonar.</p>
On-board data collection	<p>Provide instruction for recording data on prescribed data</p>

and recording	forms and correct methods of completing these forms.
Data forms and electronic data recording	Note the need for accuracy and methods to cross check data. (Additional Instruction on electronic data bases to cover data capture from data sheets should be considered)
Communication and reports-	Provide instruction on writing and submitting reports and report writing techniques
→ Trip reports, submission (timeline & circulation)	Note the formats and the optional methods of sending these back to their controlling authority.
→ Report writing formats	Observers need training in radio communication protocols (VHF, HF & Inmarsat)
Shark, Sea Bird, Marine Mammals and Turtle identification and sampling methods	Provide instruction on the risk of interactions between fishing gear and various marine fauna, (especially protected and critically endangered species).
Fisheries interactions and monitoring the effectiveness of bycatch mitigation measures and good practices	Note the various methods of observing for, and recording these. Details on mitigation measures to prevent interaction with other marine fauna need be covered.