REVIEW OF CONSERVATION AND MANAGEMENT MEASURES RELATING TO DATA AND STATISTICS

PREPARED BY: IOTC SECRETARIAT, 25 NOVEMBER 2014

PURPOSE

To encourage participants at the Working Party on Data Collection and Statistics (WPDCS) to review the existing Conservation and Management Measures (CMM) relating to data collection and statistics, noting the CMMs referred to in document IOTC–2014–WPDCS10–03; and as necessary to 1) provide recommendations to the Scientific Committee on whether modifications may be required; and 2) recommend whether other CMMs may be required.

BACKGROUND

In addition to the CMMs outlined in document IOTC–2014–WPDCS10–03, IOTC fisheries are currently subject to a range of other CMMs adopted by the Commission. In an attempt to focus the efforts of the WPDCS participants may wish to annually review several of the key CMMs which are clearly based on scientific advice, or which match current requests from the Commission. The following are a list of the key CMMs for the consideration of the WPDCS10. At the next meeting, a range of other CMMs may be presented for discussion.

Resolution 11/04 ***On a regional observer scheme***. This resolution puts in place a programme comprising national observer schemes to collect verified catch data and other scientific data related to the fisheries for tuna and tuna-like species in the IOTC area. The programme initially covers 5% of the operations of the vessels over 24 m and will include, progressively up to 5% of their operations in 2013, vessel under 24 m that fish outside their EEZs. Artisanal fishing landings shall also be progressively monitored at port by observers. Australia noted that a significant number of vessels less than 24 m long fish on the high seas in the IOTC Area, and the exclusion of these vessels at the start of the programme will result in a considerable loss of valuable information (Appendix I).

Resolution 10/02 ***Mandatory statistical requirements for IOTC Members and Cooperating Non-Contracting Parties (CPC's)*****.** This resolution sets out mandatory minimum requirements for the annual submission of fisheries statistics to the IOTC Secretariat. This resolution applies to all tuna and tuna-like species, including all billfish species (Appendix II).

Resolution 13/03 ***On the recording of catch and effort data by fishing vessels in the IOTC Area of Competence*****.** This resolution sets out mandatory minimum requirements for the collection of operational catch-and-effort data for fishing vessels in the IOTC Record of Authorized Vessels. It contains the list of species for which data shall be collected, by type of gear (Appendix III).

Resolution 13/08 P*rocedures on a fish aggregating devices (FADs) management plan, including more detailed specifications of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species***.** Provisions in this resolution call for IOTC CPCs that have fisheries on drifting and/or anchored FADs to complete a FAD logbook and report the data collected in aggregated format to the IOTC every year, along with the data reported with regards to IOTC Resolution 10/02 (Appendix IV).

DISCUSSION

As part of best practice, the WPDCS is obliged to review existing CMMs and consider whether their science-based components need to be updated. If this is the case, then the WPDCS should provide clear, science-based recommendations for the Scientific Committee's consideration.

RECOMMENDATION

That the WPDCS **NOTE** paper IOTC–2014–WPDCS10–05 which aimed to encourage the WPDCS to review the existing Conservation and Management Measures (CMMs) relating to data and statistics, and as necessary to 1) provide recommendations to the Scientific Committee on whether modifications may be required; and 2) recommend whether other CMMs may be required.

APPENDICES

Appendix I: Resolution 11/04 *on a regional observer program*

Appendix II: Resolution 10/02 *mandatory statistical requirements for IOTC Members and Cooperating Non-Contracting Parties (CPC's)*

Appendix III: Resolution 13/03 *on the recording of catch and effort data by fishing vessels in the IOTC Area of Competence*

Appendix IV: Resolution 13/08 p*rocedures on a fish aggregating devices (FADs) management plan, including more detailed specifications of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species*

APPENDIX I

RESOLUTION 11/04
ON A REGIONAL OBSERVER SCHEME

The Indian Ocean Tuna Commission (IOTC),

TAKING INTO ACCOUNT the need to increase the scientific information, in particular to provide the IOTC Scientific Committee working material in order to improve the management of the tuna and tuna-like species fished in the Indian Ocean;

REITERATING the responsibilities of flag States to ensure that their vessels conduct their fishing activities in a responsible manner, fully respecting IOTC Conservation and Management Measures;

CONSIDERING the need for action to ensure the effectiveness of the IOTC objectives;

CONSIDERING the obligation of all IOTC Contracting Parties and Cooperating Non-Contracting Parties (hereinafter CPCs) to fully comply with the IOTC Conservation and Management Measures;

AWARE of the necessity for sustained efforts by CPCs to ensure the enforcement of IOTC's Conservation and Management Measures, and the need to encourage Non-Contracting Parties (NCPs) to abide by these measures;

UNDERLINING that the adoption of this measure is intended to help support the implementation of Conservation and Management Measures as well as scientific research for tuna and tuna-like species;

CONSIDERING the provisions set forth in Resolution 10/04 *On A Regional Observer Scheme*, adopted by the Commission;

CONSIDERING the deliberations of the 12th Session of the IOTC Scientific Committee held in Victoria, Seychelles from 30 November to 4 December 2009

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

Objective

1. The objective of the IOTC observer scheme shall be to collect verified catch data and other scientific data related to the fisheries for tuna and tuna-like species in the IOTC area of competence.

Observer Scheme

2. In order to improve the collection of scientific data, at least 5 % of the number of operations/sets for each gear type by the fleet of each CPC while fishing in the IOTC area of competence of 24 meters overall length and over, and under 24 meters if they fish outside their Exclusive Economic Zone (EEZ) shall be covered by this observer scheme. For vessels under 24 meters if they fish outside their EEZ, the above mentioned coverage should be achieved progressively by January 2013.

3. When purse seiners are carrying an observer[1] as stated in paragraph 1, this observer shall also monitor the catches at unloading to identify the composition of bigeye tuna catches. The requirement for the observer to monitor catches at unloading is not applicable to CPCs already having a sampling scheme, with at least the coverage set out in paragraph 2.

4. The number of the artisanal fishing vessels landings shall also be monitored at the landing place by field samplers[2]. The indicative level of the coverage of the artisanal fishing vessels should progressively increase towards 5% of the total levels of vessel activity (i.e. total number of vessel trips or total number of vessels active).

5. CPCs shall:

[1] Observer: a person who collects information on board fishing vessels. Observer programmes can be used for quantifying species composition of target species, bycatch, by-products and dead discards, collecting tag returns, etc.

[2] Field sampler: a person who collects information on land during the unloading of fishing vessels. Field sampling programmes can be used for quantifying catch, retained bycatch, collecting tag returns, etc.

a) Have the primary responsibility to obtain qualified observers. Each CPC may choose to use either deployed national or non-national of the flag State of the vessel on which they are deployed;

b) Endeavour that the minimum level of coverage is met and that the observed vessels are a representative sample of the gear types active in their fleet;

c) Take all necessary measures to ensure that observers are able to carry out their duties in a competent and safe manner;

d) Endeavour to ensure that the observers alternate vessels between their assignments. Observers are not to perform duties, other than those described in paragraphs 10 and 11 below;

e) Ensure that the vessel on which an observer is placed shall provide suitable food and lodging during the observer's deployment at the same level as the officers, where possible. Vessel masters shall ensure that all necessary cooperation is extended to observers in order for them to carry out their duties safely including providing access, as required, to the retained catch, and catch which is intended to be discarded.

6. The cost of the observer scheme in paragraph 2 and 3 shall be met by each CPC.

7. The sampling scheme referred in paragraph 4 will be covered by the Commission's accumulated funds and voluntary contribution on a provisional basis. The Commission will consider an alternative for the financing of this scheme.

8. If the coverage referred in paragraphs 2 and 3 is not met by a CPC, any other CPC may, subject to the consent of the CPC who has not met its coverage, place an observer to fulfil the tasks defined in the paragraphs 1 and 2 until that CPC provides a replacement or the target coverage level is met.

9. CPCs shall provide to the IOTC Executive Secretary and the IOTC Scientific Committee annually a report of the number of vessels monitored and the coverage achieved by gear type in accordance with the provisions of this Resolution.

10. Observers shall:

a) Record and report fishing activities, verify positions of the vessel;

b) Observe and estimate catches as far as possible with a view to identifying catch composition and monitoring discards, by-catches and size frequency;

c) Record the gear type, mesh size and attachments employed by the master;

d) Collect information to enable the cross-checking of entries made to the logbooks (species composition and quantities, live and processed weight and location, where available); and

e) Carry out such scientific work (for example, collecting samples), as requested by the IOTC Scientific Committee.

11. The observer shall, within 30 days of completion of each trip, provide a report to the CPCs of the vessel. The CPCs shall send within 150 days at the latest each report, as far as continuous flow of report from observer placed on the longline fleet is ensured, which is recommended to be provided with 1°x1° format to the IOTC Executive Secretary, who shall make the report available to the IOTC Scientific Committee upon request. In a case where the vessel is fishing in the EEZ of a coastal State, the report shall equally be submitted to that coastal State.

12. The confidentiality rules set out in the Resolution 98/02 [superseded by Resolution 12/02] *Data confidentiality policy and procedures* for fine-scale data shall apply.

13. Field samplers shall monitor catches at the landing place with a view to estimating catch-at-size by type of boat, gear and species, or carry out such scientific work as requested by the IOTC Scientific Committee.

14. The funds available from the IOTC balance of funds may be used to support the implementation of this programme in developing States, notably the training of observers and field samplers.

15. The elements of the Observer Scheme, notably those regarding its coverage, are subject to review and revision, as appropriate, for application in 2012 and subsequent years. Basing on the experience of other Tuna

RFMOs, the IOTC Scientific Committee will elaborate an observer working manual, a template to be used for reporting (including minimum data fields) and a training program.

16. This Resolution supersedes Resolution 10/04 *On A Regional Observer Scheme*.

APPENDIX II
RESOLUTION 10/02
MANDATORY STATISTICAL REQUIREMENTS FOR IOTC MEMBERS AND COOPERATING NON-CONTRACTING PARTIES (CPC'S)

The Indian Ocean Tuna Commission (IOTC)

GIVEN that the Agreement for the implementation of the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA) encourages coastal States and fishing States on the high seas to collect and share, in a timely manner, complete and accurate data concerning fishing activities on, inter alia, vessel position, catch of target and non-target species and fishing effort;

NOTING that the United Nations Food and Agricultural Organisation (FAO) Code of Conduct for Responsible Fishing provides that States should compile fishery-related and other supporting scientific data relating to fish stocks covered by subregional or regional fisheries management organisations and provide them in a timely manner to the organization;

RECALLING the commitment made by Members under Article V of the IOTC Agreement 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 covered by the Agreement;

COGNISANT that the above commitment can only be achieved when Members meet the requirements of Article XI of the IOTC Agreement i.e. to provide statistical and other data and information to minimum specifications and in a timely manner;

ACKNOWLEDGING that the IOTC Scientific Committee has repeatedly stressed the importance of the timeliness of data submissions;

GIVEN that the activities of supply vessels and the use of Fish Aggregating Devices (FAD) are an integral part of the fishing effort exerted by the purse seine fleet;

CONSIDERING the provisions set forth in Resolution 08/01 [superseded by Resolution 10/02] on *mandatory statistical requirements for IOTC Members and Cooperating Non-Contracting parties (CPCs)*, adopted by the Commission in 2008;

CONSIDERING the deliberations of the 12th Session of the IOTC Scientific Committee held in Victoria, Seychelles from 30 November to 4 December 2009;

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

1. CPC's shall provide the following information to the IOTC Secretariat according to the timelines specified in paragraph 6:

2. **Nominal catch data:**

   Estimates of the total annual catch by species and gear for all species under the IOTC mandate.

3. **Catch and effort data:**

   a) **For surface fisheries:** catch weight by species and fishing effort shall be provided by 1° grid area and month strata. Purse seine fishery data shall be stratified by fishing mode (e.g. free swimming schools or schools in association with floating objects). The data shall be extrapolated to the total national monthly catches for each gear. Documents describing the extrapolation procedures (including raising factors corresponding to the logbook coverage) shall also be submitted routinely.

   b) **Longline fisheries:** catch by species, in numbers or weight, and effort as the number of hooks deployed shall be provided by 5° grid area and month strata. Documents describing the extrapolation procedures (including raising factors corresponding to the logbook coverage) shall also be submitted routinely. For the work of relevant working parties under the IOTC Scientific Committee, longline data should be of a resolution of 1° grid area and month or finer. These data would be for the exclusive use of IOTC

scientists, subject to the approval of the data owners and IOTC Resolution 98/02 [superseded by Resolution 12/02] *Data confidentiality policy and procedures*, and should be provided for scientific use in a timely fashion.

c) **For coastal fisheries:** available catch by species, fishing gear and fishing effort shall be submitted frequently and may be provided using an alternative geographical area if it better represents the fishery concerned.

These provisions, applicable to tuna and tuna-like species, shall also be applicable to the most commonly caught shark species and, where possible, to the less common shark species. CPC's are also encouraged to record and provide data on species other than sharks and tunas taken as bycatch.

4. **Size data:**

Size data shall be provided for all gears and for all species covered by the IOTC mandate according to the guidelines set out by the IOTC Scientific Committee. Size sampling shall be run under strict and well described random sampling schemes which are necessary to provide unbiased figures of the sizes taken. Sampling coverage shall be set to at least one fish measured by ton caught, by species and type of fishery, with samples being representative of all the periods and areas fished. Alternatively, size data for longline fleets may be provided as part of the Regional Observer Scheme where such fleets have at least 5% observer coverage of all fishing operations. Length data by species, including the total number of fish measured, shall be submitted by a 5° grid area by month, by gear and fishing mode (e.g. free swimming schools or schools in association with floating objects for the purse seiners). Documents covering sampling and raising procedures shall also be provided, by species and type of fishery.

5. Given that the activities of supply vessels and the use of **Fish Aggregating Devices** (FAD) are an integral part of the fishing effort exerted by the purse seine fleet, the following data shall be provided:

a) The number and characteristics of supply vessels: (i) operating under their flag, (ii) assisting purse seine vessels operating under their flag, or (iii) licensed to operate in their exclusive economic zones, and that have been present in the IOTC Area;

b) Number of days at sea by supply vessels by 1° grid area and month to be reported by the flag state of the supply vessel;

c) The total number and type of FADs set by the supply vessel and purse seine fleet per quarter. Types of FADs are defined as 1) drifting log or debris, 2) drifting raft or fad with a net, 3) drifting raft or fad without a net, 4) other (e.g. Payao, dead animal etc). All types monitored by a tracking system.

These data would be for the exclusive use of IOTC scientists, subject to the approval of the data owners and Resolution 98/02 [superseded by Resolution 12/02] *Data confidentiality policy and procedures*, and should be provided in a timely fashion.

6. **Timeliness of data submission to the IOTC Secretariat:**

a) Longline fleets operating in the high seas shall provide provisional data for the previous year no later than 30 June. Final data shall be submitted no later than 30 December;

b) All other fleets (including supply vessels) shall submit their final data for the previous year no later than 30 June;

c) In case where the final statistics cannot be submitted by that date, at least preliminary statistics should be provided. Beyond a delay of two years, all revisions of historical data should be formally reported and duly justified. These reports should be made on forms provided by the IOTC Secretariat and reviewed by the IOTC Scientific Committee. The IOTC Scientific Committee will advise the IOTC Secretariat if revisions are then accepted for scientific use.

7. This Resolution supersedes Resolution 08/01 on *Mandatory statistical requirements for IOTC Members and Cooperating Non-Contracting parties (CPCs)*.

APPENDIX III

RESOLUTION 13/03

ON THE RECORDING OF CATCH AND EFFORT DATA BY FISHING VESSELS IN THE IOTC AREA OF COMPETENCE

(Objection [India]: Resolution 12/03 remains binding on India)

The Indian Ocean Tuna Commission (IOTC),

RECALLING the commitment made by Members under Article V of the IOTC Agreement to keep under review the conditions and trendsof 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 covered by the Agreement;

CONSIDERING the provisions set forth in Resolution 10/02 *Mandatory Statistical Requirements for IOTC Members and Cooperating Non-Contracting Parties (CPCs)*, and in particular paragraph 3, which sets out the catch and effort reporting requirements for surface fisheries, longline and coastal fisheries;

ACKNOWLEDGING that the IOTC Science Committee has repeatedly stressed the importance of the timeliness and accuracy of data submissions for Members;

ALSO RECALLING the outcomes of the 9th Session of the IOTC Scientific Committee held in Victoria, Seychelles from 6 to 10 November 2006 where it was agreed that a standardised logbook would be advantageous and agreed on the minimum requirements for all purse seine and bait boat fleets operating in the IOTC area of competence in order to harmonise data gathering and provide a common basis for scientific analysis for all IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs);

FURTHER RECALLING the recommendations adopted by the KOBE II Workshop on Bycatch, held in Brisbane, Australia, 23–25 June 2010; in particular that RFMOs should consider adopting standards for bycatch data collection which, at a minimum, allows the data to contribute to the assessment of bycatch species population status and evaluation of the effectiveness of bycatch measures, and that the data should allow the RFMOs to assess the level of interaction of the fisheries with bycatch species;

ALSO CONSIDERING the deliberations of the 12th Session of the IOTC Scientific Committee held in Victoria, Seychelles from 30 November to 4 December 2009;

FURTHER CONSIDERING the deliberations of the 13th Session of the IOTC Scientific Committee held in Victoria, Seychelles from 6 to 10 December 2010, that recommended three options, one of which is mandatory reporting of a revised list of shark species in logbooks to improve the data collection and statistics on sharks in the IOTC area of competence;

FURTHER CONSIDERING the deliberations of the 14th Session of the IOTC Scientific Committee held in Mahé, Seychelles from 12 to 17 December 2011, that proposed a list of shark species for all gears and recommended minimum recording requirements for handline and trolling gears in the IOTC area of competence;

FURTHER CONSIDERING the works of the small task force created by the IOTC Scientific Committee during its 10th Session held in Seychelles in November 2007, to harmonise the various forms currently used by the fleets and the IOTC Scientific Committee agreement on the minimum standard requirements for all purse seine, longline and gillnet fleets as well as the produced logbook template;

FURTHER CONSIDERING the recommendations of the 15th Session of the IOTC Scientific Committee held in Mahé, Seychelles from 13–15 December 2012;

FURTHER CONSIDERING the call upon States, either individually, collectively or through regional fisheries management organisations and arrangements included in the United Nations General Assembly Resolution 67/79 on sustainable fisheries to collect the necessary data in order to evaluate and closely monitor the use of large-scale fish aggregating devices and others, as appropriate, and their effects on tuna resources and tuna behaviour and associated and dependent species, to improve management procedures to monitor the number, type and use of such devices and to mitigate possible negative effects on the ecosystem, including on juveniles and the incidental bycatch of non-target species, particularly sharks and turtles;

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

1. Each flag CPC shall ensure that all purse seine, longline, gillnet, pole and line, handline and trolling fishing vessels flying its flag and authorised to fish species managed by IOTC be subject to a data recording system.

2. The measure shall apply to all purse seine, longline, gillnet, pole and line, handline and trolling fishing vessels over 24 metres length overall and those under 24 metres if they fish outside the EEZs of their flag States within the IOTC area of competence. The data recording systems for developing CPCs vessels less than 24 metres operating within the EEZ of coastal States are subject to Paragraph 12. The vessels of less than 24 metres operating within the EEZ of developed CPCs shall apply this measure.

3. All vessels shall keep a bound paper or electronic logbook to record data that includes, as a minimum requirement, the information and data in the logbook set forth in **Annex I, II and III**.

4. Each flag CPC shall submit to the IOTC Executive Secretary by 15 February 2014 a template of its official logbooks to record data in accordance with **Annex I, II and III**, for publishing on the IOTC website to facilitate MCS activities. For CPCs that use electronic logbook systems, a copy of the applicable regulations implementing the electronic logbook system in that CPC, a set of screen captures and the name of the certified software may be provided. If changes are made to the template after 15 February 2014, an updated template shall be submitted.

5. Where the logbook is not in one of the two languages of the IOTC, CPCs shall provide a complete field description of the logbook in one of the two languages of the IOTC together with the submission of the sample of the logbook. The IOTC Executive Secretary shall publish the sample of the logbook and the field description on the IOTC website.

6. **Annex I** includes information on vessel, trip and gear configuration for purse seine, longline, gillnet and pole and line, and shall only be completed once for each trip, unless the gear configuration changes during the trip.

7. **Annex II** contains information for purse seine, longline, gillnet and pole and line operations and catch, which shall be completed for each set/shot/operation of the fishing gear.

8. **Annex III** contains specifications for handline and trolling gears.

9. The logbook shall be completed by the Master of the fishing vessel and submitted to the flag State administration, as well as to the coastal State administration where the vessel has fished in that coastal State's EEZ. Only the part of the logbook corresponding to the activity deployed in the coastal State EEZ shall be provided to the coastal State administration where the vessel has fished in that coastal State's EEZ.

10. The Flag State and the States which receive this information shall provide all the data for any given year to the IOTC Secretariat by June 30th of the following year on an aggregated basis. The confidentiality rules set out in Resolution 12/02 Data Confidentiality Policy and Procedures for fine–scale data shall apply.

11. Noting the difficulty in implementing a data recording system on fishing vessels from developing CPCs, the data recording systems for vessels less than 24 metres of developing CPCs operating inside the EEZ shall be implemented progressively from 1 July 2014.

12. The Commission shall consider development of a special program to facilitate the implementation of this Resolution by developing CPCs. Furthermore, developed and developing CPCs are encouraged to work together to identify opportunities for capacity building to assist the long-term implementation of this Resolution.

13. This Resolution supersedes Resolution 12/03 *On The Recording Of Catch And Effort By Fishing Vessels In The IOTC Area Of Competence*.

Conservation and Management Measures linked to Resolution 13/03

Resolution 13/08 Resolution 13/11 Resolution 12/02

Resolution 12/03 Resolution 10/02

ANNEX I
Record once per trip (unless gear configuration changes)

1.1REPORT INFORMATION

1.Date of the submission of logbook

2.Name of reporting person

1.2VESSEL INFORMATION

1.Vessel name and/or registration number

2.IMO number, where available

3.IOTC number

4.Call sign: if call sign is not available, other unique identifying code such as fishing licence number should be used

5.Vessel size: gross tonnage and overall length (meters)

1.3CRUISE INFORMATION

For multiday fishing operations record the:

1.Departure date (at your location) and port

2.Arrival date (at your location) and port

1.4OTHER REQUIRED INFORMATION

Longline (Gear Configuration):

1.Average branch line length (meters): straight length in meters between snap and hook (**Figure 1**)

2.Average float line length (meters): straight length in meters from the float to the snap

3.Average length between branch (meters): straight length of main line in meters between successive branch lines

4.Main line material classified into four categories:

a)Thick rope (Cremona rope)

b)Thin rope (Polyethylene or other materials)

c)Nylon braided

d)Nylon monofilament

5.Branch line material classified into two categories:

a)Nylon

b)Other (such as wire)

Purse Seine:

(Gear configuration):

1.Length of the purse seine net

2.Height of the purse seine net

3.Total number of FADs deployed per trip: refer to the Resolution 13/08 *Procedures on a fish aggregating*

devices (FADs) management plan, including more detailed specification of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species

(Search information):

1.Days searched

2.Spotter plane used (Yes/No)

3.Supply vessel used (Yes/No), if yes what is the name and registration number of the supply vessel

Gillnet (Gear Configuration):

1.Overall length of net (metres): record the total overall length of the net onboard

2.Mesh size of net (millimetres): record the size of the mesh size used during the trip

3.Depth of assembled net (meters): height of assembled net in meters

4.Netting material: e.g. nylon braid, nylon monofilament, etc

Pole and line (Gear Configuration):

1.Number of fishermen

ANNEX II
Record once per set/shot/operation

Note: for all gears in this annex use the follow format for date and time

For date: when recording date of the set/shot/operation: record the YYYY/MM/DD

For time: record 24hr time as either the local time, GMT or national time and clearly specify which time has been used.

2.1OPERATION

For longline:

1.Date of set

2.Position in latitude and longitude: either position at noon or position of start of gear or area code of operation (e.g. Seychelles EEZ, High seas, etc) may be optionally used

3.Time of starting setting the gear

4.Number of hooks between floats: if there are different hooks counts between floats in a single set then record the most representative (average) number

5.Total number of hooks used in the set

6.Number of light–sticks used in the set

7.Type of bait used in the set: e.g. fish, squid, etc

8.Optionally, sea surface temperature at noon with one decimal point (XX.X^{o}C)

For purse seine:

1.Date of set

2.Type of event: **fishing set** or **deployment of a new FAD**

3.Position in latitude and longitude and time of event, or if no event during the day, at noon

4.If fishing set: specify if the set was successful, nil, well; type of school (free swimming school or FAD associated. If FAD associated, specify the type (e.g. log or other natural object, drifting FAD, anchored FAD, etc.). Refer to the Resolution 13/08 *Procedures on a fish aggregating devices (FADs) management plan, including more detailed specification of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species*

5.Optionally, sea surface temperature at noon with one decimal point (XX.X^{o}C)

For gillnet:

1.Date of set: record the date for each set of day at sea (for days without sets)

2.Total length of net (meters): length floatline used for each set in meters

3.Start fishing time: record the time when starting each set

4.Start and end position in latitude and longitude: record start and end latitude and longitude that represent the area that your gear is set between or, if no set, record the latitude and longitude at noon for days without sets

5.Depth at which net is set (meters): approximate depth at which the gillnet is set

For Pole and Line:

1.Date of operation: record the day

2.Position in latitude and longitude at noon

3.Number of fishing poles used during that day

4.Start fishing time (record the time immediately after bait fishing is complete and the vessel heads to the ocean for fishing. For multiple days, the time at which search starts should be recorded) and end fishing time (record the time immediately after fishing is complete from the last school). On multiple days this is the time fishing stopped from the last school

5.Type of school: FAD associated and/or free school

2.2CATCH

1.Catch weight (kg) or number by species per set/shot/fishing event for each of the species and form of processing in section 2.3:

a)For longline by number and weight

b)For purse seine by weight

c)For gillnet by weight

d)For pole and line by weight or number

2.3SPECIES

For Longline:

Primary Species	**FAO code**	**Other Species**	**FAO code**
Southern bluefin tuna (*Thunnus maccoyii*)	SBF	Shortbill spearfish (*Tetrapturus angustirostris*)	SSP
Albacore (*Thunnus alalunga*)	ALB	Blue shark (*Prionace glauca*)	BSH
Bigeye tuna (*Thunnus obesus*)	BET	Mako sharks (*Isurus* spp.)	MAK
Yellowfin tuna (*Thunnus albacares*)	YFT	Porbeagle shark (*Lamna nasus*)	POR
Skipjack tuna (*Katsuwonus pelamis*)	SKJ	Hammerhead sharks (*Sphyrna* spp.)	SPN

Swordfish (*Xiphius gladius*)	SWO	Other bony fishes	
Striped marlin (*Tetrapturus audax*)	MLS	Other sharks	SKH
Blue marlin (*Makaira nigricans*)	BUM	Seabirds (in number)[3]	
Black marlin (*Makaira indica*)	BLM	Marine Mammals (in number)	
Indo–Pacific sailfish (*Istiophorus platypterus*)	SFA	Marine turtles (in number)	
		Thresher sharks (*Alopias* spp.)	THR
		Oceanic whitetip shark (*Carcharhinus longimanus*)	OCS
		Optional species to be recorded	
		Tiger shark (*Galeocerdo cuvier*)	TIG
		Crocodile shark (*Pseudocarcharias kamoharai*)	PSK
		Great white shark (*Carcharodon carcharias*)	WSH
		Mantas and devil rays (*Mobulidae*)	MAN
		Pelagic stingray (*Pteroplatytrygon violacea*)	PSL
		Other rays	

For Purse Seine:

Primary Species	**FAO code**	**Other species**	**FAO code**
Albacore (*Thunnus alalunga*)	ALB	Marine turtles (in number)	
Bigeye tuna (*Thunnus obesus*)	BET	Marine mammals (in number)	
Yellowfin tuna (*Thunnus albacares*)	YFT	Whale sharks (*Rhincodon typus*) (in number)	RHN
Skipjack tuna (*Katsuwonus pelamis*)		Thresher sharks (*Alopias* spp.)	THR
Other IOTC species		Oceanic whitetip shark (*Carcharhinus longimanus*)	OCS
	SKJ	**Optional species to be recorded**	**FAO code**
		Silky sharks (*Carcharhinus falciformis*)	FAL
		Mantas and devil rays (*Mobulidae*)	MAN
		Other sharks	SKH
		Other rays	
		Other bony fish	

For Gillnet:

Primary Species	**FAO code**	**Other Species**	**FAO code**
Albacore (*Thunnus alalunga*)	ALB	Shortbill spearfish (*Tetrapturus angustirostris*)	SSP
Bigeye tuna (*Thunnus obesus*)	BET	Blue shark (*Prionace glauca*)	BSH
Yellowfin tuna (*Thunnus albacares*)	YFT	Mako sharks (*Isurus* spp.)	MAK
Skipjack tuna (*Katsuwonus pelamis*)	SKJ	Porbeagle shark (*Lamna nasus*)	POR

[3] When a CPC is fully implementing the observer program the provision of seabird data is optional

Longtail tuna (*Thunnus tonggol*)	LOT	Hammerhead sharks (*Sphyrna* spp.)	SPN
Frigate tuna (*Auxis thazard*)	FRI	Other sharks	SKH
Bullet tuna (*Auxis rochei*)	BLT	Other bony fish	
Kawakawa (*Euthynnus affinis*)	KAW	Marine turtles (in number)	
Narrow barred Spanish mackerel (*Scomberomorus commerson*)	COM	Marine mammals (in number)	
Indo–Pacific king mackerel (*Scomberomorus guttatus*)	GUT	Whale sharks (*Rhincodon typus*) (in number)	RHN
Swordfish (*Xiphias gladius*)	SWO	Seabirds (in number)[4]	
Indo–Pacific sailfish (*Istiophorus platypterus*)	SFA	Thresher sharks (*Alopias* spp.)	THR
Marlins (*Tetrapturus* spp, *Makaira* spp.)	BIL	Oceanic whitetip shark (*Carcharhinus longimanus*)	OCS
Southern bluefin tuna (*Thunnus maccoyii*)	SBF	**Optional species to be recorded**	
		Tiger shark (*Galeocerdo cuvier*)	TIG
		Crocodile shark (*Pseudocarcharias kamoharai*)	PSK
		Mantas and devil rays (Mobulidae)	MAN
		Pelagic stingray (*Pteroplatytrygon violacea*)	PSL
		Other rays	

For Pole and Line:

Primary Species	**FAO code**	**Other Species**	**FAO code**
Albacore (*Thunnus alalunga*)	ALB	Other bony fish	
Bigeye tuna (*Thunnus obesus*)	BET	Sharks	
Yellowfin tuna (*Thunnus albacares*)	YFT	Rays	
Skipjack tuna (*Katsuwonus pelamis*)	SKJ	Marine turtles (in number)	
Frigate and bullet tuna (*Auxis* spp.)	FRZ		
Kawakawa (*Euthynnus affinis*)	KAW		
Longtail tuna (*Thunnus tonggol*)	LOT		
Narrow barred Spanish mackerel (*Scomberomorus commerson*)	COM		
Other IOTC species			

2.4REMARKS

1.Discard of tuna, tuna-like fish and sharks to be recorded by species in weight (kg) or number for all gears should be recorded in the remarks[5]

2.Any interactions with whale sharks (*Rhincodon typus*), marine mammals, and seabirds should be recorded in the remarks

3.Other information is also written in the remarks

[4] When a CPC is fully implementing the observer program the provision of seabird data is optional

[5] Recall the Recommendation 10/13 *On the implementation of a ban on discards of skipjack tuna, yellowfin tuna, bigeye tuna and non-target species caught by purse seiners* [superseded by Resolution 13/11]

Note: The species included in the logbooks are regarded as minimum requirement. Optionally other frequently caught shark and/or fish species should be added as required across different areas and fisheries.

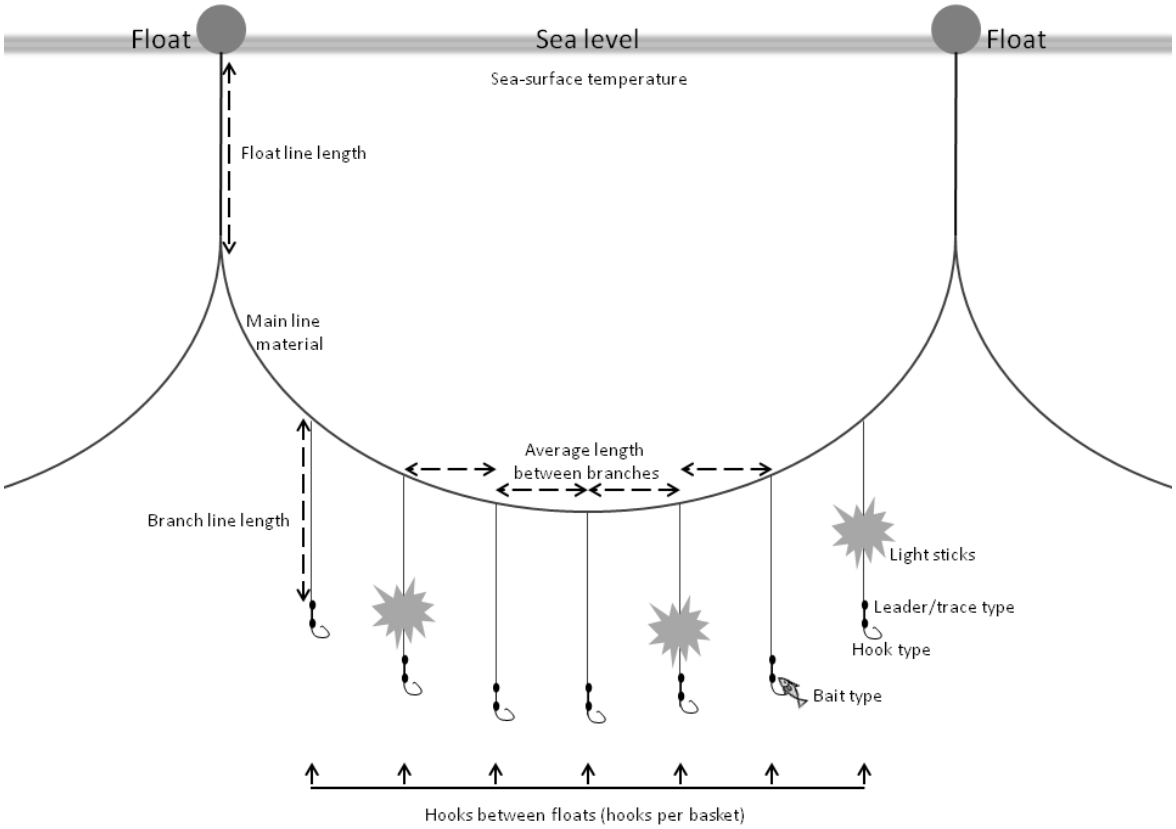

Figure 1. Longline (Gear Configuration): Average branch line length (meters): straight length in meters between snap and hook.

ANNEX III
Specifications for handline and trolling

Note: for all gears in this annex use the follow format for date and time

For date: when recording date of the set/shot/operation: record the YYYY/MM/DD

For time: record 24hr time as either the local time, GMT or national time and clearly specify which time has been used.

I - HANDLINE

All logbook information shall be recorded by day; where more than one fishing event is recorded for the same day, it is advisable to record each fishing event separately

Record once in one cruise, or month where daily operation

1.1REPORT INFORMATION

1.Fishing day (or Date of submission of the logbook, where multiple fishing days)

2.Name of reporting person

1.2VESSEL INFORMATION

1.Vessel name and registration number and IMO number, where available

2.IOTC number, where available

3.Fishing License number

4.Vessel size: Gross tonnage and/or length overall (in metres)

1.3CRUISE INFORMATION

1.Departure date and port

2.Arrival date and port

2.1OPERATION

1.Date of fishing

Record the date of fishing. Each fishing day should be recorded separately

2.Number of fishermen

Record the number of fishermen on the boat by fishing day

3.Number of Fishing Gear

Record the number of fishing lines used during the fishing day. If the exact number is not available a range may be used i) 5 or less lines, ii) 6–10 lines; iii) 11 or more lines

4.Number and type of school (Anchored or drifting FAD, marine mammal, free, other) fished

Record the number and type of school fished (i.e. anchored FAD, drifting FAD, marine mammal associated or free) fished during the day

5.Position of the catch

Position in latitude and longitude: either position at noon or position of start of gear or area code of operation (e.g. Seychelles EEZ, High seas, etc) may be optionally used. Record the latitude and longitude at noon for non-fishing days, where not in port

Where information is recorded by day, record the 1° x 1° area(s) where fishing took place

6. Bait

Record the type of bait used (e.g. fish, squid), where applicable

2.2CATCH

Catch in number and/or weight (kg) by species

1.Catch number and/or Weight

For each species shown in section 2.3 caught and retained, record the number and estimated live weight (kg), per fishing day

2.Discard number and/or Weight

For each species shown in section 2.3 caught and not retained record the number and estimated live weight (kg) discarded, per fishing day

2.3SPECIES

Primary Species	**FAO code**
Yellowfin tuna (*Thunnus albacares*)	YFT
Bigeye tuna (*Thunnus obesus*)	BET
Skipjack tuna (*Katsuwonus pelamis*)	SKJ
Indo-Pacific sailfish (*Istiophorus platypterus*)	SFA
Black marlin (*Makaira indica*)	BLM
Other billfish	
Longtail tuna (*Thunnus tonggol*)	LOT
Kawakawa (*Euthynnus affinis*)	KAW
Frigate tuna/Bullet tuna (*Auxis* spp.)	FRZ
Narrow barred Spanish mackerel (*Scomberomorus commerson*)	COM
Indo-Pacific king mackerel (*Scomberomorus guttatus*)	GUT
Sharks	
Other fishes	
Rays	
Marine turtles (by number)	

2.4REMARKS

1.Other relevant information is also written in the remarks

Note: These species included in the logbook are regarded as minimum requirement. Optionally other species should be added as species may differ depending on the area fished and type of fishery

II - TROLLING VESSELS

All logbook information shall be recorded by day; where more than one fishing event is recorded for the same day, it is advisable to record each fishing event separately

Record once in one cruise

1.1REPORT INFORMATION

1.Fishing day (or Date of submission of the logbook, where multiple fishing days)

2.Name of reporting person

1.2VESSEL INFORMATION

1.Vessel name and registration number and IMO number, where available

2.IOTC number, where available

3.Fishing License number

4.Vessel size: Gross tonnage and/or length overall (in metres)

1.3CRUISE INFORMATION

1.Departure date and port

2.Arrival date and port

2.1OPERATION

1.Date of fishing

Record the date of fishing. Each fishing day should be recorded separately

2.Number of fishermen

Record the number of fishermen on the vessel by fishing day

3.Number of Fishing Gear

Record the number of lines used during the fishing day. If the exact number is not available a range may be used i) 3 or less lines, ii) more than 3 lines

4.Number and type of school (Anchored or drifting FAD, marine mammal, free, other) fished

Record the number and type of school fished (i.e. anchored FAD, drifting FAD, marine mammal associated or free) fished during the day

5.Position of the catch

Position in latitude and longitude: either position at noon or position of start of gear or area code of operation (e.g. Seychelles EEZ, High seas, etc) may be optionally used. Record the latitude and longitude at noon for non-fishing days, where not in port

Where information is recorded by day, record the 1° x 1° area(s) where fishing took place

6.Bait

Record the type of bait or indicate if lures are used

2.2CATCH

Catch in number and/or weight (kg) by species

1. Number and/or Weight of fish retained

For each species shown in section 2–3 caught and retained, record the number or estimated live weight (kg), per fishing day

2. Discard number and/or Weight

For each species shown in section 2–3 caught and not retained record the number and estimated live weight (kg) discarded, per fishing day

2.3SPECIES

Primary Species	**FAO code**
Yellowfin tuna (*Thunnus albacares*)	YFT
Bigeye tuna (*Thunnus obesus*)	BET
Skipjack tuna (*Katsuwonus pelamis*)	SKJ
Albacore (*Thunnus alalunga*)	ALB
Swordfish (*Xiphias gladius*)	SWO
Blue marlin (*Makaira nigricans*)	BUM
Black marlin (*Makaira indica*)	BLM
Striped marlin (*Tetrapturus audax*)	MLS
Indo-Pacific sailfish (*Istiophorus platypterus*)	SFA
Other billfish	
Longtail tuna (*Thunnus tonggol*)	LOT
Kawakawa (*Euthynnus affinis*)	KAW
Frigate tuna/Bullet tuna (*Auxis* spp.)	FRZ
Narrow barred Spanish mackerel (*Scomberomorus commerson*)	COM
Indo-Pacific king mackerel (*Scomberomorus guttatus*)	GUT
Sharks	
Other fishes	
Rays	
Marine turtles	

2.4REMARKS

1.Other relevant information is also written in the remarks
Note: These species included in the logbook are regarded as minimum requirement. Optionally other species should be added as species may differ depending on the area fished and type of fishery.

APPENDIX IV

RESOLUTION 13/08

PROCEDURES ON A FISH AGGREGATING DEVICES (FADS) MANAGEMENT PLAN, INCLUDING MORE DETAILED SPECIFICATIONS OF CATCH REPORTING FROM FAD SETS, AND THE DEVELOPMENT OF IMPROVED FAD DESIGNS TO REDUCE THE INCIDENCE OF ENTANGLEMENT OF NON-TARGET SPECIES

The Indian Ocean Tuna Commission (IOTC),

BEARING IN MIND that the Agreement for the implementation of the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA) encourages coastal States and fishing States on the high seas to collect and share, in a timely manner, complete and accurate data concerning fishing activities on, inter alia, vessel position, catch of target and non-target species and fishing effort;

MINDFUL of the call upon States, either individually, collectively or through regional fisheries management organisations and arrangements in the United Nations General Assembly Resolution 67/79 on Sustainable fisheries to collect the necessary data in order to evaluate and closely monitor the use of large-scale fish aggregating devices and others, as appropriate, and their effects on tuna resources and tuna behaviour and associated and dependent species, to improve management procedures to monitor the number, type and use of such devices and to mitigate possible negative effects on the ecosystem, including on juveniles and the incidental bycatch of non-target species, particularly sharks and marine turtles;

NOTING that the United Nations Food and Agricultural Organization (FAO) Code of Conduct for Responsible Fishing provides that States should compile fishery-related and other supporting scientific data relating to fish stocks covered by subregional or regional fisheries management organisations and provide them in a timely manner to the organisation;

RECOGNISING that all gears deployed to target resources under the competence of IOTC should be managed to ensure the sustainability of fishing operations;

AWARE that the Commission is committed to adopt Conservation and Management Measures to reduce juvenile bigeye tuna and yellowfin tuna mortalities from fishing effort on Fish Aggregating Devices (FADs);

AWARE that the availability of adequate information is fundamental to carrying out the objectives of the IOTC Agreement laid down in its Article V;

NOTING that the IOTC Scientific Committee advised the Commission to conduct an investigation of the feasibility and impacts of a temporary FAD closure as well as other measures in the context of Indian Ocean fisheries and stocks;

RECALLING that Resolution 12/04 established that the Commission at its annual session in 2013 should consider the recommendations of the IOTC Scientific Committee as regards the development of improved FAD designs to reduce the incidence of entanglement of marine turtles, including the use of biodegradable materials, together with socio-economic considerations, with a view to adopting further measures to mitigate interactions with marine turtles in fisheries covered by the IOTC Agreement;

NOTING that the IOTC Scientific Committee advised the Commission that only non-entangling FADs, both drifting and anchored, should be designed and deployed to prevent the entanglement of sharks, marine turtles and other species;

RECALLING that the objective of the IOTC Agreement is to ensure, through appropriate management, the conservation and optimum utilisation of stocks covered by the mentioned Agreement and encouraging sustainable development of fisheries based on such stocks and minimising the level of bycatches;

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

1. This Resolution shall apply to CPCs having purse seine vessels and bait boats fishing on Fish Aggregating Devices (FADs), for the purpose of aggregating tuna target species, in the IOTC area of competence.

2. CPCs having vessels fishing on FADs shall submit, to the Commission, by the end of 2013, Management Plans for the use of FADs by their purse seiners and bait boat/vessels. Due to their specificity in terms of users, number deployed, type of boat/vessel involved, fishing method and gear used and materials used in their construction, the Management Plans and Reporting Requirements for Drifting FADs (DFAD) and Anchored FADs (AFAD) shall be addressed separately for the purposes of this Resolution. The Plans shall at a minimum meet the Suggested Guidelines for Preparation for FAD Management Plans by each CPC as provided for DFADs in Annex I and AFADs in Annex II. For the purpose of this Resolution, the term Fish Aggregating Device means drifting (DFAD) or anchored floating or submerged objects (AFAD) deployed for the purpose of aggregating target tuna species.

3. The Management Plans shall be analysed by the IOTC Compliance Committee at its 2014 session.

4. Starting in 2015, CPCs shall submit the data elements prescribed in Annex I and II to the Commission, consistent with the IOTC standards for the provision of catch and effort data, and these data shall be made available for analysis to the IOTC Scientific Committee on the aggregation level set by Resolution 10/02 (or any subsequent superseding Resolution), and under the confidentiality rules set by Resolution 12/02 (or any subsequent superseding Resolution).

5. All CPCs shall ensure that all fishing vessels as referred to in paragraph 1 shall record fishing activities in association with FADs using the specific data elements found in Annex I (DFAD) and II (AFAD) in the section of the "FAD-logbook".

6. The Management Plans shall include initiatives or surveys to investigate, and to the extent possible minimise the capture of small bigeye tuna and yellowfin tuna and non-target species associated with fishing on FADs. Management Plans shall also include guidelines to prevent, to the extent possible, the loss or abandonment of FADs. To reduce the entanglement of sharks, marine turtles or any other species, the design and deployment of FADs shall be based on the principles set out in Annex III, which will be applied gradually from 2014. From 2015 on, CPCs shall submit to the Commission, 60 days before the Annual Meeting, a report on the progress of the management plans of FADs, including reviews of the initially submitted Management Plans, and including reviews of the application of the principles set out in Annex III.

7. The IOTC Scientific Committee will analyse the information, when available, and provide scientific advice on additional FAD management options for consideration by the Commission in 2016, including recommendations on the use of biodegradable materials in new and improved FADs and the phasing out of FAD designs that do not prevent the entanglement of sharks, marine turtles and other species. When assessing the impact of FADs on the dynamic and distribution of targeted fish stocks and associated species and on the ecosystem, the IOTC Scientific Committee will, where relevant, use all available data on abandoned FADs (i.e. FADs without a beacon).

8. From January 2015, CPCs shall require all artificial FADs deployed or modified by their flagged fishing vessels in the IOTC area of competence to be marked in accordance with a detailed marking scheme, e.g. including FAD marking or beacon ID. The marking scheme shall be developed and considered for adoption by the Commission at its regular annual session in 2014, based on recommendations from the IOTC Scientific Committee as requested by the Commission. The marking scheme should take into account, as a minimum, the following:

9. All artificial FADs shall be marked with a unique identification number, based on a specific numbering system and format to be adopted by the Commission;

10. The marking should be easy to read before the vessel operator engages in any artificial FAD related activity (e.g. setting on the artificial FAD, retrieving the artificial FAD, servicing the artificial FAD, fishing on the artificial FAD), but if not visible for any reason, (time of day, weather, etc.), the vessel operator shall ensure to obtain the unique artificial FAD identifier as soon as feasible;

11. The marking should be easy to apply to the artificial FAD, but should be applied in such a manner that it will not become unreadable or disassociated with the artificial FAD.

12. Resolution 12/08 *Procedures on a fish aggregating devices (FADs) management plan* is superseded by this Resolution.

ANNEX I

GUIDELINES FOR PREPARATION OF DRIFTING FISH AGGREGATING DEVICE (DFAD) MANAGEMENT PLANS

To support obligations in respect of the DFAD Management Plan (DFAD–MP) to be submitted to the IOTC Secretariat by CPCs with fleets fishing in the IOTC area of competence, associated to DFADs, DFAD–MP should include:

1. An objective

2. Scope:

   Description of its application with respect to:

   - vessel-types and support and tender vessels
   - DFAD numbers and/or DFADs beacon numbers to be deployed
   - reporting procedures for DFAD deployment
   - incidental bycatch reduction and utilization policy
   - consideration of interaction with other gear types
   - plans for monitoring and retrieval of lost DFADs
   - statement or policy on "DFAD ownership"

3. Institutional arrangements for management of the DFAD Management Plans:

   - Institutional responsibilities
   - application processes for DFAD and /or DFAD beacons deployment approval
   - Obligations of vessel owners and masters in respect of DFAD and /or DFAD beacons deployment and use
   - DFAD and/or DFADs beacons replacement policy
   - reporting obligations

4. DFAD construction specifications and requirements

   - DFAD design characteristics (a description)

Conservation and Management Measures linked to Resolution 13/08		
Resolution 13/03	Resolution 13/04	Resolution 13/05
Resolution 12/02	Resolution 12/04	Resolution 10/02

   - visible distance
   - radio buoys (requirement for serial numbers)
   - satellite transceivers (requirement for serial numbers)

5. Applicable areas

   - Details of any closed areas or periods e.g. territorial waters, shipping lanes, proximity to artisanal fisheries, etc

6. Applicable period for the DFAD–MP

7. Means for monitoring and reviewing implementation of the DFAD–MP

8. DFAD logbook

a)

- catch reporting from DFAD sets (consistent with the Standards for the provision of Catch and Effort Data) set out in Resolution 13/03), including:

b)

a) Any visit on a DFAD*.

b) For each visit on a DFAD, whether followed or not by a set,

i. position,

ii. date,

iii. DFAD identifier (i.e., D FAD Marking or beacon ID or any information allowing to identify the owner),

iv. DFAD type (drifting natural FAD, drifting artificial FAD),

v. DFAD design characteristics (dimension and material of the floating part and of the underwater hanging structure),

vi. type of the visit (deployment, hauling, retrieving, loss, intervention on electronic equipment).

c) If the visit is followed by a set, the results of the set in terms of catch and bycatch.

* Other FADs encountered at–sea should be monitored in accordance with each CPCs' domestic regulations.

ANNEX II

GUIDELINES FOR PREPARATION OF ANCHORED FISH AGGREGATING DEVICE (AFAD) MANAGEMENT PLANS

To support obligations in respect of the AFAD Management Plan (AFAD–MP) to be submitted to the IOTC Secretariat by CPCs with fleets fishing in the IOTC area of competence, associated to AFADs, AFAD– MP should include:

1. An objective

2. Scope:

Description of its application with respect to:

a) Vessel types

b) AFAD numbers and/or AFADs beacons numbers to be deployed (per AFAD type)

c) reporting procedures for AFAD deployment

d) distances between AFADs

e) incidental bycatch reduction and utilisation policy

f) consideration of interaction with other gear types

g) the establishment of inventories of the AFADs deployed, detailing AFAD identifiers, characteristics and equipment of each AFAD as laid down in point 4 of the present Annex, coordinates of the AFAD's mooring sites, date of set, lost and reset

h) plans for monitoring and retrieval of lost AFADs

i) statement or policy on "AFAD ownership"

3. Institutional arrangements for management of the AFAD Management Plans:

a) Institutional responsibilities

b) Regulations applicable to the setting and use of AFADs

c) AFAD repairs, maintenance rules and replacement policy

d) Data collection system

e) reporting obligations

4. AFAD construction specifications and requirements:

a) AFAD design characteristics (a description of both the floating structure and the underwater structure, with special emphasis on any netting materials used)

b) Anchorage used for mooring

c) AFAD markings and identifiers, including AFAD beacons if any

d) Lighting requirements if any

e) radar reflectors

f) visible distance

g) radio buoys if any (requirement for serial numbers)

h) satellite transceivers (requirement for serial numbers)

i) echo sounder

5. Applicable areas

a) Coordinates of mooring sites, if applicable

b) Details of any closed areas e.g., shipping lanes, Marine Protected Areas, reserves etc.

6. Means for monitoring and reviewing implementation of the AFAD–MP

AFAD logbook

−Catch reporting from AFAD sets (consistent with the Standards for the provision of Catch and Effort Data) set out in Resolution 13/03), including:

a) Any visit in a AFAD.

b) For each visit on a AFAD, whether followed or not by a set or other fishing activities, the,

i. position;

ii. date;

iii. AFAD identifier (i.e., FAD Marking or beacon ID or any information allowing to identify the owner).

c) If the visit is followed by a set or other fishing activities, the results of the set in terms of catch and bycatch.

ANNEX III

PRINCIPLES FOR DESIGN AND DEPLOYMENT OF FADS

1. The surface structure of the FAD should not be covered, or only covered with non-meshed material.

2. If a sub-surface component is used, it should not be made from netting but from non-meshed materials such as ropes or canvas sheets.

3. To reduce the amount of synthetic marine debris, the use of natural or biodegradable materials (such as hessian canvas, hemp ropes, etc.) for drifting FADs should be promoted.