Best Standards for Data Collection on FOBs: Towards a Science Based FOB fishery management

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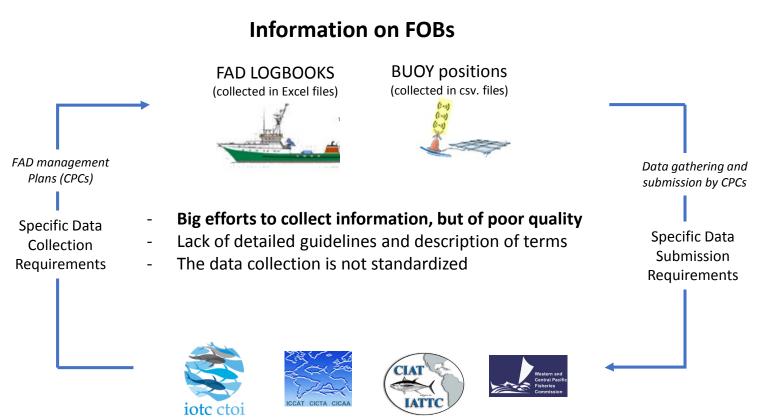
General Objective:

- Development of data collection protocols and tools for FAD/FOBs management plans

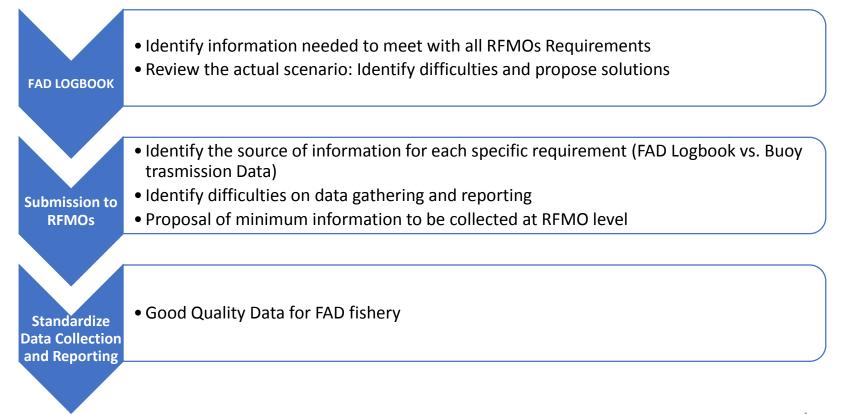
Specific Objectives:

- Revision of data requirements for the different tuna RFMOs
- Identify data gaps and propose best standards for data Collection and reporting on FOBs to RFMOs.
- Development of a standardize FOBs data collection tool

Context



Working Scheme



- Data to give response to all RFMOs
- Information on FOBs (FADs and other floating objects)
- Format of the data collection form (FOB-Logbook): A simple data collection tool, adapted to the use on board.
- Identification: Vessel and trip ID

Buoy [ID of the manufacturer and owner]

FAD ID [Given by the buoy ID]

- Seasonal and spatial dynamics: Date, Time [GMT], position of each activity
- FOB Type: CECOFAD categories or enough information for posterior classification on CECOFAD categories.
- FOB structure: Floating structure dimension [aaxbb]; Depth of the Hanging Structure [m];

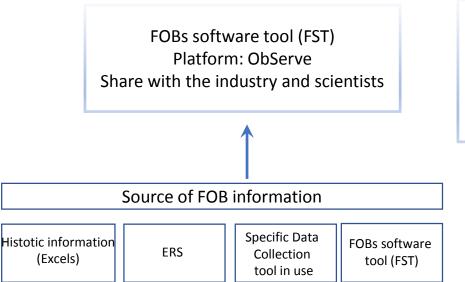
Materials [NE character given by the mesh size and configuration; and nature of materials]

- Activity with FOB and buoys [CECOFAD categories] or enough information to posterior classification on CECOFAD categories.
- Catch: Target species [tn, Destiny = retained, discarded]

Bycatch [nº or tn, Destiny = retained, discarded, released in case of sensitive species]



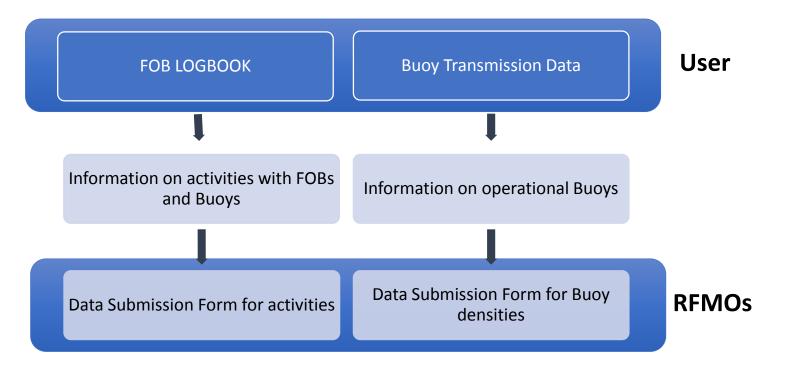
- Development of a Data Collection tool for scientific use



Other specifications:

- Open source
- Able to import historic information (Excel files)
- For scientific use and to be used on board if required

- Identification of the source of the data



- **Data submission Form format**: An specific data submission form according to the data source:
 - Buoy density [Buoy transmissions]
 - Activities with FOBs and buoys [FOB Log-Books]
- **Seasonal and spatial dynamics**: Grid Size [1ºx1º], Time scale [monthly basis]
- Activities with FOB and buoys: Information extracted from Log-books CECOFAD categories are proposed
- **Buoy density** [information extracted from buoy transmissions]
 - Year
 - Month
 - CPC
 - Number of vessels
 - Latitude [decimal degree]
 - Longitude [decimal degree]
 - Average number of active FADs

Best Standards for Reporting Requirements to RFMOs

Example adopted in ICCAT

- Buoy Density – Information from Buoys Transmission Data - Grid Size [1ºx1º], Time scale [monthly basis]

Flag of vessel	Month	Latitude (+N/-S)	Longitude (+E/-W)	Nº Active Vessels	FAD type (cod)		Beacon/buoy type		Avg Number Operating	Remarks
(cod)							<u>(cod)</u>		FADs	
+++++++++++++++++++++++++++++++++++++++	+++++++	+++++++++++++++++++++++++++++++++++++++	+++++++	+++++++	++++++++		+++++++++++++++++++++++++++++++++++++++		+++++++++	+++++++++++++++++++++++++++++++++++++++
FlagVesCd	Month	🛛 Lat 🔍 🔻	Lon 🔻	NoVessels •	FadTypeCd	Ŧ	BeaconTypeCd	Ŧ	AvgNOperatFADs	Remarks 💌

- Information on FOBs information from FOB log-books
 - Grid Size [1ºx1º], Time scale [monthly basis].
 - CECOFAD categories

Vessel attributes			Deployme	ent (NEW FA	Losses & Transfers by						
ICCAT Serial	Vessel Name	Vessel type	Flag of vessel Month		Latitude	Longitude	FAD type	Beacon/buoy	Nº FADs	Nº FADs lost	Nº FADs transferred
number		<u>(cod)</u>	<u>(cod)</u>	(+N/-S)		(+E/-W)	<u>(cod)</u>	type (cod)	deployed		(from other vessels)
+++++++++++++++++++++++++++++++++++++++	+++++++++++++++++++++++++++++++++++++++	+++++++	++++++++	+++++++++++++++++++++++++++++++++++++++	+++++++++	+++++++++++++++++++++++++++++++++++++++	+++++++	+++++++	+++++++	++++++++	+++++++
ICCATSerialNo 🝸	VesselName 👻	VessTypeCd 🕆	FlagVesCd 🝸	Month 💌	Lat 💌	Lon	FadTypeC	BeaconType 🔻	NoFADsDep	NoFADsLost 🝸	NoFADsTransf

- Further work should be conducted in harmonization of data collection on FOBs among RFMOs.
- Data collection tool (FOB Logbooks) should be adapted to the use on board:
 - o Simple data collection tool
 - Unique identifier given by the Buoy ID
- CECOFAD categories for activities and FOB type, are proposed.
- Data submission forms to RFMOs be adapted to the data source:
 - Information on FOB/Buoys densities \rightarrow Buoy transmissions data.
 - Information on activities \rightarrow FOB logbook