Indian Ocean Tuna Commission
Commission des Thons de l'Ocean Indien
iotc ctoi

Received: 11 November 2015
IOTC-2015-SC18-NR28

Tanzania National Report to the Scientific Committee of the Indian Ocean Tuna Commission, 2015

Mathias m Igulu[1] and Zahor Mohamed El Kharousy[2]

[1]Tanzania Fisheries Research Institute

[2]Deep Sea Fishing Authority

INFORMATION ON FISHERIES, RESEARCH AND STATISTICS

In accordance with IOTC Resolution 15/02, final scientific data for the previous year was provided to the IOTC Secretariat by 30 June of the current year, **for all fleets other than longline** [e.g. for a National Report submitted to the IOTC Secretariat in 2015, final data for the 2014 calendar year must be provided to the Secretariat by 30 June 2015)	NA
In accordance with IOTC Resolution 15/02, provisional **longline data** for the previous year was provided to the IOTC Secretariat by 30 June of the current year [e.g. for a National Report submitted to the IOTC Secretariat in 2015, preliminary data for the 2014 calendar year was provided to the IOTC Secretariat by 30 June 2015). **REMINDER:** Final longline data for the previous year is due to the IOTC Secretariat by 30 Dec of the current year [e.g. for a National Report submitted to the IOTC Secretariat in 2015, final data for the 2014 calendar year must be provided to the Secretariat by 30 December 2015).	YES 30/06/2015
If no, please indicate the reason(s) and intended actions:	

Executive Summary
Tanzania national fleets are dominated by artisanal fleets which are characterized by multi-species catch; involve the use of multi-gear and multi-cultural fisheries. Fishing activity takes place within 6 nm from shore predominantly on reef areas. However, a small number of boats are involved in the fisheries of tuna, bill fish and sharks, using manually handled drift gill nets, hooks and lines. Catch data is collected in terms of weight of major fish groups and is not based on gear type, vessel size and duration of fishing operations. There are three commercial Tanzania flagged longline vessels that have been operating in the EEZ of contracting parties as well as the high seas under IOTC area of competence.

Artisanal fishery statistics from the Fisheries Department (main land Tanzania only) for the year 2014 for indicates 2133, 1335 and 3908 tonnes of tuna and tuna like species, kingfish and sharks and rays were caught respectively. Available catch data from artisanal fishery is missing geographic position, gear and effort information. Total catch for tuna and tuna like species for longliners flagged vessels operating in IOTC area of competence was about 288 tones. Collection of log sheet data from all licensed vessels fishing in Tanzania EEZ started since 2002 and Vessel Monitoring System (mainly for licensed vessels and flagged vessels) started since 2009.There is no data from recreational fishing, however, available information is considered to be insignificant.

There has been neither Observer nor Port sampling programmes because Tanzanian Ports does not have facilities for handling commercial deep sea fishing vessels. Transhipment at sea is not allowed within the EEZ of Tanzania.

Currently, there is no major research programme for tuna and tuna like species. The only existing programmes are from universities and individuals from research institutes. Most of these programmes are focusing on identifying and marking of potential fishing grounds on the EEZ, the target being reducing fishing pressure on shallow water habitats.

1. BACKGROUND/GENERAL FISHERY INFORMATION

2. FLEET STRUCTURE

The national fleet of Tanzania is mainly artisanal, characterized by multi-species catch, the use of multi-gear and it's a multi-cultural fisheries. Fleets are involved in the highly diverse fisheries that include crustaceans, cephalopods, and reef fish species, small pelagic, sharks and tuna and tuna like species. It is composed of different types of fishing boat that varies from un-motorised dugout canoes of 3m to boats of 11 meters with inboard engine. All the fishing takes place within the territorial waters, mostly not more than 6nm from shore and predominantly on reef areas.

Fishing gear used includes Gill nets, hand lines, long line, ring nets and trawl nets that are all manually handled.

Further to the artisanal fleets, three flagged Longline vessels have been active in the IOTC area of Competence.

Table 1: Number of vessels operating in the IOTC area of competence, by gear type and size [Year 2014]

Vessel/Gear Type	Size	Number
Long Liner Tuna Best	44.6	1
Long Liner Venus	49.69	1
Long Liner IKAR	48.65	1

3. CATCH AND EFFORT (BY SPECIES AND GEAR)

Table 2a. Nominal catch (t) of tuna and tuna like species from artisanal fishery for year 2014 (data for 2014 is from Tanzania mainland only)

Fish Group	**2010**	**2011**	**2012**	**2013**	**2014**
Tuna and tuna likes	3815.24	3887.52	7702.76	4672.44	2133.00

Bill fish	1334.28	1146.44	1411.96		
Sharks & rays	2676.03	3492.78	6168.81	5752.51	3908.00
King Fish				2188.35	1335.00

Table 2. Annual catch and effort by gear (LL) and primary species in the IOTC area of competence for the year 2014. ALB (Albacore), BET (Bigeye Tuna), BLM (Black Marlin), BSH (Blue Shark), BUM (Blue marlin), MAK (Mako Shark), MLS ( ), OCS (Oceanic whitetip Shark), SBF (Southern bluefin Tuna), SFA (Sailfish), SKH (Shark), SKJ (Skip Jack Tuna), SSP ( ), SWO (Swordfish) and YFT (Yellow Fin Tuna)

Species	Catch (KG)
ALB	809
BET	152,594
BLM	10,001
BSH	3,554
BUM	1,535
MAK	1,524
MLS	2,789
OCS	220
SBF	6
SFA	401
SKH	1,091
SKJ	88
SSP	36
SWO	12,943
YFT	74,844
OTHERS	25,805

Figure 1. Historical annual catch for the national fleet, by gear and primary species, for the IOTC area of competence for the entire history of the fishery/fleet. **[Mandatory]**

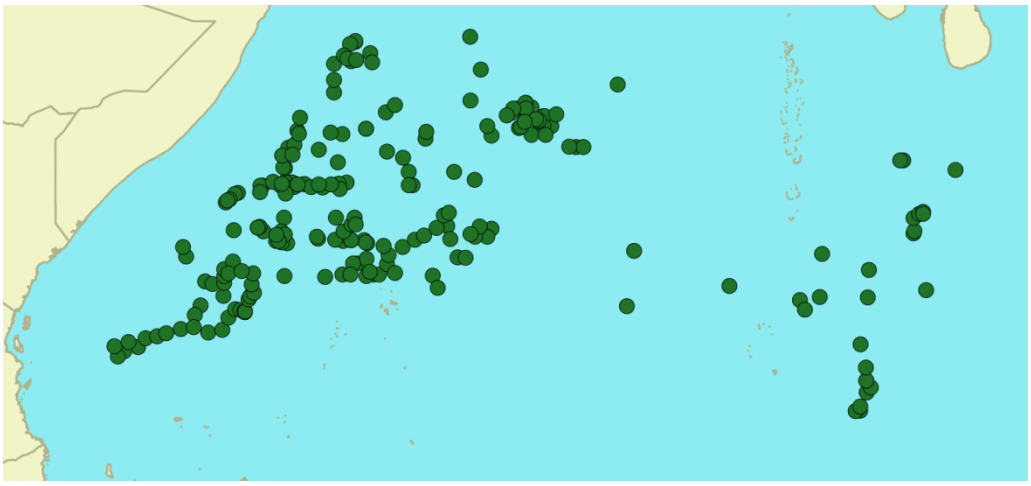

Figure 2a. Map of the distribution of fishing effort, by longliner national fleets in the IOTC area of competence for the year 2014.

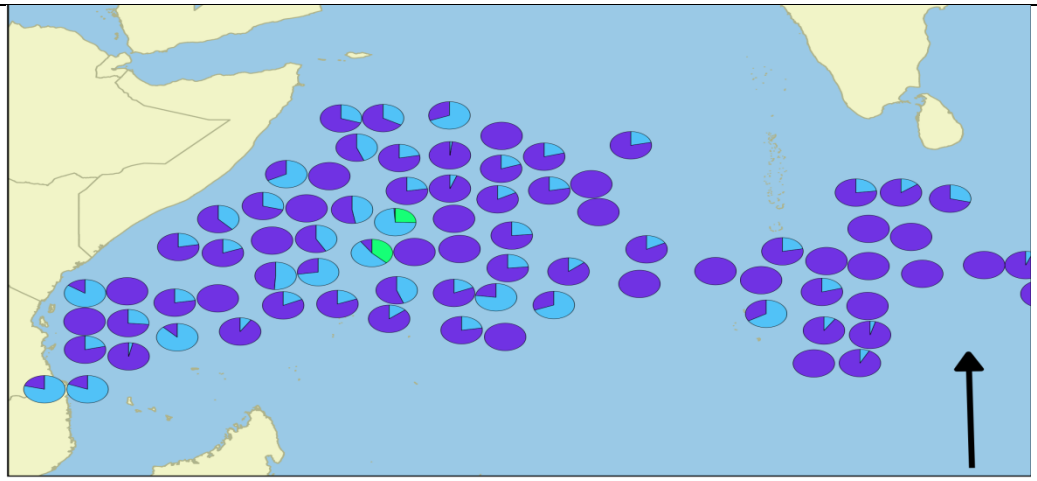

Figure 3a. Map of distribution of fishing catch, by major species for the national fleet, in the IOTC area of competence for the year 2014. Pie chart represents percentage contribution by weight. Pie chart colours reprsents; Dark Blue: Albacore tuna, Ocean Blue: Big eye tuna, Light green: Yellowfin tuna, Brown: Skipjack tuna.

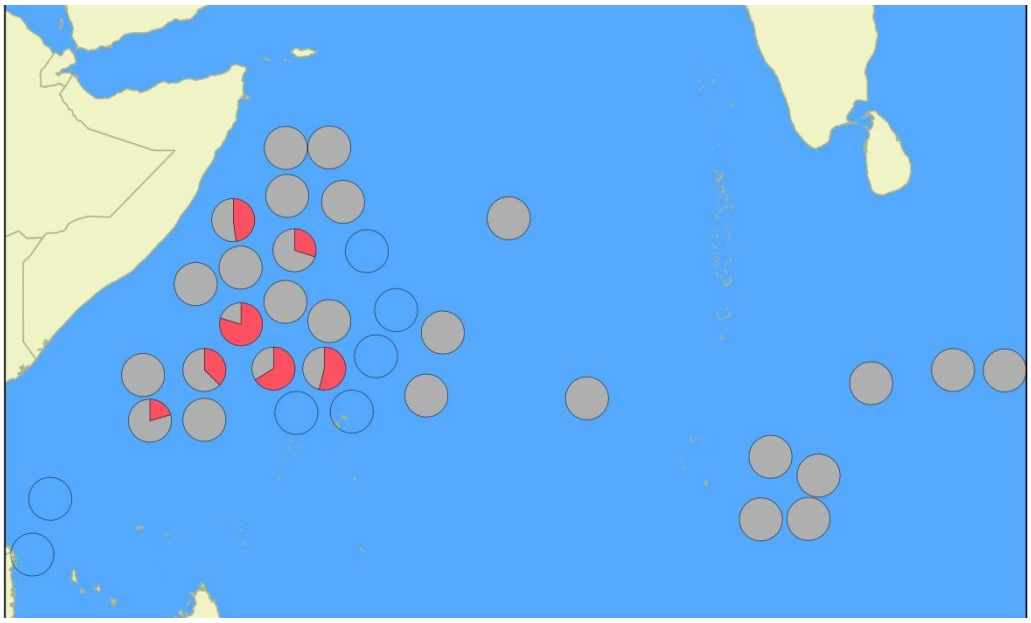

Figure 3b. Map of distribution of fishing catch, of major shark species caught by the national fleet, in the IOTC area of competence Year 2014. Pie chart represents percentage contribution by weight. Pie chart colours represents; Gray: Blue Shark, Orange: Mako Shark.

4. RECREATIONAL FISHERY

There is no significant data indicating a large scale recreational fishery for tuna and tuna like species.

5. ECOSYSTEM AND BYCATCH ISSUES

5.1 Sharks

Discussion on NPOA is ongoing and terms and condition related to protected sharks contained within EEZ fishing licences are therein.

Table 3: Total number and weight of sharks, by species, retained by the national fleet in the IOTC area of competence Year 2014. Abbreviation BSH (Blue Shark), MAK (Mako Shark), OCS (Oceanic whitetip Shark) and SKH (Shark)

Species	Number	Weight (KG)
BSH	1342	3,554

MAK	47	1,524
OCS	9	220
SKH	38	1,091

Table 4: Total number of sharks, by species, released/discarded by the national fleet in the IOTC area of competence (for the most recent five years at a minimum, e.g. 2010–2014). Where available, include life status upon released/discard. **[NA]**

5.2 Seabirds

There was no incidence of sea bird interaction with fishing activities reported in our flagged vessels.

5.3 Marine Turtles

Sea turtle are protected by law and fisheries regulation. However as there is a national sea turtle and Dugong conservation committee that oversee all issues related to sea turtles and dugongs. There is no information so far with regards to interaction between sea turtles and flagged long line vessels.

5.4 Other ecologically related species (e.g. marine mammals, whale sharks)

Fishing of marine mammals and whale sharks are banned under our regulation and legislations

Table 5. Observed annual catches of species of special interest by species (seabirds, marine turtles and marine mammals) by gear for the national fleet, in the IOTC area of competence (for the most recent five years at a minimum, e.g. 2010–2014 or to the extent available). **[Not available]**

6. NATIONAL DATA COLLECTION AND PROCESSING SYSTEMS

There is daily reporting of Flagged Vessels with data consisting of all information required by IOTC Resolutions. Logsheet with filled data are daily sent to DSFA by email, upon receipt, quality check is conducted to verify the information submitted, thereafter received information is entered into a database for storage and archiving.

Artisanal catch data is recorded at respective landing sites by a trained member of Beach Management Unit (BMU) in collaboration with a local fisheries officer (where available). There are 32 (out of 257) selected landing sites on main land Tanzania, equivalent of two landing sites per each coastal district; data is collected for 10 days of each month. In Zanzibar, there are 32 selected landing sites and data is collected for 16 days of each month. Data forms are thereafter sent to the respective district fisheries officer for further check up before submission to the National Fisheries Departments for final check and inclusion into the national fisheries database. The information collected is extrapolated for the entire coastline based on number of fishers, vessel type and gear. On each year both Fisheries Departments are publishing National Annual Fisheries Statistic report to be used by stakeholders.

6.1. Logsheet data collection and verification (including date commenced and status of implementation)

6.2. Vessel Monitoring System

Active Flagged Vessels are fitted with VMS since 2013 while it is a requirement for licensed vessels to have on board a VMS system that is linked to the Deep Sea Fishing Authority Operational Room. Commenced on February 2009 and functioning to date.

6.3. Observer programme

Observer programme is yet to be implemented, however, the Authority has received fund from SWIOFISH, World Bank funded project. Part of the fund will be used to train and deploy observers from next year.

Table 6. Annual observer coverage by operation, e.g. longline hooks, purse seine sets (for the most recent five years at a minimum, e.g. 2010–2014 or to the extent available). **[Not Applicable]**

Figure 4. Map showing the spatial distribution of observer coverage. **[Not Applicable]**

6.4. Port sampling programme

No port calls of fishing vessels in Tanzania were reported for the year 2014.

Table 7. Number of individuals measured, by species and gear] **[Not Applicable]**

6.4. Unloading/Transhipment

No unloading has taken place because Tanzanian Ports have no facilities for handling commercial deep sea fishing vessels. Transhipment at sea in Tanzania EEZ is forbidden by law.

7. NATIONAL RESEARCH PROGRAMS

There is no major research programme for tuna and tuna like species. Few existing programmes are from universities and individual researchers from research institutes. Most of these programmes are focusing on identification and mapping of potential fishing grounds for tuna and tuna like species on the EEZ, (the target being reducing fishing pressure on shallow water habitats).

The Ministry of Livestock and Fisheries Development through the Ministry of Finance have received support from the World Bank to support the development and implementation of the South West Indian Ocean Fisheries Governance and Shared Growth Project known as SWIOFish Project. The Project objective is to improve the management effectiveness of selected priority fisheries (including tuna and tuna like species) at regional, national and community level. The project will support regional integration around fisheries management, while expanding the approach beyond research to strengthen sector governance and promote shared growth through harnessing the value of coastal and marine fisheries to national economies.

Table 8. Summary table of national research programs, including dates

Project title	Period	Countries involved	Budget total	Funding source	Objectives	Short description
SWIOFISH	2015–2020	Tanzania		World Bank	Improve the management effectiveness of selected priority fisheries at regional, national and community level.	

8. IMPLEMENTATION OF SCIENTIFIC COMMITTEE RECOMMENDATIONS AND RESOLUTIONS OF THE IOTC RELEVANT TO THE SC. [Mandatory]

Table 9. Scientific requirements contained in Resolutions of the Commission, adopted between 2005 and 2015.

Res. No.	Resolution	Scientific requirement	CPC progress
15/01	On the recording of catch and effort by fishing vessels in the IOTC area of competence	Paragraphs 1–10	Its mandatory for flag vessel to have log book for data collection
15/02	Mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs)	Paragraphs 1–7	
15/05	On conservation measures for striped marlin, black marlin and blue marlin	Paragraph 4	
13/04	On the conservation of cetaceans	Paragraphs 7– 9	
13/05	On the conservation of whale sharks (*Rhincodon typus*)	Paragraphs 7– 9	

Res. No.	Resolution	Scientific requirement	CPC progress
13/06	On a scientific and management framework on the conservation of shark species caught in association with IOTC managed fisheries	Paragraph 5–6	
12/09	On the conservation of thresher sharks (family alopiidae) caught in association with fisheries in the IOTC area of competence	Paragraphs 4–8	Review of the Fisheries Regulation and Deep Sea Fishing Authority Act are in progress
12/06	On reducing the incidental bycatch of seabirds in longline fisheries.	Paragraphs 3–7	
12/04	On the conservation of marine turtles	Paragraphs 3, 4, 6–10	
11/04	On a regional observer scheme	Paragraph 9	No Observer programme has been implemented at the moment
05/05	Concerning the conservation of sharks caught in association with fisheries managed by IOTC	Paragraphs 1–12	

9. LITERATURE CITED [Mandatory]

Tanzania Annual Statistics Report (2014)

Zanzibar Fisheries Data 2013