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

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INFORMATION ON FISHERIES, RESEARCH AND STATISTICS

In accordance with IOTC Resolution 10/02, final scientific data for the previous year was provided to the Secretariat by 30 June of the current year, **for all fleets other than longline** [e.g. for a National report submitted to the Secretariat in 2015, final data for the 2014 calendar year must be provided to the Secretariat by 30 June 2015)	YES
In accordance with IOTC Resolution 10/02, provisional **longline data** for the previous year was provided to the Secretariat by 30 June of the current year [e.g. for a National report submitted to the Secretariat in 2015, preliminary data for the 2014 calendar year was provided to the Secretariat by 30 June 2015). **REMINDER:** Final longline data for the previous year is due to the Secretariat by 30 Dec of the current year e.g. for a National report submitted to the Secretariat in 2015, final data for the 2014 calendar year must be provided to the Secretariat by 30 December 2015).	NO
If no, please indicate the reason(s) and intended actions: ***Kenya does not have a long line vessel on its fishing vessel register*	

Executive Summary

The Kenyan tuna fishing fleet structure consists of an artisanal commercial segment and recreational fleets which all combined target and impact species under the IOTC mandate. The commercial artisanal fishing fleet is composed of a multi-gear and multi-species fleet operating in the territorial waters. The local boats are broadly categorized as outrigger boats or dhows which come with variants depending on the construction designs. It is estimated that 850 artisanal vessels are engaged in the fishing for tuna and tuna like species in 2014 within the coastal waters. The Main gears used are artisanal long line hooks, gillnets, monofilament nets and artisanal trolling lines. Catches from artisanal tuna fisheries were 193 tons, which is a reduction from 292 tons in 2013. Other important species landed which declined were spanish mackerel with 127 tons from the previous 162 tons. The significant increase was noted in sailfish with landings of 176 tons from the previous 140 tons. Catches for tuna are not distinguished to distinct species groups because of identification problems with the data collectors. Recreational fisheries for the current year reduced to mere 18 tons from the previous 138 tons in 2013. The main target species being marlins, sailfish (*Istiophiridae*), swordfish (*Xiiphidae*) and tuna (*Scombridae*).Other species caught include small pelagic species such as barracuda, Spanish mackerel, Wahoo and sharks are landed. The artisanal fisheries and recreational fishing fleets have interactions with sharks where sharks are caught and the carcass is retained and fully utilised in artisanal fisheries and recreational trolling line fisheries have a voluntary shark release policy for sharks.

Background/General fishery information

Kenya's straight coastline measures 640km long and 880Km including bays and inlets. Situated in the Western Indian Ocean, it borders Somalia to the north and Tanzania to the south. The declared Exclusive Economic Zone (EEZ) extends 200 nautical miles from the Kenya coastal baselines measuring 142,400Km. The most distinctive feature of the Kenyan coastline is its almost continuous fringing coral reef that runs parallel to the coast. The continental shelf is narrow (3-5 km) in most parts except in Ungwana bay, the shelf area measures 6500 km. The coastal and marine environment supports inshore marine fishing grounds located in and around Lamu Archipelago,

Ungwana Bay, North Kenya Bank and Malindi Bank. The areas where the two major Kenyan rivers (Tana and Sabaki) empty into the sea are also very productive. The extensive fringing reef system supports vibrant artisanal fisheries for dermersal, crustacean and molluscs fisheries vital for the livelihoods of the dependant coastal communities. Annual production from artisanal coastal fisheries average 9,073 MT consisting of 50%, dermersal, 37% pelagic, 7% mollusc and 6% crustaceans species. Annual catches of the pelagic species are estimated at 3,353 MT. Several of the pelagic species caught are under the IOTC mandate and occur in the Kenyan territorial waters and the Exclusive economic Zone.

Kenya's entire artisanal fishing fleet consists of 3,500 small scale mostly wooden crafts usually for single day fishing trips. Fishing is heavily influenced by the monsoon season cycles, the most important fishing season is during the calm north east Monsoon from September to March. Landings of species under the IOTC mandate include tuna species (yellowfin tuna, skipjack tuna

and Kawakawa) not always distinguished to species level in catches and kingfish. Billfish catches in the artisanal fishermen landings are represented mainly by Sailfish (*Istiophoridae*).

A recreational trolling line fishery is also important in Kenya Kenya's pelagic fisheries. The total catch is considered significant especially when compared to the artisanal commercial fisheries. The catch composition is varied with at total of fifteen pelagic species commonly landed however the mainstay of the fishery is composed of sailfish, marlins, tuna and swordfish.

Fleet structure

The national tuna fishing fleet structure consists of an artisanal commercial segment and to a lesser extent recreational fleet which all combined target and impact species under the IOTC mandate. An estimate of the total fishing fleet for the entire artisanal sector is obtained from biennial frame surveys conducted regularly for the entire artisanal fishery since 2004. The fishing fleet estimates provided in this report are based on the frame survey estimates of February 2014.

The commercial artisanal fishing fleet is composed of a multi-gear and multi- species fleet operating in the territorial waters. The local boats are broadly categorized as outrigger boats or dhows which come with variants depending on the construction designs. It is estimated that 850 artisanal vessels are engaged in the fishing of tuna and tuna like species in 2014. A majority of the vessels are wooden planked propelled by sails and increasingly being motorised. These boats operate day fishing trips within the territorial waters. The mean craft size for tuna fishing vessels based on the frame survey was eight meters. The main gears used are artisanal long lines,

handlines, gillnets, trolling lines and monofilament nets. Recreational fishing vessels use trolling lines.

Catch and effort

Artisanal commercial fishing for tuna and tuna-like species in the territorial waters use artisanal long line hooks, gillnets, monofilament nets and artisanal trolling lines. Generally fishing for tuna species is highly seasonal activity where artisanal vessels in July-November target migratory tuna which occur in the coastal waters. The peak season for sailfish landings is during the November to March in coastal waters. Species landed are tuna yellowfin tuna, Skipjack tuna, Kawa kawa, sailfish and Spanish mackerel. Table 1 summarises artisanal catch data for the year 2005- 2014. In 2014, the tuna landings from artisanal fishers were 193 tons while their catches range between 201 to 336 tons for the 2005 to 2014 period. Catches for tuna are not distinguished to species level because of identification problems with the data collectors. Other important species landed were sailfish 176 tons, and Spanish mackerel 127 tons respectively. The Figure 1 shows the artisanal catch trends from 2001.

Table 1. Annual catch by the commercial artisanal fleet for the primary species in the IOTC area of competence

Species/Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Sailfish	111	148	84	105	160	165	145	142	140	176
Spanish mackerel	110	82	117	77	75	119	179	121	168	127
Tuna	336	233	204	319	295	180	302	201	292	193
Sharks & Rays	253	189	174	183	232	274	306	373	314	293

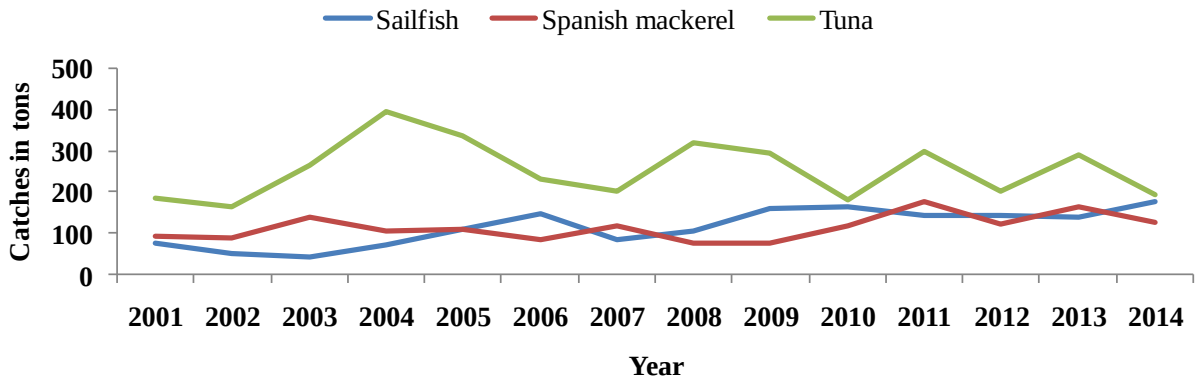

Figure 1. Historical annual catch for the artisanal fleet, by primary species, for the IOTC area of competence from 2001- 2014.

The spatial representation of the catch by species and the fishing fleet dynamics is not possible primarily because the entire catch is caught by artisanal operators who do not have GPs devices equipped on their vessels. All the fleet operates within the territorial waters and mainly within the 5 nm area**.**

Recreational

Recreational trolling line fisheries in Kenya dates back to the 50 years historically restricted to more affluent individuals and tourists. The main target species being marlins, sailfish (*Istiophiridae*), swordfish (*Xiiphidae*) and tuna (*Scombridae*).Other species caught include small pelagic species such as barracuda, spanish mackerel, Wahoo and sharks. They are caught by trolling line with baits and artificial lures by sport- fishing enthusiasts using chartered boats.

The common fishing locations are banks and reef drop offs, the Pemba Channel and sea mounts. Fishing has distinct high and low seasons occurring during the calm North east monsoon and

from October to March and also fishing intensity heavily depended on the tourist arrivals. There are 87 chartered boats used in the recreational fisheries in Kenya and the trolling lines as the main gear. Anglers enforce a voluntary tag and release policy for marlins and sharks. About 18 tons of fish were landed from recreational fisheries in the year 2014 which is a sharp decline compared to the 138 tons in 2013. This was occasioned by the low number of tourists coming to the country due to the travel advisories occasioned by terrorist attacks in the country. Details of the catch composition are indicated in table 2 below.

Species	No	Tagged	Kgs
Barracuda	47	0	296
Cobia	0	0	0
Dorado	333	0	1,290
Kingfish	85	0	345
Black Marlin	92	63	3,288
Blue Marlin	85	68	3,486
Striped Marlin	54	37	1,480
Sailfish	619	447	3,621
Hammerhead Shark	1	1	100
Mako Shark	0	0	0
Tiger Shark	10	7	1,920
Other Sharks	20	5	1,321
Swordfish	16	12	122
Giant Trevally	71	16	60
YellowfinTuna	359	0	810
Wahoo	78	0	644
Total	**1,870**	**656**	**18,783**

Table 2: Landings from recreational fisheries in 2014

Sharks

Kenyan pelagic fisheries encounter sharks in the fishing operations of the artisanal longline, trolling line, handline and gillnet fisheries in territorial waters. Sharks are caught and the carcass is retained and fully utilised. Recreational trolling line fisheries encounter sharks as by catch but

have a voluntary shark release policy for sharks caught. Sharks are also caught in industrial longline fishing tuna by licensed foreign vessels operating within the Kenya EEZ. Table 3 provides a summary of the number and weight of sharks per species group caught by the recreational fisheries from 2009-2014. The artisanal catches have not been distinguished to the species level nonetheless recent studies indicate that the following species are commonly landed in artisanal catches; *Sphyrna lewini*, *Carcharhinus melanopterus* and *Carcharhinus amblyrhynchos*.

Generally there have been declines in shark catches in the recreational trolling fisheries over the years. Presently there are no specific management measures directed to the management and conservation of shark fisheries. A National Plan of Action for sharks is being developed and may be in place by the end of 2016 and shall put in place a framework to ensure the conservation and management of sharks and their long-term sustainable use in Kenya**.**

Year		**2009**		**2010**		**2011**		**2012**		**2013**		**2014**
Shark species	**No.**	**Kgs.**	**No.**	**Kgs.**	**No.**	**Kgs.**	**No.**	**Kgs.**	**No.**	**Kgs.**	**No.**	**Kgs.**
Hammerhead shark	3	83	4	139	0	0	1	200	3	80	1	100
Mako shark	3	200	2	142	1	90	0	0	3	100	0	0
Tiger shark	2	350	2	305	4	660	0	0	9	2,394	10	1,920
Shark, Other	55	2,886	38	1,894	55	1,809	0	0	34	1,537	20	1,321
Total	**63**	**3,519**	**46**	**2480**	**60**	**2,559**	**1**	**200**	**49**	**4,111**	**31**	**3,341**

Table 3: Total number and weight of sharks, by species, retained by the national fleet in the IOTC area of competence 2009–2014.

Seabirds

Kenyan fishing fleet does not include long line fishing vessels and such interactions with sea birds with the current fleet are not known. The development of a National Plan of action for sea birds is not considered as necessary in the interim.

Marine Turtles

The government completed the development of the national conservation strategy and action plan for sea turtles 2010- 2014. The implementation involves multiple agencies. The strategy is very comprehensive with the aim of reducing and mitigating threats reverse declining sea turtle populations and enhance ecological, social, and cultural benefits of sea turtles.

The Fisheries Act Cap 378 revised 2012 prohibits retention and landing of turtles and all turtles caught incidentally in fishing operations must be released. The existing mitigation measures in the national legislation are targeted at the prawn trawl fishery where mandatory turtle reduction devices must be used in trawl fishing operations. There is generally effort dedicated at raising awareness among the artisanal fisherfolk on the importance of sea turtle conservation. Data on the incidental capture and gear - sea turtles interactions for the artisanal tuna fishing fleet is limited due to the artisanal nature of the fishing operations.

National data collection and processing systems

Logsheet data collection and verification

Logbook data collection and verification started in 2007 and applied to the authorised long line vessel flying the Kenyan flag. Currently there are no authorised vessels using the logsheet data collection system as the entire authorised fishing fleet for tuna fisheries is artisanal.

Vessel Monitoring System

The current fleet structure is artisanal tuna fishing vessels are small in size and cannot be fitted with the VMS equipment. The country is in the process of procuring a VMS for monitoring of foreign fishing vessels in the EEZ.

Observer programme

Field data samplers at the fish landing ports started to collect fisheries data on the artisanal fishing boats through a catch assessment survey from the June 2013. On board observer scheme has not been introduced due to the current authorised vessels are too small to accommodate observers.

6.4. Unloading/Transhipment

Data is collected for unloading and transhipment and submitted to the secretariat in the prescribed format