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Somalia National Report to the Scientific Committee of the Indian Ocean Tuna Commission, 2017

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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 2017, final data for the 2016 calendar year must be provided to the Secretariat by 30 June 2017)	No
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 2017, preliminary data for the 2016 calendar year was provided to the IOTC Secretariat by 30 June 2017). **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 2017, final data for the 2016 calendar year must be provided to the Secretariat by 30 December 2017).	Not applicable
If no, please indicate the reason(s) and intended actions: Somalia does not have any Pure seine or Longliners operating under its flag, and the only fleet currently operating in Somalia is a small artisanal fleets ranging from 3 – 10 m made of glass reinforced plastic or wood operating in coastal waters. However, Somalia is currently working with partner to strengthen its capacity to develop and implement a central database along its coast for artisanal fishery.	

Executive Summary [Mandatory]

Somali has the longest coastline in Africa (3,330km) and an EEZ of 1,165,500 Km^2, there is potential to sustainably increase employment, food security, nutrition and revenues from its fisheries but there is currently no active fisheries management. The fishery resources in Somali waters are said to be one of the richest in the African continent.

The marine fisheries can be further divided into offshore (conducted by foreign vessels), coastal or artisanal (limited to waters of the relatively narrow continental shelf, operated by traditional vessels and vessels with outboard/inboard engines) and Houri by traditional boats. The fishing seasons of Somali waters is governed by the monsoon winds that occur in the calendar year between May and September. In this period, high waves and strong winds force small and medium size commercial boats not to call at Somali ports. The fishing days of the artisanal fishery varies between 220-240 days per year while the offshore fishing vessels were forced to change their fishing ground, gear or target species.

Large pelagic species including tuna and tuna-like species such as yellow-fin, big-eye, skipjack, and mackerel are the most highly priced species locally. Although they are highly migratory, the traditional fishing grounds for these species are found along the Indian Ocean from latitude 05 to 100 N due to upwelling that occurs twice annually in the period of southwest monsoons. It is also known that there are good fishing opportunities in the Gulf of Aden and Indian Ocean for tuna during the Southwest monsoon in the deeper waters.

Besides, there is no MCS of the marine resources and data collection system on marine products on both inshore and offshore fisheries. Strengthen its capacity in development and implementation of central database along its coast for artisanal fishery is the key priority areas in Somalia.

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1. Background/General fishery information

Somali has the longest coastline in Africa (3,330km) and an Economic Exclusive Zone of 1,165,500km2, (see Figure 1) there is potential to sustainably increase employment, food security, nutrition and revenues from its fisheries but there is currently no active fisheries management. The fishery resources in Somali waters are said to be one of the richest in the African continent.

Figure 1. Somali Economic Exclusive Zone

The fishing seasons of Somali waters is governed by the monsoon winds that occur in the calendar year between May and September. In this period, high waves and strong winds compel small and medium size commercial boats not to call at Somali ports. In this period, coastal fishing of the artisanal fishery is limited but it does not have much effect on the industrial fishery as it is engaged mainly on larger fishing vessels.

The fishing days of the artisanal fishery varies between 220 to 240 days per year while the offshore fishing vessels were forced to change their fishing ground, gear or target species.

The state of fish resources is not well known though the weak domestic purchasing power, poor market links and lack of export facilities suggest that many resources remain under-exploited. However, high value inshore stocks such as lobster and sea cucumber are known to be over-exploited, while prime finfish, such as red snapper, have always found a market in the Gulf States. Dried shark and ray have also been traditional products traded in the region. A sustainable annual catch of 200,000 tons, FAO, (2005) of pelagic species has been suggested by FAO and an annual catch of 60,000 tons has been estimated (including foreign catches) UNSC (2011). Coastal stocks are estimated at about 40,000 tons of demersal species, and 30,000 tons of sharks and rays. Sharks and rays can be as much as 40% of the catch of artisanal fisheries and are considered overexploited. Concentrations of pelagic species (scad, sardines, anchovy and other small Pelagics) show high seasonal variability and sustainable catches have been estimated at about 70,000-100,000 tons per year Glazer, et al. (2015). According to Glazer, et al. (2015) a recent estimate suggests considerable potential for pelagic (planktivore) species and overexploitation on some demersal species.

All estimates need to be treated with caution. FAO reports around 30,000 tons of fish caught in the waters of Somalia since 2006 to 2012, Pauly D., & Zeller D., (2014). However, FAO data reflect the reported catches as provided by the national fisheries authorities. In addition to that, Pauly D., & Zeller D, editors (2014), indicates that The Sea Around Us Project estimates the catch from Somali waters to be in the order of 60,000 tons almost double as compared to the FAO's estimation (see Table 1, Table 2, Table 3). However, these estimates include both the landings and the largely unreported catches landed outside Somalia (see following tables). The value of illegal catches taken out of Somali waters in 2005 was estimated as being at least US$300 million Lehr P., & Lehmann H. (2007) and Glazer, et al. (2015). However, according to Glaser, et al. (2015) as already cautioned, all estimates and reported values must be treated with caution, particularly as up to 2014.

Table 1. Somalia reported and estimated catches in 2010

Year	Industrial	Artisanal	Subsistence	Discards	Total catch
FAO reported catch		(46% of UBC estimate)		29,800	
UBC/ Sea Around Us estimate	14,540	32,730	8,120	9,530	64,900
% (UBC)	22%	50%	13%	15%	100%

Source: Persson et al. (2014)

Table 2. Composition of estimated annual catch in Somali waters (averages 1997-2006)

Species	Value per ton (US$)	Annual landings (tons)	Estimated annual value (US$ million)	% by value
Yellowfin Tuna	$2,333	2,168	5.71	12%
Bigeye	$2,913	1,485	5.04	11%
Skipjack	$1,035	1,417	1.47	3%
Albacore	$2,516	90	0.26	1%
Spiny lobster	$9,959	453	4.39	10%
Swordfish	$2,639	393	1.25	3%
Species nei	$1,051	26,413	27.77	61%
Total	$1,416	32,419	45.89	100%

Source: Persson et al. (2014). nei: not elsewhere included

Table 3. Small-scale catches reported and estimated for 2005 for Somalia (tons)

Region	Fish	Shark	Total	Shark	Source
Somaliland	6,030	2,486b	8,516	29%	Gulaid (2004)
Puntland	2,144a	8,990	11,134	81%	Mohamed & Herzi (2005)
Galmud, Hirshabelle, South-west & Jubaland	14,825	6,113	20,938	29%	Sabriye (2005)
Total Somalia	22,999	17,589	40,588	43%	

Source: Persson et al. (2014). A substantial part of the finfish catches from Puntland are sold to Yemen and not included in the reported catches for Puntland.

2. Fleet structure

Somalia does not have any Pure seine or Longliners operating under its flag, and the only fleet currently operating in Somalia is a small artisanal fleets ranging from 3 – 10 m made of glass reinforced plastic or wood operating in coastal waters. With the exception small artisanal fishing fleet, Somalia does not have any fishing vessels targeting tuna and tuna-like species in the Indian Ocean. There is no vessel of or above 24m, or less than 24m fishing outside of the Somali EEZ, targeting tuna and tuna-like species and flagged in Somalia, and therefore there is no Somali vessel on the IOTC Record of Authorized vessels. The Somali artisanal fleet does not specialized in targeting tuna and tuna-like species and catch IOTC species on an opportunistic basis like many other artisanal fisheries of the Indian Ocean.

For the artisanal fleet, the number of fishermen and fishing vessels is largely unknown, however, through an FAO project, Somalia has started to registered fishermen and so far a total of 65,144 fishermen have been registered. More than half are reported to own their fishing boats and 50% are members of fishing cooperatives was estimated at about 3,464 motorized fiberglass vessels (6-10 meters), 110 sail boats and 726 houris (5-meter canoes), suggesting that there may currently be in the order of 4,300 vessels of all types (Table 5.). Boats are categorized into four types accordingly to the Local Boat Name.

The boats used in most sites is fiberglass skiffs with an outboard engine. For landing sites along an open coastline, fiberglass skiffs allow easy beaching and landing from a sandy beach. Boats with inboard engines often moor at sea and therefore usually require protected harbors. Dhows and sail vessels are found only in the south while houri, a rowing boat, is the most commonly used boat in Somalia. (See Table 4.)

Table 4. Distribution of boat types

Local Boat Name	**Definition**
Saxiimad/Baaraforde/Faara boota	Fiberglass skiff with outboard
Volvo/Laash	Fiberglass with inboard
Houri	Wooden boat without engine
Shuraac	Sail
Dhow	Dhow Motorized
Sambuk	Wooden boat with inboard engine

Table 5. Numbers of boats by type counted during 2015

Boat Type	**Total**
Motor boats (inboard and outboard engine	3,464
Houris	836
Totals	**4,300**

Sources: Statistics Unit - Ministry of Fisheries and Marine Resources

Table 1: Number of vessels operating in the IOTC area of competence, by gear type and size for the period 2010 - 2016

	2010	***2011***	***2013***	***2014***	***2015***	***2016***
Purse Seiner	0	0	0	0	0	0
Longliners	0	0	0	0	0	0
Artisanal	Unknown	Unknown	Unknown	Unknown	3,080	4,300

3. Catch and effort (by species and gear)

Somali artisanal fleet composed of small motorized and non-motorized fishing boats with a length varying from 3 – 10m. The artisanal fleet is operating in coastal areas, mainly within 12 to 15 nm from the coast. The fleet is targeting both demersal and pelagic species, including highly migratory species, mainly with gillnets and hand-lines. In 2015, FAO with funding Japan, Switzerland and the European Union deployed 25 anchored Fish Aggregating Device (FAD) along the Indian Ocean in cooperation with the federal and regional ministries of fisheries. Although not data collection system in place it is expected to increase the fish production of the artisanal fishing fleets. At present, no data collection or sampling system is set up in the different States of Somalia, and very few fisheries data is currently being collected on the Somali artisanal fleet. However, strengthening the capacity of data collection including development and implementation of central database along the coast for artisanal fishery is the key priority areas in Somalia.

Table 2. Annual catch and effort by gear and primary species in the IOTC area of competence. Include a 'not elsewhere indicated – NEI' category for all other catches combined. [Note: Multiple tables may be required e.g. **Table 2a, 2b, 2c). [Mandatory]**

No data available

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]**

No data available

Figure 2a. Map of the distribution of fishing effort, by gear type for the national fleet in the IOTC area of competence (most recent year e.g. 2016). **[Mandatory]**

No data available

Figure 2b. Map of the distribution of fishing effort, by gear type for the national fleet in the IOTC area of competence (average of the 5 previous years e.g. 2012–2016).

No data available

Figure 3a. Map of distribution of fishing catch, by species for the national fleet, in the IOTC area of competence (most recent year e.g. 2016).

No data available

Figure 3b. Map of distribution of fishing catch, by species for the national fleet, in the IOTC area of competence (average of the 5 previous years e.g. 2012–2016).

No data available

4. Recreational fishery

There is no recreational or sport fishery in Somalia

5. Ecosystem and bycatch issues

The Somali Fisheries Law defines the protection of provisions on endangered species, including sharks, seabirds, marine mammals and marine turtles.

5.1. Sharks

Shark fishing is a traditional activity and has been undertaken in Somali waters for centuries. Various species of sharks and rays are targeted by artisanal fishers for both fins and meat. Fishing methods include gillnets and longlines. Sharks are targeted by the Somali artisanal fleet and shark – shark products are fully utilised in Somalia and are landed whole with fins attached. Landed sharks (is well processed) are finned, beheaded, and gutted and the meat is then incised, washed with seawater, salted, and dried.

Despite it has been fishing for long-time Somalia does not develop the National Plan of Action (NPOA) for sharks as data is not available on shark catches in Somalia.

Table 3: Total number and weight of sharks, by species, retained by the national fleet in the IOTC area of competence (for the most recent five years at a minimum, e.g. 2012–2016).

No data available

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. 2012–2016). Where available, include life status upon released/discard.

No data available

5.2. Seabirds

Somalia has not yet been developed NPOA-seabirds, and no data is available on seabird bycatch in Somalia.

5.3. Marine Turtles

Of the seven species of sea turtles worldwide, five live in Somali waters, as there is no specific strategy has yet been developed in Somalia regarding marine turtles, and no data is available on marine turtle bycatch in Somalia.

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

No data available

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. 2012–2016 or to the extent available).

No data available

6. National data collection and processing systems

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

There is no vessel of or above 24m or less than 24m fishing outside of the Somali EEZ flagged in Somalia. No logsheet data collection system is in place for the Somali artisanal fleet.

6.2. **Vessel Monitoring System** (including date commenced and status of implementation)

There is no vessel of or above 24m or less than 24m fishing outside of the Somali EEZ flagged in Somalia. No VMS is implemented for the Somali artisanal fleet.

There is a project underway with aim develop its MCS capacity, Somalia is working with FAO to set up a VMS in Somalia, which will primarily allow Somalia to follow the activities of future licensed vessels while operating in the Somali EEZ.

6.3. **Observer programme** (including date commenced and status; number of observer, include percentage coverage by gear type)

There is no vessel of or above 24m, or less than 24m fishing outside of the Somali EEZ, flagged in Somalia. No observer programme is implemented for the Somali artisanal fleet. However, with the support of FAO, Somali observers have been trained in 2015, for future deployment on board foreign licensed or Somali registered vessels.

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. 2012–2016 or to the extent available).

Somalia did not deploy observer during this period as there is no national fleet on which to deploy observers

Figure 4. Map showing the spatial distribution of observer coverage.

6.4. **Port sampling programme** [including date commenced and status of implementation]

At present, no data collection or sampling system is set up in the different States of Somalia, and very few fisheries data is currently being collected on the Somali artisanal fleet. Moreover, at the regional governments the collection of fisheries data is mostly stated to be very low in the order of priorities and may therefore be neglected. Thus, the rationalization of data enumerators in some landing sites has not been superficial as poorly affecting district activities.

All field Fisheries Inspectors attached to the Regional Governments Fisheries Offices along the coast generally work one day per week, collect catch and effort data from beach landing sites primarily seven landing site. These data cannot be used for regular stock assessment or management of fisheries, which is a primary requirement of MFMR. This work is carried out by Fisheries Inspectors under the overall supervision of the statistical Unit in the Ministry of Fisheries and Marine Resources, but there is no description or written guidelines available for the implementation of the system. The collected data has not yet been analysed as the database is incomplete and the Fisheries planning and statistics staff working in the statistics unit does not have the capacity to finish the work.

For instance, more than 99% of Somali fisheries capture in the Indian Ocean comes from artisanal fleets. This creates significant data challenges across the nation. Small, artisanal fleets have characteristics that complicate fisheries data collection and hence management: many small boats, low governance capacity, isolated and numerous landing sites, diverse market chains, multi-species and multi-gear fleets, and no clear distinction between target and bycatch species. Consequently, data quality varies widely, underreporting is widespread, and catch is rarely documented at the species level.

Table 7. Number of individuals measured, by species and gear]

6.4. Unloading/Transhipment [including date commenced and status of implementation]

Somalia does not have a sampling system in port or at landing sites for the moment to collect statistics on its artisanal fleet.

7. National research programs

Due to lack of fund and capacity in the country, no research is being carried out since the fall of the last government in 1991 but Somalia is eager to participate to regional research project on tuna and tuna-like species, and will cooperate to its maximum capacity with such initiative.

8. Implementation of Scientific Committee Recommendations and Resolutions of the IOTC relevant to the SC.

Table 9. Scientific requirements contained in Resolutions of the Commission, adopted between 2005 and 2017.

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	No data collection system is currently operational in Somalia however, Somalia has started developing central database to strengthen and improve its artisanal fisheries.
15/02	Mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs)	Paragraphs 1–7	Somalia currently is implementing to improve artisanal fisheries data collection sampling system that is feasible for fisheries in Somalia along with an improved fisheries database and database management system. currently, Somalia does not report statistical data to IOTC
15/05	On conservation measures for striped marlin, black marlin and blue marlin	Paragraph 4	Marlin species (striped, blue and black) are considered secondary species however, level of catches are unknown for the artisanal fleet
13/04	On the conservation of cetaceans	Paragraphs 7– 9	The fisheries law makes provision for the protection of cetaceans in Somali waters. Other provisions will be included in the fisheries regulations.
13/05	On the conservation of whale sharks (*Rhincodon typus*)	Paragraphs 7– 9	The fisheries law makes provision for the protection of cetaceans in Somali waters. Other provisions will be included in the fisheries regulations.
13/06	On a scientific and management framework on the conservation of shark species caught in association with IOTC managed fisheries	Paragraph 5–6	Specific provisions regarding shark caught in association with IOTC managed fisheries in Somalia included in the draft fisheries regulations.
12/09	On the conservation of thresher sharks (family alopiidae) caught in association with fisheries in the IOTC area of competence	Paragraphs 4–8	The new fisheries law makes provision for the protection of cetaceans in Somali waters. Other provisions will be included in the fisheries regulations. Somalia has started mobilization of banning Thresher Sharks to be retained.
12/06	On reducing the incidental bycatch of seabirds in longline fisheries.	Paragraphs 3–7	The fisheries law makes provision for the protection of cetaceans in Somali waters. Other provisions will be included in the fisheries regulations.

12/04	On the conservation of marine turtles	Paragraphs 3, 4, 6–10	The fisheries law makes provision for the protection of cetaceans in Somali waters. Other provisions will be included in the fisheries regulations.
11/04	On a regional observer scheme	Paragraph 9	The fisheries law makes provision for the protection of cetaceans in Somali waters. Other provisions will be included in the fisheries regulations.
05/05	Concerning the conservation of sharks caught in association with fisheries managed by IOTC	Paragraphs 1–12	Somalia does not have a fleet on which observers shall be deployed. Somalia currently is implementing to improve artisanal fisheries data collection sampling system at landing sites that is feasible for its artisanal fleet with an improved fisheries database and database management system.
16/06	On measures applicable in case of non-fulfilment of reporting obligations in the IOTC	Paragraph 1	Somalia is working with its partners to develop its fisheries management capacities, including data collection system. At the moment, due to the last decades of civil war and instability in the countries, no data collection system is currently operational in Somalia. Large portion of the coast remain inaccessible due to the security situation.

9. Literature cited

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