Iran's Skipjack Tuna fisheries

Present to 21th Session of the IOTC Working Party on Tropical Tuna (WPTT21), San Sebastian – Spain

21 – 26 October 2019

By: Mokhtar.Akhondi

Akhondi2200@yahoo.com

Skipjack tuna (*Katsuwonus pelamis*) is a cosmopolitan species found in tropical and subtropical waters. It generally forms large schools, often in association with other tunas of similar size, such as the juveniles of yellowfin and bigeye tuna. This species has a high reproductive, potential (fecundity) and spawns opportunistically throughout the year in the entire inter-equatorial Indian Ocean (north of 20°S). Skipjacks are caught mainly on the surface by purse seine and pole&line gear and used mainly for producing canned tuna.

This tuna fish targeted by fishermen throughout its range in Iranian offshore waters and in Indian Ocean using mainly gillnet & Purse seine methods. Most of the catch is taken in the west of the Indian Ocean. No SKJ and YFT are recorded in Persian Gulf waters.

Total catch for skipjack tuna in 2018 was about 608,000 tons, which made up around 30% of tuna and tuna-like species and 54% of tropical tuna in the Indian Ocean in 2018.

The average national catch quantity of tropical and skipjack tuna during the past five-year period, account for 9% of Indian Ocean tuna catch.

Iran is the 6 th largest country exploit skipjack after Spain, Indonesia, Maldives, Seychelles and Sri Lanka (2014 – 2018).

More than 80% of skipjack tuna catches by 6 countries.

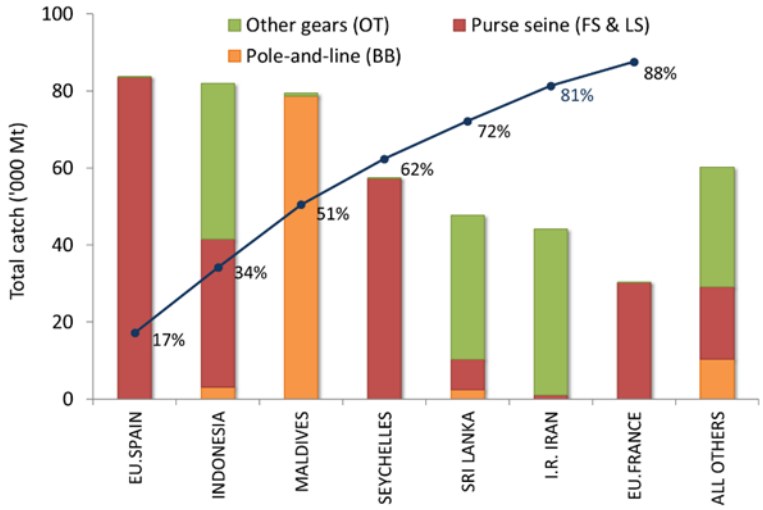


Fig. 1. Skipjack tuna: average catches in the Indian Ocean over the period 2014 – 18, by country. Countries are ordered from left to right, according to the importance of catches of skipjack reported. The dark line indicates the (cumulative) proportion of catches of skipjack for the countries concerned, over the total combined catches of this species reported from all countries and fisheries. Data as of September 2019.

The average annual tropical tuna catch in Iran during the past 15 years was around 87,052 Mt and the catch in 2006 was equivalent to 143,391 Mt which shows 39% decrease in compare to mentioned 15 years average catch.

The Skipjack average catch for a period of 15 years is 47,842 Mt and its' catch in 2006 was 102,668 Mt which shows a drop of 53% compared to 15 years average catch.

The share of Skipjack catch from total marine capture production in 2006 was around 24% which has fallen to 6% in 2018. (Skipjack catch in 2006 declined by

53% from 103,000 Mt to 50,000 Mt in 2018). Skipjack tuna catch in 2018 was around 50 thousand tons which shows 6.3% decrease compared to the same period last year.

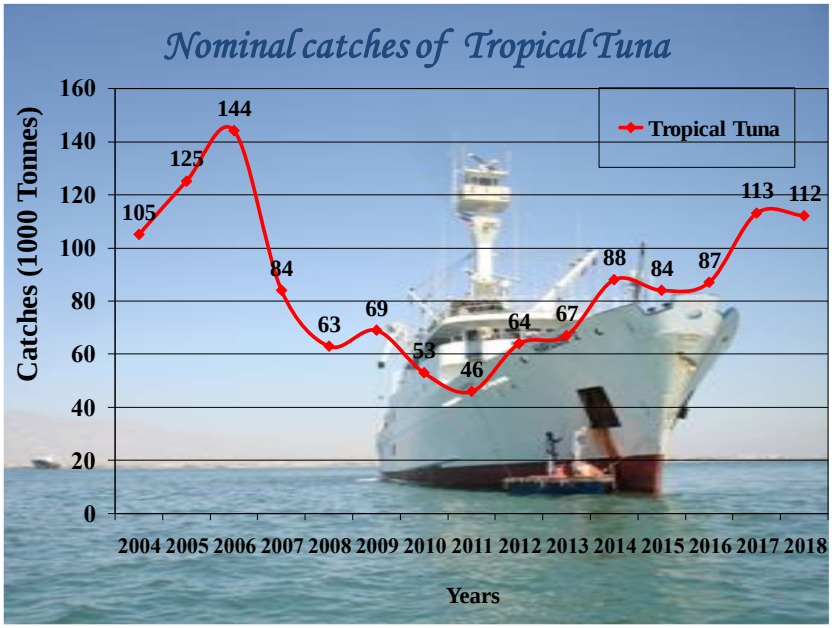


Figure 2: *nominal Catch of tropical tuna*

Tropical tuna catch in 2018 was around 112 thousand tons which shows 1% decrease compared to the same period last year. Of this (112 thousand tons), around 50 thousand tones (44.4%) attributed to SKJ, 58.6 thousand tons (52.2%) to YFT and 3.7 thousand tons (3.3%) was belong to the BET.

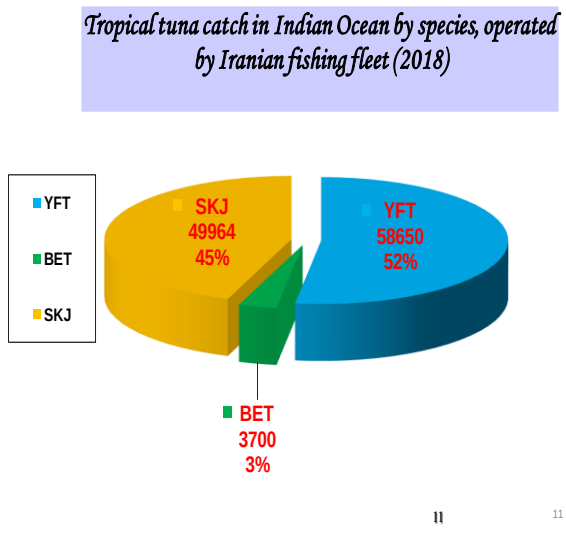
In 2006, the peak of tropical tuna catch in Iran was equivalent to 144 thousand tons. The catch for 2018 shows 22% decline compared to 2006.

Skipjack tuna catch accounts for 44% of tuna and tuna-like species, 6.5% of total country catch and 4% of total aquatic production.

Iranian fishermen exploited around 356 tons of skipjack tuna by purse seine and 49,608 tons by gillnet fishery in 2018.

In 2018, around 5,693 tons (11.4%) skipjack tuna landed in Hormozgan Province and 44,281 tons (88.6%) in Sistan & Blochestan Province.

Skipjack tuna catches in 2018 were about 50,000 tons and average catch the past 15 years was about 48,000 tons, the peak of it was 103,000 tons in 2006 but after the phenomenon of piracy it declined sharply to its minimum amount of 17,000 tons in 2011, after that in 2018, it increased slightly to 50,000 tons.



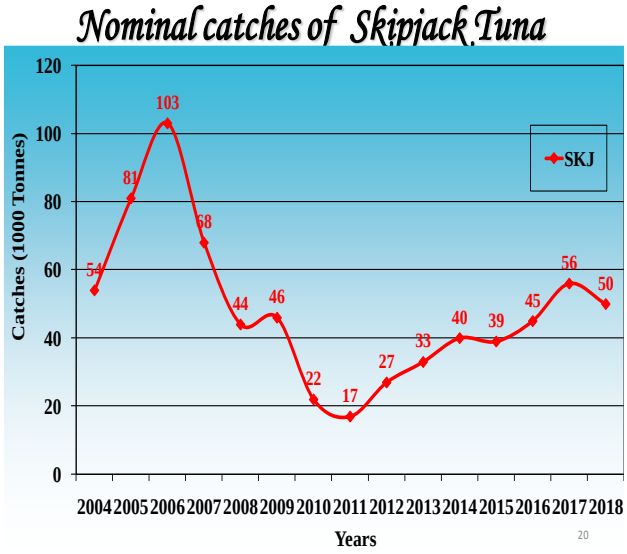


Figure 3: *Percentage Catch of tropical tuna in 2018*

Figure 4: *nominal Catch of Skipjack tuna*

Total size data collected for SKJ in 2018 by Gillnet and Purse seine fishery is around 24,177 and 2,152 fish respectively. Total length frequency for SKJ has been increased from 4,000 fish in 2003 to 26,000 fish in 2018.

The average fork length for gillnet fishery is 54.7 cm (n=24,177 & range 28 to 75 *cm*) and the average mean length for purse seine fisheries is 53.6 cm (n=2,152 &

range 31 to 74 *cm*). Figure (5) shows the trends of mean fork length for both gillnet and Purse seine fisheries from (2003 to 2018).

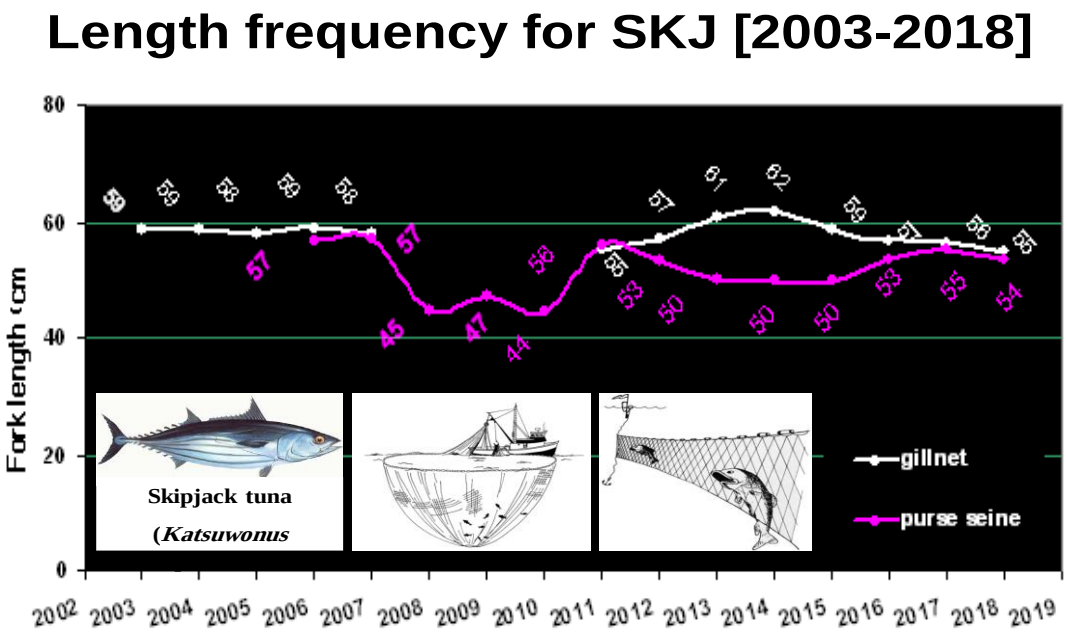


Figure 5: *Length frequency for SKJ [2003-2018]*

Islamic republic of Iran is the country with the longest coastline in Persian Gulf, Oman sea and Caspian sea with 5,800 km long (including islands) and 193 ports and landing places encompassing around 140 thousand fishermen and 11,300 fishing crafts with annual marine captures of around 773 thousand tons in 2018.

There are three categories of fisheries activities in Iran comprised of the South fisheries, the North fisheries, Inland fisheries and Aquaculture. the statistics show that, the level of aquatic production in 2000 was around 425,000 tons and in 2018 it increased to 1,262,403 tons, of which, about 58% (731,161 tons) allocated to the country fishing activities in Persian Gulf, Oman Sea and offshore waters, around 3%

(42,037 tons) of production is compiled from Northern waters (Caspian Sea) and 39% (489,205 tons) collected through inland fisheries and aquaculture.

Of total catch amount for the Southern Fishery (the Persian Gulf and Gulf of Oman), around 338 thousand tones attributed to large pelagic, 267 thousand tones to Demersals, 95 thousand tones small pelagic, 9 thousand tones shrimp and 21 thousand tones Myctophids.

The Catch quantity of large pelagic in Iran was 338 thousand tones in 2018 reported to the IOTC Secretariat and 275 thousand tones belong to tuna and tuna-like fishes in the Indian Ocean areas. Those catches are mainly comprised of 6 tuna species with 80% (220 thousand tones) of tunas, 2 Seerfish species 12.8% (35,224 Mt) and 5 billfish species with 7.4% (20,476 Mt), 1.1% (2,967 Mt) different types of shark species and around 13.1% (36,053Mt) other species of large pelagic landings in southern waters of Iran.

There are around 134 tuna canneries with nominal capacity of 700 million can per year and over 90% of skipjack catches are destined for canning.

Actions carried out for improvements of tropical tuna management in Iran:

√ Size data for tropical tuna has been increased from 1,801 individuals in 2010 to 65,682 in 2018; also size data for tuna and tuna-like species has increased from 37,083 in 2010 to 167,314 individuals in 2018. Total size data collected for SKJ in 2018 by Gillnet and Purse seine fishery is around 24,177 and 2,152 fish respectively. Total length frequency for SKJ has been increased from 4,000 fish in 2003 to 26,000 fish in 2018.

√ in the past few years, Islamic republic of Iran carried out the following actions in line with IOTC recommendations and approvals of WPTT, SC and the Commission, which leads to enhancement of compliance to related provisions and regulations from 11% in 2010 to 70% in 2018.

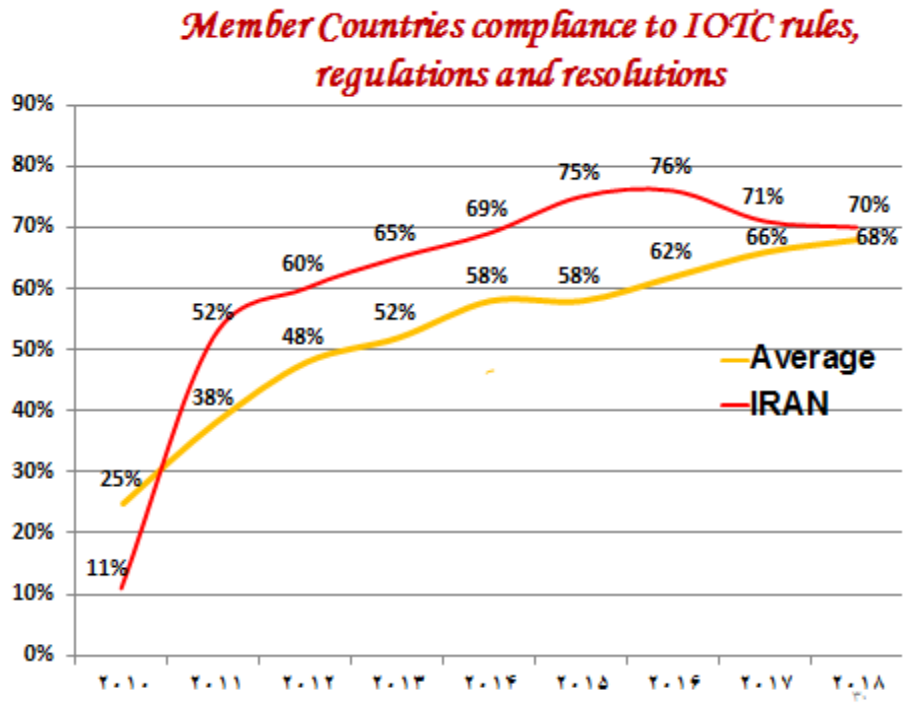


Figure 6: *Member Countries compliance to IOTC rules, regulations and resolutions*

√ upgrading the Capture Fishery Statistical Software (Called AMAR Software) to produce suitable reports and under web system to meet with IOTC demands.

√ By-catch composition for gillnet fisheries were studied and some species of sharks, Billfishes and Big eye tuna were identified, recorded and reported to the IOTC Secretariat.

√ On time reporting of catch statistics, fishing efforts and size data in the breakdown of Province, Month strata, Species, Vessel class and fishing method.

√ Designing logbook for gillnet fishery, print and disseminate it, Training of those who are involved in these issues in provincial levels, and the captain of fishing vessels.

√ Persian translation of fish ID cards for BET and YFT, reproduced and disseminated among related tuna landing places.

√ Evaluation and identification of by-catch in Oceanic drift Gillnet fishery and identifying shark species and reporting the by-catch results to IOTC.

√ Recording and reporting of Purse seiners catch in the designated fishery logbooks.

√ adding two more tuna landing centers to escalate size data compilation for tuna and tuna-like species