Food and Agriculture Organization of the United Nations

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

Received: 16 November 2017
IOTC-2017-SC20-NR10

Iran (Islamic Republic of) National Report to the Scientific Committee of the Indian Ocean Tuna Commission, 2017

Shapour Kakoolaki

Ministry of Agriculture-Jahad
Iran Fisheries Organization

INFORMATION ON FISHERIES, RESEARCH AND STATISTICS

In accordance with IOTC Resolution 15/02, 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 2017 , final data for the 2016 calendar year must be provided to the Secretariat by 30 June 2017].	**YES** **Submitted the 21 June 2017**
In accordance with IOTC Resolution 15/02, 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 2017, preliminary data for the 2016 calendar year was provided to the Secretariat by 30 June 2017]. **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 2017, final data for the 2016 calendar year must be provided to the Secretariat by 30 December 2017].	**N/A**
If no ,please indicate the reason(s) and intended actions: **We don't have any active longliner vessel at present**	

Executive Summary

Iran (Islamic Republic of) fishing grounds in northern and southern waters of the country are located in the Caspian Sea and Persian Gulf and Oman Sea Respectively.

Iran fishing grounds in southern waters of country are of the oldest and most important resources of large pelagic species. There are 4 coastal provinces in those areas with vast resources in terms of 5800 km coastline (including coastal areas of the Persian Gulf Islands), 2700 km Length of continental coastline and 196000 km^2 Shelf areas has the opportunity to access High Seas through Strait of Hurmoz. Along the southern coastline about193 port and landing places and around 143 thousand fishermen individuals which are directly engaged in fishing activities and more than 11 thousands fishing crafts consist of fishing boat, dhows and vessels which are engaged in fishing in the coastal and offshore waters. There are four fishing methods targeting tuna and tuna-like species in the IOTC area competency which include gillnet, purse seine, trolling and longline which the last one is one of the priorities of IFO for developing and improving the artisanal fisheries. Gillnet is the dominant fishing gear in the IOTC area competency, Majority of the production comes from the gillnet vessels operating within EEZ of Iran as well as offshore fishery.

The Catch quantity of large pelagic in Iran was 251215 Mt in 2016 reported to the IOTC Secretariat and around 234000Mt belongs to tuna and tuna-like fishes in the Indian Ocean areas. Total amount of catch mainly consist comprised of Tropical tuna with 34.8% (87337Mt), Neritic tuna52% (130639Mt) and billfish species with 5.9% (14841Mt), 1.9% (4797Mt) different species of shark and around 5.4% (13601Mt) other species.

Contents:

1. BACKGROUND/GENERAL FISHERY INFORMATION

Aquatic production in Iran consists of two parts: aquaculture activities and marine fisheries activities. Each part of the activities appropriate to their specific requirements has social and technical considerations of its own. People involving in fishing community include large percentage of the population in coastal areas of the northern water (Caspian Sea) and Persian Gulf, Oman Sea which has always been the center of attention and sensitivity in fisheries management plan.

Total volume of national aquatic production in 2016 was 1094 thousand Mt, which can be distributed as 57% (601 thousand Mt) of the total catch and production contributed to the southern water of country are located in the Persian Gulf, Oman Sea and offshore waters, about 4%(33 thousand Mt) of production from northern water (Caspian Sea) and 39%(460 thousand Mt) through inland water and aquaculture. (Figure 1.1 &1.2)

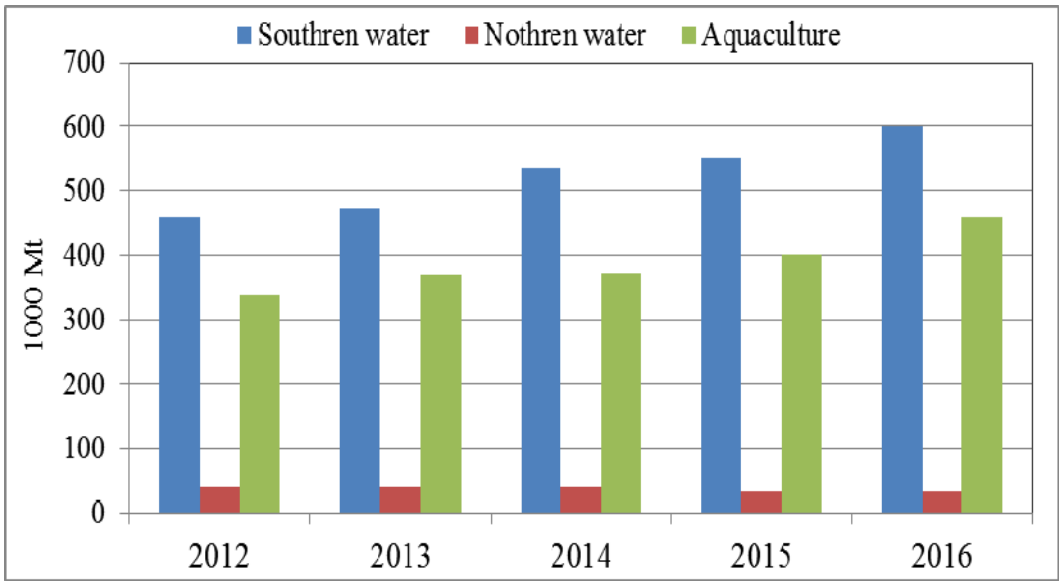

Figure1.1: Total Catch & production in the country during 2012-2016

Large pelagic; tuna and tuna-like species are important fishery resources for food and also have valuable contribution to the Iran's economy. The main fishing grounds for large pelagic species in southern of the country are located in the coastal sectors of Persian Gulf and Oman Sea and total volume of production in the coastal and offshore waters in 2016 as mentioned above around 601 thousand Mt, which consist of large pelagic 274000 Mt (45.8 % of total catch) Small Pelagic 79000 Mt, Demersal species 224000 Mt, Shrimp 9000 Mt and Myctophids 15000Mt. Figure3.shows the catches quantity of different aquatic species group in the southern waters of Iran.

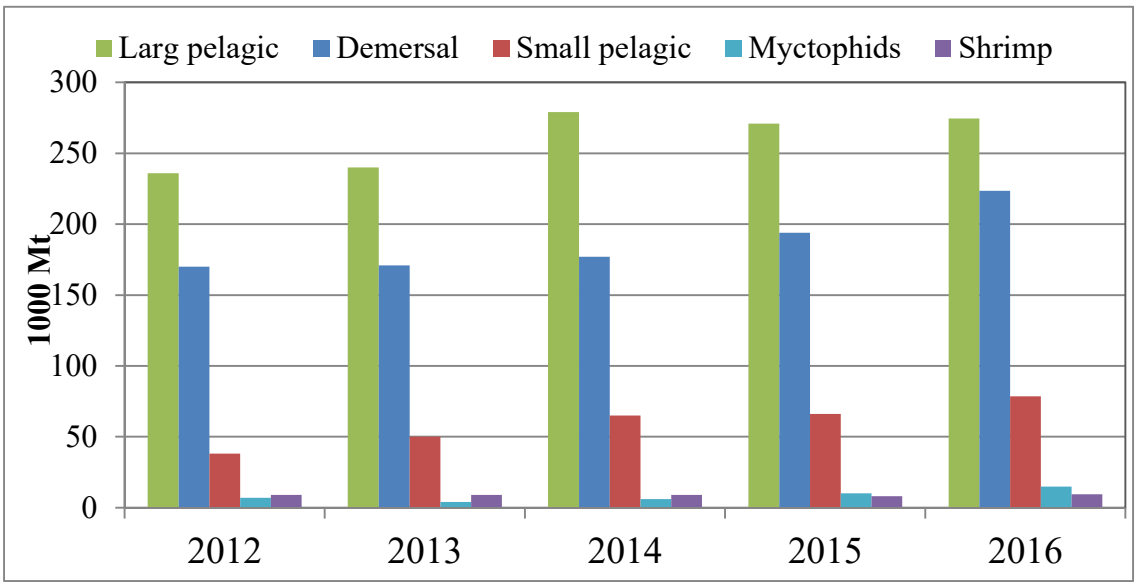

Figure1.2: The catches quantity of different aquatic species group in the southern waters of Iran

2. FLEET STRUCTURE

Iran industrial and semi-industrial fishing fleets owned by private enterprises carry out almost all fisheries in the coastal and offshore waters. Iran fisheries and exploitation of aquatic animals in the southern water is carried out by a fishing fleet around 10430 vessels of which about 6617 fishing crafts are engaged in large pelagic species and around 1243 are active in the Oman Sea and offshore waters, of which five active Purse seiners more than 1000GT, 283 gillnet Dhows of more than 100 GT, 171 gillnet Dhows of 51< GT< 100, 649 gillnet Dhows of less than 50 GT, 3319 gillnet, 2190 trolling boats of less than 3GT which have Out board engine, operate daily in coastal waters. Artisanal vessels (Dhows) with GT> 30 t around 15-30 m LOA and industrial purse-seiners with GT> 1000 t generally operate multiday fishing in the offshore and beyond EEZ in the IOTC area. In 2016 around 394 gillnet with different class are active as a long liner and this figure is not included in total vessels number, because they are active seasonal and temporal during a year*. The table 2.1 shows number of crafts operating in the IOTC area, by gear type and size during 2012-2016.

GEAR GROUP	Capacity GT	No. Crafts by year				
		2012	2013	2014	2015	2016
Purse seine	1000 - 2000	4	4	5	5	5
Total Purse seine fishing Craft		4	4	5	5	5
Artisanal Longline*	< 3	0	0	0	0	300
	21 to 50	0	0	0	0	80
	101 up	0	0	0	0	14
Gillnet	< 3	3,784	3,741	3,155	3,630	3,319
	3 - 20	282	270	271	266	258
	21 - 50	1,021	1,060	825	364	391
	51 - 100	527	534	480	181	171
	101 - up	329	338	275	293	283
Total Gillnet fishing Craft		5,943	5,943	5,006	4,735	4,422
Trolling	< 3	810	805	1,914	2,019	2,190
Total Trolling fishing Craft		810	805	1,914	2,019	2,190
Total all Gear fishing Craft		6,760	6,756	6,928	6,762	6,617

Table 2.1: Number of crafts operating in the IOTC area, by gear type and size

3. CATCH AND EFFORT (BY SPECIES AND GEAR)

Table 3.1 and figure3.1 shows the total catch by gear type and species reported for the all fleet. The Catch quantity of large pelagic in Iran was 251215 Mt in 2016 reported to the IOTC Secretariat and around 234000Mt belongs to tuna and tuna-like fishes in the Indian Ocean areas.

Figure 3.2, 3.3 and 3.4 showing the amount of catch for different fishing methods by species during 2012 to 2016. Total catch for purse seine, gillnet, long line by artisanal boats and trolling in 2016 was estimated 4879 Mt, 235668Mt, 5760 Mt and 4908 Mt respectively. Gillnet with 94% of Catch is the dominant fishing gear followed by Purse seiners 2%, long line with 2% and around 2% comes from Trolling vessels.

GEAR GROUP	SPECIES	2012	2013	2014	2015	2016
Purse Seine	KAW	162	0	11	0	0
	LOT	2,074	1,520	140	814	50
	SKJ	1,621	1,605	798	489	1,202
	YFT	1,103	1,980	4,832	3,842	3,465
	BET	161	100	10	135	138
	COM	0	11	0	0	0
	SFA	0	74	0	0	0
	BLM	0	150	0	0	0
	Sharks	0	53	0	0	0
	Others	34	242	3	29	24
Total Purse Seine Catch		5,154	5,735	5,794	5,308	4,879
Artisanal Longline	YFT	0	0	0	0	5,760
		0	0	0	0	5,760
Gillnet	FRI	8,175	6,848	13,265	10,422	10,238
	KAW	25,984	28,377	28,936	27,877	33,677
	LOT	71,242	62,704	60,771	57,555	54,596
	SKJ	25,430	31,722	38,931	38,232	37,956
	YFT	33,834	30,421	41,326	38,412	35,110
	BET	1,483	1,549	2,259	2,309	2,931
	COM	14,980	18,324	21,218	20,617	20,759
	GUT	5,127	5,638	6,705	6,997	7,501
	SFA	6,347	7,401	11,595	9,693	7,552
	BLM	3,041	4,023	6,179	5,958	4,148
	Other Billfish	1,909	2,631	3,681	3,829	2,884
	FAL	2,560	1,812	1,293	1,567	523
	SPN	128	68	49	63	20
	MAK	128	113	80	94	33
	CCW	354	438	554	499	409
	RHA	2,122	2,606	3,302	2,976	2,447
	Other sharks	1,445	1,587	1,855	1,731	1,306
	Other Species	11,262	9,533	10,731	12,292	13,577
Total Gillnet Catch		233,585	215,795	252,729	241,121	235,668
Trolling	FRI	35	25	228	233	6
	KAW	76	387	452	516	231
	LOT	2,884	2,348	4,672	1,278	501
	YFT	28	2	57	345	775
	COM	1,461	1,687	2,420	2,181	2,922
	GUT	371	114	162	245	158
	SFA	18	0	3	53	257
	Sharks	295	317	0	205	59
	Others	0	0	7	68	0
Total Trolling Catch		5,169	4,879	8,002	5,122	4,908
Total all Gear Catch		243,907	226,410	266,524	251,551	251,215

Table.3.1 Annual catch by gear type and species (Mt)

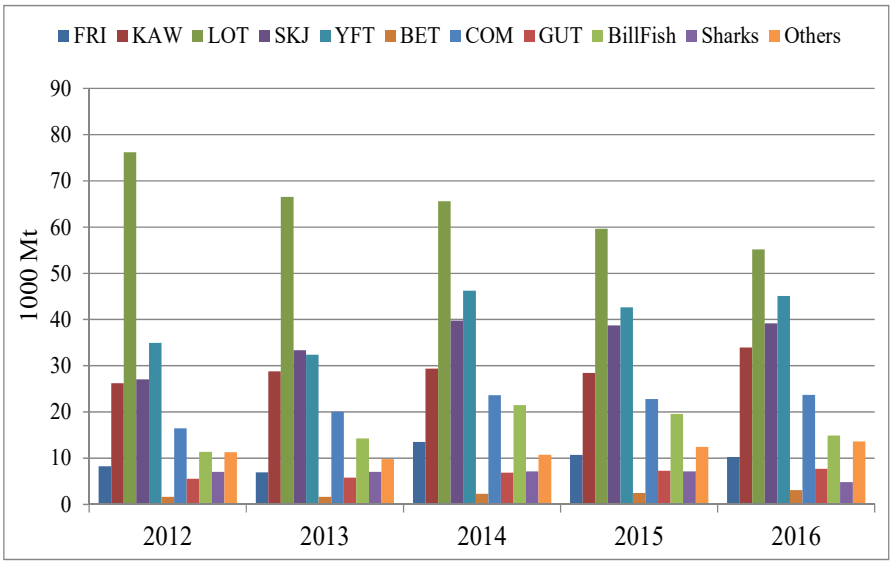

Figure3.1 Total annual catch by species reported for the all fleet during 2012-2016

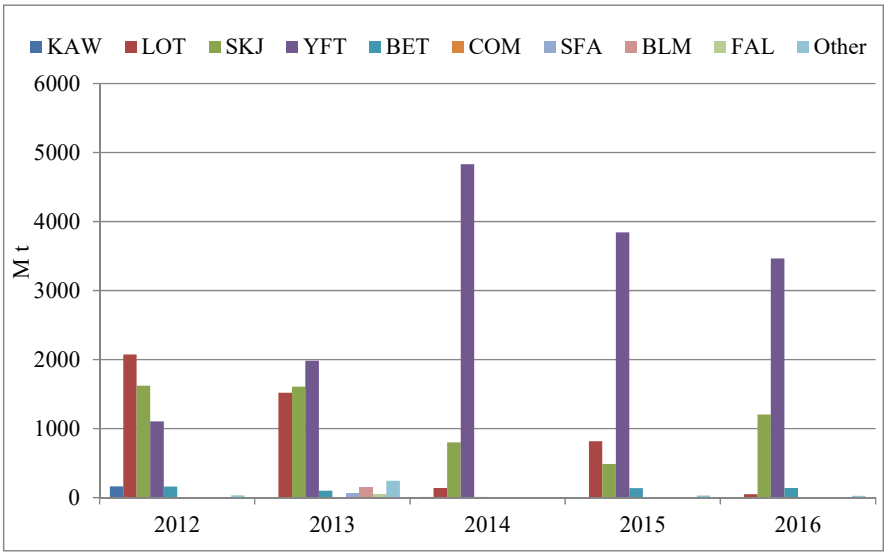

Figure3.2 Annual Catch of Purse Seiners by Species

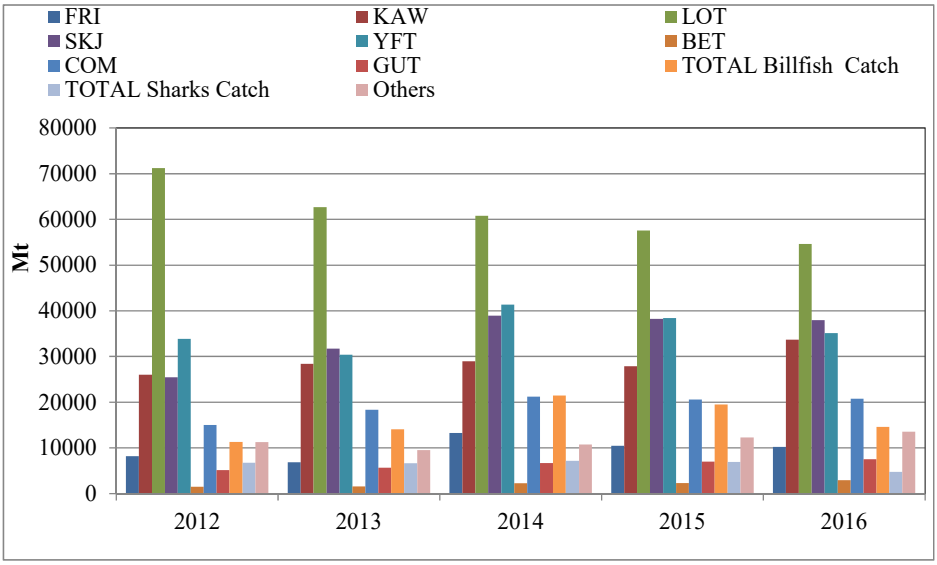

Figure3.3 Annual Catch of Gillnets by Species

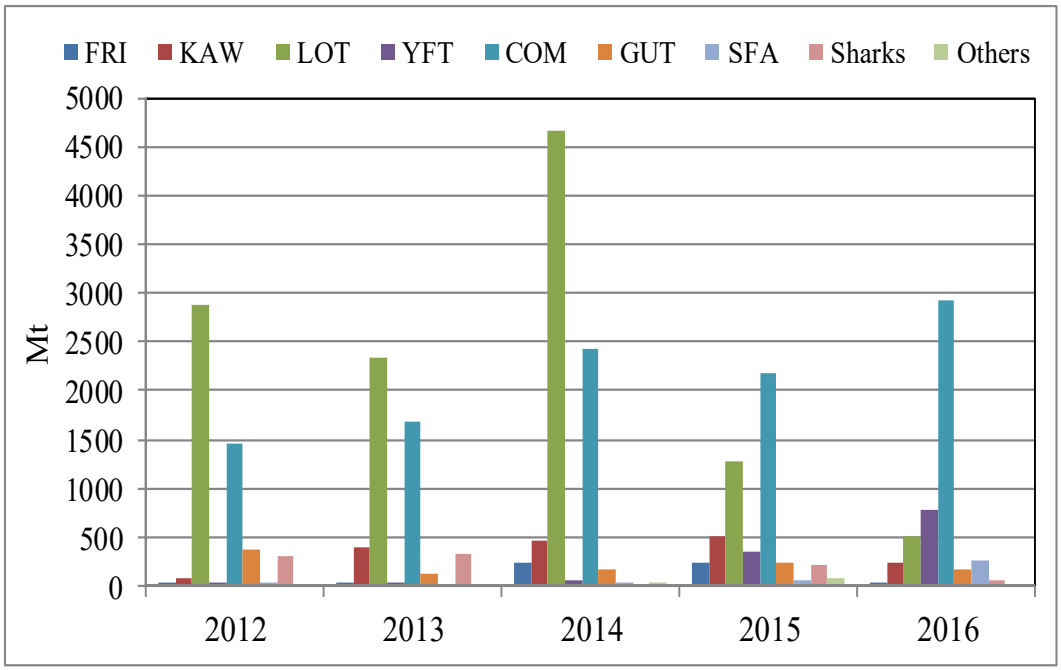

Figure3.4 Annual Catch of Trolling Method by Species

Table3.2.Shows the trend fishing effort for large pelagic species by different vessel categories for the all fleet consist of purse seine, gillnet, long line by artisanal boats and trolling during recent years. In 2016, for tuna and tuna-like catches more than 900 thousand days fishing efforts were carried out, of which 685 thousand days were operated by gillnet, 1164 days by purse seine, 21760 days by seasonal and temporal longline and 229 thousand days done by trolling fisheries.

Figure3.5 show that the highest gillnet fishing pressure occurs within the Islamic Republic of Iran's EEZ and within 20 nautical miles of the coastal waters.

GEAR GROUP	Capacity GT	Fishing effort by gear(days)				
		2012	2013	2014	2015	2016
Purse seine	1000 - 2000	981	727	1080	1005	1164
Longline by traditional boats	< 3	0	0	0	0	18000
	20 - 50	0	0	0	0	3200
	>51	0	0	0	72121	560
Gillnet	< 3	557434	538550	476632	552367	487646
	3 - 20	43303	40985	44679	44374	41682
	21 - 50	195643	184070	137860	72121	74870
	51 - 100	91293	91790	84658	33749	30337
	101 - up	57662	60400	53020	51260	50530
Trolling	< 3	125446	123450	226770	254934	229190
Total all Gear fishing effort		1071762	1039972	1024699	1009810	937179

Table 3.2: Fishing effort by different vessel categories (days)

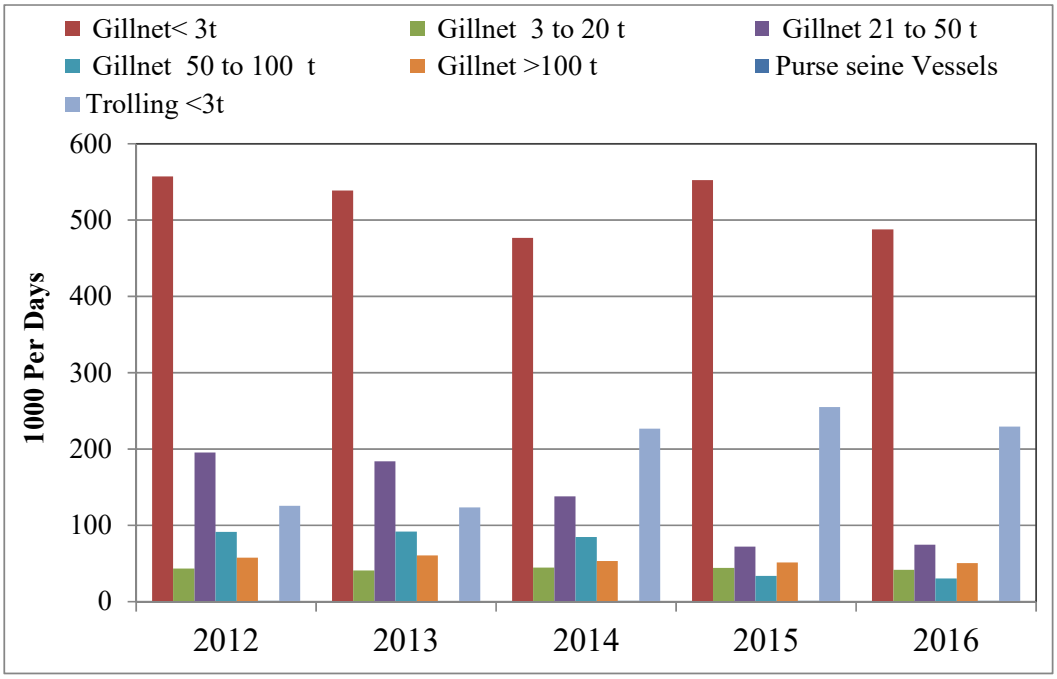

Figure 3.5 Tuna and tuna like fishing effort by all fleet 2012-2016 *(fishing day)*

4. RECREATIONAL FISHERY

We don't have any recreational fishing operation in our water for tuna and tuna-like species.

5. Ecosystem and bycatch issues

Base on Iran Fisheries Organization (IFO) approaches for better implementation of monitoring and control measures, our experts have tried to control all types of fishing gears and devices before starting sailing and in the end of each trip. Also all fishermen who participated in different training workshop recognized the importance of IOTC resolutions especially which were adopted related to ecosystem and By-catch. In order to capacity building and improving stakeholders knowledge IFO has tried to train some experts on identification different species especially sharks and turtles where we have really needed technical supports. IFO also has tried to train fishermen about international maritime laws, and also international law related with fisheries out of territorial waters and offshore also innocent passage through territorial waters of third party and IOTC regulations. In total IFO has trained more than 500 person days of fishermen in different aspects in 2016. IFO has translated all parts of species ID cards that printed before by IOTC to Persian language. Now translated versions are available in Persian language in IOTC website and we hope they will printed very soon by WWF of Pakistan. In addition all 2016 new resolutions translated and are available of experts and fishermen.

5.1. Sharks

Although based on current national regulation of countries is enough to conserve different sharks species and there is no need to preparing NPOA obligatory, but in order to preparing NPOA of Sharks Iran Fisheries organization collected some information from different sources specially the printed guideline by FAO. Also according to IOTC national regulation for conservation of sharks are enough.

As shark fisheries is banned based on IFO regulation, so shark species are caught as by catches. Moreover, shark meat is not Halal according to Iranian religious beliefs. In this case only some people who are living in south eastern part of Iran eat Sharks. Recognizing the importance of Sharks landing in whole body, all resolutions are translated and analysis related with Sharks conservations during different level of meetings. Also we have tried to transfer these concepts to fishermen during training workshops. Shark catches were decreased in 2016 and reached to an acceptable level.

5.2. Seabirds

Base on Resolution 12/06 of IOTC, reduction of Seabirds bycatch only distinguished for longline fisheries as a target gear and is not applicable for Iran. Also base on our current fleet structure, we do not have any active longline vessels. But for more assurance we have tried to give more awareness and explanation to fishermen about Seabirds importance and necessity of their conservation during different training workshops and meetings.

5.3. Marine Turtle

The conservation of different turtle species is one of our priorities. Although, the Environmental Organization is responsible as a national competent authority for protection of Sea turtles, but we intend to define a joint project with fishermen and NGOs regarding to survey on sea turtles and incident entanglement of them in fishermen nets. So for increasing of public awareness of fishermen, IFO has continued related training programs by hold of workshop, distribution of some brochures and posters. On this way the capacity of NGOs were used. On this way around 120 fishermen are trained on board and their vessels by presence of NGOs there. Although environmental organization has had some projects before about the biology of turtles, but we intend to develop a project related with fisheries activities.

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

Base on national laws and Iran Fisheries Organization regulations catch of Mammals or any other species which located endangered level are forbidden and offenders are introduced to courts. Base on IFO regulations we have never issued any licences for catch of different species of Mammals or Sharks and fishermen try to release all entangled Mammals or endangered species and only Sharks are seen as a bycatch. Also base on Iranian religious beliefs near to 90% of people do not eat Sharks or any mammals. On this way we have not received any reports about total number of Mammals or different species of sharks, by species or released/discarded by the national fleet in the IOTC area of competence.

As we mentioned before, we have never received any reports about incidental catch of different species of seabirds, marine turtles and marine mammals because of observers' lack. So it is not possible to record exact events by species and gear for the national fleet, in the IOTC area of competence. For more monitoring we just started a few months ago to establish a connection net

through the Telegram on Mobile phone where we have received many news, Pictures or movies and safe release of them in Iran territorial waters.

6. National data collection and processing system

6.1. Logbook program was implemented for Iranian artisanal gillnets and industrial purse seiners as follows:

We have implemented artisanal gillnets, purse seiners and modification of logbook template to meet mandatory minimum statistic requirement, particularly with regards to data recording of vessel position in IOTC area for target species, By-catch and discard.

6.2. Vessel Monitoring System

As we reported before, Iran Fisheries Organization has started its pilot project for implementation satelite based online vessel monitoring system by use of Thuraya satelite, while we have not any other choice to use any other satelite because of sanction. However we equipped 5 offshore vessels and some other ships and finalized our pilot project. So we hope through 2017 we equipped all our offshore vessels which are engaged in Tuna and Tuna like fisheries.

Base on resolution 15/03 Each Contracting Party and Cooperating Non-Contracting Party (CPC) shall adopt a satellite-based vessel monitoring system (VMS) for all vessels flying its flag 24 meters in length overall or above or in case of vessels less than 24 meters, those operating in waters outside the Exclusive Economic Zone of the Flag State fishing for species covered by the IOTC Agreement within the IOTC area of competence.

Base on this resolution those CPCs currently without a VMS for any additional vessel now meeting the criteria for inclusion in the VMS obligation since Resolution 06/03 was superseded, as defined in paragraph 1 above, shall submit an implementation plan to the Compliance Committee in April 2016 that sets out a phased approach to full implementation of their national VMS obligation within a maximum of 3 years, i.e. by April 2019, with at least 50% of all qualifying vessels compliant by September 2017.So IFO hope, implementation of our VMS will continue with good progress in 2017 – 2018 and implementation will be done according to resolution 15/03 requirements. Unfortunately there is limited information available for 2016 to show on map base on resolution 06/03 adoptions, while we hope to send acceptable report for 2017 next year.

6.3. Observer program

Iran Fisheries Organization has not yet developed onboard observer programme but during a programme with fishermen cooperatives, we have trained some observers during 2016. Also our data and information are collected by monitoring in fishing harbours and landing places. So showing spatial distribution of observer coverage on map is not possible. On this way IFO has continued its port state controls by current observers and we hope to implement our joint project with fishermen cooperatives, we will start our observer plan in 2018.

6.4. Port sampling program

6.4.1. Catch Data sampling

Catch and effort and biological data of the coastal and offshore large pelagic fishery are collected at the 44 out of 64 fish landing sites Consist of 10 landing sites in KHOZESTAN Province, 8 landing in BUSHEHR Province,21 landing sites in HORMOZGAN Province and 5 landing sites SISTAN-BLUCHESTAN Province in the alongside the Persian Gulf and Oman Sea coastlines, and port samplers permanently stay on landing sites which they collect the data and fill out the forms, and also collect length/weight frequency data. In this way, 10% of fishing vessels are randomly selected and the sample data are raised to all active fishing vessels and total catches are maintained by vessel categories, gear types and species composition, landing site and per month. All of the operations are fulfilled by Iran Fisheries Organization fish statistic Software called AMAR Software.

Considering these points for each landing center, 44 out of 64 were selected and can be used to raise information to other landing sites. In each landing site, there is one enumerator who is responsible to collect data.

54 categories of species/families are identified in the landings of artisanal vessels. Further classified as Demersal, Large pelagic, Small pelagic and Shrimp categories. 6 tuna species, 2 seerfish species, 5 billfish species and 8 shark species which are identified in the large pelagic category landing surveys are undertaken to obtain data on catches in the artisanal fisheries. Control of fishing license and Questionnaire carry out by the Head of fishery Statistical Unit in the relevant port. This kind of control will then be carried out in Province center through computer. Afterwards this will be processed in Data Center in Tehran. Cross Check by total census in one or two landing site will then be undertaken.

Map of Landing sites distribution in the southern coastlines

6.4.2. Size data sampling

There are 13 important commercial species in Iranian southern waters which their size frequency data will be compiled. The species comprised of:

1. Narrow-barred spanish mackerel (*Scomberomorus Commerson*),
2. Tigertooth croaker (*Otolithes ruber*),
3. Silver pomfret (*Pampus argenteus*),
4. Black pomfret (*Parastromateus niger*),
5. Javelin grunter (*Pomadasys kaakan*),
6. Longtail tuna (*Thunnus tonggol*),
7. Kawakawa (*Euthynnus affinis*).
8. Fourfinger threadfin (*Eleutheronema tetradactylum*),
9. Yellowfin tuna (*Thunnus albacares*),
10. Skipjack tuna (*Katsuwonus pelamis*),
11. Bigeye tuna (*Thunnus obesus*),
12. Grouper(serranidae),
13. Emperor(lethrinidae),

The length and weight frequency of species has been recorded from 2001. Sampling in southern waters carried out in 16 landing centers consist of: Choebdeh and Hendijan in Khozestan Province, Daylam, Dayer, Jofreh & Bandargah in Bushehr Province, Jask, Javad'el'aemeh, Salakh, Bostaneh , Kong & Kohestak in Hormozgan Province, Ramin, Pozm, Beris & Pasabandar in Sistan & Bluchestan Province.

At each landing center there are fish measuring board and precise Balance (scales). A number of biometry equipment has been provided thanks to the IOTC-OFCF project in 2012 and disseminated among the nominated landing centers and size data compilation is in progress.

Port samplers are all trained on how to measure different fishes. Fishing vessels catches were irregular for all species, but biometry carried out on-board from time to time to get precise data. Raw data will be processed in some statistical Software's like SPSS, Excel, Minitab and FiSat. The output results are in the form of some indicators which show the present status of fish exploitation.

There is biometry software to input the size frequency data in a data bank. Data entry interface for length frequency is available; it just needs to be connected to the AMAR Software as integrated software. For strengthened tuna size sampling, we added two more landing centers in Sistan & Bluchestan Province (Ramin & Pasabandar Ports) to compile Tuna size frequency data by gillnet fishery. Size frequency data reported to IOTC per fleet, year, gear type of school, month strata and 5°square areas for purse seine fishery. For oceanic gillnet fishery a pilot plan is in progress and gradually all Iranian gillnetters in high seas will be equipped with logbook system and vessel position can be derived via logbooks. For coastal fishery an alternative geographical area is in place. The species for which the size data is reported include 6 tuna species comprised of: YFT, SKJ, BET, KAW, and COM & LOT at 16 landing places.

Size data collected by type of Fishery including: Gillnet Purse seine and Hook or Troll fishery. Size data compiled by fork length. Fork lengths, measured straight with a caliperand, measuring boards as an alternative. Interval of 1 cm is considered for fish that is measured in fork length. The length of the specimen, measured to the lowest measurement unit. All sampling carried out by port sampling. Sampling is random and being representative of all the periods and areas fished. For tuna fishes, 1 fish per tonne is measured by species for purse seine, but for oceanic gillnetters there is still a gap to achieve IOTC standards. This is mainly because there are shortage of budget and workforce at all fishing ports, so, there are not enough hands to assist port/field samplers to fulfill IOTC requirements.

since 2014, Tuna and tuna-like Species identification was improved by holding training courses to differentiate BET from YFT, KAW from Bullet and frigate tuna, to identify billfishes, shark species and so forth. It is not possible to provide size data for by-catch species at port, because majority of those species, are dressed weights esp. Billfishes which are cut into small pieces immediately after catch, so the whole fish" is not available for measurement.

To sum up, the standard for the reporting of length frequency data to the IOTC mainly carried out in compliance with the Resolution 15/02.

Size Data recorded in the IOTC Database						
GEAR GROUP	SPECIES	2012	2013	2014	2015	2016
Gillnet	FRI	Nil	Nil	Nil	Nil	Nil
	KAW	20,299	15,467	6,036	13,765	14,678
	LOT	25,481	24,680	11,174	18,116	21,889
	SKJ	3,761	13,212	10,857	19,574	23,410
	YFT	4,070	11,146	11,261	22,161	26,287
	BET	655	435	630	724	888
	COM	20,907	16,435	18,283	21,087	29,315
Total Gillnet Length Frequency		75,173	81,375	58,241	95,427	116,467
Purse seine	KAW	416	0	0	0	0
	LOT	2,822	433	0	1,158	125
	SKJ	964	957	1,010	416	797
	YFT	445	1,296	3,682	1,892	4,333
	BET	424	777	523	629	560
Total Purse seine Length Frequency		5,071	3,463	5,215	4,095	5,815
Trolling/ Hand & Line	COM	821	407	2,808	4,416	2,511
	LOT	Nil	Nil	1,289	0	0
Total Trolling/Hand & Line Length Frequency		821	407	4,097	4,416	2,511
Total Length Frequency		81,065	85,245	67,553	103,938	124,793
Mean Length Data recorded in the IOTC Database						
GEAR GROUP	SPECIES GROUP	2012	2013	2014	2015	2016
Gillnet	FRI	Nil	Nil	Nil	Nil	Nil
	KAW	55.8	58.8	53.2	56.2	56.1
	LOT	62.2	64.9	62.0	60.8	69.3
	SKJ	57.0	60.8	61.7	58.5	56.8
	YFT	78.9	78.9	82.4	80.8	84.3
	BET	69.4	78.3	82.0	79.0	81.5
	COM	86.6	79.8	84.0	89.0	91.5
Purse seine	FRI	59.2	0.0	0.0	0.0	0.0
	KAW	70.4	70.4	0.0	72.6	48.2
	LOT	53.1	50.2	49.8	49.9	53.4
	SKJ	83.6	83.8	99.3	113.4	90.2
	YFT	54.4	51.7	77.4	75.9	74.3
Trolling/ Hand & Line	COM	75.0	92.4	86.0	84.1	87.1
	LOT	Nil	Nil	64.0	0.0	0.0

Table.6.1 Size data of Tuna species by Gear

Table 8. Summery table of national program including dates

Project title	Period	Countries involved	Budget total	Funding source	Objectives	Short description
Some biological aspects of Longtail tuna(Thunnus tonggol) in I.R.Iran (Hormozgan Province, Northern part of the Persian Gulf and Oman Sea)	2015–2016	Iran	10000 $	IFRO	1-estimation of population dynamic parameters	

Some biological aspects of Longtail tuna (*Thunnus tonggol)* in I.R.Iran (Hormozgan Province, Northern part of the Persian Gulf and Oman Sea, April 2015- March 2016)	
Length range	25-124 cm
Mean lengths	70.87 cm
Extreme length(L_∞)	129.6 cm
Growth parameter(K)	0.39 $year^{-1}$
Length at end of 1,2,3 and 4 years	50.9,76.3,93.5 and 105.2 cm
"a" and "b" in Length-Weight relationship($W=aFL^b$)	a = 0.00002, b = 2.87
Natural mortality(M)	0.49 $year^{-1}$
Fishing mortality($F_{current}$)	1.09 $year^{-1}$
Total mortality(Z)	1.58 $year^{-1}$
Exploitation ratio(E)	0.69
Length of catch(L_c)	60.2 cm
$F_{0.1}$ (Based on Beverton and Holt model)	0.47 $year^{-1}$
F_{max}(Based on Beverton and Holt model)	0.85 $year^{-1}$

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	Implementing logbook program on purse seine and gillnet fisheries
15/02	Mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs)	Paragraphs 1–7	1-Improving data collection system for Big eye tuna, Sharks, Billfish including species identification 2-Iran Fisheries Organization implemented the training courses for port samplers in this way Identification cards for billfish, sharks and big eye was Translated in Persian language and disseminated among port samplers and fishermen to identify different species 3- Amending Database to generate reports for the IOTC 4-Amending database to provide required reports for SHILAT and other national and international entities.
15/05	On conservation measures for striped marlin, black marlin and blue marlin	Paragraph 4	The catch of the different marlin species for the Iranian gillnet is being reported under Resolution 15/02.

Res. No.	Resolution	Scientific requirement	CPC progress
13/04	On the conservation of cetaceans	Paragraphs 7– 9	1-Training of 200 fishermen to safe releasing of any cetaceans , 2- Receiving some reports through the Telegram net as a news, Photos and movie, 3- Review related regulation by Environment organization to more penalties and punishment of fishermen who catch any Cetacean, in 2016,
13/05	On the conservation of whale sharks (*Rhincodon typus*)	Paragraphs 7– 9	1-Training of 300 fishermen to safe releasing of any cetaceans , 2- Receiving some reports through the Telegram net as a news, Photos and movie, 3- Ratify a regulation by Environment organization to punish fishermen who catch any Cetacean, Sharks with big Penalties in 2016,
13/06	On a scientific and management framework on the conservation of shark species caught in association with IOTC managed fisheries	Paragraph 5–6	1-Translation all IOTC resolutions and notice to all fishermen by related cooperatives. 2- Training of fishermen to releasing of sharks based on current resolutions, 3- Translation all ID cards to Persian, where they are available in IOTC site and under printing by WWF, 4-Monitoring in landing places, 3- Ratify a regulation by Environment organization to punish fishermen who catch any Cetacean, Sharks with big Penalties in 2016,
12/09	On the conservation of thresher sharks (family alopiidae) caught in association with fisheries in the IOTC area of competence	Paragraphs 4–8	1-Translation all IOTC resolutions and notice to all fishermen by related cooperatives. 2- Training of fishermen to releasing of sharks base on current resolutions, 3- 3- Translation all ID cards to Persian, where they are available in IOTC site and under printing by WWF, 4-Monitoring in landing places, 3- Ratify a regulation by Environment organization to punish fishermen who catch any Cetacean, Sharks with big Penalties in 2016,
12/06	On reducing the incidental bycatch of seabirds in longline fisheries.	Paragraphs 3–7	Not applicable, because Iran does not have any active long line vessel,
12/04	On the conservation of marine turtles	Paragraphs 3, 4, 6–10	1-Translation all IOTC resolutions and notice to all fishermen by related cooperatives. 2- Training of 300 fishermen to releasing of sharks base on current resolutions, 3- Translation all ID cards to Persian, where they are available in IOTC site and under printing by WWF, 4-Monitoring in landing places,
11/04	On a regional observer scheme	Paragraph 9	1-Training some experts, 2- Translation all ID cards to Persian, where they are available in IOTC site and under printing by WWF, 4-Monitoring in landing places,
05/05	Concerning the conservation of sharks caught in association with fisheries managed by IOTC	Paragraphs 1–12	1-Translation all IOTC resolutions and notice to all fishermen by related cooperatives. 2- Training of fishermen to releasing of sharks base on current resolutions, 3- Translation all ID cards to Persian, where they are under printing, 4-Monitoring in landing places, 5-3- Ratify a regulation by Environment organization to

Res. No.	Resolution	Scientific requirement	CPC progress
			punish fishermen who catch any Cetacean, Sharks with big Penalties in 2016,
16/06	On measures applicable in case of non-fulfilment of reporting obligations in the IOTC	Paragraph 1	Iran is compliant with data reporting requirements and has implemented reporting obligations in their IOTC fisheries

9- LITERATURE CITED [Mandatory]

1-Iran Fisheries Statistics yearbooks 2011-2016

2-Data Collection System and Data Processing Method in Iran