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Abstract

This document presents summary information about fisheries statistical data in Iran, according to IOTC resolutions and recommendations concerning mandatory minimum data submit to IOTC and basic actions to improving Data collection system with approvals and recommendations of the Scientific Committee and WPDCS.

In 2017 total fish production in Iran was 1,202,085 tonnes, including 477,269 tonnes, aquaculture and 724,816 tonnes, catch which comprised 691,174 tonnes (95%) from southern waters, and 33,642 tonnes (5%) from northern waters. Total catch in southern waters (by more than 10000 artisanal fishing vessels), which can be distribute as 540,042 tonnes (78%) attributed to Persian Gulf and Oman Sea as coastal fisheries, 151,132 tonnes (22%) from High seas (out of 24 miles off Iran coastal line).

For better collaboration with IOTC, much effort have been carried out to extract all necessary outputs required to meet the concerned IOTC, Resolutions such as submission catch and effort data by gear, costal fishing ground and High seas fishery. Developing our data collection system and software is in progress to meet mandatory minimum statistics requirements and submission catch and effort data by gear, costal fishing ground and high seas fishery for recent 10 years. We have taken various actions to implement the Scientific Committee and IOTC Resolutions and Recommendations.

In this respect, after 2012, we proceeded with some actions and now we provide reporting for five species of Billfish, Big eye tuna, Wahoo tuna, 8 species of shark and some other groups of species. It is noteworthy to say that since 2012, we could identify and include swordfish, different species of marlines and other by-catch for gillnet and purse seine in our Database. We have implemented logbook system for gillnetter (fishing Dhows), particularly to determine geographical distribution of their fishing operation in IOTC area of competence.

In complying with IOTC regulations, we are decreasing the fishing pressure on coastal species by substituting a number of gillnetters with longline fishery to meet IOTC mandates. In addition, data collection for offshore Fishery is ongoing, to this end, we are collecting and filling the data though logbooks. In addition, we have carried out many actions for reporting of gillnet fishery by-catch and discard species such as sharks, dolphins, sea turtles, etc.

1-Background/General Fishery Information

Fishery for tuna and tuna-like species is a major component in large pelagic fisheries in Iran and one of the most important activities in the Persian Gulf & Oman Sea. There are 4 coastal provinces in that areas about 11 thousand vessels consist of fishing boat, dhows and vessel which are engaged in fishing in the coastal and offshore waters. Gillnet and purse seine are two main fishing methods used by Iranian vessels to target large pelagic species (especially tuna and tuna-like species) in the IOTC area competency and some of small boats used trolling in coastal fisheries. Iran has taken various actions to implement the Scientific Committee recommendations and IOTC Resolutions.

One of them is national actions to improve data collection system for Tuna fishery since 2012 until now. We have implemented modification of logbook template for Iranian industrial purse seiners and artisanal gillnets to meet mandatory minimum statistic requirement, particularly concerning data recording of vessel position in IOTC area for target species, By-catch including 9 species of sharks and 5 species of billfish, non-targeted, associated and dependent species and discard.

In 2017, total fish catch & aquaculture production in Iran was 1,202,085 t, which has distributed as 57% from Persian Gulf, Oman Sea and overseas, 3% from Caspian Sea and 40% through Aquaculture. The total catch in 2017 was 691,174t; out of which about 276,636t was of Tuna &Tuna like Species; however, in the year 2006, the tuna and tuna-like species catch was 207,000t that around 50 percent belonged to skipjack. Resultantly After this year due to Tsunami and phenomenon of piracy in the IOTC region, the vessels changed the fishing grounds and operated in coastal areas. This caused extreme decrease of skipjack catch at the ratio of 103,000t, in 2006 and 53,300t, in 2016 and inverse increase of longtail tuna catch at the ratio of 25,000t in 2006 and 60,214t, in 2017 and . The effort in coastal areas increased; as a result, an increase of longtail tuna in 2017, as compared with the data of 2006. As I mentioned before Tuna and tuna-like species fisheries is one of the most important activities in the Persian Gulf & Oman Sea. Those catch consist of Yellowfin tuna 56,121t, Skipjack tuna 53,300t, Bigeye tuna 3,606t, Longtail tuna 60,214t, Kawakawa 38,774t, Frigate tuna 10,265t, Billfish(contain 4 species)18,795t, Indo-pacific king mackerel 9,447t, Narrow- barred Spanish mackerel 24,067t, Sharks 3,623t, and other species 17,981t.

Figure1.1. Annual total production from 2008 to 2017 (metric tonnes)

Area	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Persian Gulf, Oman Sea & Indian Ocean	341,980	348,122	368,503	411,651	459,701	473,657	535,865	549,732	600,802	691,174
Caspian Sea	36,967	44,278	43,805	37,831	40,314	40,421	39,647	32,618	33,396	18,700
Aquaculture	183,647	207,353	251,374	285,351	338,877	370,876	371,717	401,548	459,521	477,269
TOTAL	562,594	599,752	663,682	734,833	838,891	884,954	947,229	983,898	1,093,718	1,187,143

Annual Total Catch & production in the country during 2008-2017
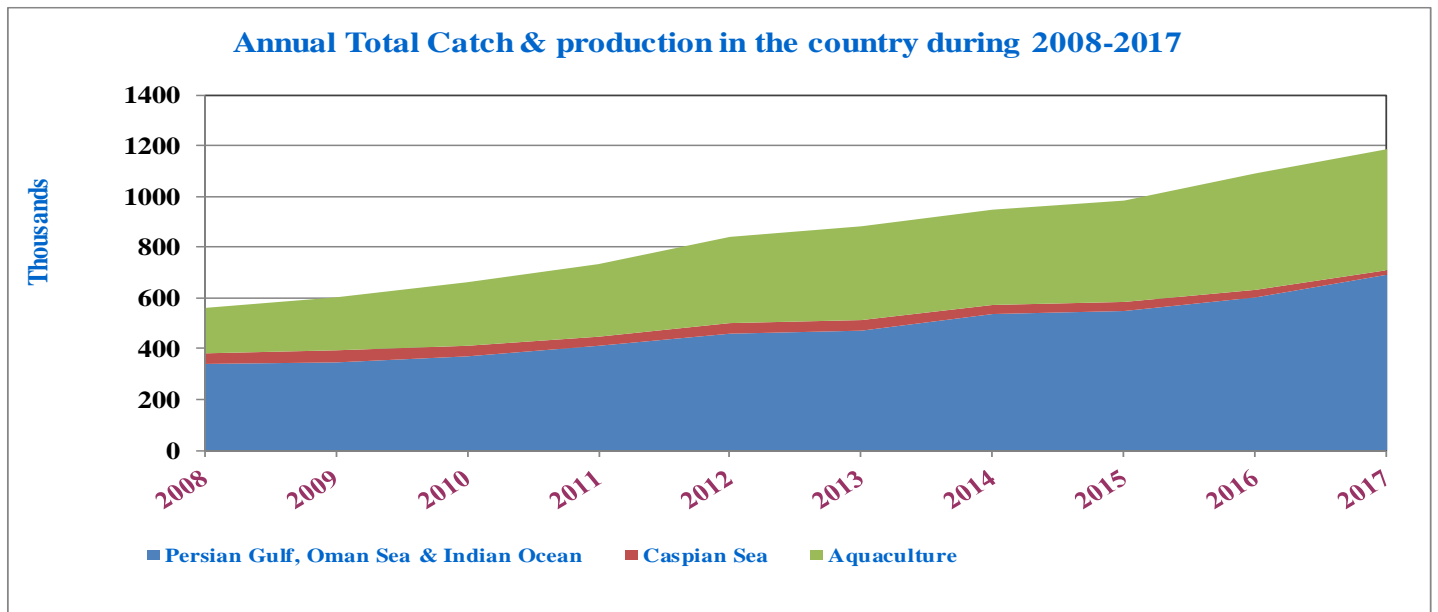
Figure1.2. a Comparison of total production between 2008 and 2017(metric tonnes)

Total Catch & Aquaculture production (2008)

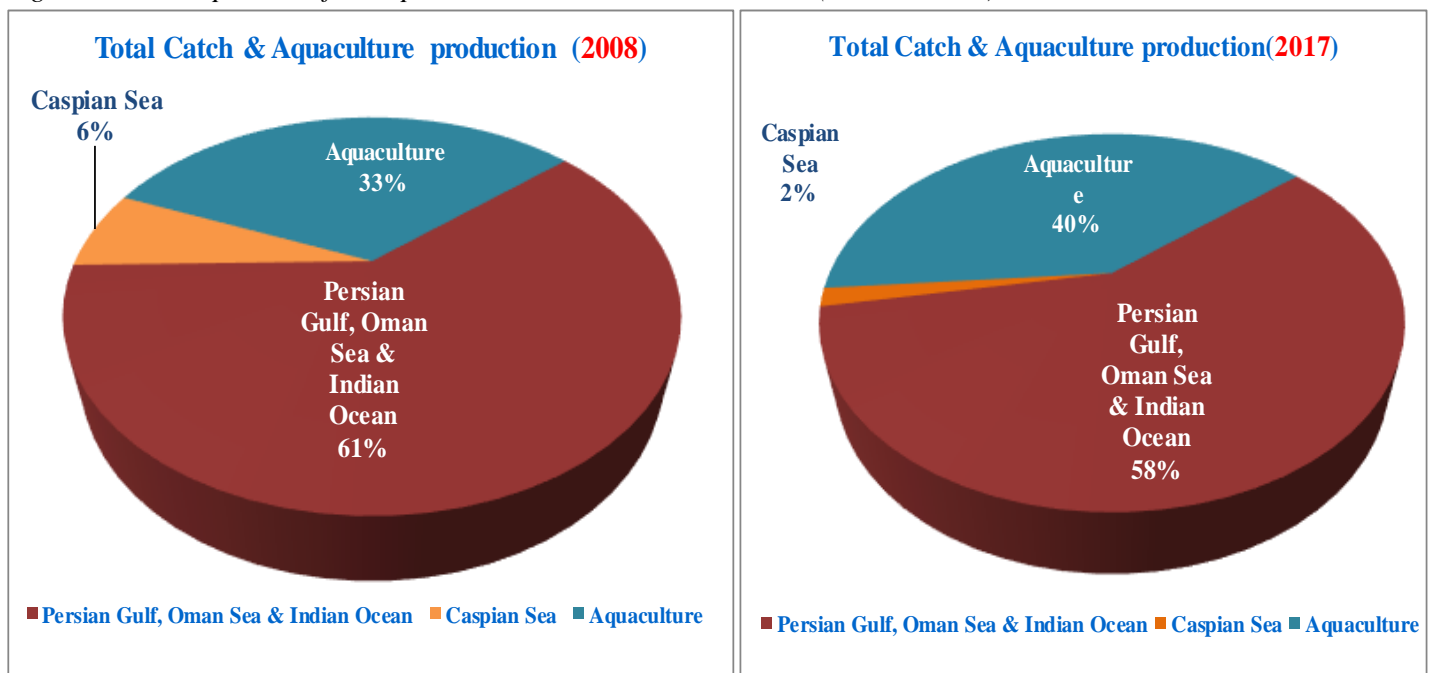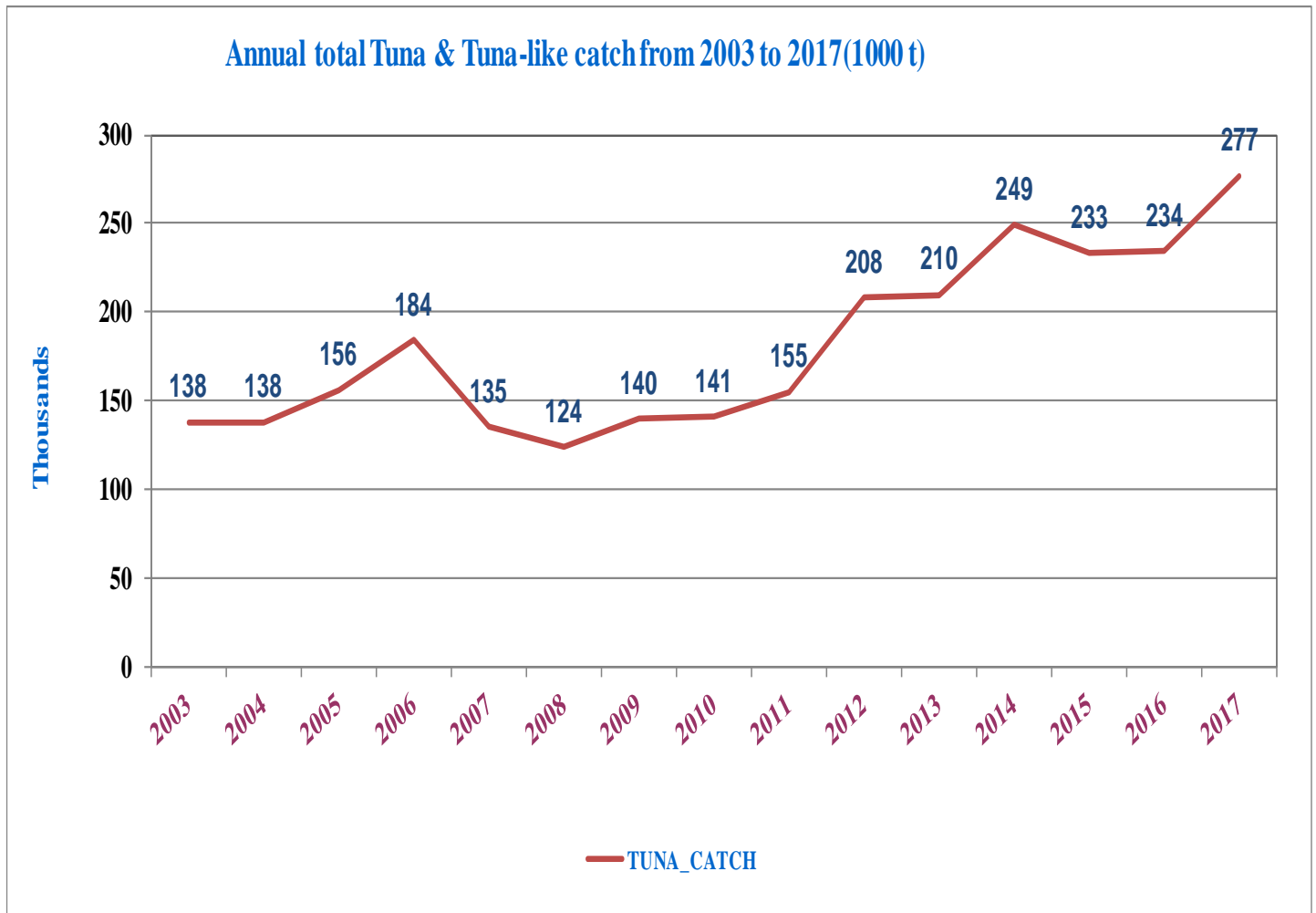Total Catch & Aquaculture production(2017)

Figure1.3. Annual total Tuna & Tuna-like catch from 2003to 2017*(metric tons)*

2-Fleet Structure

Fisheries activities in the southern waters of Iran by 10,493, vessels are ongoing. Around 5,785 vessels of this fleet are engaged in large pelagic species fishing in 2017, which 7 of them are industrial purse seiners, 3,135 Artisanal vessels (dhows) and 7,233 fishing boats. Around 1200 vessels are active in tuna and tuna like fishing in the Oman Sea, and offshore waters. This means more than 80 percent of crafts operate in the coastal areas and about 20% of the fishing vessels operating in distant waters. Those fishing crafts and GT of purse seiners is up to1000 t and GT of Gillnetters ranges from less than 3 t to more than 100 t. Gillnet and purse seine are two main fishing gears for catching tuna and tuna-like species in the IOTC area and also some of small boats used trolling method in coastal fisheries. Table 2.1 shows the fishing fleet disaggregated into the following (GT) categories during 2008 to 2017.

Table 2.1: Number of vessels operating in the IOTC area of competence, by gear type and size (2008-2017)

GEAR GROUP	Capacity GT	No. Crafts by year									
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Purse seine	500 - 1000	2	2	3	2	3	3	2	2	2	2
	1000 - 2000	7	6	5	5	4	4	5	5	5	5
Total Purse seine fishing Craft		9	8	8	7	7	7	7	7	7	7
Coastal_Artisanal_ Longline	< 3				0	0	0	0	0	300	324
	21 to 50				0	0	0	0	0	80	165
	101 up				0	0	0	0	0	14	14
	0	0	1	0	1	1	1	1	1	1	1
Total Coastal_Artisanal_Longline fishing Craft		0	1	0	1	1	1	1	1	395	504
Gillnet	< 3	3,974	3,828	3,444	3,340	3,784	3,741	3,155	3,630	3,319	2,758
	3 - 20	761	753	702	586	282	270	271	266	258	239
	21 - 50	730	667	911	941	1,021	1,060	825	364	391	318
	51 - 100	669	534	580	479	527	534	480	181	171	316
	101 - up	208	278	283	260	329	338	275	293	283	326
Total Gillnet fishing Craft		6,342	6,060	5,920	5,606	5,943	5,943	5,006	4,735	4,422	3,957
Trolling	< 3	417	426	634	854	810	805	1,914	2,019	2,190	1,820
Total Trolling fishing Craft		417	426	634	854	810	805	1,914	2,019	2,190	1,820
Total all Gear fishing Craft		6,768	6,495	6,562	6,468	6,761	6,756	6,928	6,762	6,620	5,785

3- Catch and Effort (By Species and Gear)

Table 2.1 and figure 3.1 to figure 3.4 shows the total annual catch and effort by gear type and species reported for the all fleet. The Catch quantity of tuna and tuna-like species in 2017 was equal to 276,636 t, of which 151,132 t, belongs to coastal waters and the rest (t,) belongs to offshore fishery. In 2005 and 2006, the amount of catch from offshore fishery were exceeded the coastal waters catch, but in recent years due to the piracy and insecurity related to this issue, the trend has completely reversed and Since 2007, the tropical tuna catch declined and the neritic tuna catch has increased. This decline of tropical tuna catch which has caused by the phenomenon of piracy; fishermen relocate their fishing grounds from offshore to coastal areas in Persian Gulf and Oman Sea and concentrate on traditional coastal fishing grounds. This shift of fishing grounds caused fishing effort increasing in coastal areas, as a result increasing in longtail catch from 25,000 t, in 2006, to 60,214 t, in 2017 (120%). Figure3.1. shows the amount of catch for different fishing methods of purse seine, Gillnet and trolling was estimated 6,206 t, 277,035 t and 4,378 t, respectively.

The total catch recorded by the purse seine fleet during 2017, estimated at 6,206t, the amount of catch for purse-seiners showed an ascending trend in 2017, comparing to recent 10 years.

Figure3.1. Annual Catch by Gear Type (2008-2017)

GEAR GROUP	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Purse Seine	4,858	3,846	3,377	4,621	5,154	5,735	5,794	5,308	4,879	6,206
Coastal_Artisanal_Longline	0	0	0	0	0	0	0	0	5,760	8,574
Gillnet	137,920	153,837	159,286	175,318	215,551	215,795	252,729	241,121	235,668	277,035
Trolling	854	1,005	1,328	2,902	5,169	4,879	8,002	5,122	4,908	4,378
TOTAL	143,632	158,688	163,991	182,842	225,874	226,410	266,524	251,551	251,215	296,192
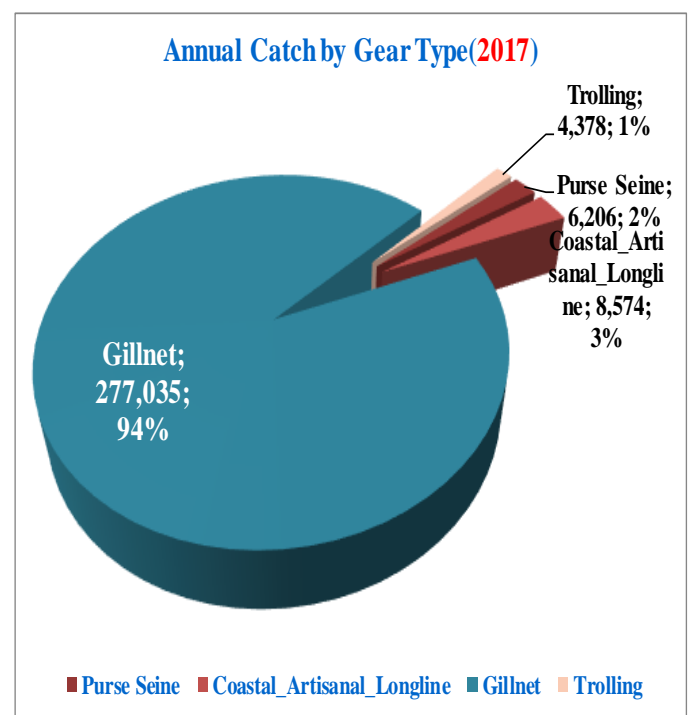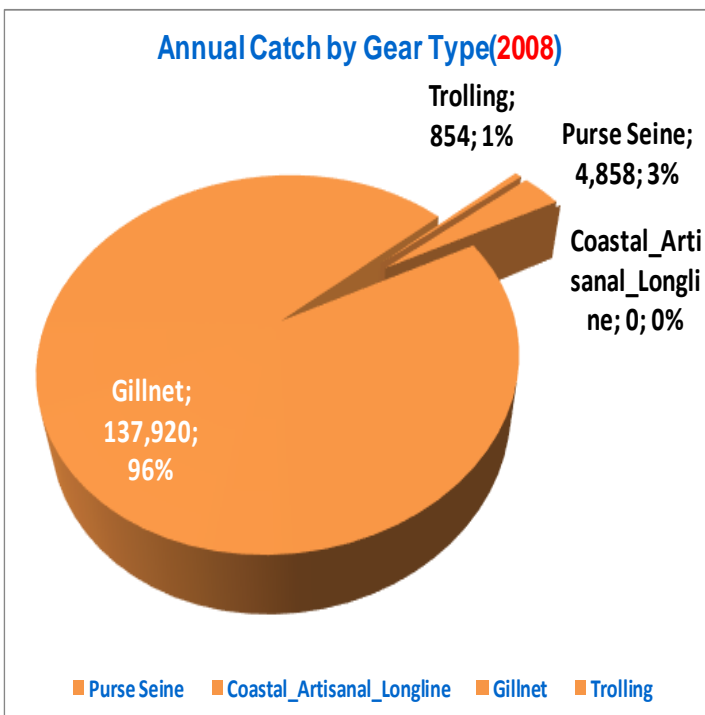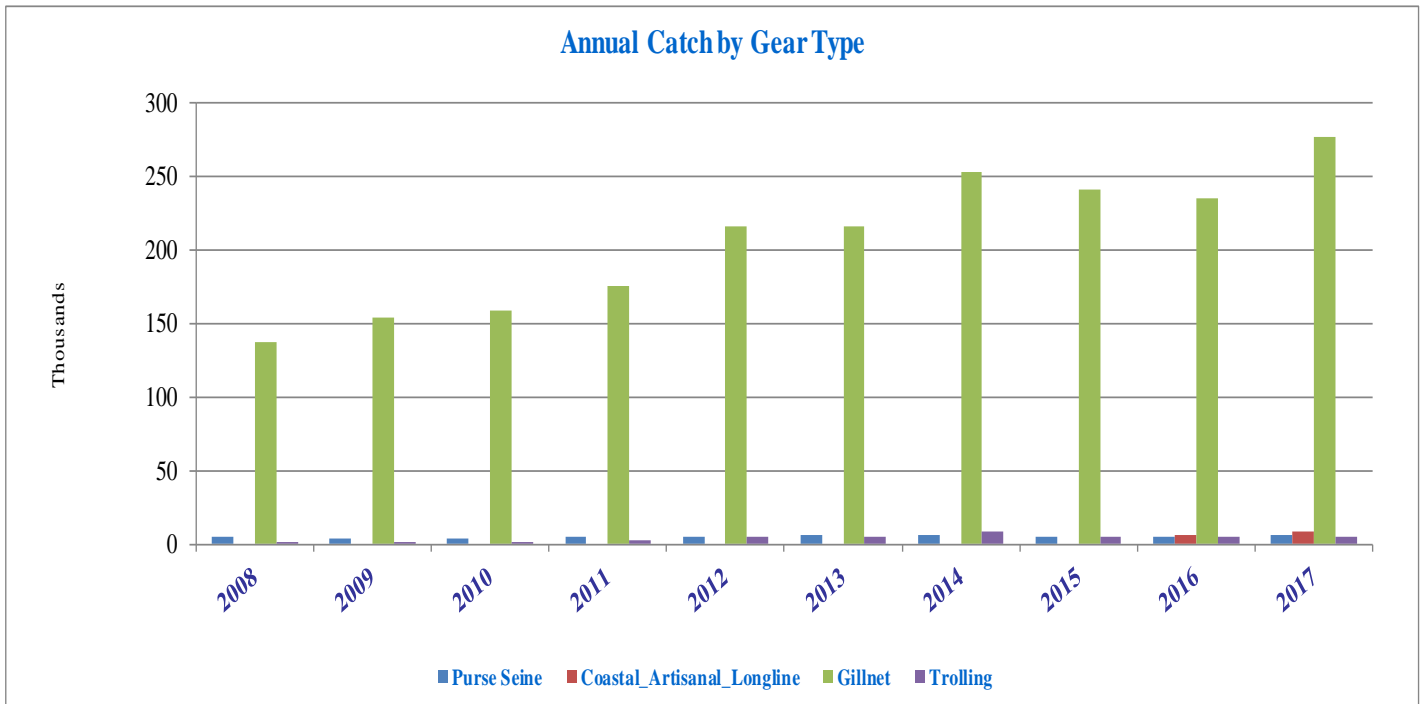
Figure3.2. Annual Catch of Purse Seiners by Species (2008-2017)

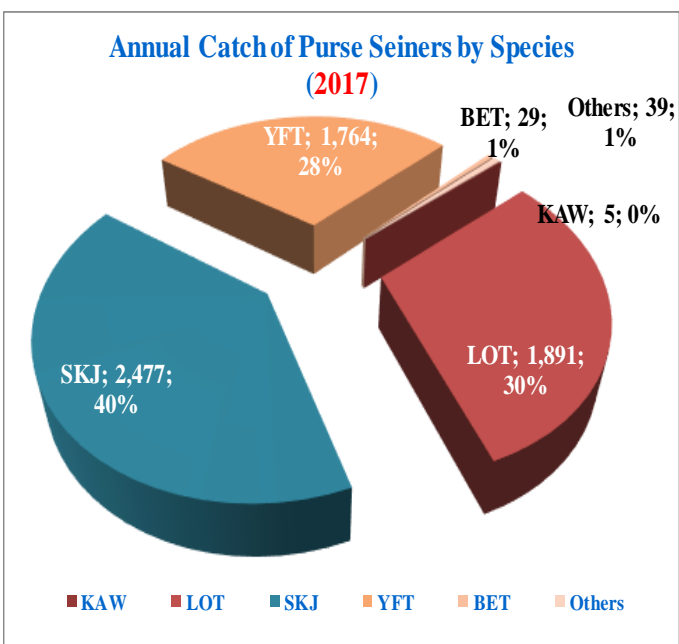| SPECIES	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
KAW	0	0	0	24	162	0	11	0	0	5
LOT	1,205	994	220	2,280	2,074	1,520	140	814	50	1,891
SKJ	1,489	1,159	628	1,336	1,621	1,605	798	489	1,202	2,477
YFT	2,141	1,693	2,529	876	1,103	1,980	4,832	3,842	3,465	1,764
BET	23	0	0	105	161	100	10	135	138	29
Others	0	0	0	0	34	242	3	29	24	39
TOTAL	4,858	3,846	3,377	4,621	5,154	5,447	5,794	5,308	4,879	6,206
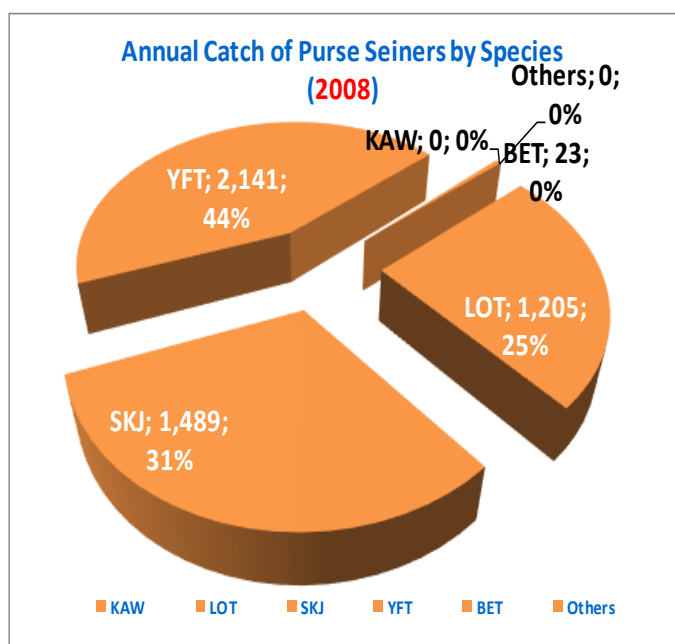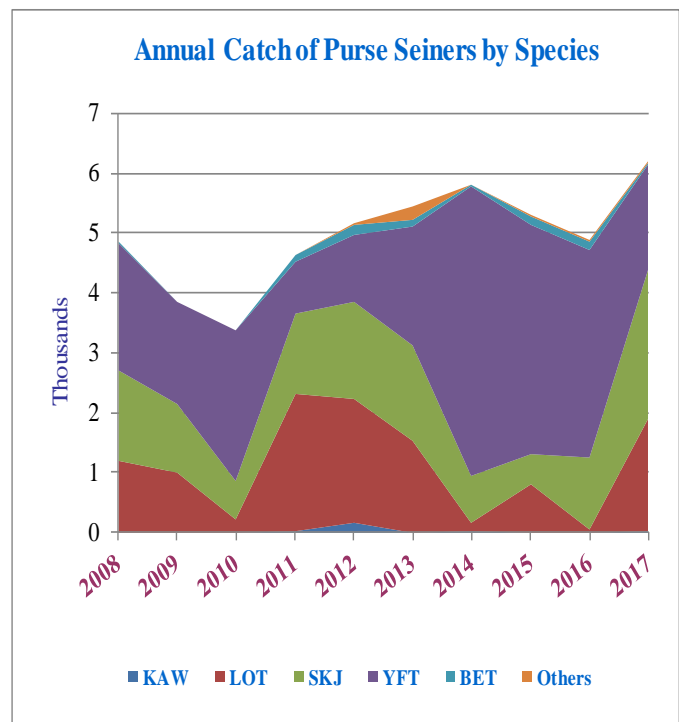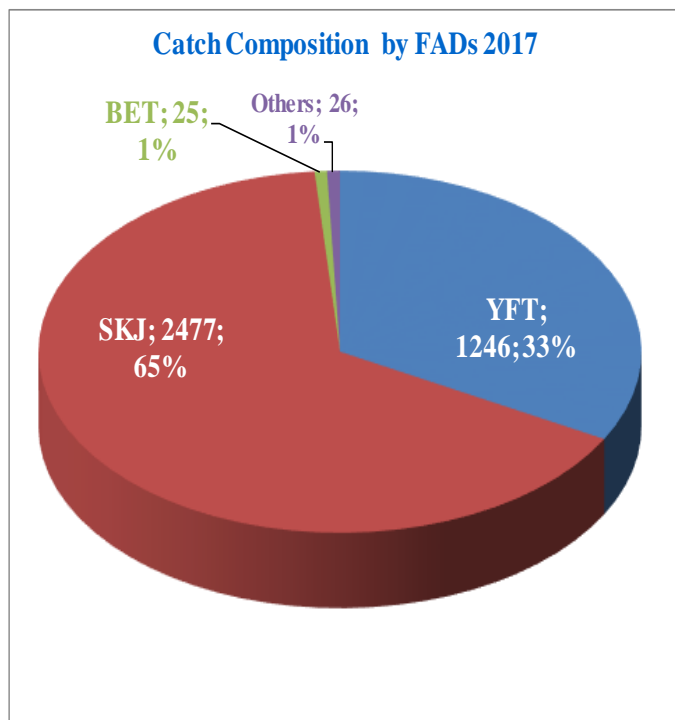
Figure3.3. Annual Catch of Gillnet by Species (2008-2017)

SPECIES	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
FRI	7,164	5,178	6,172	5,876	8,175	6,848	13,265	10,422	10,238	10,251
KAW	20,439	17,827	16,336	22,091	25,984	28,377	28,936	27,877	33,677	38,311
LOT	31,186	47,260	63,761	77,408	71,242	62,704	60,771	57,555	54,596	56,658
SKJ	42,411	45,935	21,657	16,028	25,430	31,722	38,931	38,232	37,956	50,822
YFT	17,085	19,749	28,522	27,924	33,834	30,421	41,326	38,412	35,110	45,551
BET	0	0	0	0	1,483	1,549	2,259	2,309	2,931	3,577
COM	9,975	7,279	10,523	13,375	14,980	18,324	21,218	20,617	20,759	22,529
GUT	4,026	2,633	3,106	3,750	5,127	5,638	6,705	6,997	7,501	9,326
BillFish	5,634	7,976	9,209	8,866	11,297	14,056	21,455	19,479	14,585	18,747
Sharks	0	0	0	0	6,736	6,624	7,132	6,930	4,737	3,443
Others	0	0	0	0	11,262	9,533	10,731	12,292	13,577	17,819
TOTAL	137,920	153,837	159,286	175,318	215,551	215,795	252,729	241,121	235,668	277,035
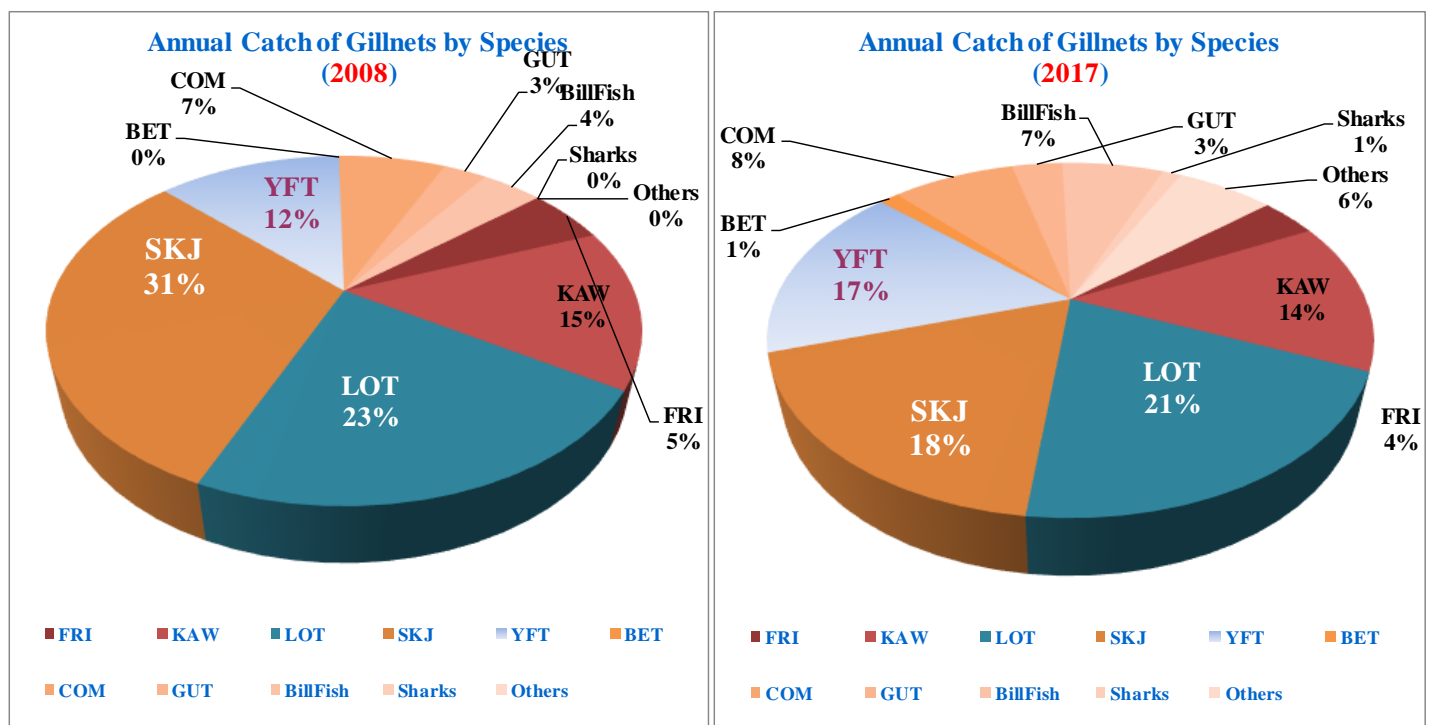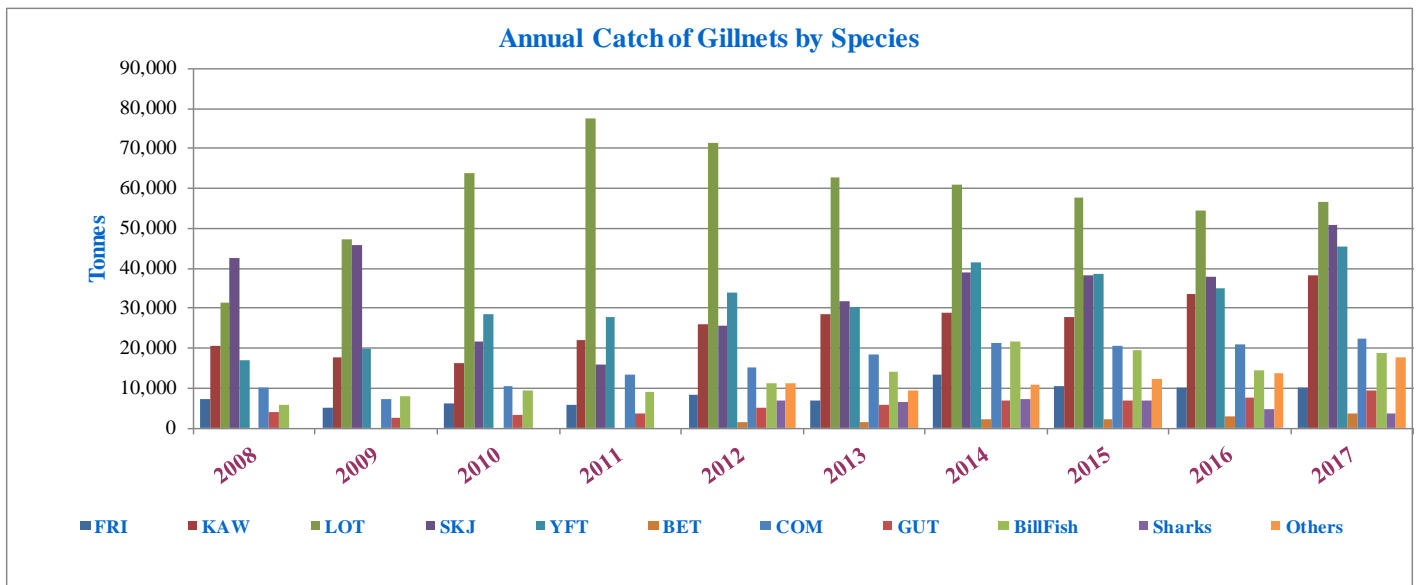
Figure 3.4. Annual Catch of Trolling Method by Species (2008-2017)

SPECIES	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
FRI	0	0	0	119	35	25	228	233	6	14
KAW	0	0	0	109	76	387	452	516	231	458
LOT	229	239	469	1,189	2,884	2,348	4,672	1,278	501	1,665
YFT	256	318	434	0	28	2	57	345	775	354
COM	317	412	361	1,368	1,461	1,687	2,420	2,181	2,922	1,538
GUT	52	36	64	117	371	114	162	245	158	120
SFA	0	0	0	0	18	0	3	53	257	48
Sharks	0	0	0	0	295	317	0	205	59	180
Others	0	0	0	0	0	0	7	68	0	0
TOTAL	854	1,005	1,328	2,902	5,169	4,879	8,002	5,122	4,908	4,378
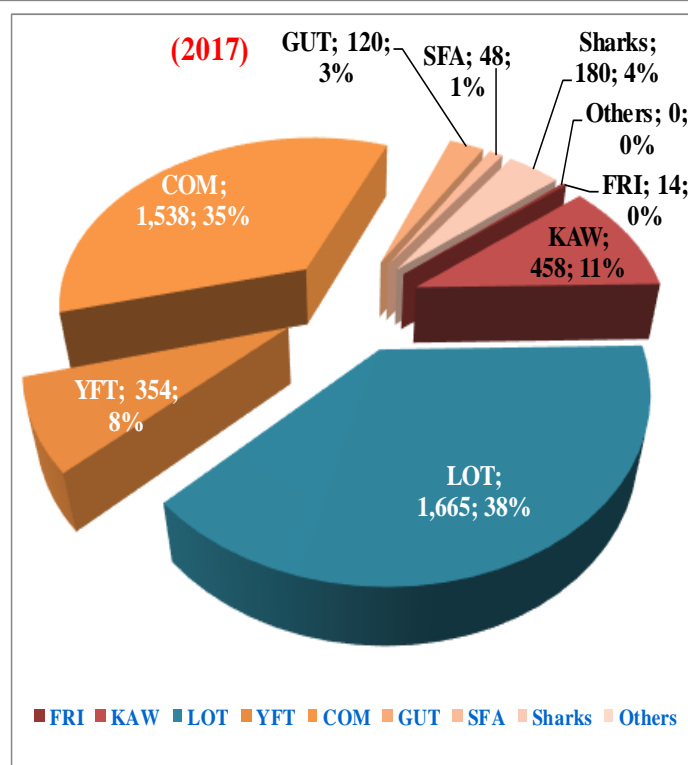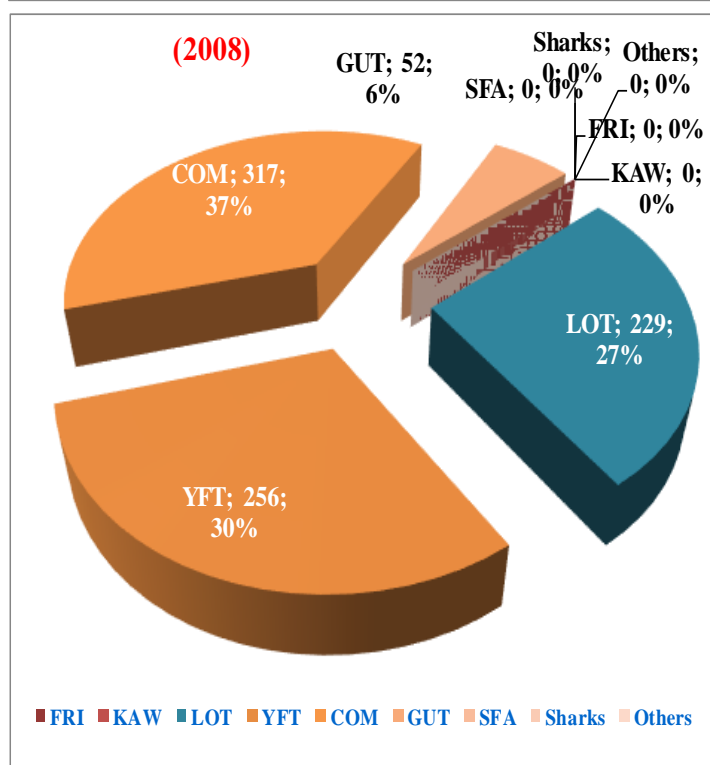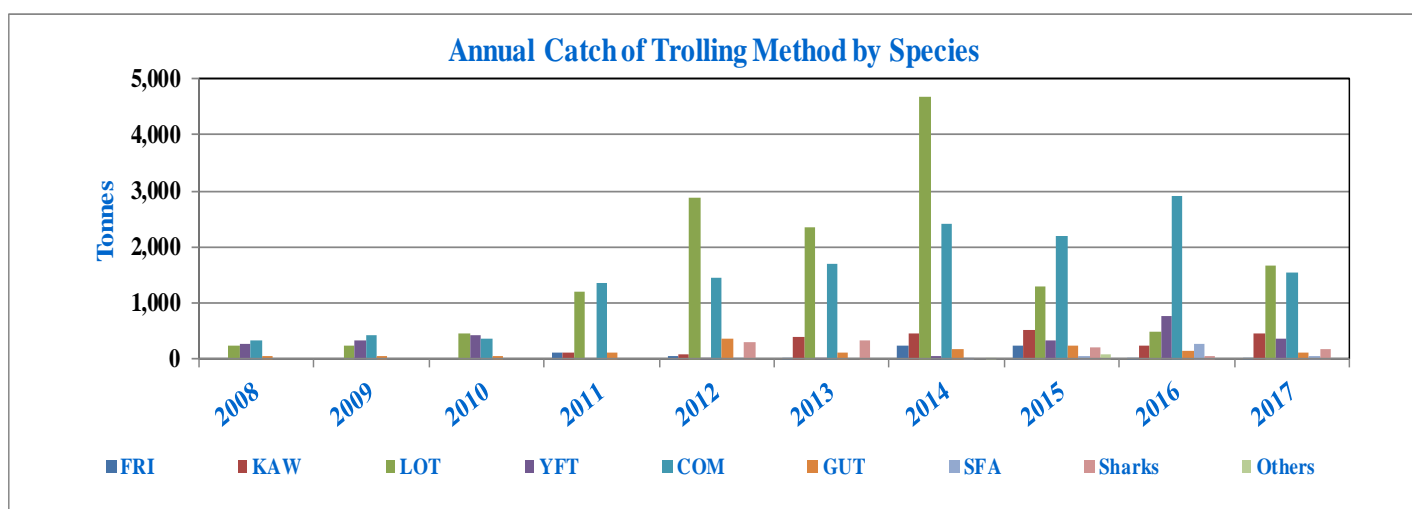
Figure3.5. Annual Catch of Coastal_Artisanal_Longline Method by Species (2008-2017)

SPECIES	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
YFT									5,760	8,452
BET									0	0
SFA									0	0
BLM									0	0
SWO									0	0
DOL									0	122
TOTAL	0	0	0	0	0	0	0	0	5,760	8,574

Table.3.6.Annual fishing effort by different vessel categories per days (2008-2017)

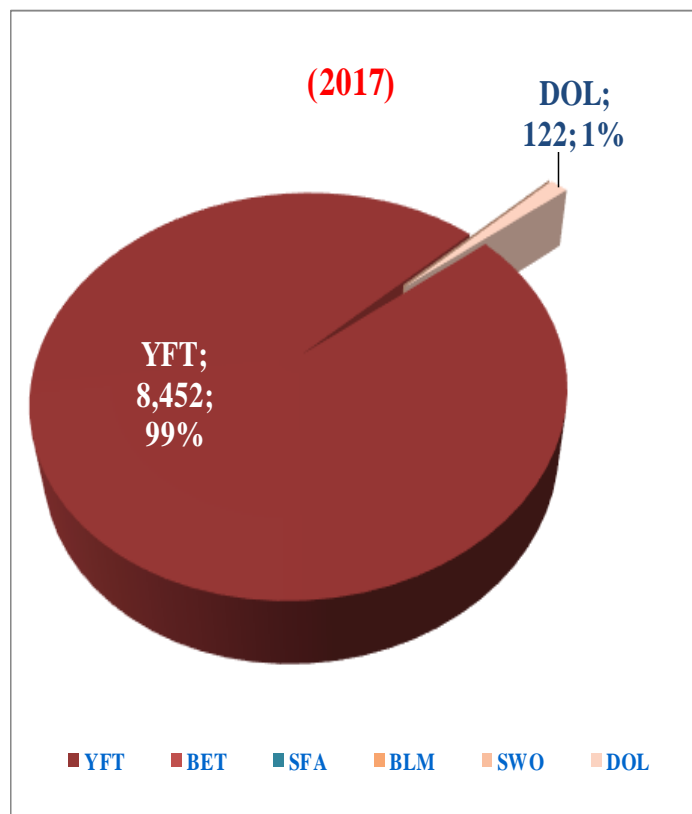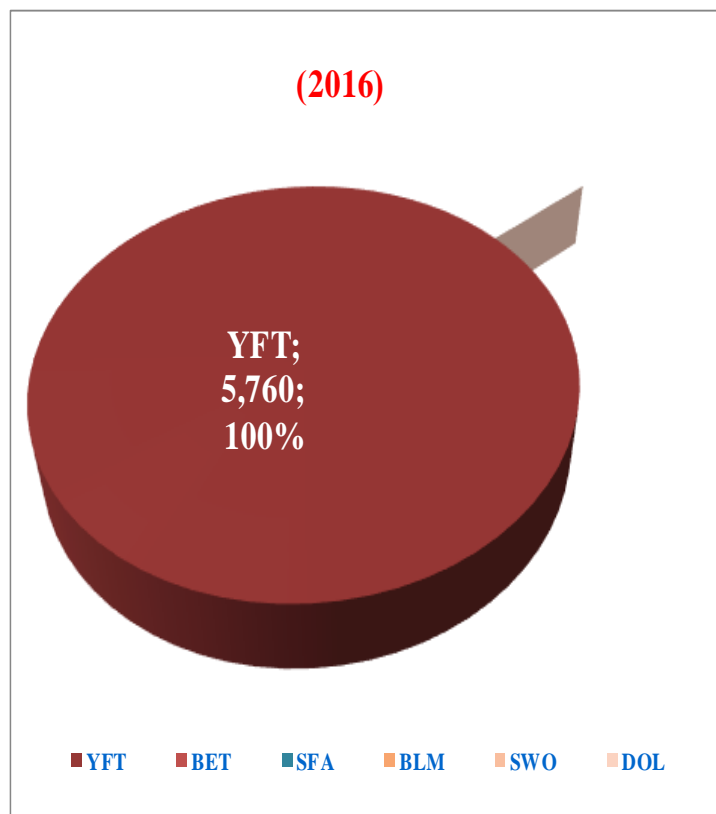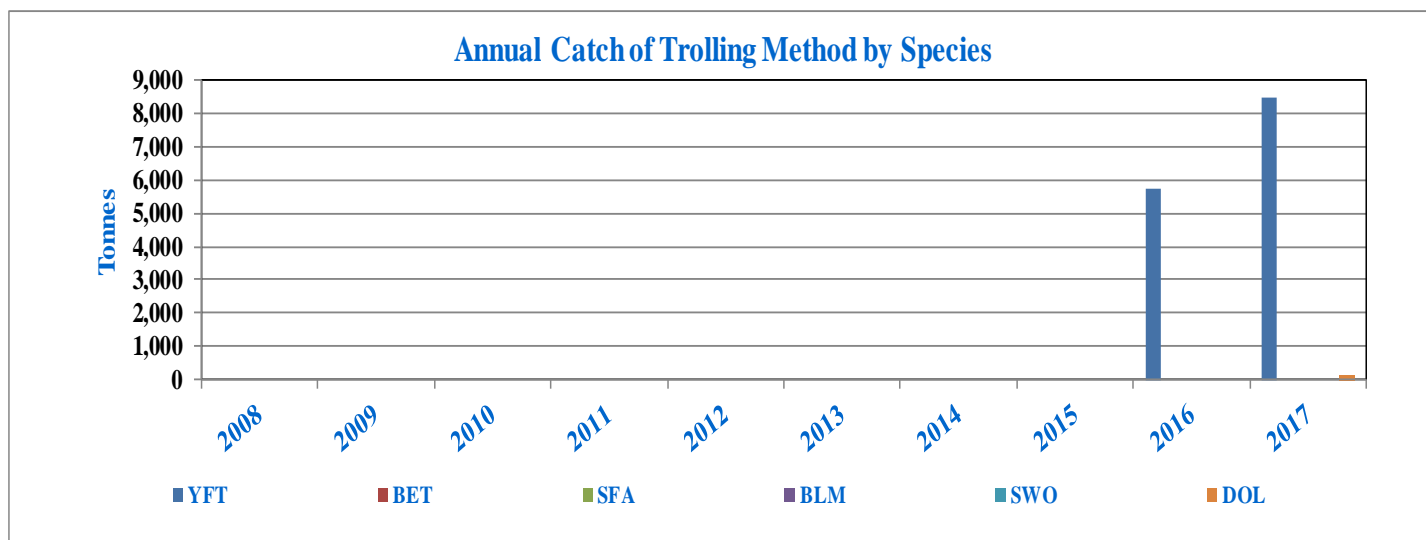| GEAR GROUP	Capacity GT	Fishing effort by gear(days)									
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Purse seine	500 - 1000	0	0	0	0	0	0	0	0	0	0
	1000 - 2000	728	675	880	450	981	727	1,080	1,005	1,164	1,085
Total Purse seine fishing effort		**728**	**675**	**880**	**450**	**981**	**727**	**1,080**	**1,005**	**1,164**	**1,085**
Coastal_Artisanal_Longline	< 3				0	0	0	0	0	18,000	19,440
	21 to 50				0	0	0	0	0	3,200	6,600
	101 up				0	0	0	0	0	560	560
	Mechanised				0	0	0	0	0	0	0
Coastal_Artisanal_Longline fishing		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**21,760**	**26,600**
Gillnet	< 3	520,594	486,156	501,402	515,372	557,434	538,550	476,632	552,367	487,646	438,046
	3 - 20	115,672	118,974	113,740	100,809	43,303	40,985	44,679	44,374	41,682	43,035
	21 - 50	118,990	116,058	165,640	176,132	195,643	184,070	137,860	72,121	74,870	58,114
	51 - 100	90,984	81,168	83,754	82,637	91,293	91,790	84,658	33,749	30,337	54,873
	101 - up	34,528	50,040	38,810	45,020	57,662	60,400	53,020	51,260	50,530	59,746
Total Gillnet fishing effort		**880,768**	**852,396**	**903,346**	**919,970**	**945,335**	**915,795**	**796,849**	**753,871**	**685,064**	**653,815**
Trolling	< 3	54,627	54,102	96,822	139,161	125,446	123,450	226,770	254,934	229,190	196,440
Total Trolling fishing effort		**54,627**	**54,102**	**96,822**	**139,161**	**125,446**	**123,450**	**226,770**	**254,934**	**229,190**	**196,440**
Total all Gear fishing effort		**936,123**	**907,173**	**1,001,048**	**1,059,581**	**1,071,762**	**1,039,972**	**1,024,699**	**1,009,810**	**937,178**	**877,940**

Figure3.7. 1° grid area for Purse Seiners Catch-and-Effort data year 2017

Total Catches of Iranian Purse seiners in IOTC Area of Competence
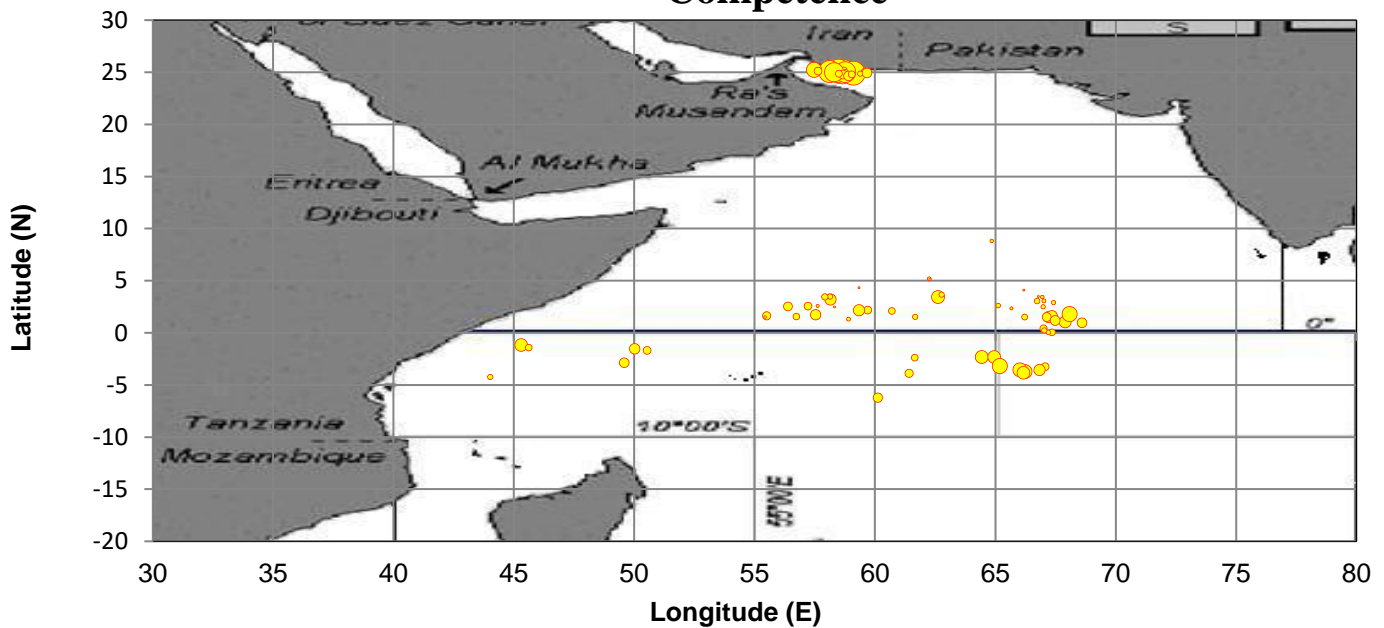
Total Effort of Iranian Purse seiners in IOTC Area of Competence
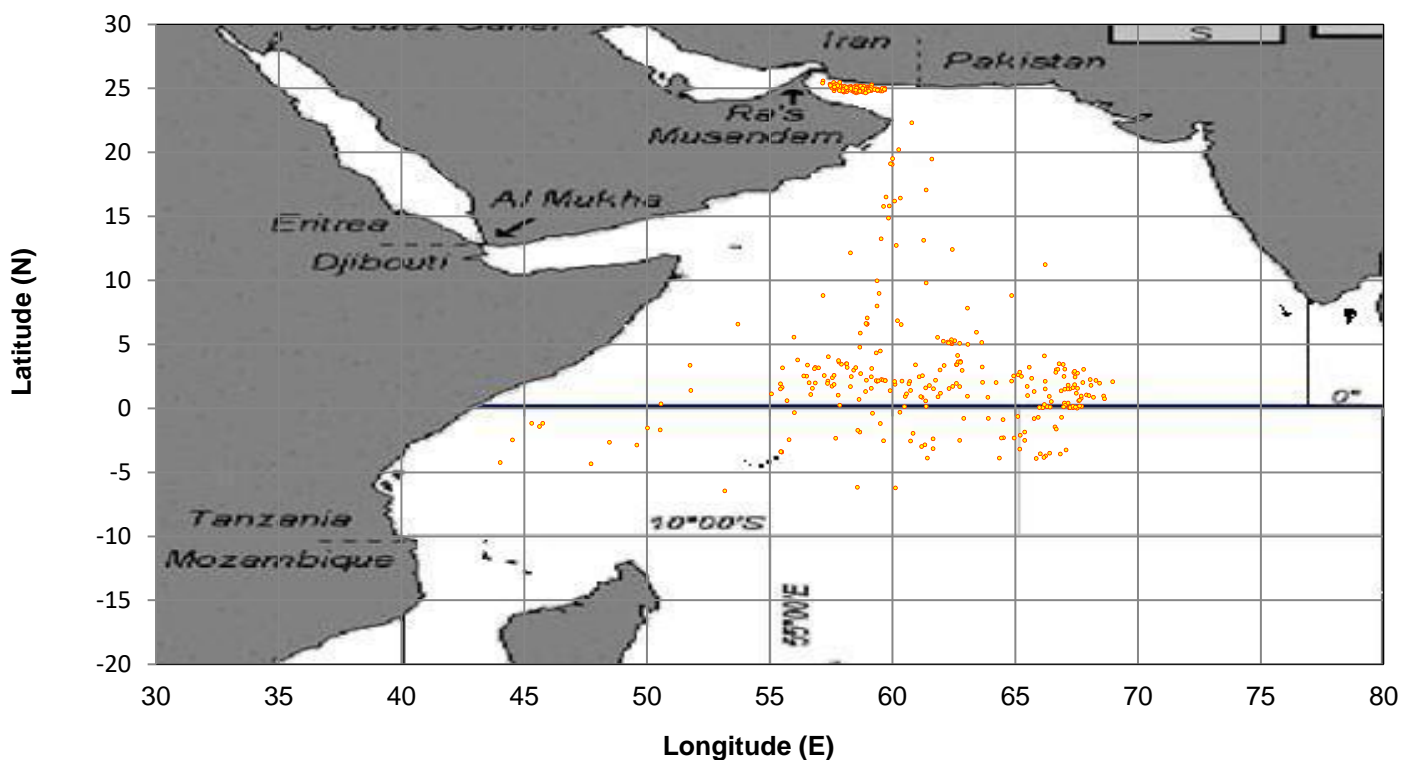
4. National Data Collection and Processing System

Iran's fisheries activities consists two parts that their fishing methods and fishing geographical features are quite distinct from each other:

1-Northern coastal provinces (Caspian Sea)

2- Southern coastal provinces (Persian Gulf & Oman Sea & Overseas)

4.1. Caspian Sea

There are three coastal provinces in northern waters, which are fishing in their territorial waters with around 18,700 tonnes and 799 vessels and with three different fishing methods (Figure 4.1.1, 4.1.2.):

4.1.1. Sturgeon Fishing

Around 838 fishermen with 179 fishing boats in 33 fishing ground by gill net method are engaged in sturgeon fishing (five major species) and total enumeration carried out by field sampler (observers)

Note: Iran voluntarily has banned commercial fishing of sturgeon species since March 2012.

4.1.2. Kilka (anchovy) Fishing

Around 643 fishermen with 74 fishing vessels in 4 fishing ground by Light-Conical Nets(funnel-shaped net) are engaged in anchovy fishing(3 major species) and total enumeration carried out by field sampler(observers)

4.1.3. Bony Fishing

Around 9,106 fishermen within 121 fishing cooperatives in 121 sites by beach seine method are engaged in 15 bony species fishing (three major species) and total enumeration carried out by field samplers (observers) per each shot.

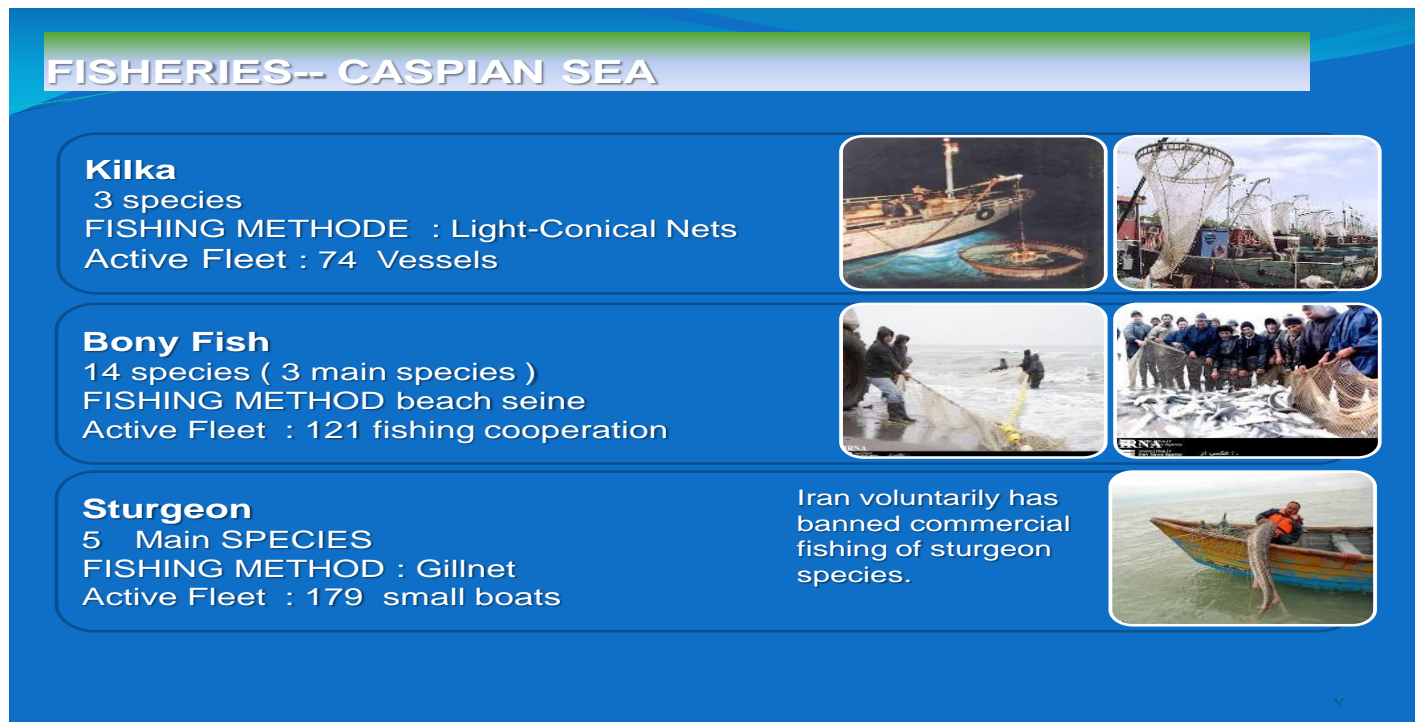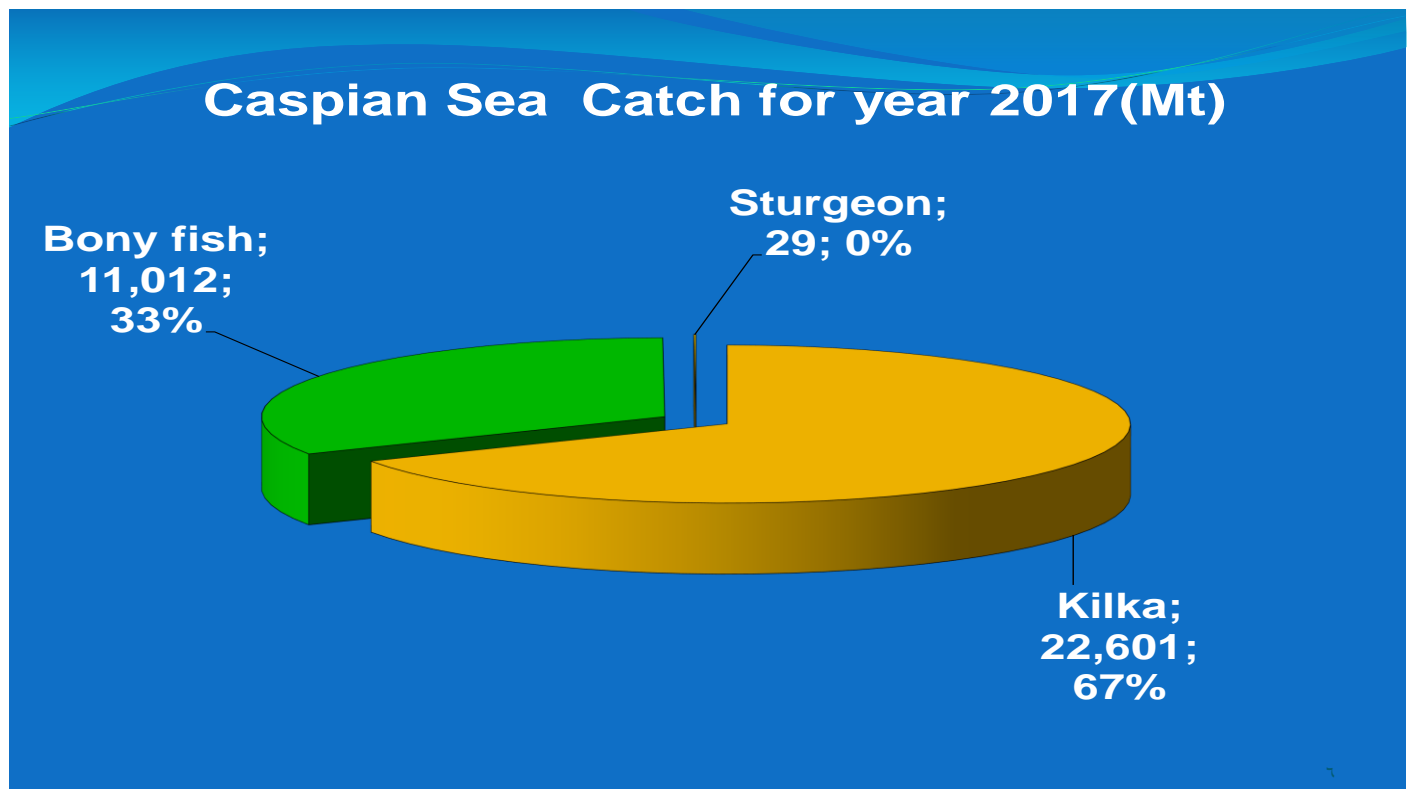Figure4.1.1.Caspian Sea Fishing Method & Active Fleet (2017)

Figure4.1.1.Caspian Sea Catch by Categories (2017)

4.2. Persian Gulf & Oman Sea & High seas

There are four coastal provinces in southern waters, which are fishing in their territorial waters with about 10,493 vessels.

- **Gillnet fishing** method is used by fishing Boats and Dhows for Large Pelagic
- **Ships use bottom trawl fishing method** for Cuttlefish, lantern fish (mictophids) and Hair tail (Ribbon) in time-area closure.
- **Artisanal boats, dhows, and industrial vessels use shrimp trawl fishing method** for Shrimp in time-area closure.
- **Trap** (Gargoor) **fishing** method is used by boats and Dhows for Grouper, Cuttlefish and other Demersal species
- **Trolling, pole & line fishing** method is used by boats for Tuna species, Mackerel, Long tail Tuna,yellowfin Tuna and some Demersal species.
- **Purse-seine(pair-boats) fishing** method by boats for Sardine and Industrial vessels Tuna

All of them needs fish license (permit) when they are going to sea for fishing operation. There are 67 basic landing centers in southern coastal waters. All of 67 basic landing, issue, fishing permit for vessels. Fishing permits form, also used for total enumeration in all landing sites for statistics on total effort of active fleet. And also following fishing methods and total enumeration carried out by fishermen fishing cooperatives:

- **Beach-seine fishing** method is used by fishermen in limited area of Hormozgan province for Sardine
- **Set net** fishing method is used In tidal regions of Hormozgan province   for shrimp, crap, …

4.3. Logbook program has implemented for Iranian artisanal gillnets and industrial purse seiners as follows:

In 2011, we have implemented logbook program for Industrial purse seine fishery and designed a new logbook template according to IOTC Resolutions and Four Iranian purse seiners were active in 2017, and their fishing operations reported in logbook format.

In complying with IOTC regulations, we are decreasing the fishing pressure on coastal species by substituting a number of gillnetters with longline fishery to meet IOTC mandates. A lot of effort carried out to complete logbook but there are still a number weak points in some recorded data of logbooks. Unfortunately, we have not yet succeeded in implementing the Logbook program for Gillnet fisheries in spite of the follow up actions and training courses held for fishermen.

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

Figure4.1. Logbook template for Gill net vessels (active in overseas for tuna and tuna-like species)

LOGBOOK TEMPLATE FOR GILLNET VESSELS	لاگ بوک شناورهای گوشگیر

شماره سفر.No trip	بندر ورود(Port Arrival)	بندر خروج(Port Departure)	۱۲۹۹۵	شماره سریال(Serial No):
نام و نام خانوادگی ناخدا Capt. Name	تاریخ ورود(Date Arrival)	تاریخ خروج(Date Deprture)		شماره ثبت (Reg No):
نام و امضای تکمیل کننده فرم Name&Sign		طول تور به آب انداخته شده - متر(Length net set):		کد IOTC No)IOTC):

Date تاریخ	شروع توررریزی Start set				خاتمه تورکشی End set			وزن و تعداد)Weigh&quantity	Tuna & Tuna Like fishes تون و شبه تون ماهیان							منقار/ نیزه ماهیان Billfishes			کوسه ماهیان Sharks					سایر گونه ها Other Species			صید دورریز از قبیل لاگ پشت ، دلفین و.... Discards		
	Lat عرض جغرافیایی	Long طول جغرافیایی	Time زمان	Lat عرض جغرافیایی	Long طول جغرافیایی	Time زمان		Bigeye tuna تون چشم درشت	Yellowfin tuna گیدر	Skipjack tuna هوور مستطیل	Longtail tuna هوور دم دراز	Kawakawa زرده	Frigate tuna تون منقوش	commerson Scomberomorous شیر	Sword fish شمشیر ماهی	marlin مارلین	Sailfish بادبان ماهی	Blue shark کوسه آبی	Mako shark کوسه ماکو	Porbeagle Shark کوسه پوزه کوتاه	Thresher Shark کوسه دم دراز	Hammerhead shark کوسه سرچکشی	۱	۲	۳	۱	۲	۳
							No. تعداد																					
							kg - وزن																					
							No. تعداد																					
							kg - وزن																					
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							kg - وزن																					
							No. تعداد																					
							kg - وزن																					

5- Size Data (By Species and Gear)

There are 12 important commercial species in Iranian southern waters, which their size frequency data compiled. The species comprised of,

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

There are the length and weight frequency data of species since 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 equipments have been provide by the IOTC-OFCF project and disseminated among the nominated landing centers and size data compilation is in progress.

All of Port samplers are training 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. The raw data will be process with some statistical Software like SPSS, Excel, MiniTab and FiSat. The output results are in the form of some indicators, which show the present status of fish exploitation.

Figure 5.1 to figure 5.3 shows the total yearly size data by gear type and species reported for the all fleet including length frequencies, Mean for Tuna and Tuna-like species from 2008 until 2017. These figures

show an increase in the collection of size data, and developing data collection system for coverage another gear type like trolling.

Figure5.1.Length Frequency of Tuna species by Gillnet fishery (2008-2017)

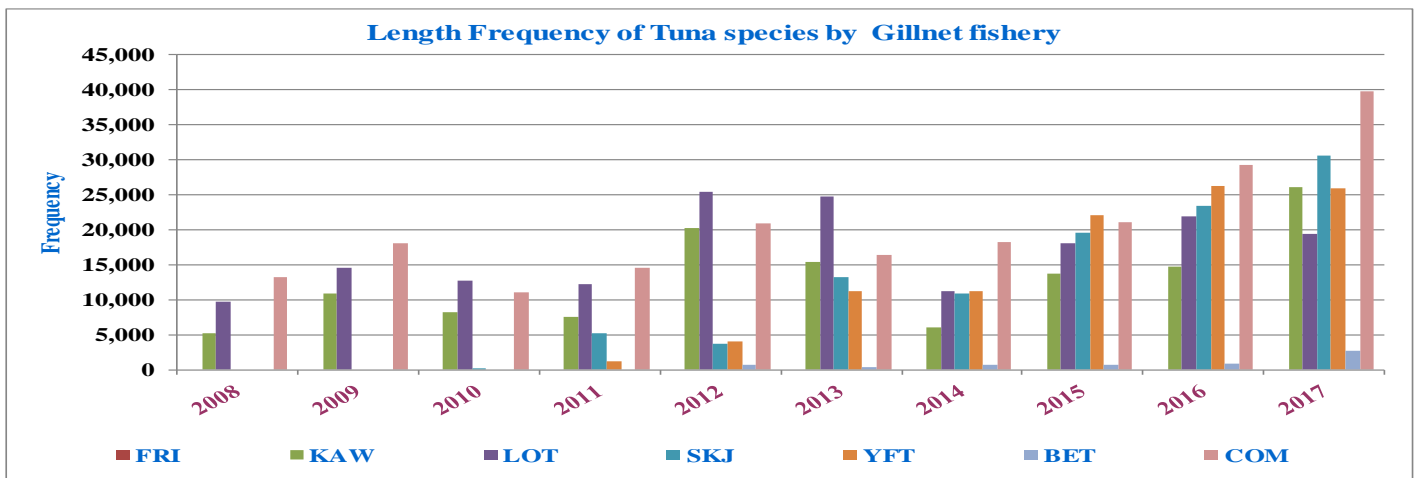| SPECIES	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
FRI	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
KAW	5,237	10,944	8,255	7,553	20,299	15,467	6,036	13,765	14,678	26,088
LOT	9,779	14,576	12,802	12,232	25,481	24,680	11,174	18,116	21,889	19,449
SKJ	Nil	Nil	97	5,156	3,761	13,212	10,857	19,574	23,410	30,577
YFT	Nil	Nil	Nil	1,215	4,070	11,146	11,261	22,161	26,287	25,885
BET	Nil	Nil	Nil	Nil	655	435	630	724	888	2,639
COM	13,286	18,060	11,019	14,586	20,907	16,435	18,283	21,087	29,315	39,753
TOTAL	28,302	43,580	32,173	40,742	75,173	81,375	58,241	95,427	116,467	144,391

Figure5.2. Length Frequency of Tuna species by Purse seine fishery (2008-2017)

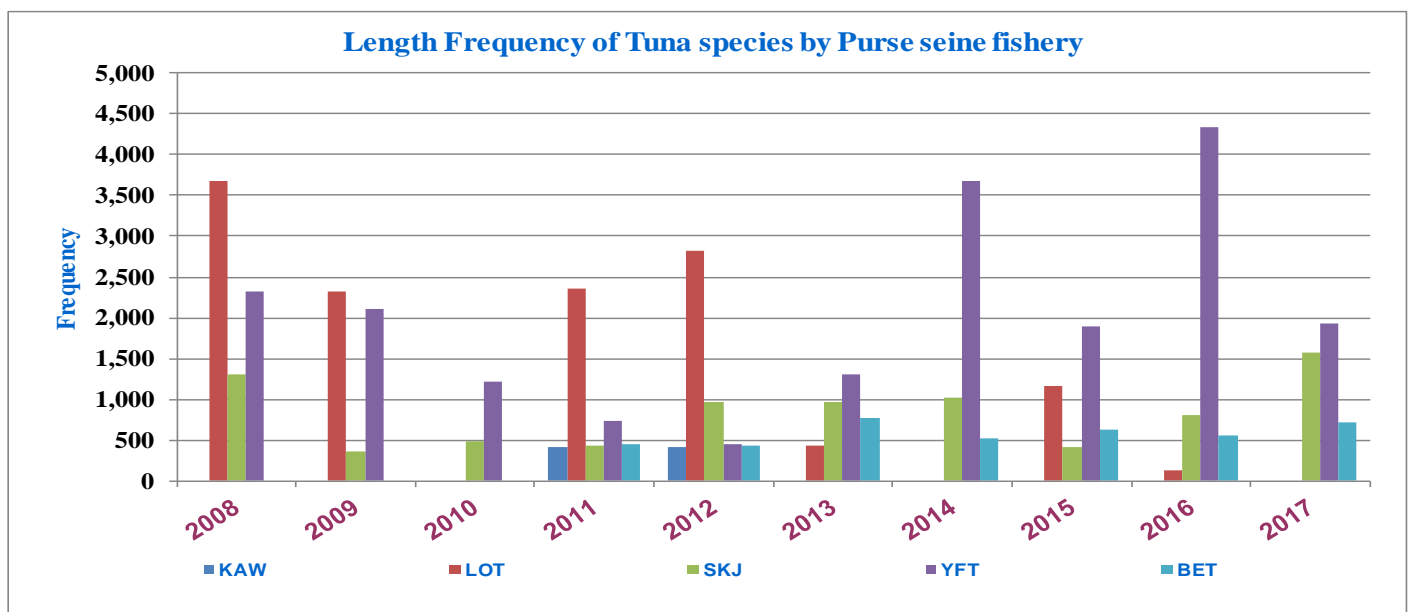| SPECIES	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
KAW	Nil	Nil	Nil	420	416	0	0	0	0	0
LOT	3,686	2,315	Nil	2,358	2,822	433	0	1,158	125	0
SKJ	1,300	359	484	424	964	957	1,010	416	797	1,576
YFT	2,318	2,113	1,220	727	445	1,296	3,682	1,892	4,333	1,923
BET	Nil	Nil	Nil	442	424	777	523	629	560	716
TOTAL	7,304	4,787	1,704	4,371	5,071	3,463	5,215	4,095	5,815	4,215

Figure5.3. Length Frequency of Tuna species by Trolling & LL fishery (2008-2017)

SPECIES	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
COM	Nil	Nil	Nil	Nil	821	407	2,808	4,416	2,511	980
LOT	Nil	Nil	Nil	Nil	Nil	Nil	1,289	0	0	0
YFT(by Coastal_LL_Method)	Nil	Nil	Nil	Nil	Nil	Nil	0	0	0	18,457
YFT(by Hook & Line_Method)	0	0	0	0	0	0	0	0	0	2,485
TOTAL	0	0	0	0	821	407	4,097	4,416	2,511	21,922

Length Frequency of Tuna species by Trolling & LL fishery
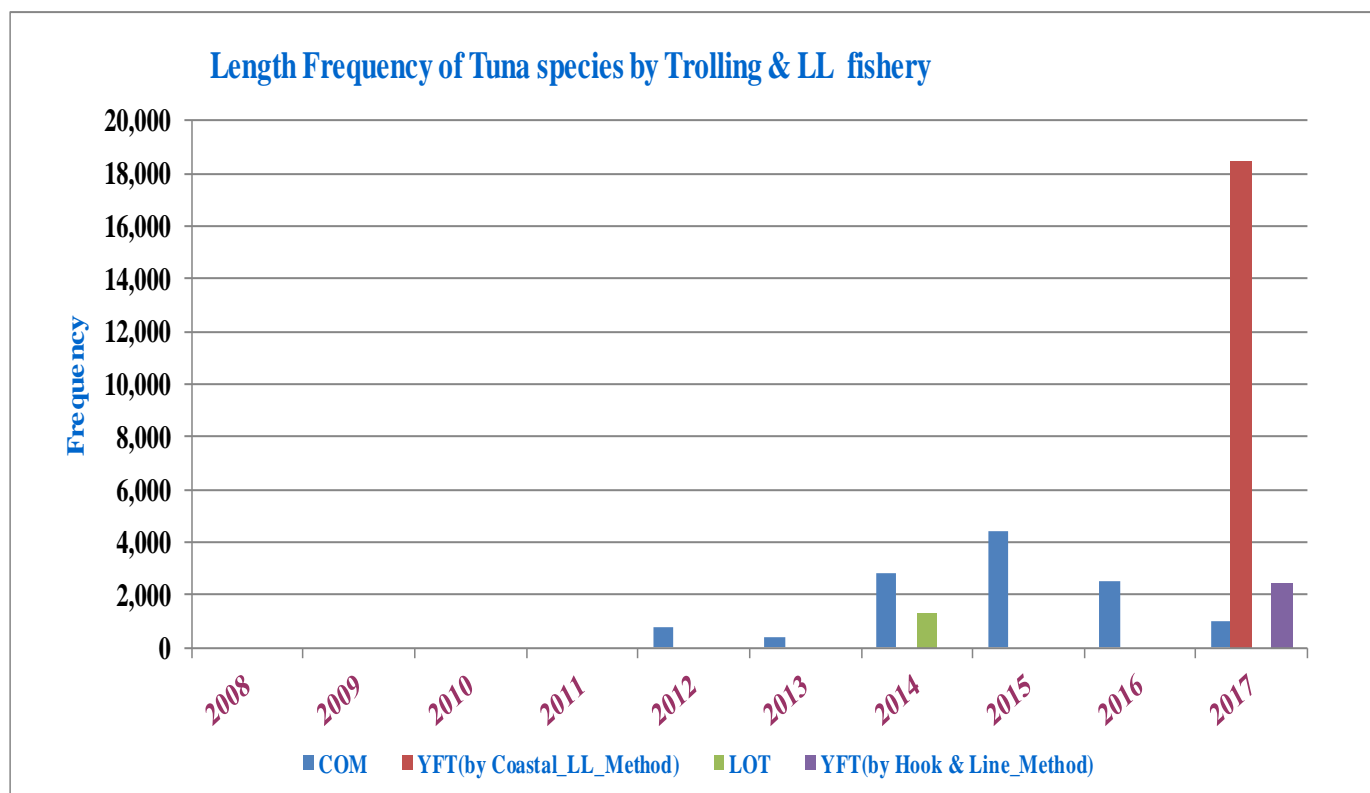
6. Fishing Dhows Catch Composition

We have collected fishery data since 2012 for a few fishing dhows in sample fishing port by total enumeration to determine catch composition for tuna and tuna-like species and identify by-catch species. In the way we could identify bigeye tuna in yellowfin catch composition, of course, identification of small bigeye tunas (BET) of size below 50 cm was very difficult but we could enumerate a number of bigeye tuna (BET) in whole catch. In addition, we could differentiate between various species of sharks and billfishes in total catch.

The identified species are as follows:

Billfish species comprised of Swordfish (SWO), Black marlin (BLM), Indo-Pacific Sailfish (SFA), Striped marlin (MLS), Shortbill spearfish

Main shark species: Silky shark (FAL), Mako sharks, Oceanic whitetip shark (OCS), Hammerhead shark…
Discards information has been collected by self-declaration by interviewing the caption of fishing vessels.
Discard species: Manta ray, Stingray, Dolphins, Sea turtle (release to sea – some alive and some dead)
This pilot plan will be continued in future to improve and enhance the data collection on port by field samples.

7. Implementation of IOTC Recommendation & Resolution Relevant to Data Collection System

1. Submission of historical catch and effort data by fishing ground, gear, vessel, and species for each trip based on all questionnaires and license permits since 2007.

2. Submission of historical catch and effort data for high seas by gear and species since 2011.

3. In complying with IOTC regulations, we are decreasing the fishing pressure on coastal species by substituting a number of gillnet fisheries with longline fishery to meet IOTC mandates.

4. We have carried out many actions for reporting of gillnet fishery by-catch and discards such as sharks, dolphins, sea turtles, etc.

5. Data collection system including species identification for Bigeye tuna (BET), Wahoo tuna (WAH), Sharks, Billfish has been carried out.

6. Various training courses for port samplers has been held.(in this way Identification cards for billfishes, sharks and Bigeye tuna (BET), Wahoo tuna (WAH), have been translated in Persian language and disseminated among port samplers and fishermen to identify different fish species).

7. Database was upgraded to generate reports according to IOTC standards (it's ongoing)
   Note; (the database include both fleet data and vessel permit data)

8. The database has been upgraded to provide required reports for Iran fisheries organization and other national and international entities as well.

8. Main Issues

1. Small scale fisheries
2. Multi-species fisheries in the region
3. Illegal Catch
4. Lack of trained personnel & budget deficit in data collection section such as port enumerators, field samplers, observers, etc.
5. Species identification for some oceanic species
6. Implementation of logbook for gillnetters
7. Implementation of VMS for gillnetters
8. Implementation of on-board observers for gillnetters and purse seiners

9. Suggestions

1. To maintain a pilot project by each member country to determine offshore fishery by-catch species by identifying the billfishes, sharks, tuna and other species and percentage of discard.(It's already ongoing in Iran)
2. Coordinating measures to exchange necessary technical and expertise consultation among member countries by IOTC secretariat.
3. Preparing Workshops and Training Courses Regarding tuna & tuna-like species for member countries for observers & field samplers on data collection and statistics based on IOTC relevant resolutions & recommendations
4. To conduct Research projects and studies related to the state of marine fish stocks and Conservation and management of tuna fishery in member coastal countries.