

Analysis of Status of tuna gill-netting in IRAN

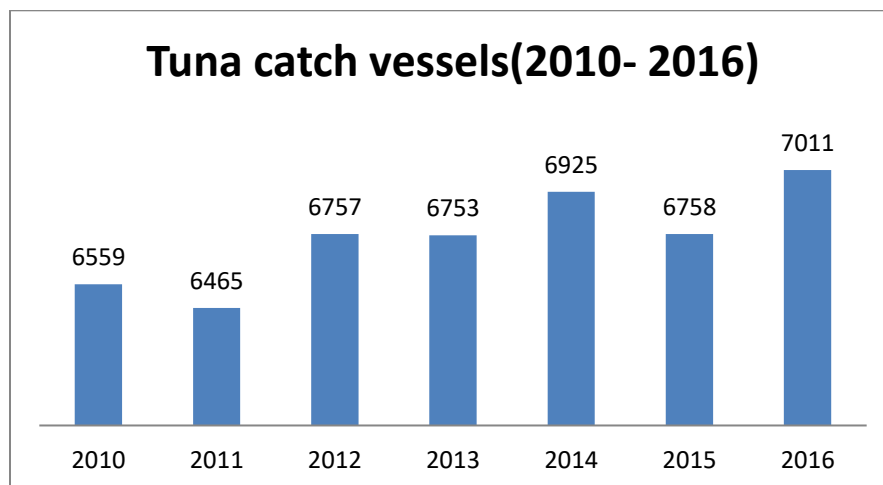
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Total fish and aquatic production in Iran in 2016 reported as 1.093.400 Mt. including 459.200 Mt. from aquaculture and 634.200 Mt. sea harvests. This amount of catch consists of 33.400 Mt. from Caspian Sea and 600.800 Mt. from Persian Gulf and Oman Sea.

Various aquatics have been caught in Persian Gulf and Oman Sea, by 9.637 fishing vessels (6.195 boats, 3.442 dhows and 82 Industrial vessels) in 2016. This amount of catch comprises 37% demersal species, 13% small pelagic, 46% large pelagic and 2% of lantern fish.

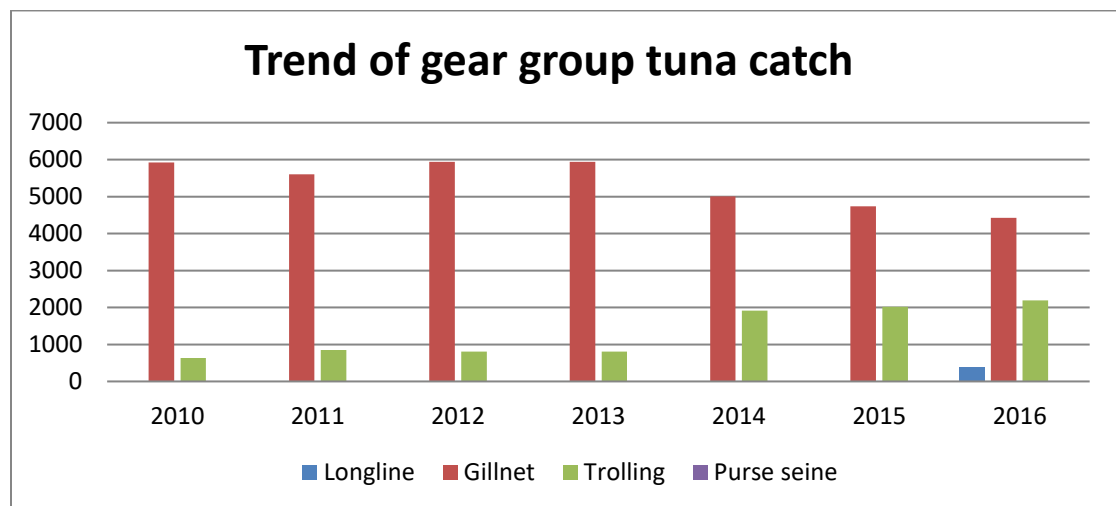
Tuna catch in 2016 has been achieved by 7011 various vessels comprising 5809 boats, 1197 dhows and 5 purse seiners. The number of vessels has been increased 3.7 and 1.3% comparing 2015 and 2014 respectively. Following graph shows the change of number of active vessels in tuna and large pelagic harvest.



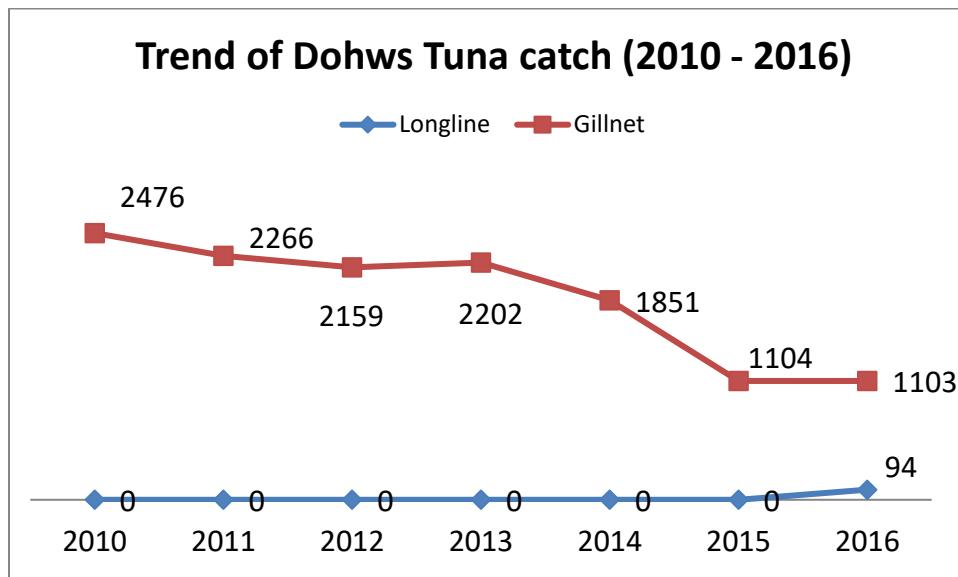
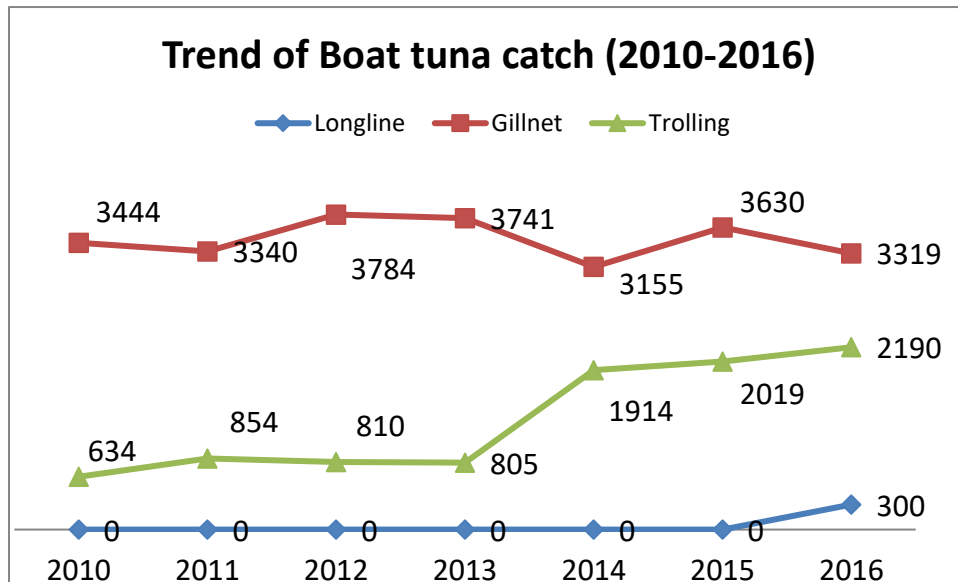
Study of the fishing methods during recent years, shows that IFO is relatively successful to increase awareness of fishermen and prompting supportive and extension activities.

Number of active gillnet vessels have been reduced while trolling and long line method has been extended. As shown below number of gillnet vessels reduced from 5920 in 2010 to 4422 in 2016 and replaced with long-line and trolling method or quitted from fishing activities.

Species / Years	2008	2009	2010	2011	2012	2013	2014	2015	2016
Gillnet	137920	153837	159286	175318	215550	215796	252729	241122	235667
Purse seine	4858	3846	3377	4621	5155	5735	5794	5309	4879
Trolling	854	1005	1328	2902	5168	4880	8001	5123	4909
Long line	0	0	0	0	0	0	0	0	5760
Total	143632	158688	163991	182841	225873	226411	266524	251554	251215



Studies show that during recent years number of gillnet boats reduced from 3444 in 2010 to 3319 in 2016. In contrast number of trolling vessels increased from 634 in 2010 to 2190 in 2016. Number of gillnet dhows also reduced during recent years from 2476 in 2010 to 1103 (51% reduction) in 2016.



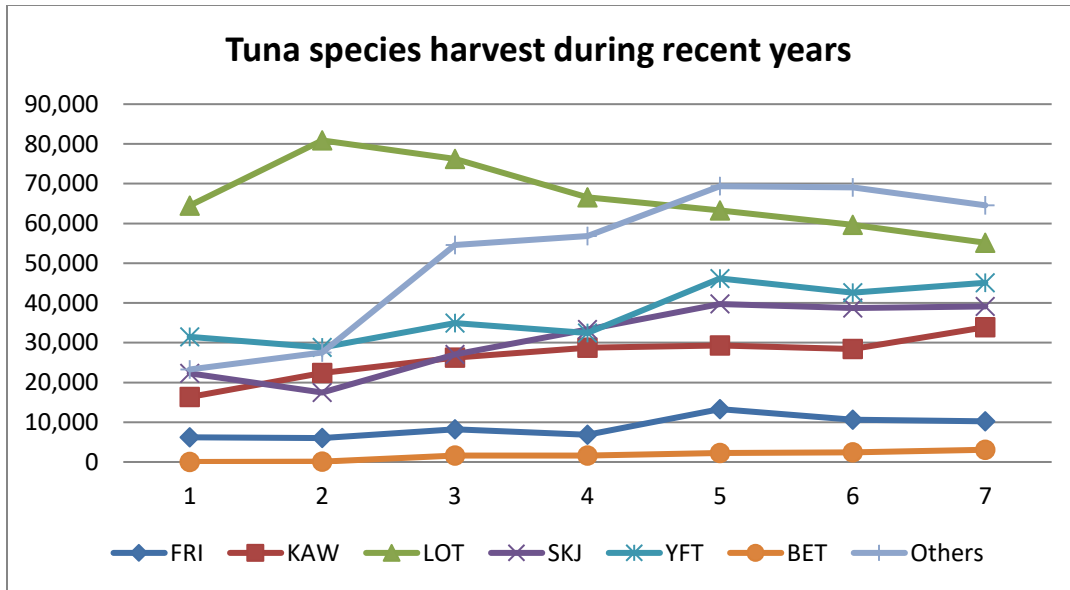
Long-line and gillnet vessels categorized in 2 groups including boats (less than 3 Mt.) and Dhows (more than 3 Mt.) and Trolling vessels are only classified in one group namely boats (less than 3 Mt.) following table shows these classifications:

Gear group	GT (tones)	No. of Vessels at Year						
		2010	2011	2012	2013	2014	2015	2016
Long line	Boat (<3 tone)							300
	Dhows							94
	Total	0	0	0	0	0	0	394
Gillnet	Boat (<3 tone)	3444	3340	3784	3741	3155	3630	3319
	Dhows	2476	2266	2159	2202	1851	1104	1103
	total	5920	5606	5943	5943	5006	4734	4422
Trolling	Boat (<3 tone)	634	854	810	805	1914	2019	2190
Purse seine	1100 to 2500	5	5	4	5	5	5	5

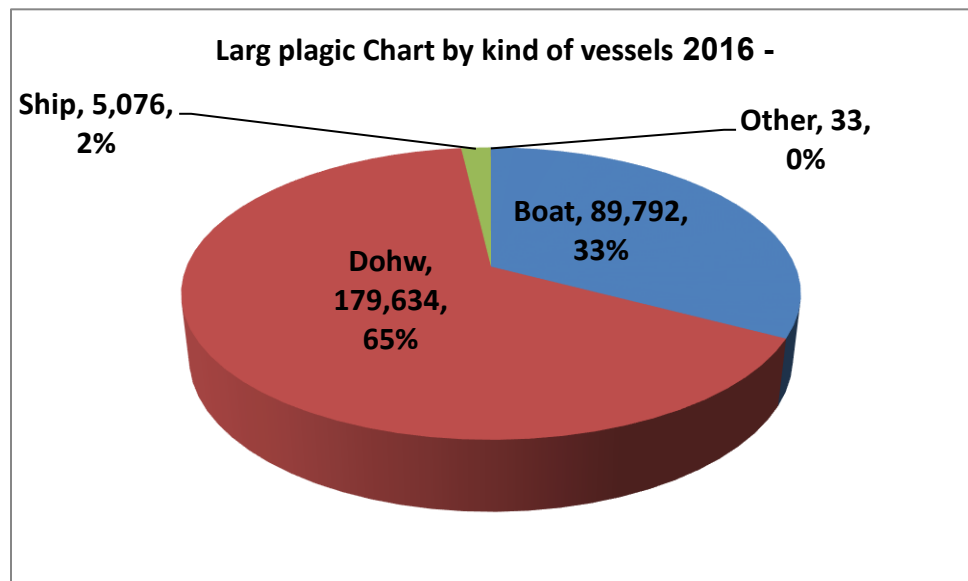
Large pelagic harvest trend is shown in following table. These data shows that the share of gillnet method to catch large pelagic has been reduced from 97% in 2010 to 94% in 2016. On the contrary, share of other catch methods (trolling and long-line) has been raised from 0 and 0.8% in 2010 to 2 and 2.3% in 2016.

Large pelagic species catch by various methods

Gear	2010	2011	2012	2013	2014	2015	2016
Gillnet	159,286	177,055	218,550	215,796	252,729	241,122	235,667
Trolling	1,328	1,522	5,168	4,880	4,880	5,122	4,909
Purse seine	3,377	4,621	5,155	5,735	5,794	5,309	4,879
Long line	0	0	0	0	0	0	5,760
Total	163,991	183,198	228,873	226,411	263,403	251,553	251,215



In 2016 about 7000 vessels harvested 275.000 Mt. of large pelagic (90000Mt. by 5800 boats, 180000 Mt. by 1200 Dhows and 5000 Mt by 5 purse seiner vessels)



In 2016 almost 94% of large pelagic harvested by gillnet method and 2% by other methods (long-line, trolling and purse seine). According to above graph almost 65% of large pelagic (including 70% of tuna and Tuna like species) caught by dhows.

Therefore according to the role of these vessels for harvesting large pelagic and their activities zone with more than 24 mi distance, IFO tried to put into effect more managing rules on these vessels. Main activities in this regard are as below:

- Safety issues:
 - In coordination with national marine organization, IFO provides safety facilities for vessels. Safety certificates are essential for fishing license issuance.
- Equipping vessels :
 - Activities of Vessels with 50 Mt. and more than 50 Mt. capacities with freezing facilities which are active in offshore fishing (further than 24 mi from shore) In order to preserve catch quality, almost 600 vessels with capacity of 50 Mt and more, equipped with blast freezing facilities.
- **Catch method modification**

Some measures have been put in place to alter catch method from gillnet to long line and trolling including: explanation sessions, supportive measures and seasonal ban for gillnet method. The tuna catch from gillnet method has been reduced from 97% to 94% during 2010 to 2016 period according to this efforts. Besides tuna catch from trolling and long line method has raised from %0.8 and 0 to 2% and 2.3% respectively during same period.

Table - tuna catch amount changes by catch method during last 8 years

Gear / Years	Gillnet	Purse seine	Trolling	Long line
2010	97.13	2.06	0.81	0.00
2016	93.81	1.94	1.95	2.29

- **VMS Implementation**

Online “Vessels monitoring system” has not been established yet however initial coordination for installing this system has been processed. Such system is not able to record catch data and log books would be employed for this purpose.

- **Logbook extension**

Logbook charts and tables designed and printed adequately and Following measures implemented to promote among fishermen:

- Distribution of log books among 400 fishing vessels
- Holding training courses and workshops for completion and returning log books
- Receiving almost 10% of completed log books
- Returned logbooks do not contain entire data due to illiteracy of some fishermen and crew.

This process needs longer time to be completed.

- **Enforcing IOTC requirements**

IFO has given emphasis to IOTC requirements via enacting code of practice for fishery activities and fishermen are taught these regulations through training workshops. The compliance of regulations is monitored during vessels entry and exit to and from ports.