

**Title: Considerations and challenges of changing Gillnet to Long Line fishing method for tuna catch in Iran**

**Present to 9th Session of the Working Party on Methods**

**Seychelles, 25-27 October 2018**

**By: Morteza Azadi**

Deputy Director General for Fisheries Affaires (Iran Fisheries Organization)

**Abstract:**

There are different Fishing methods for catching fish in Iran, but Gillnet is a common fishing method between all fishermen. Approximately more than 93% of the fish species are caught by using gillnet method in Iran and other methods like purse seine, long line, and trawl have a small share of total catch.

In relation to catching tuna fish, a high percentage of catches are made by the Gillnet method, and in recent years some boats in the coastal areas have been using trolling to catch fish.

According to the recommendations of IOTC to the member countries for using Long Line method in catching tuna fish and also in line with the Iranian fisheries policy to change the way of gillnet to long line, there have been attempts by the Iranian fishery to encourage the fishermen to use this method. Nevertheless, running this program faced with some problems and requires a medium to long-term planning to achieve this goal.

In this article we will consider the situation of fishery in Iran with emphasis on gillnet fishery and Long Line method and also the efforts made by the Iranian fisheries organization to attract the fishermen to change their Gillnet fishing method, also we will have a review on existing challenges and problems in this matter.

**Key words:** Gillnet, Long Line, Fishing Methods, Iran

## **Introduction**

According to the latest available statistics, in 2017, Iran has caught around 725 thousand tons of aquatic species from the Caspian Sea in the north and the Persian Gulf, the Oman Sea and the Indian Ocean in the south of Iran. The share of tuna and tuna-like species from this amount of catch is around 297 thousands tons which include 41% percent of total harvested catch in 2017. Therefore large pelagic species have a significant role in catching and earning money for the fishing community and providing the required protein in the country.

Although this catch was achieved by various vessels and different methods of fishing but the dhows and gillnet methods have played a main and important roles in harvesting this amount of catch, because the gillnet method is one of the most popular methods of fishing between the fishermen, and they are skilful in operating with this method. Normally gillnet and purse seine are two main fishing methods used by Iranian vessels to target large pelagic species (especially tuna and tuna-like) in the IOTC area competency and some of small boats used trolling in coastal fisheries.

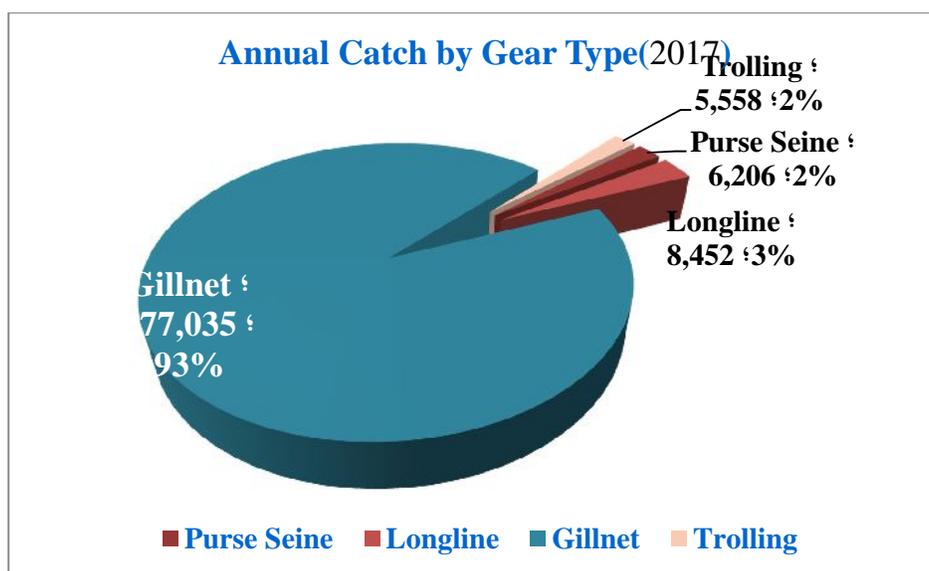
In terms of the number of vessels involved in catching tuna fish, a high percentage of vessels also catch by gillnet. The following table shows the number of fishing craft during last five years. As it has shown in bellow table, the majority of fishing vessels are engage in gillnet method but year by year it has reduced from the number of this kinds of fishing method from 5943 vessel in 2013 to 3957 vessel in 2017 and increase the number of long line and trolling vessels. Of course most of them are non-mechanized vessels. It means that we are in the beginning of transferring of gillnet method to long line.

In order to persuade the fishermen and fishing owner of mechanized fishing craft to change their fishing methods from gillnet to long line we need to do more effort and provide more facility for them.

*Number of fishing craft by fishing method*

| GEAR GROUP   | Number Of Fishing Craft |             |             |             |             |
|--------------|-------------------------|-------------|-------------|-------------|-------------|
|              | 2013                    | 2014        | 2015        | 2016        | 2017        |
| Purse Seine  | 7                       | 7           | 7           | 7           | 7           |
| Long line    | 1                       | 1           | 1           | 395         | 503         |
| Gillnet      | 5943                    | 5006        | 4735        | 4422        | 3957        |
| Trolling     | 805                     | 1914        | 2019        | 2190        | 1820        |
| <b>TOTAL</b> | <b>6756</b>             | <b>6928</b> | <b>6762</b> | <b>6620</b> | <b>6287</b> |

One of the long-term policies and plans of the Iranian Fisheries Organization is promoting fishing with Long Line method and changing the Gillnet fishing to Long Line. This issue is in line with the objectives and recommendations of the IOTC, but despite the efforts made, the share of gillnet is very high so far as it has shown in chart below:



According to above data, 93% of total tuna and tuna like species catches by gillnet method and only 7% of catch is the share of other methods like purse seine, long line and Trolling. Nevertheless, the share of gillnet is going to reduce year by year.

### **Challenges and difficulties**

Iran has made various effort to persuade the fishermen to use Long Line instead of Gillnet, but we are facing with some problem in this issues. The main problems for changing the method of fishing from Gillnet to Long Line in Iran can be as follows:

#### **1. The fishermen's interest and dependence on Gilnet method and the skill of the fisherman in using this method**

This method has been transmitted over the years from generation to generation and a part of the coastal community have become habit to this method. For this reason, the fishermen from the beginning of their childhood learn how to catch fish with this method in their place of life, and they are skilled in this way. Therefore, they are dependent on it and it is difficult for them to get rid of it.

For this reason, they resist the change of this method and are not ready to replace it with Long Line method. In this regard, we must change their attitude with the implementation of educational and promotional programs in order to make a positive change.

#### **2. Availability of nets and other equipment of this kinds of method in local market and inside the country**

Due to the large number of fishing vessels engage in Gillnet methods in coastal and offshore waters, the use of this kinds of nets are also high and net and rope factories are active in the country. Therefore, most of the fishermen's needs for providing fishing gear are readily available within the country.

However, in some cases, the fishermen provide their needs from outside of Iran like neighboring countries or other countries. In addition, if the net is torn down, it is also possible to repair it and the fishermen are also skilled in repairing and rebuilding their nets.

### **3.Higher efficiency of Gillnet method in compare with Long Line methods**

Although in recent years, based on the advices of the IOTC and rules and regulations for catching fish in Iran, there are some limitations on the catching fish by the Gillnet method, and according to these guidelines and regulation, fishermen are not allowed to use and operate more than 2.5 kilometers for catching fish with Gillnet, however Still, the amount of catch that can be obtained from this method is much higher than the amount of catch that can be obtained by the Long Line method on a fishing trip. The fishermen, therefore, prefer to use the methods of fishing, which is more efficient and produces more income for them.

### **4. There is no difference in price between the fish caught with the Long Line method and the Gill net.**

Another point that makes use of Gillnet method rather than the Long Line in Iran is the lack of a difference in price between the tuna coughed by the Long Line method or Gillnet. As a result, only some of the fishing boats use trolling methods but other vessels like Dhows are not ready to go fishing and spend their energy in a way that does not bring them much income.

In other countries, the fish caught by the Long Line method, sales at a higher price than the fish caught using the Gillnet method, because of their high quality. For example, sometimes a tuna catches by the Long Line method in Japan bought at a very high price for sushi and sashimi consumption.

#### **5. Lack of Knowledge and technical information of the fishermen regarding Long Line method**

Any work and application of any fishing method requires sufficient information on the subject and the technical knowledge necessary for that method of fishing. Most of the fishermen, especially those who are living in the coastal areas of the south, are low educated and lack academic education.

Therefore promoting the new methods and advanced technologies in these kinds of societies is difficult, and they will stand, against any Change in the society. Thus, with the help of local leaders and leading fishermen, they should encourage to use the Long Line method instead of the Gillnet fishing through the help of various extension channels.

#### **6. The lack of foreign customers to purchase the fish caught from Long Line**

As mentioned, fishing with the Long Line method is not currently economic for the fishermen, and the price of fish in compare with Gillnet is no makes difference. On the other hand, due to the lack of familiarity of the fishermen with this method and also the ways of processing and keeping tuna fish in the vessel, the tuna Caught fish are not good quality for export. Because usually these species are purchase for sushi and sashimi consumption.

Therefore, as long as the methods of processing and keeping the fish caught do not change, it would not be possible to export these kinds of fish with high price and this is not profitable for the fishermen.

## Actions taken by the Iranian Fisheries Organization

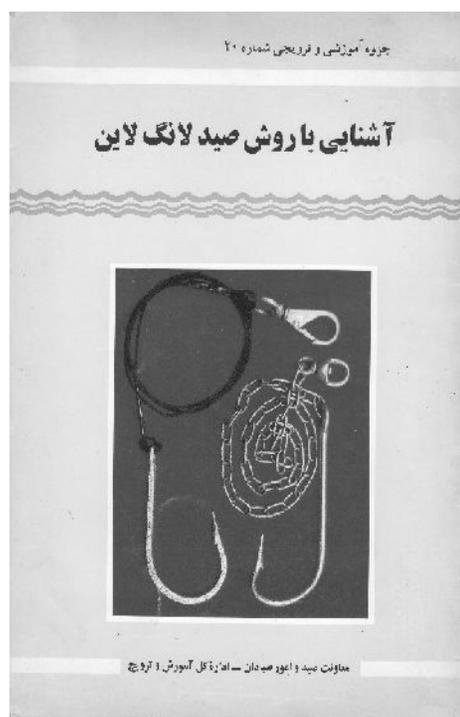
**In recent years, there have been significant actions and in this regard. Among these measures are the following:**

**.1** Publication of educational and extensional leaflets on Long Line fishing methods and comparing Long Line fishing and Gillnets methods and explaining the advantages and disadvantages of each of these methods.

**2.** Organizing various training and extension courses for the fishing community, in order to promote their knowledge and the awareness's of the fishermen.

**3.** Promotion of the Long Line fishing method by coordinating the presence of foreign Long Liners in Iranian waters in the form of leasing contracts with Iranian companies in the years 2005 and 2006 in order to transfer the technology and training the local fishermen.

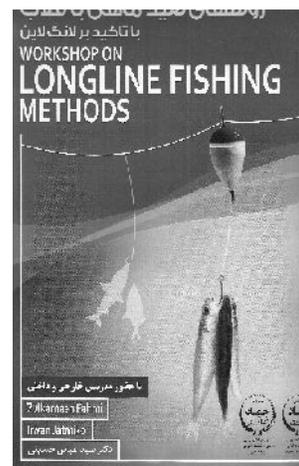
**4.** Issuing temporary and seasonal permits for Gillnet vessels to do Long Line in some areas.



**5.** Definition a project with UNIDO and holding two training course on Long Line fishing and processing for a week in Japan in 2018 and dispatching a number of fishermen, and field experts to attend these courses.

**6-** Advice for the presence and investment of foreign companies to buy Long Line caught fish at higher prices and create value added tuna fish.

**7-** Holding a two-day workshop on Long Line fishing for fishermen in Hormozgan and Sistan and Baluchestan provinces with the presence of one foreign and one Iranian expert for teaching long line method .



## **Conclusion**

Nowadays Through carrying out the above measures by IFO and changing the attitudes of the leaderships in coastal provinces, some fishermen are interested in to change their methods of catching from the Gillnet to Long Line. We have also received some request from investors in private sectors and the fishing community to obtain a permit for Long Line fishing or changing the fishing method. Nevertheless, the transition from the Gillnet to Long Line fishing in Iran requires more time. But we will continue our work and efforts to achieve the goals.

In this regard, the IOTC should pay more attention to socio economic aspect of this sort of projects and support the member countries especially less developed countries to be able to change the attitudes of fishing community and persuade them to accept this kinds of changing in their fishing methods.