

In the name of God

Iran's Approaches and Actions for Promoting and Developing Longline Tuna Fishing Methods (Joint Collaboration with UNIDO)

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Abstract

Given Iran's northern and southern maritime borders, a significant portion of the country's protein consumption is derived from fisheries. Consequently, there has been a concerted effort to enhance the quality of fishery products and align fishing practices with the principles of responsible fishing, adhering to the guidelines and mandates of organizations such as the Indian Ocean Tuna Commission. This includes the adoption of modern fishing techniques like longline fishing.

In the meantime, Iran has undertaken significant and effective measures to promote and develop longline fishing, gradually transitioning from purse seine fishing to more modern methods such as longlining. This has involved conducting specialized training and extension programs for longline fishers, as well as ongoing cooperation and support from Iran's Fisheries Organization for the UNIDO-initiated project to enhance the value chain of tuna in Chabahar in 2017, among other initiatives. Given Iran's significant role in the Indian Ocean Tuna Commission in terms of tuna catches, the goal is to adopt the best practices and performance to align with fisheries management objectives and IOTC considerations. In recent years, various plans have been implemented to improve Iran's compliance with these considerations.

Iran has implemented significant measures to promote sustainable fishing practices and replace the traditional gillnet method with the more modern longline technique. These initiatives include regular training programs for traditional fishers, extensive international collaborations such as with the United Nations Industrial Development Organization (UNIDO), and technology transfer through the invitation of a specialized Japanese longline vessel to Iran.

Furthermore, to enhance catch quality and increase value-added, actions have been taken such as purchasing new fishing gear, designing and constructing advanced refrigeration equipment, and sending Iranian fishers and experts to Japan for specialized training. The ultimate goal of these efforts is to establish Chabahar as the tuna industry hub in Iran and achieve sustainable fisheries objectives. Given the existing challenges, Iran hopes to leverage the experiences of other leading countries in the fisheries sector and collaborate with international organizations like the Indian Ocean Tuna Commission (IOTC) to advance sustainable fisheries development.

Introduction:

Based on the most recent collected data, the total catch of Iran in 2023, including the Caspian Sea in the north and the Persian Gulf and the Sea of Oman in the south, is estimated to be around 778,000 tons. Of this total, the contribution of the Sea of Oman, the Indian Ocean, and the Persian Gulf amounts to 741,000 tons. Within this figure, large pelagic fish account for 332,000 tons, and tuna and tuna-like species make up approximately 276,000 tons, highlighting the significance of tuna fishing in Iran. As evident, Iran ranks first among member countries in terms of tuna catch in the western Indian Ocean and second in the entire Indian Ocean.

Promoting Longline Tuna Fishing:

In recent years, the majority of Iran's fish catch, including tuna species, has been achieved using purse seine fishing methods. However, various initiatives are underway to replace traditional fishing methods with modern ones, such as longline fishing, aiming to enhance catch quality and ultimately increase its value. For several years, educational and promotional courses have been conducted for fishers engaged in hook and line fishing to foster a culture of sustainable fishing practices. Additionally, as mentioned last year, a joint collaboration between Iran, the United Nations Industrial Development Organization (UNIDO), and Japan has been initiated. This project is being actively pursued, and the goal is to implement the project effectively, promote longline tuna fishing, and provide necessary training to Iranian fishers for exporting fresh tuna. Moreover, since 2017, to support the implementation of the project for the comprehensive and sustainable development of the skipjack tuna value chain in Chabahar, appropriate measures have been taken to promote longline fishing methods.

Fisherman Training:

Undoubtedly, one of the most effective factors in ensuring the success of a process is training. In this regard, in cooperation with UNIDO, theoretical and practical field training programs have been planned and implemented in the country. In this context, training courses and workshops were conducted in both countries for Iranian experts and traditional fishermen. An experienced longline fisherman was sent to Japan and spent over twenty days on a specialized tuna longline fishing vessel, receiving hands-on training during fishing operations. Currently, this training is ongoing in Iran, and fishermen actively involved in longline tuna fishing are acquiring practical skills, learning the correct methods for this fishing technique, and mastering post-catch processes and other related aspects.

Standardization of Caught Fish:

Given the significant presence of Iranian fishing vessels in the tuna fishery of the Oman Sea and Indian Ocean, various fisheries management programs are being implemented. The suspension of fishing activities during the monsoon season from mid-June to mid-September each year, along with the management of fishing effort and the prohibition of new fishing vessel licenses, are all valuable measures being taken. Additionally, the requirements and regulations set by the Indian Ocean Tuna Commission are being followed to conserve stocks and promote sustainable fishing. In this context, the standardization of target fish species is crucial for maintaining their life cycle and ultimately ensuring consumer acceptance. To this end, Iran has been conducting biometric studies on several tuna species for the past few years. The hope is that by collecting data over several years, we can determine the optimal standard size.

Longline Fishing Trials:

Given the ongoing policy to gradually transition from purse seine fishing to hook-and-line methods, including longline fishing, one of the primary objectives of the joint project between UNIDO and the Iranian Fisheries Organization was to conduct experimental longline fishing for skipjack tuna. In line with the project's plans, a visit was organized to a specialized tuna longline fishing vessel in Japan, accompanied by an Iranian longline fisherman. Subsequently, representatives from the Japanese vessel were sent to Iran to conduct experimental fishing on traditional Iranian vessels, which proved to be very beneficial. Additionally, an exemplary longline fisherman was nominated to work on a tuna fishing vessel in Japan. Currently, all these processes are being planned step-by-step in Iran to gradually shift towards and eventually replace purse seine fishing with longline fishing. It is worth noting that approximately 300 vessels are currently engaged in hook-and-line fishing.

Quality Enhancement of Caught Fish:

As expected, fish caught using hook-and-line methods have a higher added value. In Iran, fishermen who use longline fishing for tuna are well aware of this fact, and the Iranian Fisheries Organization is making every effort to encourage them by creating suitable markets for their products. Indeed, a number of high-end restaurants in the country have begun purchasing fresh tuna caught by hook-and-line methods, and this trend is growing. We hope to take a positive step by implementing a suitable program for better processing of fresh tuna meat. In this regard, the goal is to establish an air corridor for exporting fresh tuna meat to Japan and other interested countries for sushi and sashimi consumption, thereby increasing the income of fishers and promoting sustainable fishing through the use of longline methods.

Definition of the Joint Project with UNIDO:

The UNIDO office provides support in the form of defining operational plans and projects, along with allocating specific funds, to enhance fishery systems and related areas in various countries. In this regard, a project to enhance the value-added of skipjack tuna in Chabahar using the longline fishing method was defined.

Ultimately, the project commenced in Chabahar in 2017. With the approval of the required funds and the support of the UNIDO office in Vienna and the UNIDO office in Tehran, necessary planning and coordination were carried out in the areas of fishing, fisheries, and tuna processing. Since then, this project has been pursued with a well-structured and organized plan.

Visits by Fishermen and Colleagues to Explore Japan's Potential:

This project, initiated in collaboration with the UNIDO office in Tehran, the UNIDO headquarters in Vienna, the Japanese government, and private Japanese companies, began in Chabahar. Over the past few years, bilateral visits have been conducted to assess the capabilities and potentials of both countries.

Initially, in coordination with relevant departments, it was decided to form two specialized groups (processing and fishing) comprising members from private companies, provincial and Iranian Fisheries Organization staff, and experienced longline tuna fishermen. In 2018, these groups visited Japan and specifically Wakayama Prefecture, particularly the city of Katsuura (renowned for its highest quality tuna for sushi and sashimi production), for two consecutive weeks.

Visit of Japanese Private Company Delegation and Subsequent Activities

The visit of a Japanese private company delegation, along with representatives from UNIDO, to Chabahar was initially planned to include a sea voyage to assess the region's capabilities. However, due to adverse weather conditions, the sea voyage was postponed. Subsequently, the Japanese private company delegation (comprising the official representative of the UNIDO Vienna office, the company's CEO, a market representative, a UNIDO expert from Japan, a UNIDO representative in Iran, the ship's captain, and the primary fisherman on the vessel) revisited Chabahar accompanied by colleagues from the Iranian Fisheries Organization, the provincial Fisheries Department, and other private companies.

As part of the planned program, the delegation visited fishing areas and assessed the province's capabilities through a sea voyage on a traditional fishing boat, engaging in skipjack tuna fishing using the longline method. Subsequently, they provided training to fishermen on the fishing process, post-catch procedures (including rapid killing of skipjack tuna), and processing and cooling techniques.

Ultimately, to upgrade the longline tuna fishing method to a mechanized longline fishing system, a project was initiated to purchase a longline fishing vessel and design and manufacture a specialized cooling device. This marked the start of Phase 3 of the UNIDO Vienna office's project. The matter has been finalized according to the latest information received.

Joint Cooperation with UNIDO:

Given the planning and the approved project to enhance the value chain of skipjack tuna in Chabahar with the aim of exporting skipjack tuna, close cooperation with the UNIDO organization has been established since 2017 and has been extended until the end of 2024. This project has been pursued with a special focus, and various programs have been implemented since the start of the project in collaboration with Japan to optimize skipjack tuna fishing using the longline method with the aim of sustainable fishing and increasing the added value of skipjack tuna for exporting fresh tuna to Japan for sushi and sashimi consumption. Currently, in accordance with the agreements reached, a permit has been obtained for the import of a Japanese longline fishing vessel, as well as the installation of specially designed ice-making machines. To achieve UNIDO's goals, the Iranian Fisheries Organization is actively pursuing this matter both among the fishing community and at the level of other organizations. Notably, the first fish freezing machine system has been specially designed for Iran and is being installed in Chabahar's fishing ports. Currently, arrangements are being made to send individuals to Japan this month to visit the mentioned machine and undergo the necessary training.

Defining the Export Transit Process:

Given the significance of the project, the most important objective is to plan and establish an air corridor for the export of fresh skipjack tuna to Japan. Numerous meetings have been held with airlines to achieve this goal. It is hoped that with the arrival of the specified vessel and its fishing activities, we can achieve the desired results in exporting fresh products.

Coordination with the Indian Ocean Tuna Commission for Fishing Effort Management:

Since the initiation of the UNIDO project and the passage of time, the importance of its implementation has become evident among involved organizations. In this regard, the UNIDO office has followed up with the Indian Ocean Tuna Commission, and it has been agreed that all processes should align with the considerations and requirements of the IOTC. This matter has been and will continue to be considered in all project parameters. It should be noted that if the project objectives are achieved and the longline fishing method is gradually replaced with the gillnet method, we can expect a decrease in fishing effort for traditional vessels using gillnets.

Localization of Indian Ocean Tuna Commission Requirements and Resolutions in Iran:

Given the guidelines and considerations set by the IOTC for all member countries, we hope to take advantage of the opportunity created by the UNIDO project to align our programs with those of the commission. Through proper planning in educational and promotional activities for the traditional user community, we can implement sustainable exploitation policies for stocks. Currently, this issue is being promoted among the active fishing community.

Market Management and Tuna Imports:

What is of utmost value is identifying and reviving a suitable market for the sale of fresh tuna for sushi and sashimi consumption. This is a key objective of the UNIDO project for Iran. All the programs and goals of the team involved in this project within the Iranian Fisheries Organization have been focused on providing high-quality fish, both for sale to upscale restaurants and for air export to Japan for sushi and sashimi consumption.

Conclusion:

The overarching goal is to analyze the policies and considerations necessary to achieve the objectives of the UNIDO project. This involves providing the traditional fishing community with the necessary training to gradually shift from gillnet to longline fishing methods. Once this process becomes widespread, the necessary steps will be taken to establish suitable market infrastructure onshore. This will enable the export of fresh products to Japan and, eventually, other interested countries. The ultimate outcome will be increased income for traditional hook and line fishermen, increased foreign exchange earnings for the country, and the creation of significant added value for tuna species, including skipjack tuna. Additionally, we believe that by achieving all project objectives, we will not only comply with the policies of the Indian Ocean Tuna Commission but will also establish Iran as a suitable supplier of high-quality tuna to other countries through the creation of an air export corridor to Japan. However, all these processes must be aligned with the localization of the Indian Ocean Tuna Commission's requirements and promoted culturally, so that we can ultimately achieve our goal with the cooperation of all countries and relevant parties, with the support of UNIDO and, ultimately, the Indian Ocean Tuna Commission.

The Iranian Fisheries Organization, recognizing the significance of the Indian Ocean Tuna Commission (IOTC) objectives, has endeavored to implement the best possible processes to meet the relevant requirements, despite numerous challenges. Attracting foreign investors specializing in longline tuna fishing methods to promote this fishing technique has been, and remains, a priority. We hope that through ongoing collaborations with UNIDO and Japanese companies, we can establish Chabahar as a pilot region for the direct export of fresh tuna, including skipjack tuna, caught using longline methods to Japan and eventually other countries. Therefore, we hope that the IOTC will continue to provide the necessary support, particularly for developing countries, to facilitate a shift in the mindset of hardworking fishermen.