

# **Issues and Problems in the Management of the Offshore Fishery in Sri Lanka**

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The offshore fishery is the most important fishery in Sri Lanka, contributing more than 30-40% to the national fish production. The fishery is carried out in the offshore areas, beyond the continental shelf, up to the margin of EEZ and also in high seas. The annual catch of about 89 000 tons is worth approximately 4000 million rupees. The fishery targets high valued species such as tunas, bill fish and sharks; having a high demand in both local as well as foreign markets. The fishery has developed rapidly since mid 1980s and today, over 1500 vessels operate in the fishery, with each vessel spending an average of 14 days in the sea during a single fishing trip. The offshore fishery is a multi gear, multi-species fishery carried out by surface gill nets for skipjack tuna and juvenile yellow fin and long lines for sharks and subsurface tunas such as adult yellow fin and bigeye tuna. Even though the fishery is growing rapidly, it is beset with many problems and issues, mainly as a result of unplanned development and lack of proper management.

**Current Issues and Problems** – The issues and problems relevant to offshore fishery development in Sri Lanka have been discussed in many forums and also well documented, such as in the National Fishery Development Plan and the Offshore Multi-day boat Fisheries Management and Development Plan (draft report) prepared by the CRMP. Most of the management strategies identified and proposed to develop the industry are long term and involve high investments; shifting fishing efforts from gill nets to long lines, provision of fishery harbors, upgrading the fishing fleet with modern boats etc. Among the identified issues and problems, the following are vital and important for immediate consideration and these issues and problems can also be addressed with limited resources.

**Post harvest losses** – It has been estimated that 30-40% of the off shore catch landed by multi-day boats are of very poor quality and also contaminated with Ecoli. A large number of boats make fishing trips lasting over a month; that is more than the period that fish can be stored in ice in good condition. The situation is made worse by other

conditions on board, mainly the fish storage systems and bad and unhygienic practices in fish handling. The single day small scale tuna long line boats operated mainly from Trincomalee and Kalpitiya areas bring better quality adult yellowfin tuna targeted for export market. However, the export demand for these fish is poor as they contain high histamine levels in their muscles. This is due to the lack of icing facilities in these small boats. Both situations represent a significant economic and nutritional loss of biological resources.

- International concerns – The resources supporting the offshore fishery are highly migratory oceanic species such as skipjack tuna, yellowfin tuna, bill fishes and sharks which are now being managed by UN laws and agreements; UN Convention on the law of the sea, Code of Conduct for Responsible Fisheries (1995) and relevant technical guidelines (1996-99), UN Convention on Biological Diversity (1994), Agreement for the implementation of the Provisions of the UNCLOS of 10 December 1982 Concerning Straddling Fish Stocks and Highly Migratory Fish Stocks (1995). Most of these international laws and agreements focus on the conservation of non-target species such as marine mammals, turtles and sea birds. Industrial gillnetting is now restricted in high seas, mainly as a conservation measure to protect marine mammals and turtles. Although Sri Lanka has a small-scale gill net fishery and is currently overlooked, there is a growing international concern that operation of a large number of small gill net boats can cause the same impact as the large industrial boats. Any limitation on gillnet fishing will have significant adverse impacts on the local fishery as over 85% of the offshore catch comes from gill net fishing.
- Lack of cooperation between Institutions – Similar to other fisheries in Sri Lanka, activities related to fishing, marketing, boat building and provision of other services for the offshore fishery is in the hands of the private sector while Government is involved in providing infrastructure facilities and managing the fishery. However, there is very little coordination/interaction between these two sectors. There is no established body or mechanism to coordinate the activities of the various stakeholders in the fishery. Even within the private sector, different stakeholders or entrepreneurs work independently or in very small groups. This is a the huge drawback for the sustainable development of the fishery

- Inadequate research/information – At national level, research on tuna has a fairly long history dating back to 1960's, but largely confined to monitoring of the commercial fisheries. There have been a few exploratory and experimental surveys conducted with the assistance of international agencies (FAO, UNDP and ADB) as well as surveys by commercial vessels of other countries (Japan). Although a substantial body of information is available on the distribution and biology of the resource, information required for new initiatives for development seems to be lacking. For example, no comprehensive investigations have been conducted to determine the distribution of deep swimming, large tuna around Sri Lanka in relation to the thermocline, information that would greatly help in the development of a domestic tuna long line fishery.

Tunas are highly migratory and as such, there is a need for collaborative research by countries exploiting these resources in the Indian Ocean. In the recent past, Sri Lanka has joined in a couple of short term collaborative research (joint resources survey and a tagging programme) with Maldives but there is a clear need for more elaborate research involving more than just two countries. It is hoped that the newly established Indian Ocean Tuna Commission (IOTC) would take the initiative in this regard.

Exploitation of sharks in the Indian Ocean has also increased dramatically in recent years as many countries are involved in catching shark primarily for their fins. There is serious concern regarding the shark populations and organizations such as FAO, IUCN, CITES have begun to address this issue. Since 1997, NARA has also undertaken comprehensive research on shark fisheries.

- Database Management – In the absence of a proper database, reliable information on the number of offshore boats in the fishery is lacking. A considerable number of offshore boats are disappearing every year from the fleet when these crafts are used for carrying illicit emigrants while some boats that stray into the fishing zones of other countries are apprehended by these countries. This makes it very difficult to reliably estimate fishing effort, catch and trends in the fishery. While all fishing boats operating in Sri Lanka need to be registered, they also need to possess Fishing Operations Licenses issued by the Department of Fisheries and Aquatic Resources. These data should also be integrated into an offshore database. Considering the level of investment

in the fishery and the shared nature of the resource, a well-managed and continuously updated database is very essential for the sustainable development of the fishery.

- Lack of management policies – In the absence of a development and management plan for the offshore fishery, there is no clear policy guidelines to the industry, particularly in respect of long term investments such as in boat designing and building, construction of fishery harbors, etc. The industry may run the risk of overcapitalizing itself.
- Inadequate focus on Market development - In the absence of large associations or unions, the fishery is run by a large number of independent owner/operators who have their own marketing arrangements, both for the local as well as export markets. There had been little or no effort from all quarters for value addition or to promote better handling and processing practices to maximize incomes.