

BY-CATCH OF TUNA FISHING VESSELS

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INTRODUCTION

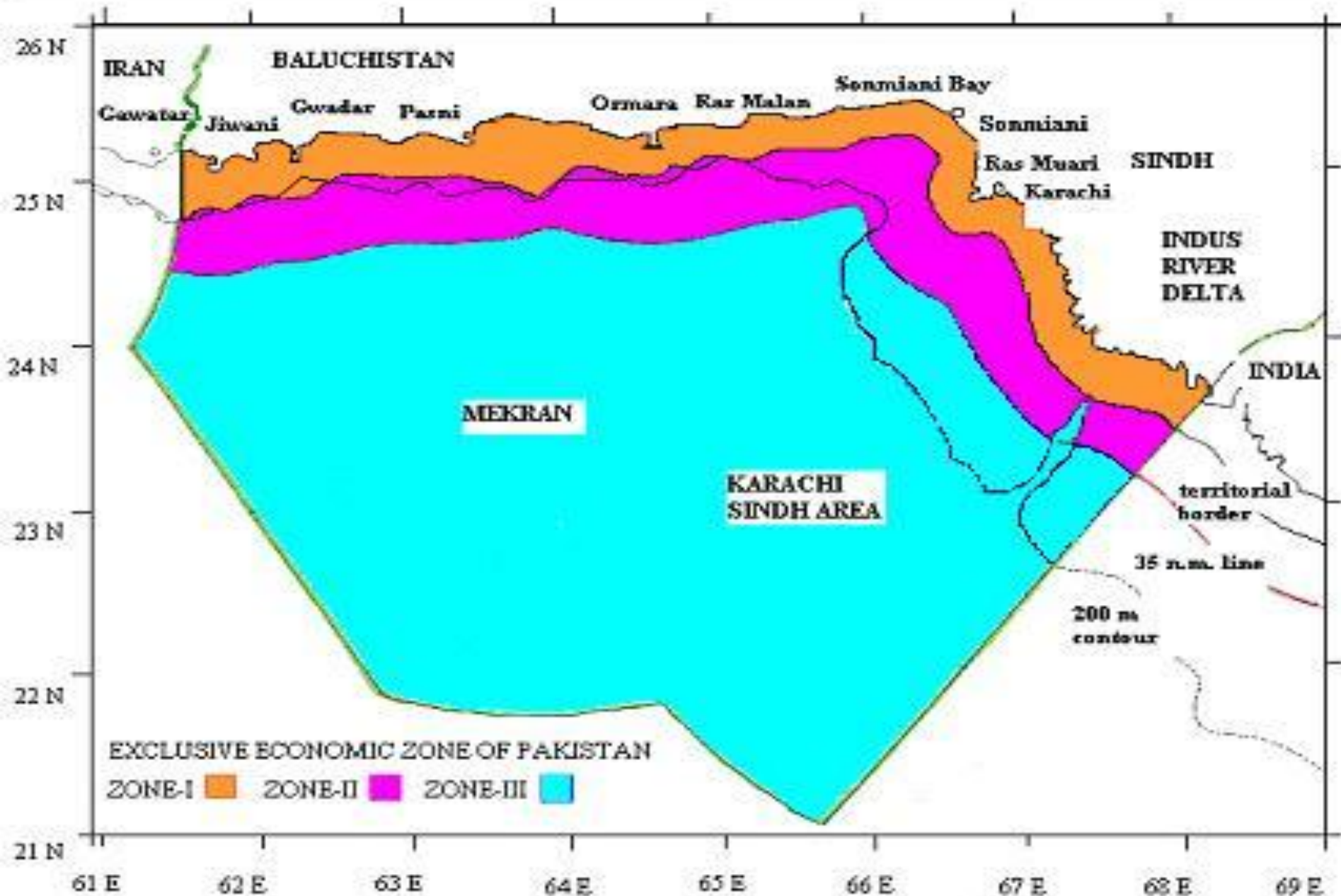
The total coast line of Pakistan is about 1120 Km the western region (Makran coast) extends from Hub river to Iranian border. Makran coast is about 772 Km long. The South Eastern Region (Sindh coast) extends from Hub River to Sir Creek on the Indian border and is about 348 Km long.

The continental shelf of Makran coast lies between 16 to 24 Km and falls sharply to great depths. Whereas, in Sindh coast the continental shelf is shallow and is about 125 Km.

According to constitution of Pakistan, the marine waters are divided into the administrative areas:

- (i) Territorial waters (from base line upto 12 nautical miles, seaward). These waters have jurisdiction of the maritime provinces of Sindh and Balochistan.
- (ii) The waters between 12 nautical miles and 200 nautical miles: the Federal Government has jurisdiction on this area.

TERRITORIAL RESPONSIBILITY



Pakistan has rich marine resources in its coastal areas. Since ages, fishing has been the main livelihood of the coastal fishermen. Although, rapid changes have taken place in the world fisheries by introducing modern sophisticated fishing vessels and gear. However, the marine fisheries of Pakistan is still in primitive stage. The local small scales wooden fishing boats are not capable to harvest deep water resources. As such, deep water area remained un-exploited. Therefore, in the past a limited licenses were given to the local parties allowing them to undertake joint venture with foreign parties to harvest tuna & tuna like species in EEZ of Pakistan beyond 35 nautical miles. The operation of these vessels was subject to fulfillment of provision of Deep Sea Fishing Policy including strict surveillance and monitoring by Marine Fisheries Department (MFD), Maritime Security Agency (MSA), port inspections, installation of vessel-based unit of Vessel Monitoring System (VMS), MFD representative / observer on each vessel during each trip, restriction on discard of fish at sea, having penalties on violation of regulations etc.

This paper focus on the comparison of catch of targeted tropical yellow fin tuna and the by-catch of tuna longliners remained in operation during the year 2005 and 2006.

The main particulars of these tuna longliners are as under:

Type of Vessels	:	Tuna longliner
Length overall	:	48 m
Breadth overall	:	8 m
Depth	:	4 m
Gross Tonnage	:	634
Net Tonnage	:	208
Engine H.P.	:	1000ps
RPM	:	390
Cylinders	:	6

COMPARISON OF YELLOW FIN TUNA (TARGETED SPECIES) AND BY-CATCH (NON-TARGETED SPECIES) FOR THE YEAR 2005:

Main Targeted Species		By-Catch (Non-Targeted Species)		% of By-Catch
Species	Quantity (in M/T)	Species	Quantity (in M/T)	
Yellow fin tuna	2,288	Marlin	38.8	1.7%
		Sail Fish	9.9	0.4%
		Shark	10.6	0.5%
Total	2,288	--	59.3	2.6%

**COMPARISON OF YELLOW FIN TUNA (TARGETED SPECIES) AND
BY-CATCH (NON-TARGETED SPECIES) FOR THE YEAR 2006:**

Main Targeted Species		By-Catch (Non-Targeted Species)		% of By-Catch
Species	Quantity (in M/T)	Species	Quantity (in M/T)	
Yellow fin tuna	4563.583	Marlin	51.4	1.1%
		Sail Fish	11.2	0.2%
		Shark	21.2	0.5%
Total	4563.583	--	83.8	1.8

Conclusion

It can be concluded that during operation of tuna longliners during the years 2005 and 2006:

- a) The by-catch comprised of only three (03) species i.e. Marlin, Sail fish and Sharks;
 - b) The percentage of Marlin in the by-catch is high; and
 - c) Total volume / quantity of by-catch is less than 3% of total targeted fish catch.
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