

Scientific Committee

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Tuna Fisheries in Mauritius

**Statistical system in use &
Implementation of the recommendations
of the scientific committee**

by

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STATUS OF TUNA FISHERIES OF MAURITIUS

The tuna fishery forms the basis of local tuna processing industry in Mauritius. Tuna transshipment has been a valuable tuna fishery related activity since early sixties.. An artisanal fishery has also been developed around fish aggregating devices, catches consisting mainly of tuna and dolphin fish. The sport fishery also lands an important quantity of tuna and tunalike fishes. A swordfish fishery is also being developed.

1. Artisanal Fishery

The fish aggregating device (FAD) associated fishery was introduced in 1985 to tap the migrating pelagic resources in the outer-reef waters of the island. At present there are 20 FADs in operation. The catch amounts to about 330 tonnes annually and is composed of tuna, dolphin fish, billfishes and sharks.

2. The sport fishery

The sport fishery involves local recreational fishermen and tourists. It is an important attraction for the promotion of tourism and various big game fishing competitions are held every year in Mauritius. The catch from this fishery is composed mainly of billfishes and tuna and is estimated to be around 400 tonnes per year. Presently about 135 fishing boats which includes big game fishing boats and pleasure crafts are involved in this fishery. Their length varies from 12m to 18m. Sport fishery is active in Mauritius during summer months especially from November to May).

3 The local longline fishery

During 2007, three longliners of GRT 484, 577, and 597 tons were registered in Mauritius under Mauritian flag but only two were operational. They undertook 4 fishing trips, unloading a total of 669 tonnes of fish. Most of the catch composed of swordfish (57.5%), which was the target species of the vessels. The catch per unit effort was 1.06 kg per hook. The fishing area was spread between latitudes 24° S and 36° S and longitudes 32° E and 80° E.

4. Semi-industrial Sword fish fishery

Commercial fishing of swordfish started in 1999. In 2007, seven fishing boats were involved in swordfish fishery. About 184 tons of swordfish and tuna were unloaded by these vessels. Majority of their catch was composed of swordfish.

During the same year, seven licences were issued to local boats to operate in this fishery. Twenty seven EU swordfish longliners were licensed to operate in the Mauritian EEZ. The fishing areas were spread around Mauritius, between latitudes 14°S and 21°S and longitudes 56°E and 61°E. The catch and species composition are shown in table 1.

Table 1: Catch composition of the local swordfish fishing vessels (kg)

Year	Swordfish	Yellowfin	Bigeye	Albacore	Marlin	Shark	Sailfish	Misc.	Total
2002	26 248	5 288	2 152	7 242	1 162	220	-	4 108	46 492
2003	35 123	21 395	2 190	14 003	2 413	228	-	3 986	79 338
2004	51 844	12 597	4 412	19 864	2 236	538	-	5 876	97 187
2005	86 069	35 219	11 059	29 774	4 298	578	1 549	9 033	177 581
2006	74 157	102 632	15 444	40 840	6 508	1 212	1 590	4 873	247 256
2007	45 913	65 924	-	56 416	6 597	1 056	2 156	6 264	184 326

5. Tuna canning

Export of canned tuna constitutes about 90% of the total export value of fish and fish products and helps the country to keep a positive balance of trade in the fishery sector. Tuna canning operations started in 1972 with raw materials obtained from Madagascar and later from Maldives. Presently a modern new canning factory has been set up at Riche Terre. The factory is operated under a British-Mauritian joint venture. The present factory has a processing capacity of 230 tonnes per day and it satisfies all the norms and regulations for exports of canned tuna to the European markets. Another processing plant is also operating since 2003. It has a processing capacity of 250 tonnes per day and is mainly involved in processing tuna loins.

6. Tuna transshipment

The number of calls of tuna fishing vessels and the volume of tuna and other related species transshipped at Port Louis showed a gradual increase except in 2007. A total of 23,

955 tonnes and related species were transshipped during 2007. The majority of the catch of the longliners are composed of albacore. The quantity of fish transshipped by the longliners during the past six years is shown in the table 2.

Table2: Species composition of fish transshipped (tonnes) and number of calls of fishing vessels.

Year	Albacore	Yellowfin	Bigeye	Skipjack	Swordfish	Bluefin	Marlin	Sailfish	Shark	Misc.	Total	No. of calls
2002	13 584	2 505	528	-	228	-	267	20	-	315	17 447	555
2003	6 225	1 280	415	25	2 126	3	187	59	1 657	456	12 433	511
2004	4 633	4 110	1 361	3	1 595	1	172	6	2 022	352	14 255	512
2005	4 947	3 887	1 413	-	3 357	-	318	35	2 473	1 237	17 667	706
2006	20306.5	1995.3	358.6	126.8	1934.5	229.6	242.5	130.6	1890.1	2017.1	29231	801
2007	12 182	3 281.2	494.4	133.6	2 304.8	8.4	67.2	486.3	1881.1	3 110.2	23 955	658

7. Fishing Agreements and issue of licences

A fishing agreement was signed in 1990 between European Union and Mauritius to allow E.U. vessels to operate in the EEZ of Mauritius. Five protocols have been signed. Under the last protocol, fishing opportunities were provided to 41 purse seiners, 49 surface longliners. The last Protocol has expired and a new one is being negotiated.

Mauritius has also entered into a fishing agreement with the Federation of Japan Tuna Fisheries Cooperatives Associations. Under this agreement, fishing possibilities are provided to 50 Japanese longliners to operate in Mauritian EEZ.

Mauritius has also signed a fishing agreement with Seychelles in 1990, which, allows Mauritian tuna fishing vessels to fish in Seychelles waters and Seychellois vessels to fish in Mauritian waters.

Licences are also issued to foreign longliners outside fishing agreement for fishing in Mauritian waters.

During 2007, 203 licences were issued to foreign fishing vessels which included 141 longliners and 59 purse seiners.

8. Collections and Processing of Statistical Data

Fishing logbooks are regularly distributed to local and licensed foreign vessels. Daily catch statistics are recorded by skippers on these fishing logbooks.

Landing statistics or trip data are collected from the owners of vessels or fishing companies representing longliners in Mauritius.

Length frequency sampling is conducted on the catches of licensed longliners and purse seiners during their landings. Length frequency data is also collected on the catches of the local swordfish fishing vessels.

All the data are computerized using the software "FINSS". Processing of logbook data to produce catch in EZZ is now possible through "FINSS".

9. Measures taken to implement recommendations of the Scientific Committee

9.1 Submission of statistics

Mauritius transmits to IOTC data regularly and these include:

- (a) Catch and effort of the swordfish fishing vessels
- (b) Length frequency data of the catches of the swordfish fishing vessels;
- (c) Length frequency data of the licensed foreign longliners transshipping at Port Louis
- (d) Vessels characteristics for the vessel Registry
- (e) Data on transshipment and calling of vessels

Catch and effort data of local and licensed foreign longliners are presently being compiled and processed on 1° degree square.

9.2 Port sampling to collect length frequency data on longline catch

Regular samplings for the collection of length frequency data are carried out on the catches of licensed local and foreign longliners which target mainly tuna and swordfish. Species, fishing positions and length of fish are noted. These data are collected, compiled and transmitted to the IOTC.

9.3 Support for tagging programme

In Mauritius, so far 1086 tags have been recovered from the two processing plants namely Princes Tuna Canning Factory and Thon des Mascareignes Ltd. Agents and Freeport operators were sensitized for the importance of tag recoveries. Otoliths from tagged fish injected with OTC were extracted and transmitted to IOTC.

9.4 Vessel Monitoring System (VMS)

A VMS was established in 2005 to better monitor the activities of fishing vessels in the EEZ of Mauritius. Specific regulation has been prescribed so that all local and foreign licensed vessels have to report to the FMC every two hours on fishing positions, speed and directions. During 2007, 236 fishing vessels comprising 33 local and 203 foreign vessels reported to the Mauritian FMC.

The VMS data are also used to verify the fishing positions found in the logbooks

9.5 Data on Port Inspection

A Port Inspection Unit based at the port is operational since June 2004. Data are collected in line with FAO Model Scheme on Port State Measures. In this regard three types of forms have been designed. All vessels calling to the port have to inform the port authorities 72 hours in advance and have to provide data on catch, vessel characteristics and purpose of call. On arrival of vessels, inspections are carried out. All vessels have to submit copies of registration certificate, licence details, list of crew, fishing positions (logbooks), catch details, vessel characteristics. IUU listed vessels are not authorized to land their catch at Port Louis. During 2007, 664 calls of fishing vessels were registered.