



GUIDELINES FOR THE PREPARATION OF NATIONAL REPORTS TO THE IOTC SCIENTIFIC COMMITTEE IN 2014

The National Report is due to be submitted no later than <u>15 days</u> prior to the start of the annual regular session of the Scientific Committee.

Purpose: To provide relevant information to the Scientific Committee on fishing activities of Contracting Parties and Cooperating Non-Contracting Parties operating in the IOTC area of competence. The report should include all fishing activities for species under the IOTC mandate as well as sharks and other byproduct/ bycatch species as required by the IOTC Agreement and decisions by the Commission.

NOTE: The submission of a National Report is **Mandatory**, irrespective if a CPC intends on attending the annual meeting of the Scientific Committee.

Explanatory note

This report is intended to provide a summary of the main features of the tuna and billfish fisheries for Contracting Parties and Cooperating Non-Contracting Parties. As such, it does not replace the need for submission of data according to the IOTC Mandatory Data Requirements listed in the relevant IOTC Resolution [currently 10/02].

Mandatory versus Desirable information

National Reports must include all headings as noted in the template below as [Mandatory]. Where data/information is not available for a given [Mandatory] heading, the reason why it is not available should be clearly stated. These mandatory fields for the national reports were agreed to be the Scientific Committee in 2010.

Where available, CPCs are encouraged to provide additional information under the headings shown as [Desirable].

For clarification on minimum reporting requirements for the National Report, please contact the IOTC Secretariat (secretariat@iotc.org).

<u>NOTE</u>

Please use the template below when preparing your National Report. Simply delete this explanatory page and add your own cover page/preliminaries if needed.

Please also delete any text shown in red below before submitting your National Report.





[Sri Lanka] National Report to the Scientific Committee of the Indian Ocean Tuna Commission, 2014

Authors

H.P.K.Hewapathirana Department of Fisheries and Aquatic Resources (DFAR) Maligawatta, Colombo 10

R. Maldeniya National Aquatic Resources Research and Development Agency (NARA) Mattakkuliya, Colombo 15

U.L.K. Perera Ministry of Fisheries and Aquatic Resources Development (MFARD) Maligawatta, Colombo 10

INFORMATION ON FISHERIES, RESEARCH AND STATISTICS

In accordance with IOTC Resolution 10/02, final	
scientific data for the previous year was provided	YES
to the Secretariat by 30 June of the current year, for	
all fleets other than longline [e.g. for a National	28/06/2014
report submitted to the Secretariat in 2014, final	
data for the 2013 calendar year must be provided to	
the Secretariat by 30 June 2014)	
In accordance with IOTC Resolution 10/02,	YES
provisional longline data for the previous year was	
provided to the Secretariat by 30 June of the current	28/06/2014
year [e.g. for a National report submitted to the	
Secretariat in 2014, preliminary data for the 2013	
calendar year was provided to the Secretariat by 30	
June 2014).	
REMINDER: Final longline data for the previous	
year is due to the Secretariat by 30 Dec of the	
current year [e.g. for a National report submitted to	
the Secretariat in 2014, final data for the 2013	
calendar year must be provided to the Secretariat by	
30 December 2014).	
If no, please indicate the reason(s) and intended acti	ons:





Executive Summary [Mandatory]

The total catch of IOTC species in Sri Lanka for the year 2013, was 108,458 t, which shows a 1.2% increased than that of 2012. The Skipjack tuna (Katsuwonus pelamis) dominated the catch, and amounted to 52% (54,730t) while yellowfin tuna (Thunnus albacares) was the second most species representing 23% (23,991t) of the catch. A 5% drop of yellowfin tuna catch was noted than that of 2012. The bigeye tuna (Thunnus obsesus), catch was relatively low and accounted for 1.5% of the total catch. The billfish catch was 12% of the total IOTC sp. and 5% of it represented sword fish (Xiphias gladius). Three neritic tuna species; kawakawa (Euthennus affinis), bullet tuna (Auxis rochei) and frigate tuna (Auxis thazard) represented 11% of the catch. The by-catch was 3% of the total IOTC species and the main species caught were sharks and rays. The total shark catch was 1804t showing 0.7% reduction than that of 2012. Out of the 2463 authorized vessels, 2241 vessels were actively operated in the high seas in year 2013. More than 98% of these fishing vessels were between 10.2 - 15m LOA and fishing was manually operated. The gears used were mainly long line, gill net, gill net long line combination and ring net. Sri Lanka introduced 8 purse seiners in the latter part of 2013. Data collection and reporting system have been underwent several advancement. Log book has been progressively implemented while VMS and the on-board observer program were being in the process of testing and implementation will be in 2014. NPOA- IUU of Sri Lanka was prepared and published. The legal provision for high seas fishing was established under Fisheries and Aquatic Resources Act No. 35 of 2013. Capacity building program for enumerators and awareness for fishers to improve the data collection, reporting, legal systems have been continuously carried out during the year 2013.

1. BACKGROUND/GENERAL FISHERY INFORMATION [MANDATORY]

Marine fisheries of Sri Lanka have two main subsectors; coastal fisheries and the offshore and high-sea fisheries. The coastal fisheries take place within the continental shelf (30,000 km²) and undertake by the smaller fishing crafts of 6-10.2m LOA and make single day operations. By the nature and size, these vessels fishing is confined to limited range of about 30Km from the coast.

The coastal catch consists mainly of small pelagic fish and demersal species both finfish and non-finfish. Limited production of tuna and tuna-like species are also reported from coastal sector. Neritic tuna; frigate tuna, bullet tuna and kawakawa dominated the coastal tuna fish catch. In general the fishing season closely follows the monsoon pattern. Gillnets of medium mesh size is commonly used and some amount of ring netting, longling and trolling also employed. The gear use is changed with the change of resources availability. Fish are targeted in an opportunistic manner.

Offshore fisheries take place outside the continental shelf extending up to the limit of the exclusive economic zone (EEZ) and also in the high seas by the multiday boats(MDBs) of size categories; 9-15m LOA ,15-24m LOA and nine vessels of >24 m LOA. Fishing conduct basically targeting large pelagic which mainly includes tuna and tuna like species. Access to the high sea fishing grounds is limited due to small vessel size, on-board facilities, equipment, high operational cost and also the competence of the crewmembers.

1.1 Fishing Operations of MDBs of the 9m- 15m length range

Three categories of boats currently operating are fall into this length range i.e. 9-10 m LOA (OBP boats), 10-12.2 m LOA, and 12-15m LOA. Fishing conduct mainly with gillnet or longline alone or gillnet and longline one at a time in a single operation. The use of gillnet cum longline operation is limited and shown declining in practice. In addition some amount of coastal ring netting is conduct especially targeting bait fish. The decision of the gear use is based on the availability of fish, climate condition, availability of the bait, skills of the crew members etc. Bait for the long line is mainly caught at sea using ring nets. Indian mackerel, flying fish, scads, milkfish and squid are generally used as the bait. The skippers use their radio communications to gather fishing intelligence from other boats about fishing grounds, successes, sea condition etc.





As a long practice, fishing with gillnets targeting surface inhabiting fish curtails of catching deep water large tuna which gain attractive price at the export market. Increased awareness on banning of drift gillnets of >2.5km at the high seas has prompted most boat owners to progressively take part operation of tuna longline. This has also led to considerable reduction of incidental catches of non-target species such as sharks, rays etc.

However, due to lack of net and line hauling devices and the limited space on the deck, the amount of gear deploy and also carry on-board is limited. In recent years, a few vessels have installed the line/net haulers.

The fishing trip duration varies with gear used and fishing success. Vessels engaged in longline fishing generally conduct shorter trips; land the catch early targeting to ensure high quality for the export market. The vessels use gillnets under take relatively long voyages sometimes up to 30 days and preserve early catch by salting and or sun drying. The sea condition and the size of boat also influences the trip duration. Vessels of small size categories 9-10m LOA spent limited days at sea due to inadequate facilities, storage capacity and lack of safety.

1.2 MDBs of the 15m-24m and above (> 24m)

23 numbers of vessels in this length category were operated of which 7 were exclusively long liners while 08 vessels were gillnet and long line combinations. The other 08 vessels were purse seiners. All the fishing vessels were registered and operated under a fishing operation license issued by DFAR in accordance with the provisions of the regulations of Fisheries and Aquatic Resources Act No 2 of 1996. The long liners are characterized by the use of hydraulic line haulers. These vessels contain insulated fish hole partitioned for use as a chill tank and in some cases bait freezers. The chill tank may use just ice or installed RSW system. Quality of fish is maintained by making short fishing trips, extending not more than 10-12 days and also paying high attention on-board handling and preservation. Offshore fishing of MDBs has been the main developing fishery in the marine sector in the recent past. There were more than 4000 vessels registered for offshore and high seas fishing in the year 2013. Out of which 2463 vessels of >10.2m authorized for high seas fishing and only 2241 were actively operated.

The Government has placed a great emphasis on fisheries development and taken a speedy measure to strengthen and expand the offshore and high seas fisheries by facilitating entry of more larger vessels with necessary technological inputs such as RSW system, line haulers and fish finding equipment, better facilities on-board, VMS, communication equipment and also by improve legal provisions to engage in high seas fishing. This would be achieved through expanding and upgrading the structure of fishing fleet in both the numbers and in size within the capacities of the proposed FDP.

However, there has been an issue regarding in developing the industry as the high operating cost due to the fuel price. As a result substantial number of vessels had been made limited trips and more time had been anchored in harbours even though they have obtained an operation licence for high seas. According to the fishers the fuel cost represent more than 40% of the operational costs of longline fishing in the offshore and high seas.

The log book was implemented in 2012 for the vessels of >10.2m LOA. Although number of awareness programmes were conducted it was noted that log sheet returns of early months especially in 2012/2013 were not in satisfactory but getting better with the time. The Vessel Monitoring System and the on-board observer programme is being in the process of implementation. Due to this limitation reporting of the fishing area is still an issue in the large pelagic fisheries in Sri Lanka.

2. FLEET STRUCTURE [MANDATORY]

Table 1(a) the national fleet structure, by gear type, including vessel size





Vessel size	Gear type	No of vessels
	GI	59
	HL	124
	PSRN	01
	LLTS	75
	TL	03
5m-15m	GI	1918
	HL	32
	LLTS	609
	TL	06
	LLGI	1398
	PSRN	75
15m-24m	LLTS	06
	LLGI	08
>24m	LLTS	01
	PSFS	08
		4294
Total		

2.1 Duration of fishing operations

The fishing trip duration varies with gear used, vessel size, weather, availability of fish, targeting market etc. Vessels of small size (6-8m LOA and 8-10m LOA) operating in coastal seas undertake daily operation. MDBs of smaller size categories (9-10m LOA and 10-12.2m LOA) generally operating in offshore waters within EEZ spent average 7-25 days per trip. During monsoonal period vessels made relatively short trips varied from 7-12 days. Vessels operating with longline targeting deep-water tuna (yellowfin and bigeye) spent limited days at sea; 10-12 days as the intention of landing high quality fish for export market. The vessels operate in offshore and high seas using gillnets or gillnet and longline under take relatively lengthy voyages sometimes more than 30 days. The recently introduced 8 purse seiners and the long line vessel of > 24m nearly spent three months in trip length.

Boat Type	2009	2010	2011	*2012			**2013	
				Authorized	Active	Registered	Authorized	Active
<15m	3359	3685	3915	4234	2460	4271	2440	2218
15m-24m	12	17	19	23	23	14	14	14
> 24m	01	00	02	00	00	09	09	09
	3382	3702	3936	4257	2483	4294	2463	2241

Table 1(b). Number of MDBs operating in IOTC area of competence for tuna and tuna like species

Source: Vessel Registry- DFAR

* Until 2012 there was no system to identify the actively operating crafts for large pelagic fisheries in high seas. All vessels that had been renewed the annual registration were taken as active. However, with the commencement of issuing operation license for high sea fishing and the implementation of log book reporting system in 2012 actual number of active vessels have been enabled to identify correctly.

** From year 2013 Sri Lanka restricted the vessel authorization for large pelagic fishing in high seas and permits granted only to the vessels of >10.2m (34 feet). As a result of the total 4,294 multiday vessels, only





2,463 vessels were authorized to operate in high seas and of which only 2241 vessels were actively operated in 2013.

3. CATCH AND EFFORT (BY SPECIES AND GEAR) [Mandatory]

Table 2a. Annual catch and effort by gear and primary species in the IOTC area of competence 2013.

Gear	GI	LLGI	LLTS	HL	PSRN	PSFS	TL	TOTAL
Target species	YFT;SKJ	YFT;SKJ	YFT	YFT	FRZ	YFT;SKJ	YFT	IUIAL
Thunnus albacores (YFT)	7,401.1	4,047.1	8,225.8	229.3	3,272.1	403.1	413.5	23,991.9
Katsuwonuspelamis (SKJ)	32,841.7	14,180.4	165.8	151.0	5,835.1	1,554.2	1.9	54,730.0
Euthynnusaffinis (KAW)	1,141.6	193.5	3.2	121.3	336.7	-	216.2	2,012.5
Auxisthazard (FRI)	1,329.7	26.8	0.1	108.0	3,105.7	-	59.3	4,629.6
Auxisrochei (BLT)	3,326.3	16.0	-	98.0	984.1	-	10.2	4,434.7
Thunnusobesus (BET)	1.6	21.1	1,550.3	-	-	-	-	1,573.0
Scomberomoruscommeson (COM)	286.6	66.1	60.2	46.0	64.4	-	5.7	529.0
Acanthocybium solandri(WAH)	74.6	11.4	8.7	37.8	347.2	-	19.2	498.9
Scomberomorusguttatus(GUT)	5.1	-	2.5	6.6	-	-	5.0	19.2
Makairanigricans(BUM)	231.5	379.5	42.1	-	-	-	-	653.0
Makairaindica (BLM)	850.2	442.1	993.4	-	-	-	2.3	2,288.0
Tetrapturus audax (MLS)	37.6	13.6	3.5	-	-	-	-	54.7
Istiophorusplatypterus (SFA)	2,441.5	1,122.7	570.9	7.8	3.2	-	5.9	4,152.0
Xiphiasgladius (SWO)	1,035.1	1,501.9	2,971.2	2.4	23.9	-	-	5,534.5
Bill fish unidentified	51.9	21.4	44.1	-	3.5	-	-	120.7
Manta birostris (RMB)	467.8	173.6	27.0	0.7	-	-	-	669.0
Carcharhinusfalciformis FAL)	233.1	261.9	652.2	0.7	99.2	-	-	1,247.0
Prionace glauca (BSH)	14.4	65.5	97.7	-	5.3	-	-	182.9
Carcharhinus longimanus (OCS)	11.3	14.3	15.4	-	-	-	-	41.0
Isuruspaucus (LMA)	53.9	12.3	3.8	-	-	-	-	70.0
Isurus oxyrinchus (SMA)	23.2	25.2	7.6	-	-	-	-	56.0
Sphyrnalewini (SPL)	72.2	13.3	27.4	-	6.1	-	-	119.0
Carcharhi sorrah (CCQ)	9.9	6.7	2.6	-	-	-	-	19.1
Sphyma zygaena (SPZ)	36.6	23.6	1.2	-	-	-	-	61.4
Sphyrna mokarran (SPK)	7.5	0.4	-	-	-	-	-	7.9
Devil Ray (RMM)	532.3	200.7	22.7	4.2	-	-	-	759.8
Eagle Ray (EGR)	1.1	2.1	0.1	-	-	-	-	3.3
Total	52,519.1	22,842.9	15,499.5	813.6	14,086.4	1,957.2	739.2	108,458.0

Source: PELAGOS Database- NARA





Species	FAO codes	2009	2010	2011	2012	2013	GEARS
Thunnus albacores	YFT	23,758	26,958	18,709	28,376	23,992	GI,LLGI,LLTS,HL ,PSRN,PSFS,TL
Katsuwonuspelamis	SKJ	52,486	55,438	50,355	47,449	54,730	GI,LLGI,LLTS,HL ,PSRN,PSFS,TL
Euthynnusaffinis	KAW	217	1,592	1,529	2,919	2,012	GI,LLGI,LLTS,HL ,PSRN,TL <i>GN,HL</i>
Auxisthazard	FRI	15	4,497	5,491	5,096	4,630	GI,LLGI,LLTS,HL ,PSRN,TL <i>GN,HL</i>
Auxisrochei	BLT	88	2,198	3,644	4,538	4,435	GI,LLGI,HL,PSR N,TL <i>GN,HL GN</i>
Thunnusobesus	BET	110	537	1,285	1,691	1,573	GI, LLGI, LLTS,
Other tuna	TUX	5,063	680			-	GN
Total tuna		81,737	91,900	81,013	90,069	91,372	
Scomberomoruscommers on	COM			675	235	529	GI, LLGI, LLTS, HL, PSRN, TL
Acanthocybiumsolandri	WAH	620	1316	126	872	499	GI, LLGI, LLTS, HL, PSRN, TL
Scomberomorusguttatus	GUT	j		11	14	19	GI, LLTS,HL,TL
Total seer	·	620	1316	812	1,121	1,047	
Maka iranigricans	MAR	1	ו	5,385	1,818	653	GI, LLGI, LLTS
Makaira indica	MAR	2,476	\$ 5,660	894	3,052	2,288	GI, LLGI, LLTS, TL
Tetrapturus audax	-	-	-	-	_	55	GI, LLGI, LLTS,
Istiophorusplatypterus	SFA	2,733	3,664	4,448	3,078	4,152	GI, LLGI, LLTS, HL, PSRN, TL
Xipias gladius	SWO	1,467	3,115	3,309	3,843	5,534	GI,LLGI, LLTS, HL, PSRN
Bill fish unidentified	-	-	-	_	_	121	
Total Billfish		6,676	12,439	14,036	11,791	12,803	
Carcharhinusfalciformis	FAL	0,010		2913	1,138	1247	GI, LLGI, LLTS,
Prionaceglauca	BSH			265	284	183	PSRN GI, LLGI, LLTS,
_							HL, PSRN
Carcharhinuslongimanus	OWT MSK			268	149 52	41 70	GI, LLGI, LLTS GI, LLGI, LLTS
Isuruspaucus	MSK	-	-	35.3			
Isurusoxyrinchus	}			10.5	63	56	GI, LLGI, LLTS
Alopiassupercilliosus		-	-	330	465	00	-
Alopiaspelagicus	ALO			10	328	00	-
Sphyrnalewini	HAM	-	-	110.8	71	119	GI, LLGI, LLTS, PSRN
Other sharks	SKH			439.3	31	00	GI, LLGI, LLTS,
Carcharhinus sorrah	-	-	-	-	-	19	GI, LLGI, LLTS,
Sphyrna zygaena	-	-	-	-	-	61	GI, LLGI, LLTS,
Spyrna mokarran	-	-	-	-	-	8	GI, LLGI, LLTS,
Total shark	~ ~ ~ ~	2,059	4,137	4,382	2,581	1,804	
Manta birosrtis	SRX	-	-	1157	744	669	GI, LLGI, LLTS, HL,
Mobula sp.(Devil ray)	RMM	-	-	-	-	760	GI, LLGI, LLTS, HL
Aetobatus narinari (Eagle ray)	EGR	-	-	-	-	3	GI, LLGI, LLTS
Total rays				1,157	744	1,432	
10.011 1 4 3 5	1	1		1,137	/	1,434	

Table 2b. Annual catch and effort by gear and primary species in the IOTC area of competence 2009 – 2013.





Other bony fish(NEI)	14,685	25,828	11,108	28,898	00	<i>GI,LLGI,LLTS,HL,</i>
Common dolphin fish	Include	d to other bo	ony fish		1,205	PSRN,TL
Carangids (NEI)	include	d to other bo	ony fish		292	
Trigger fish (NEI)	include	d to other bo	ony fish		13,917	J
Indian mackerel (NEI)	include	d to other bo	ony fish		24	PSFS
Total NEI*	00	00	00	00	15,438	
	105,777	135,620	112,508	135,203	123,896	

Source: PELAGOS-NARA

Due to improvement of species identification ability of the data collectors through IOTC/OFCF and IOTC/BOBLME during 2012 -2014, most species were well identified and reported. Hence the volume of NEI has reduced in 2013.

Note: Multi-species and multi-gear nature of the fishery, it is difficult to provide accurate effort information for each species for each gear or gear combinations. Please consider total number of vessels summarized in Table 1(a) and (b) as the total fishing effort for that particular year.

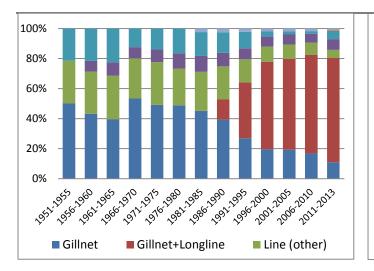
The gear used or the combination of gear used to exploit large pelagic species are summarized in Table 2b. Gear use varied seasonally and also in opportunistic manner and thus it is difficult to standardize fishing effort. Log book contains three separate data recording sheets for longline, gillnet and for any other type of gears. As the data recording in initial period were not satisfactory log book data were not utilized to estimate catch and effort by gear or mapping of fishing grounds for year 2013. After a great effort of DFAR field officers; monitoring and by conducting awareness improvement has been achieved in log book data entry. Log book data is being now utilizing to overcome the difficulties in obtaining precise catch and effort data by species or group of species and also fishing positions in coming years.

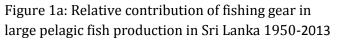
Among the various types of fishing gears used in the offshore fishery gillnet, longline and gillnet and longline combined fishing were widely used. Gillnet still remain the dominant fishing gear in the offshore fishery, while longline is progressively becoming popular with the encouragement of the Government and also the better revenue due to export market demand. Troll lines, hand lines and ring nets are other fishing gears used in both coastal and offshore waters in Sri Lanka but their contribution is limited.

Figure 1.Historical annual catch for the national fleet, by gear and primary species, for the IOTC area of competence for the entire history of the fishery/fleet.**[Mandatory]**

The catch trends by the main fishing gears (Figure 1) and the species compositions (Figure 1a-1g).







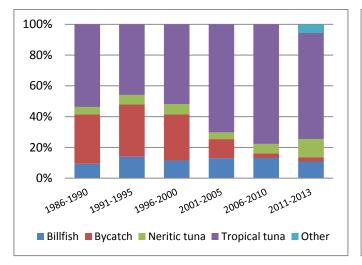


Figure 1c: Catch proportions gill net cum Long line fishery Sri Lanka 1950-2013

Figure 1b: Catch proportions gill net fishery of Sri Lanka 1950-2013

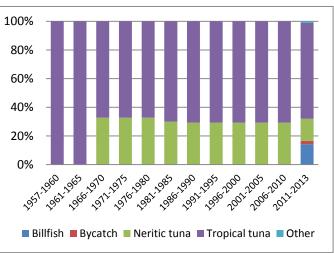
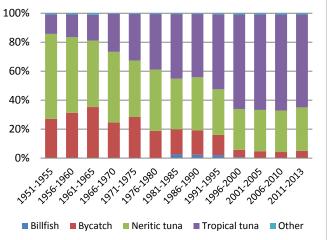


Figure 1d: Catch proportions Long line fishery Sri Lanka 1950-2013

Data source: IOTC database Note' Neritic tuna has not been reported in PELAGOS database under long line fisheries.

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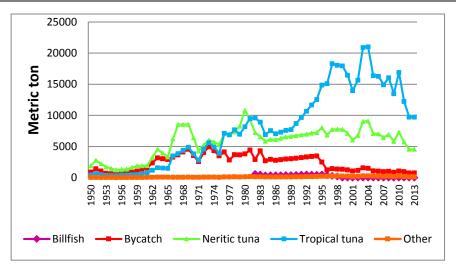


Fig 1e. Catch distribution by species group - Gillnet

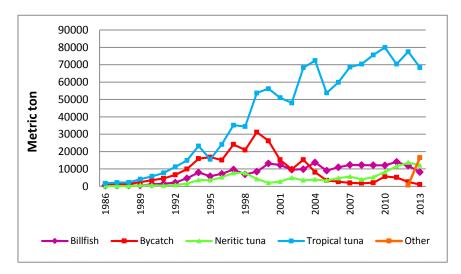


Fig 1f. Catch distribution by species group - Gillnet with longline

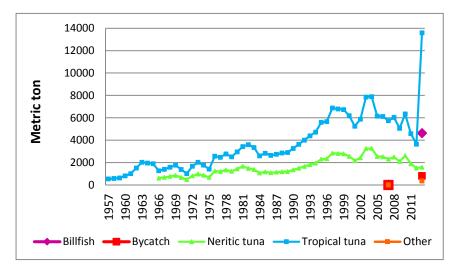


Fig 1g. Catch distribution by species group - Longline





Figure 2a. Map of the distribution of <u>fishing effort</u>, by gear type for the national fleet in the IOTC area of competence (most recent year e.g. 2013). **[Mandatory]**

Sri Lanka produced catch and fishing effort estimates for year 2013 based on port sampling recorded in PELAGOS database. Log book information was not utilized for generation fisheries maps as per the IOTC requirement or verification port sampling data as the information received in 2013 was not up to the standard.

Figure 2b. Map of distribution of <u>fishing effort</u>, by gear of the national fleet in the IOTC area of competence (average of the 5 previous years e.g. 2009–2013) **[Mandatory]**

Sri Lanka has produced catch and fishing effort estimates based on port sampling measures for a period of 2009 - 2013. As there were difficulties of collecting accurate information on fishing positions through port sampling map to show the distribution of fishing effort by gear for a period of 2009- 2013 in the IOTC area of competence was not produced. This will be produced with the use of log book data in coming years.

Figure 3a. Map of distribution of fishing <u>catch</u>, by species for the national fleet, in the IOTC area of competence (most recent year e.g. 2013) **[Mandatory]**

Sri Lanka produced catch estimates based on port sampling. Since the log book data received in 2013 were not up to the standard to obtain correct fishing position data. Therefore, a map to show the distribution of fish catch by species for the national fleets in 2013 in the IOTC area of competence was not produced. This will be achieved once the log book data recording of skippers are improved with the time.

Figure 3b. Map of distribution of fishing <u>catch</u>, by species for the national fleet, in the IOTC area of competence (average of the 5 previous years e.g. 2009–2013). **[Mandatory]**

The production was estimated based on port sampling. Since the log book data received were poor it was difficult to produce a map to show the distribution of fish catch by species or group of the national fleet for the period of 2009 - 2013 in the IOTC area of competence. This will be achieved once the log book data recording of skippers are improved with the time.

4. **RECREATIONAL FISHERY** [Mandatory]

In Sri Lanka there is sporadic recreational fishery for large pelagic fish, carried out by very few people. Information is not available on catch records.

ECOSYSTEM AND BYCATCH ISSUES [Mandatory]

Sri Lanka pays great concern on the conservation and management of aquatic ecosystems. Legal provisions cover under five main Acts concerning biodiversity and ecosystem; Fauna and Flora Protection (amendment) Act 1937(FFPA), (amendment 1993 and 2008); Fisheries and Aquatic Resources Act No. 2 of 1996 (FARA)(amendment 2004, 2013), National Environment Act No. 47 1980, Coast C(amendment 1988) Coast Conservation Act 1981(amendment 1988, 2011) and the Marine Pollution Prevention Act (2008) of Sri Lanka. Some conservation and management measures were made legally mandatory emphasizing the sustainability of the resources and reducing the risk on their lives.



- Prohibition catch, land live or dead, transport sell, buy, receive, have in possession of marine mammal and sea turtles or their parts (Fishing Operations Regulations (1996) FARA& FFPA.
- Master fishermen/skippers of the vessels have been legally ordered to prompt release incidentally caught mammals, sharks, turtles and seabirds in live form at minimum harm caused to them. Vessel operators have been instructed to carry line cutters, de-hookers and other necessary equipment on-board in this regard- FARA.
- Prohibition of landing shark fins, without the whole fish (carcass) (Landing of shark regulation, 2001)
- Implementation of the ban on Catching, retaining on-board, transhipment and sale of Thresher shark and in case of incidental catch fishers instructed to release in live or dead form keeping the catch record in the log book.
- Sri Lanka is a signatory to Convention on International Trade in Endangered Species and legislations are being implemented under FFPA.
- Declaration of endangered marine species as strictly protected species (FFPA)
- Prohibition of use of selected harmful fishing gears (Fishing Operations Regulations 1996) FARA
- Prohibition of use of poisonous, explosives or stupefying substances in fishing (FARA amendment 2004)
- Prohibition of monofilament net. 2006, FARA
- Mesh size restrictions for specified fisheries.
- Prohibition of dredging and bottom trawling.
- Prohibition of coral mining removal and transport by the regulations under CCD Act.
- Based on the resolution 12/12 the length of the drift gill nets used in high seas is restricted to minimum 2.5 km.
- Declare and observed the closed areas declared by IOTC.
- Declaration of marine protected areas for corals.and fish breeding grounds. (FFPA, and FARA)

As a responsible fishing nation relevant legal provisions for high seas fishery have incorporated into the national legislation in complying with the relevant international conventions for better management of the tuna and tuna like resources and to reduce by-catch issues through the amended act FARA act no.35 was passed in November 2013 and publicised for better management of the high seas fishery resources.

5. Sharks [Mandatory]

5.1 Sharks

Sharks were mainly caught by gillnet and the gillnet longline combination operating mainly in the offshore waters within EEZ. Catch of shark in tuna long line operating in the high seas is relatively low. 68% of the shark catch reported in 2013 was Silky shark.

There are number of national initiatives related to conservation and management of sharks. It includes:

- (i) The National Plan of Actions for Sharks- Sri Lanka (NPOA-Sharks) is prepared during year 2013 with stakeholder consultations and publicized on 23rd October 2014.
- (ii) Development of species identification guides especially for field use and posters for shark identification



- (iii) Improve the onsite sampling program to cover all species of shark as per the IOTC resolution 12/03 to collect required catch and size data. According PELAGOS database was updated.
- (iv) Enforcement of the regulation on landing of sharks with fins attached(Landing of shark regulation 2001)
- Enforcement of prohibition of catching, retaining on-board, transhipment, and sale of Thresher shark (Family Allopidae) regulation (July 2012) with effect from latter part of year 2012.
- (vi) Awareness programs are being conducted on the banning of thresher sharks and recording of the incidental catches and prompt release in an unharmed condition. High seas operators are instructed to carry line cutters and de-hookers on board to facilitate the releasing of entangled sharks. Further, actions have taken to display posters and distribute leaflets among fishermen. The sanction on violations has been increased up to Rupees 50,000 under the provisions of the Amended Act for High Seas Fishing in 2013.
- (vii) Awareness programme has been conducted to shark fin exporters in identification of dried fins of thresher shark.

NPOA-SHARKS SRI LANKA

The Sri Lankan NPOA-Sharks developed with stakeholder inputs. It provides information on the status of chondricthyans in Sri Lanka and also the structural mechanism and regulatory framework relating to the research, management, monitoring and enforcement associated with shark fishing and trade of shark products in Sri Lankan context. NPOA- Shark is an effort to strengthen the conservation and sustainable utilization of sharks. It recognizes the need to determine and implement harvesting strategies consistent with the principals of biological sustainability attained through scientifically based management and also consistent with a precautionary approach. Furthermore, it strives to identify unutilized incidental capture of sharks and contribute to the protection of biodiversity and as well as ecosystem structure and function. The NPOA-Shark also recognizes the potential non-consumptive use of sharks through ecotourism activities. These aspects of uses need to be explored so as to find an optimum balance between consumptive and non- consumptive use, maximizing their benefits with low impact on the natural balance of marine ecosystem. The plan is intended to have an initial implementation period of four years (2014-2017). Upon the conclusion of this initial period impacts of the implementation will be evaluated against its goals and objectives to do the needful revisions. A copy of NPOA-Sharks Sri Lanka has already submitted to IOTC Secretariat.

Table 3: Total number and weight of sharks, by species, retained by the national fleet in the IOTC area of competence (for the most recent five years 2009–2013.

~ ·	E 1 E			Total weight (t)	
Species	FAO codes	2009	2010	2011	2012	2013
Carcharhinusfalciformis	FAL	-	-	2913	1,138	1,247
Prionaceglauca	BSH	-	-	265	284	183
Carcharhinuslongimanus	OWT	-	-	268	149	41
Isuruspaucus	MSK	-	-	35.3	52	70
Isurusoxyrinchus]}			10.5	63	56
Alopias supercilliosus)	-	-	330	465	00





Alopias pelagicus	ALO				10	328	00
Sphyrna lewini	HAM		-	-	110.8	71	119
Other sharks	JSKH		-	-	439.3	31	00
Carcharhinus sorrah		-	-	-	Included in	Included in	19
Sphyrna zygaena		-	-	-	other sharks	other sharks	61
Spyrna mokarran		-	-	-			8
Total shark			2,059.30	4,137.40	4382.3	2581	1804

Source : PELAGOS-NARA/MFARD

The species wise shark data collection reinitiated in 2011 with the recommendation made by 14th Session of the IOTC Scientific Committee. Species wise separation of shark catch was improved since 2011 and further improved in 2013.

Table 4: Total number of sharks, by species, released/discarded by the national fleet in the IOTC area of competence (for the most recent five years at a minimum, e.g. 2009–2013). Where available, include life status upon released/discard. **[Desirable]**

Since limited number of reliable log book returns were received in year 2013 correct information on discard or release of Thresher shark was not available though it has been banned since 2012. However, according to the results of sample survey, it has been revealed that 19 out of 41 threshers were released in live in 2013.

5.2 Seabirds [Mandatory]

Sea bird catches are not reported in Sri Lanka due to the nature of the fishery and less availability of sea birds species in the high seas around the island. Seabirds are not interacting with long liners either setting or hauling of the line mostly due to the low height of the small boats without sophisticated super structure. Gill net of Sri Lanka are multifilament nylon, which are usually highly visible to seabirds and have less potential of becoming by-catch than less visible monofilament nets. The National Aquatic Resources and Research Development Agency (NARA) has done a comprehensive study on sea birds through comprehensive port sampling and on-board observation and tracking in research cruises made with Dr Fridtjof Nansen and RV Roger Revelle in the high seas of Bay of Bengal and also in commercial fishing boats operated in offshore and high seas. The findings were present at the WPEB in 2014. Sea birds have not been caught even to the trawl net catch employed during the survey period. Thus, there is no mitigation measures in applied to prevent seabird interactions and Sri Lanka and has not developed the NPOA-Sea birds.

5.3 Marine Turtles [Mandatory]

Marine turtles are legally protected under Fauna and Flora Protection Act (FFPA) and Fisheries and Aquatic Resources Act no.2 of 1996. In 1979, Sri Lanka has signed the CITES agreement which prohibits member nations from trading of endangered species including marine turtles and their parts and products. The sanctions have been increased in amended FFPA, 2008 and FARA, 2013 for violation of laws. Further, large-scale drift net fishing in the high seas is restricted to maximum of 2.5km in length reducing the entangling of marine turtles and other non-target species. Marine turtles may susceptible to be caught in drift gillnets and in longlines. In the longline fishery most of the vessels use circle hooks and "J" hooks are not in use. NARA has conducted a study on the impact of large pelagic fisheries on the survival of marine turtles in year 2013 and the report was presented to the WPEB in 2014. It revealed that incidental catch of marine turtles in the two major fisheries; gill nets and long line in the off shore and high seas are quite low.





Although logbook data collection system allows the fisherman to report the interaction of marine turtles to the fishing gear log book data returns in 2013 was very poor. Out of the reliable log sheets it was found only three occasions of marine turtle entanglement in the longline fishery. However, those were not reported up to the species level. Coastal communities especially in southeast, south, southwest and west are quite keen in conservation of marine turtles because they found it is one of the main tourist attractions. There are several turtle refuge centres established along the coasts of south and west. NARA has also recently established a marine turtle rearing and rehabilitation centre at north-western coast of Sri Lanka..

5.4 Other ecologically related species (e.g. marine mammals, whale sharks, etc.)

Catching of marine mammals is legally prohibited under the Fisheries and Aquatic Resources Act No.2 of 1996 and the Fauna and Flora protection Act 1937 and amended 1993 and 2008. However, there are no recordings of marine mammal landings in by the port sampling programme. The fishermen are made aware of conducting regular awareness programs by NARA and DFAR to releasing dolphins, turtles and whale sharks if incidentally caught to a fishing gear. Log book has facilitated reporting of incidental catches of marine mammals. Log book data returns in 2013 were not satisfactory to collect such information. NARA will be undertaking a comprehensive study on marine mammals in 2015 and also continue the studies of marine turtle and sea birds.

Table 5.Observed annual catches of species of special interest by species (seabirds, marine turtles and marine mammals) by gear for the national fleet, in the IOTC area of competence (for the most recent five years at a minimum, e.g. 2009–2013 or to the extent available).**[Mandatory]**

Species/ group	2009	2010	2011	2012	2013
Marine turtles	Not reported	Not reported	Not reported	Not reported	Insignificant
Marine Mammals	Not reported				
Sea birds	Not reported				

6. NATIONAL DATA COLLECTION AND REPORTING SYSTEMS [Mandatory]

6.1. Log sheet data collection and verification (including date commenced and status of implementation)

Log book data recording system for multiday fishing vessels commenced in year 2012 and it was legally mandatory for all multiday boats of >34 feet in length. It took long time to materialize due to voluntary nature of participation by fisherman and also varied perception of the fishing communities.

Experience gained during the last two years showed that it is not an easy task to fishermen to maintain the log book on-board due to small size of the vessels and also during rough seas condition. Further, it was understood fishermen are unhappy and blamed that the information demanded through log book is quiet detailed. Fishermen also complained that the space given is not enough to write. Thus, revised the existing log book as per the Resolution 13/03 and the new log book will be implemented from year 2015. The high sea fishing regulation is now under enforcement and the log book on-board is made compulsory at each fishing voyage. Several training programs were conducted for the skippers of MDBs to train them filling of log sheets, correct identification of species, reporting of by-catch and discards.

A data base for log book returns has been developed and commenced recording data pertaining to year 2014.

6.2. Vessel Monitoring System (including date commenced and status of implementation)





Although testing program of VMS has been scheduled to be conducted at the end of 2013 with the principals; VismaSirius IT of Denmark due to change of the company name as Visma Consulting A/S of Denmark it created some delays as the Government of Sri Lanka decided to study the new company prior to sign the agreement. Thereby implementation shifted towards year 2014. Parallel to such arrangements DFAR has taken actions to improve the infrastructure such as construction of Fisheries Monitoring Stations and other required facilities utilizing government budgetary allocation. Awareness programs to multiday boat owners and to the crew members have been conducted in order to comply with IOTC resolutions. Action has been taken to draft regulations to declare VMS as a mandatory requirement for high sea fishing under the provisions of recently amended Fisheries Act (Act No. 35 2013).

6.3. Observer programme (including date commenced and status; number of observer, include percentage coverage by gear type)

Most of the high seas operating fishing vessels of Sri Lanka are below 15m LOA. Therefore, deployment of an observer made delayed due to limited space on-board. However, with the deployment of large vessels in latter part of 2013 Sri Lanka took initial steps to implement on-board observer program for the vessels of >24 m operating in high seas. Application has been called in 2013 from qualified field officers of DFAR to train as on-board observers. Initial arrangements such as conducting interviews, medical check-up, recruitment, training, obtain insurance coverage, and trial basis operations have been completed in 2013/2014. At present 13 observers has successfully completed the training and appointed for the duty. Trial basis operations are being initiated. Once fully implemented the observer reports will be submitted in order to comply with the resolution 11/04. The Fishery Improvement Project of UK with collaboration of Sea Food Exporters of Sri Lanka, financially assisting the implementation of on-board observer program in Sri Lanka.

Table 6. Annual observer coverage by operation, e.g. longline hooks, purse seine sets (for the most recent five years at a minimum, e.g. 2008–2012 or to the extent available

Observer program has been initiated but not implemented in 2013.

Figure 4. Map showing the spatial distribution of observer coverage.

Observer program has been initiated but not implemented in 2013.

Table 6. Annual observer coverage by operation, e.g. longline hooks, purse seine sets (for the most recent five years at a minimum, e.g. 2009–2013 or to the extent available).[**Mandatory**]

Observer program has been initiated but not implemented in 2013.

Figure 4. Map showing the spatial distribution of observer coverage. **[Mandatory]** Observer program has been initiated but not implemented in 2013.

6.4. **Port sampling programme** [including date commenced and status of implementation]

Steps have been taken to strengthen and improve the coverage of the existed data collection and reporting systems on the coastal and offshore fisheries of Sri Lanka under the technical advisory





of IOTC and the financial assistance of OFCF and BOBLEM since 2012. A collaborative effort of DFAR, NARA and the statistics unit (SU) of MFARD was exerted to increase the sampling range, intensification frequency through increasing number of enumerators up to 39. Number of awareness programmes has been conducted to enhance the data collection and reporting skills of newly recruited enumerator to generate more accurate catch and effort data and increase the quality and sampling of size frequency data.

Sampling design and strategy

The revised sampling system is basically designed to cover the large pelagic fisheries conducted right round the country where large pelagic fishing is employed. Thereby, operation of offshore multiday boats and tuna targeting coastal day boats are focused. In the present context sampling range is extended covering thirteen coastal fisheries districts out of fifteen; except Mannar and Kilinochchi where large pelagic fisheries are not employed. Data collection is done in all major fishery harbours and anchorages where offshore multiday boats are landed and in few places of coastal landing sites where the large pelagic fish are landed seasonally by some of the coastal day boats. Accordingly 23 major fishing ports and 10 minor landing sites are covered.

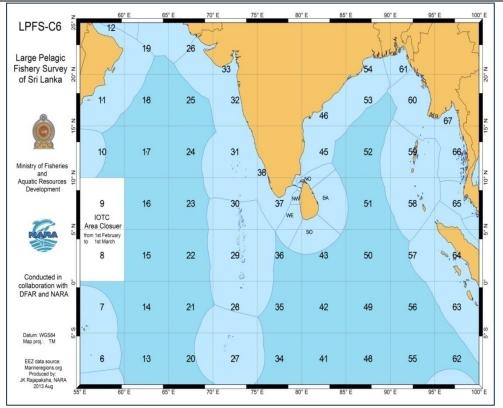
Number of field data collectors is increased. A total of 27 FIs and Fishery Resources Management Assistance (FRMA) of DFAR are newly apportioned for this task. They were trained on sampling and species identification, assigned for data collection at the harbours/ landing centres in addition to the 12 Samplers/ Research Assistance of NARA. Since NARA samplers have long experience in field sampling and fish identification they have been made as trainers of the trainees at field level. The programme has been supported internally and thereby sustained. Special training was given on fish identification especially billfish, bigeye tuna and yellowfin tuna and sharks. Identification materials are developed (shark poster, field guild).

Vessels operating in the large pelagic fishery are categorized in to six categories based on LOA, structure of the vessel, fishing trip duration/ area of fishing activities undertaken. All fishing gears used in large pelagic fishing activities in Sri Lanka are considered.

Since there is limited option in getting spatial data through port sampling programme new sampling strategy has been introduced by producing a map to identify the fishing area in large by interviewing the skippers of the vessels. The map reflects the area within 10° S to 25° N and 55° E to 100° E within the EEZ and has been divided in to five statistical zones to denote North, South, East, West and Northwest areas. The area beyond the EEZ has been divided in to five degree grids and coded (Figure 2).







The overall monitoring of the survey is done by the Ministry of Fisheries and Aquatic Resources Development and actions are taken for further improvements of the survey considering the practical situation in the field.

Data collection

Data collectors are supposed to collect daily effort, catch and length weight data at the landing sites. Three data collection forms have been introduced;

Form – A, **Daily Effort** is used to list the fish landed vessels/crafts with the relevant information (boat registration number, length overall, last port of call, date of departure and the catch on board) on each category in a particular sampling site on a particular sampling day. After the total landings are listed, the total number of landings and total number of sampled boats are identified according to the boat categories in the Form – A.

Form – B, **Catch** – total catch by species unloaded by the sampled boat is recorded either by number or weight or both. In addition, information on the fishing operation of the sampled boats such as fishing gears used, amount of gear used, bait used, fishing area, etc., are also recorded. Catch composition is recorded for33 species, five species of billfish, four species of neritic tuna, three tropical tuna, thirteen sharks, two species of seer fish, four species of skates, and two species of other bonny fish.

Form – C **length and weight** Individual length and weight measurements of randomly selected sample of the catch by species in sampling boats. Curve length of the fish is taken using the measuring tapes



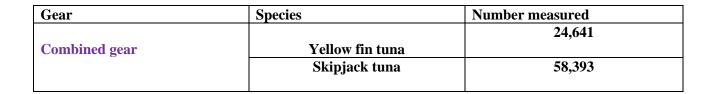


while eye estimate or the scale measurement of the individual weight is recorded. Curve length has been converted to strait length through developing conversion factors.

Data storage

The PELAGOS database was modified and upgraded to MS Access 2007 by the IOTC and installed at NARA and at SU separately for test data entry. The database is still being modified to fit with the updated sampling scheme and data collection forms.

 Table 7. Number of individuals measured, by species and gear] [Mandatory]



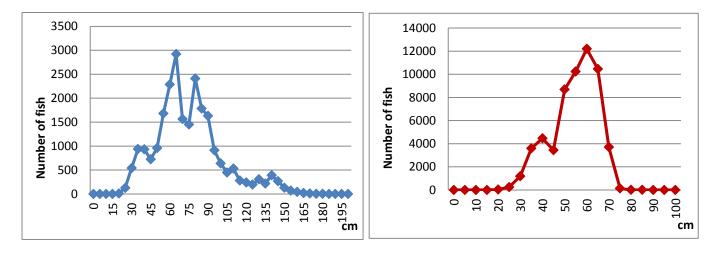


Fig.3a: Lengths of yellowfin tuna 2013

Fig.3b. Lengths of skipjack tuna 2013

6.5. Unloading/Transhipment [including date commenced and status of implementation][Mandatory]

Tuna and tuna like species are being landed by foreign fishing vessels only at the designated fishery harbour; Dikkowita. Foreign fishing vessels in the Authorised list of IOTC with valid National registration and fishing operation license are only permitted to land fish in Sri Lankan ports. Minimum of 24 hours advance port call with relevant documents should submitted to consideration of issuing of fish landing permit. Sri Lanka is ratified Port State Measures Agreement and PSM is fully implemented. Port inspectors have appointed and port inspection is being carried out. The landing data and the port inspection reports were submitted as per the IOTC resolution 05/03 and 10/11 respectively. The landing data by species is submitted to IOTC according in accordance with the template provided by IOTC. Transhipment is not allowed in Sri Lanka ports and no requests received for transhipments.



7. NATIONAL RESEARCH PROGRAMS [Desirable]

The National research arm of the fisheries sector is the National Aquatic Resources Research and Development Agency (NARA) and has the capacities to carryout research work on the streams of oceanography, fishing technology, marine biology, post-harvest technology and socioeconomic and marketing in relation to the IOTC species concern. The Marine Biological resources Division has been engaged catch and effort data collection of large pelagic fisheries since inspection of NARA and also under take biological studies. The Oceanography Division of NARA provides information regarding forecasting fishing grounds using satellite technology to the offshore fishers especially engaged in tuna longline. Oceanographic information is retrieved from earth observation satellites and used to investigate the most favorable conditions for more likely to be fish abundance areas. Such information is plotted in a map and disseminating to the deep sea fishery sector. Utilizing this information enables to reduce the fishing operational cost and increase the fishing efficiency.

Project title	Period	Countries	Budget	Funding	Objectives	Short description
		Involved	Total	source		
BOBLME	2009–2014	8 countries (India, Maldives, Sri Lanka, Bangladesh, Myanmar, Thailand, Malaysia, Indonesia	US\$ 32 (all countries)	GEF,NOAA, SIDA, Norway, FAO	Sustainable utilization of living resources	On-going research 1.Comprehensive study on Indian Mackerel 2. Shark Action Plan 3.Awareness of Log Book 4. Training of data collectors engaged in large pelagic fisheries survey
Monitoring & assessment of large pelagic fisheries	continuous	Sri Lanka	1.9 Million	Treasury (Sri Lanka)	Sustainable utilization of marine fishery resources	 Ongoing project. 1. Monitoring and assessment of finfish fisheries which include large pelagic (tuna,shark,billfish, seerfish etc.) 2. Estimation of fishing effort by gear 3. Monitoring of by-catch (marine turtles and seabirds) 4. Collecting information such as details on fishing operations, recording the quantity of the landings by species and by different fishing vessel-gear combinations. 5. Measuring the lengths of key species. 6. Data on exploitation of large pelagic fish in 2013 by Sri Lankan fishing crafts also submitted to the MFARD, IOTC and FAO for the management of tuna and tuna like fish in the Indian Ocean.

Table 8.Summary table of national research programs, including dates.



8. IMPLEMENTATION OF SCIENTIFIC COMMITTEE RECOMMENDATIONS AND RESOLUTIONS OF THE IOTC RELEVANT TO THE SC. [Mandatory]

Table 9.Respond with progress made to recommendations of the SC and specific Resolutions relevant to the work of the Scientific Committee [to be updated annually to include most recent Conservation and Management Measures adopted by the Commission].

Res. No.	Resolution	Scientific requireme nt	CPC progress
13/03	On the recording of catch and effort by fishing vessels in the IOTC area of competence	Paragraphs 1–11	The new log book was drafted in accordance with the resolution $13/03$ and the template has already been submitted to IOTC before the deadline. Log books are now at printing stage and scheduled to implement from January 2015. It made legally mandatory for all vessels of > 10.2 LOA.
13/04	On the conservation of Cetaceans	Paragraphs 7– 9	Catching of marine mammals is legally prohibited Under the Fisheries and Aquatic Resources Act No.2 of 1996 and the Fauna and Flora protection (amendment) Act 1937 ,(amended 1993 and 2008). The fishermen are made aware of conducting regular awareness programs by NARA and DFAR to releasing dolphins if incidentally caught to a fishing gear. The Log book would provide reporting of incidental catches of marine mammals. No Cetacean entanglement has been reported by port sampling in 2013. NARA will be conducting comprehensive study the impact of fisheries on Cetaceans in 2015.
13/05	On the conservation of whale sharks (<i>Rhyncodon</i> <i>typus</i>)	Paragraph 7-9	The purse seine operators are made aware of this resolution and intentional setting of purse seines surrounding whale sharks is legally prohibited under the High seas fishing operation regulation published on 1.09.2014. Data entry sheets for each gear of the log book has a cage/box to report interactions of any associated species where whale sharks can be reported.
13/06	On a scientific and management frame work on the conservation of Shark species caught in association with IOTC managed fisheries	Paragraph 56	Data entry sheets for each gear of the log book has a cage/box to report interactions of associated species. In the regular awareness programs conducted fishers have been made aware to prompt release of white tip sharks at minimum harm,(voluntary basis) since this species is at endangered status.
12/09	On the conservation of thresher sharks (family Alopidae) caught in association with fisheries in the IOTC area of competence	Paragraph 4-8	Refer the 5.1.1 National initiatives on conservation and management of sharks.
12/06	On reducing the incidental by catch of seabirds in longline fisheries	Paragraph 3-7	Sea bird catches are not reported in Sri Lanka due to the nature of the fishery and less availability of sea birds species in the high seas around Sri Lanka. The National Aquatic Resources and Research Development Agency (NARA) has done a comprehensive study of sea birds through port sampling and on-board observation study made in research cruises with Dr Fridtjof Nansen and RV Roger Revelle in the high seas of Bay of Bengal. The findings were present at the WPEB in 2014. Thus there is no mitigation measures in applied to prevent seabird interactions and Sri Lanka and has not developed the NPOA-Sea birds. Studies will be continued.
12/04	On the conservation of marine turtles	Paragraph3 -4, 06/10	NARA has conducted a comprehensive study on the impact of large pelagic fishery of the survival of marine turtles in year 2013 and the report was presented to the WPEB in 2014. It revealed that incidental catch of marine turtles in the two major fisheries gill nets and

Table 9. Scientific requirements contained in Resolutions of the Commission, adopted between 2005 and 2014.





Res. No.	Resolution	Scientific requireme nt	CPC progress
			long line in the off shore and high seas are quite low. The logbook data collection system allows the fisherman to report the interaction of marine turtles to the fishing gear. Along the south coast of Sri Lanka there are several turtle refuge centres ensuring the conservation of turtles. NARA has also recently established a turtle rearing and rehabilitation centre at the Regional Research Centre at Kalpitiya, North western coast of Sri Lanka
11/04	On a regional observer scheme	Paragraph 9	With the deployment of large vessels in latter part of 2013 Sri Lanka took initial steps to implement on-board observer program for the vessels of >24 m LOA operating in high seas. As a result application has been called from the qualified field officers of DFAR to train for on-board observer program in 2013. The implementation was progressed towards 2014 completing the preparatory phases of conducting interviews, medical check-up, recruitment, training, obtain Insurance coverage, and trial basis operations and full implementation. At present 13 observers has successfully completed the training and appointed for the duty and trial basis operations are going on. Once fully implemented the observer reports will be submitted in complying with the resolution 11/04. The Fish improvement project of UK with collaboration of Sea food exporters of Sri Lanka is financially assisted for implementation of on board observer program in Sri Lanka.
10/02	Mandatory statistical requirements for IOTC members and cooperating non contracting parties	Paragraphs 1–7	Refer the national data collection and processing systems under the point 6 for the recent developments to enhance the data collection system. Sri Lanka is following the timelines for data submission.
05/05	Concerning the conservation of sharks caught in association with fisheries managed by IOTC	Paragraphs 1–12	 Completion of NPOA-Sharks and publicize on 23rd October 2014 Contributing to the process of developing the regional shark fishery conservation and management plan under BOBLME Recording of shark by species Regulation of whole fish shark landing 2001 Awareness on releasing of sharks incidentally entangled in gears used Prohibition of catching Thresher sharks (2012)

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