Indonesia National Report to the Scientific Committee

of the Indian Ocean Tuna Commission, 2026

Authors:

National Research and Innovation Agency (NRIA)
Ministry of Marine Affairs and Fisheries (MMAF)
Indonesia

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INFORMATION ON FISHERIES, RESEARCH AND STATISTICS

In accordance with IOTC Resolution 15/02 (and other data related CMMs as noted below), final scientific data for the previous year were provided to the IOTC Secretariat by 30 June of the current year, **for all fleets other than longline** [e.g., for a National Report submitted to the IOTC Secretariat in 2026, final data for the 2025 calendar year must be provided to the Secretariat by 30 June 2026)	YES 30/06/2026
In accordance with IOTC Resolution 15/02, provisional **longline data** for the previous year was provided to the IOTC Secretariat by 30 June of the current year [e.g., for a National Report submitted to the IOTC Secretariat in 2026, preliminary data for the 2025 calendar year were provided to the IOTC Secretariat by 30 June 2026). **REMINDER:** Final longline data for the previous year are due to the IOTC Secretariat by 30 Dec of the current year [e.g., for a National Report submitted to the IOTC Secretariat in 2026, final data for the 2025 calendar year must be provided to the Secretariat by 30 December 2024).	YES 30/06/2026
If no, please indicate the reason(s) and intended actions:	

Executive Summary

Indonesia's tuna sector in the Indian Ocean operates as a complex, multi-gear and multi-species fishery spanning designated management areas and high-seas waters. The fishery serves as an important foundation for coastal livelihoods, employment, and national food security. Operating primarily off western Sumatra and southern Java, the sector relies more on small-scale operations utilizing longlines, purse seines, handlines, and trolling lines. There are three Indonesian Fisheries Management Area (FMA) in the Indian Ocean i.e.: Malacca Strait (FMA 571), West of Sumatra (FMA 572), and South of Java (FMA 573).

The active commercial fleet experienced continuous expansion across primary gear types. Fleet growth was led by the increases in purse seine and handline vessels alongside steady additions to the longline sector. Indonesia harvest focuses on major tuna species mainly skipjack, yellowfin, bigeye, and albacore, complemented by substantial landings of neritic species such as frigate tuna, bullet tuna, longtail tuna, and kawakawa. Catch trajectories for both main and neritic tunas followed a pattern of historical growth culminating in recent peak production years before experiencing declines. Spatial fishing effort remains concentrated in the waters south of Java and western Sumatra.

Fisheries governance is reinforced by national ministerial regulations, risk-based licensing frameworks, and targeted National Plans of Action. Indonesia maintains strict, full conservation protections for vulnerable marine life, including whale sharks and manta rays. While blue sharks constitute the majority of observed longline shark bycatch. Recent observer reports recorded no incidental interactions with marine turtles, cetaceans, or mobulid rays, although minor seabird interactions were noted.

To enhance transparency and compliance with international regional fisheries standards, Indonesia is modernizing its data collection and monitoring infrastructure. Oversight combines electronic logbooks, port sampling, and onboard scientific observers with state-of-the-art Electronic Monitoring systems. Modern operational trials integrate dual-angle video cameras with satellite connectivity and artificial intelligence models capable of automated, high-precision species identification to streamline digital reporting and catch verification.

Table of Contents

1 Background/General fishery information 5
2 FLEET structure 5
3 Catch and effort (by species and fishery) 6
4 Recreational fishery 13
5 Ecosystem and bycatch issues 14
5.1 Sharks 14
5.1.1 NPOA sharks 15
5.1.2 Blue shark 16
5.2 Seabirds 17
5.3 Marine Turtles 17
5.4 Other ecologically related species (e.g., cetaceans, mobulid rays, whale sharks) 18
6 National data collection and processing systems 19
6.1 Logsheet data collection and verification (including date commenced and status of implementation) 19
6.2 Observer scheme (including date commenced and status; number of observer, include percentage of coverage by fishery. Also, a description of the protocols supporting the observer programs and sampling schemes mentioned in paragraphs 3, 4, 6 and 9 of Res [25-06]) 19
6.3 Port sampling programme *[including date commenced* and *status of implementation]* 22
6.4 Actions taken to monitor catches & manage fisheries for Striped Marlin, Black Marlin, Blue Marlin and Indo-pacific Sailfish 23
6.5 Gillnet observer coverage and monitoring 23
6.6 Sampling plans for mobulid rays 23
6.7 Electronic Monitoring Standards 23
7 National research programs 24
8 Implementation of Scientific Committee Recommendations and Resolutions of the IOTC relevant to the SC. 24
9 Literature cited 28
10 ANNEX A: A fleet level summary of the Vessel Monitoring Plans [Mandatory for CPC implementing EMS] 29

1 Background/General fishery information

Indonesia's tuna fisheries are characterized by a multi-gear and multi-species fishing system, involving various fishing gears and targeting several tuna species across different fishing grounds. The main tuna species contributing to national catches are skipjack tuna (Katsuwonus pelamis), bigeye tuna (Thunnus obesus), and yellowfin tuna (Thunnus albacares). These species are harvested using several important fishing gears, including longline, purse seine, gillnets, handline, and trolling line. The diversity of fishing gears and target species reflects the complex nature of Indonesia's tuna fisheries, which operate across different fishing areas and fleet scales.

Tuna fisheries play an important role in Indonesia's social and economic development, particularly through their contributions to employment, livelihoods, food security, and the fisheries sector. These fisheries are predominantly supported by small-scale fishing operations, which provide income and livelihood opportunities for coastal communities. Fishing activities are conducted both within and beyond the Indonesian Exclusive Economic Zone (EEZ), with major fishing grounds located in the western waters of Sumatra and the southern waters of Java in the Indian Ocean. The importance of these fishing grounds, combined with the diversity of fishing gears and target species, highlights the need for effective fisheries management to ensure the sustainable utilization of tuna resources while maintaining the livelihoods of fishing communities.

2 FLEET structure

The total number of active fishing vessels operating in FMAs 572, 573, and the high seas area of the Indian Ocean generally increased over the period 2021–2025, although trends varied across gear types. Longline vessels increased from 327 units in 2021 to 364 units in 2025, reaching a peak of 372 units in 2024. The largest proportion of the longline fleet remained in the 85–200 GT category, which increased from 148 vessels in 2021 to 194 vessels in 2025.

Handline vessels experienced a substantial increase, from only 1 vessel in 2021 to 104 vessels in 2025, with the most significant growth occurring between 2024 and 2025. In 2025, the majority of handline vessels were in the 30–50 GT category (54 vessels), followed by the 20–30 GT category (24 vessels).

Purse seine vessels also showed a significant increase, rising from 107 units in 2021 to 308 units in 2025. This growth was primarily driven by the 115–200 GT category, which increased from 103 vessels in 2021 to 261 vessels in 2025, representing the largest segment of the purse seine fleet. Overall, the combined number of active fishing vessels across the three gear types increased from 435 units in 2021 to 776 units in 2025, reflecting continued expansion of Indonesia's fishing fleet operating in FMAs 572, 573, and the high seas area of the Indian Ocean (Table 1a, 1b, & 1c).

Table 1a. Number of Longline Vessels Operating in the IOTC Area of Competence, by Size Class (2021–2025).

Size (GT)	2021	2022	2023	2024	2025
10 ≤ GT < 20	3	2	3	2	2
20 ≤ GT < 30	32	33	34	35	31
30 ≤ GT < 50	47	42	42	42	44
50 ≤ GT < **85**	97	97	103	101	92
85 ≤ GT < 200	148	161	177	191	194
200 ≤ GT < 300	0	0	1	1	1
Total	**327**	**335**	**360**	**372**	**364**

Table 1b. Number of Handline Vessels Operating in the IOTC Area of Competence, by Size Class (2021–2025).

Size (GT)	2021	2022	2023	2024	2025
20 ≤ GT < 30	0	0	0	5	24
30 ≤ GT < 50	0	0	0	10	54
50 ≤ GT < **85**	0	0	1	11	17
85 ≤ GT < 200	1	1	1	2	9
Total	**1**	**1**	**2**	**28**	**104**

Table 1c. Number of Purse Seine Vessels Operating in the IOTC Area of Competence, by Size Class (2021–2025).

Size (GT)	2021	2022	2023	2024	2025
50 ≤ GT < 100	0	2	10	14	20
100 ≤ GT < **115**	3	4	5	9	10
115 ≤ GT < 200	103	117	185	233	261
200 ≤ GT < 300	1	3	4	13	17
≥ 300	0	0	1	1	0
Total	**107**	**126**	**205**	**270**	**308**

3 Catch and effort (by species and fishery)

During the 2021–2025 period, Indonesia total catch of the four main tuna species—albacore (*Thunnus alalunga*), bigeye tuna (*Thunnus obesus*), skipjack tuna (*Katsuwonus pelamis*), and yellowfin tuna (*Thunnus albacares*)—was approximately 1.6 million tonnes. Skipjack tuna was the dominant species, contributing approximately 1 million tonnes to the total catch. The main fishing gears used to exploit these species were longline, purse seine, and handline (Table 2a).

In addition to the main tuna species, neritic tuna also contributed substantially to Indonesia marine fisheries production, with a total catch of approximately 1.4 million tonnes during the same period. The species group comprised frigate tuna (*Auxis thazard*), bullet tuna (*Auxis rochei*), longtail tuna (*Thunnus tonggol*), kawakawa (*Euthynnus affinis*), narrow-barred Spanish mackerel (*Scomberomorus commerson*), and Indo-Pacific king mackerel (*Scomberomorus guttatus*). Among these species, frigate tuna was the most dominant, accounting for approximately 450,000 tonnes of the total catch. Purse seine and gillnet were the primary fishing gears used to harvest neritic tuna (Table 2b).

For the historical catches from 1950 to 2025, the catch levels for both groups remained relatively low during the earlier decades, with an increase beginning in the 1990s. During this period, annual catches reached approximately 100,000 tonnes for main tuna and 70,000 tonnes for neritic tuna. Then, catches of both groups fluctuated in following years.

For main tuna species, catches continued to fluctuate following the initial increase in the 1990s, eventually reaching their highest recorded level in 2023, at approximately 531,000 tonnes. However, this was followed by a substantial decline, with the total catch decreasing to approximately 214,000 tonnes in 2025. A similar pattern was observed for neritic tuna species, although their highest catch occurred later, reaching approximately 532,000 tonnes in 2024 before declining to around 255,000 tonnes in 2025 (Figure 1a & 1b).

The spatial distribution of fishing effort by Indonesian fisheries varied among the four main fishing gears: handline (HL), longline (LL), purse seine (PS), and trolling line (TL). In 2025, handline fishing effort was primarily concentrated within Indonesia's Exclusive Economic Zone (EEZ), particularly in waters south of Java

and at latitudes north of 15°S. In contrast, longline fishing effort covered a broader area, extending from 80°E to 120°E and between the Equator and 35°S, with a concentration in the waters south of Java. Purse seine fishing effort was more dispersed, with the main concentration occurring around 80°E–90°E near the Equator. Meanwhile, trolling line fishing effort was relatively limited and mainly distributed within the Indonesian EEZ, particularly in the western of Sumatra (Figure 2a).

During the 2021–2025 period, the spatial distribution of Indonesian fishing effort showed relatively distinct patterns among fishing gears. Handline and trolling line efforts were mainly concentrated in the waters south of Java, particularly within the Indonesian EEZ. Longline fishing effort was also predominantly concentrated south of Java, although its distribution was generally closer to the EEZ boundary. Meanwhile, purse seine fishing effort was primarily concentrated in the western waters of Sumatra, particularly around the EEZ boundary (Figure 2b).

The spatial distribution of tuna catches in 2025, comprising albacore (ALB), bigeye tuna (BET), and yellowfin tuna (YFT), extended across the Indian Ocean between the Equator and 40°S. However, the distribution patterns differed among species. Albacore catches were predominantly concentrated around 30°S. Bigeye tuna catches were mainly concentrated in the waters south of Java, whereas yellowfin tuna catches were primarily distributed in the western waters of Sumatra (Figure 3a).

The distribution of tuna catches from 2021 to 2025 covered a broader geographical range, extending from approximately 10°N to 40°S. Despite this wide distribution, the main concentration of tuna catches was observed in the south of Java. This indicates that the southern Java region has remained an important fishing ground for Indonesian tuna fisheries throughout the five-year period (Figure 3b).

Table 2a. Annual catch and effort by fishery and primary species (main tuna) in the IOTC area of competence.

Fishing gear	Sp. Code	2021	2022	2023	2024	2025
Drifting longline (over 1,800 hooks)	ALB	2,298	7,888	4,848	2,108	1,229
	BET	797	2,440	1,921	2,277	305
	SKJ	45	284	325	411	16
	YFT	3,116	10,905	6,010	5,661	412
Drifting longline (over 1,800 hooks) Total		**6,256**	**21,518**	**13,103**	**10,456**	**1,962**
Drifting longline (up to 1,800 hooks)	ALB			1,399	1,418	4,672
	BET			2,355	1,848	4,215
	SKJ			5,937	410	1,961
	YFT			4,479	4,934	6,148
Drifting longline (up to 1,800 hooks) Total				**14,171**	**8,610**	**16,996**
Small longline	ALB	2,242	1,199	3,477	2,267	98
	BET	2,357	1,030	4,813	8,471	395
	SKJ	3,078	983	5,729	8,570	422
	YFT	6,807	2,240	16,420	19,896	706
Small longline Total		**14,484**	**5,452**	**30,439**	**39,205**	**1,621**
Danish seine	ALB	105	148	340	379	236
	BET	87	118	54	-	0
	SKJ	1,965	2,333	5,309	3,944	1,053
	YFT	326	462	1,003	879	185
Danish seine Total		**2,483**	**3,062**	**6,706**	**5,202**	**1,475**
Gillnet	ALB	81	135	1,224	934	290
	BET	1,586	2,371	9,759	782	117
	SKJ	10,179	11,055	20,861	24,587	7,136
	YFT	4,257	4,025	4,494	5,853	1,956
Gillnet Total		**16,104**	**17,585**	**36,339**	**32,157**	**9,500**
Handline	ALB	2,616	2,498	7,094	2,464	4,720
	BET	3,886	4,551	6,811	7,840	6,470
	SKJ	17,377	16,510	48,472	78,676	22,367
	YFT	13,078	16,031	27,801	32,682	19,556
Handline Total		**36,957**	**39,590**	**90,178**	**121,662**	**53,114**
Offshore handline	ALB	9	514	172	1	
	BET	2	723	63	3	
	SKJ	28	909	257	-	
	YFT	12	1,675	219	16	
Offshore handline Total		**50**	**3,821**	**711**	**20**	
Liftnet	ALB	0	2	17	0	
	BET	263	100	218	692	27
	SKJ	754	1,033	7,157	7,425	8,237
	YFT	322	294	1,084	432	79
Liftnet Total		**1,339**	**1,428**	**8,476**	**8,549**	**8,343**
Pole-and-line	ALB	16	5	-	-	
	BET	167	151	120	122	4
	SKJ	1,795	2,362	1,386	194	15,977
	YFT	631	541	256	115	188
Pole-and-line Total		**2,609**	**3,060**	**1,762**	**431**	**16,169**
Purse seine	ALB	12	20	697	218	608
	BET	651	1,012	2,502	934	115
	SKJ	28,716	31,479	86,698	77,275	23,685
	YFT	2,983	5,283	17,685	17,756	2,934
Purse seine Total		**32,362**	**37,793**	**107,582**	**96,184**	**27,343**
Tuna purse seine	ALB	6	4	229	0	6
	BET	3,306	6,859	12,224	9,163	5,946
	SKJ	39,798	67,487	138,945	66,413	54,647
	YFT	5,490	9,959	23,397	11,629	10,394
Tuna purse seine Total		**48,601**	**84,309**	**174,795**	**87,204**	**70,994**
Trolling line	ALB	1,199	3,127	275	54	410
	BET	1,277	1,726	2,298	1,355	26
	SKJ	8,817	12,324	31,675	20,744	3,936
	YFT	5,184	11,572	13,473	12,375	2,121
Trolling line Total		**16,476**	**28,748**	**47,722**	**34,529**	**6,493**

Table 2b. Annual catch and effort by fishery and primary species (neritic tuna) in the IOTC area of competence.

Fishing gear	Sp. Code	2021	2022	2023	2024	2025
Drifting longline (over 1,800 hooks)	FRI	3	1	0	0	
	BLT	0	2	0	1	0
	COM	65	239	193	218	36
	GUT	39	71	60	0	
	KAW	4	1	5	1	1
	LOT	39	17	53	1	
Drifting longline (over 1,800 hooks) Total		**149**	**331**	**312**	**220**	**37**
Drifting longline (up to 1,800 hooks)	FRI				0	0
	BLT			166	1	1
	COM			127	138	242
	GUT				0	7
	KAW			21	-	38
	LOT			68	0	
Drifting longline (up to 1,800 hooks) Total				**381**	**139**	**287**
Small longline	FRI	460	358	639	2,472	4,119
	BLT	174	135	1,462	228	653
	COM	472	308	3,382	3,654	1,502
	GUT	259	182	620	1,377	407
	KAW	697	541	1,448	1,768	2,436
	LOT	721	536	4,909	4,200	327
Small longline Total		**2,783**	**2,060**	**12,461**	**13,699**	**9,443**
Danish seine	FRI	3,487	4,591	7,256	10,182	3,801
	BLT	1,702	1,842	6,896	7,813	3,867
	COM	3,019	4,269	3,950	11,814	1,503
	GUT	208	293	810	831	4
	KAW	999	1,053	2,448	4,786	1,280
	LOT	2,452	3,400	2,801	2,931	2,323
Danish seine Total		**11,867**	**15,448**	**24,161**	**38,357**	**12,777**
Gillnet	FRI	18,918	17,262	41,613	48,224	21,654
	BLT	1,999	1,783	8,126	11,278	5,106
	COM	10,380	9,534	16,955	29,558	14,598
	GUT	3,221	2,954	6,631	5,850	2,173
	KAW	8,747	8,099	15,501	22,602	7,020
	LOT	10,774	9,914	13,909	19,523	5,442
Gillnet Total		**54,040**	**49,545**	**102,735**	**137,035**	**55,993**
Handline	FRI	5,408	4,999	13,692	24,530	9,800
	BLT	1,154	1,021	2,391	3,203	5,370
	COM	3,979	3,581	10,651	14,393	10,732
	GUT	1,332	1,230	1,067	2,817	2,529
	KAW	4,435	4,207	5,577	10,142	10,835
	LOT	5,914	5,746	10,446	13,186	3,367
Handline Total		**22,222**	**20,784**	**43,824**	**68,270**	**42,633**
Offshore handline	FRI		-	0	-	
	BLT	1	-	1	0	
	COM	0	25	1	3	
	GUT		-	-	-	
	KAW		-	3	-	
	LOT	0	22	9	0	
Offshore handline Total		**1**	**48**	**13**	**3**	

Fishing gear	Sp. Code	2,021	2,022	2,023	2,024	2,025
Liftnet	FRI	4,501	2,765	18,108	16,604	9,452
	BLT	1,091	397	4,562	1,489	1,086
	COM	57	70	1,615	1,490	573
	GUT	13	7	509	622	1
	KAW	437	179	803	1,789	1,268
	LOT	1,150	555	7,697	6,473	4,421
Liftnet Total		**7,248**	**3,973**	**33,293**	**28,467**	**16,801**
Pole-and-line	FRI	504	170	1,541	2,027	846
	BLT	1	0	-	2	19
	COM	533	133	806	2,236	922
	GUT	85	29	91	371	185
	KAW	189	41	332	305	361
	LOT	955	138	523	1,375	971
Pole-and-line Total		**2,267**	**511**	**3,293**	**6,316**	**3,304**
Purse seine	FRI	2,664	4,396	29,587	58,129	25,876
	BLT	5,764	7,648	37,502	60,555	28,262
	COM	160	288	1,484	7,805	3,419
	GUT	79	66	1,602	750	289
	KAW	1,018	1,408	11,603	26,488	12,485
	LOT	1,692	3,825	25,577	23,809	15,604
Purse seine Total		**11,377**	**17,632**	**107,355**	**177,536**	**85,937**
Tuna purse seine	FRI	143	443	2,265	2,913	396
	BLT	3,279	4,828	31,133	17,011	4,525
	COM	43	73	401	427	128
	GUT		0	12	6	0
	KAW	155	64	672	10,754	282
	LOT	441	912	3,820	2,739	422
Tuna purse seine Total		**4,061**	**6,321**	**38,304**	**33,849**	**5,753**
Trolling line	FRI	3,137	2,948	13,602	9,827	9,193
	BLT	1,418	1,314	3,810	6,451	3,334
	COM	737	712	1,371	3,117	2,916
	GUT	25	19	166	276	44
	KAW	1,429	1,345	4,489	5,836	3,855
	LOT	2,211	1,340	3,439	2,937	3,288
Trolling line Total		**8,958**	**7,678**	**26,877**	**28,444**	**22,631**

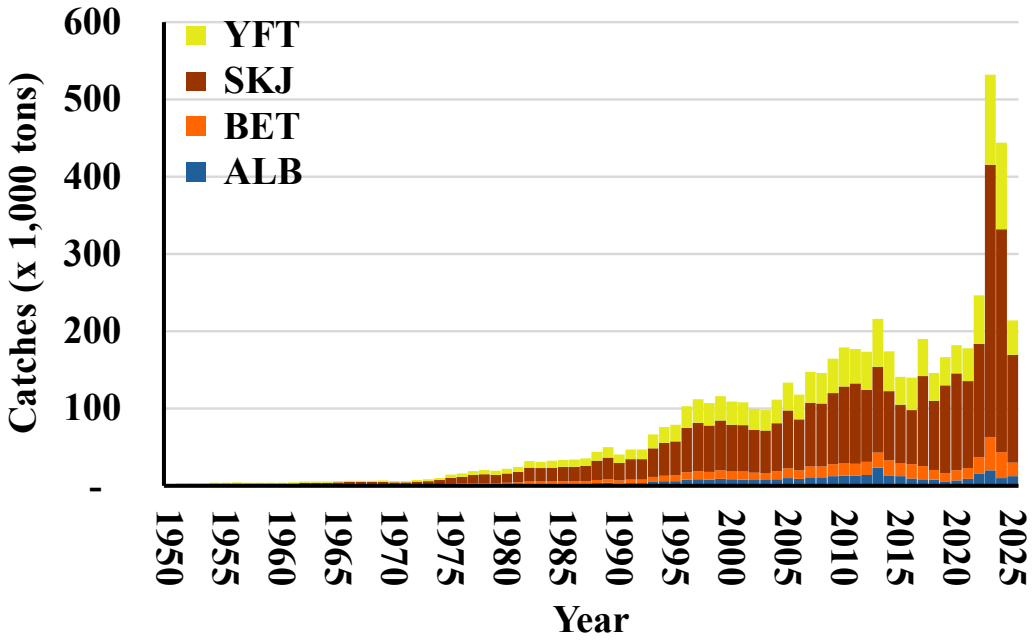

Figure 1a. Historical annual catch for the national fisheries by primary species (main tuna), for the IOTC area of competence for the entire history of the fisheries.

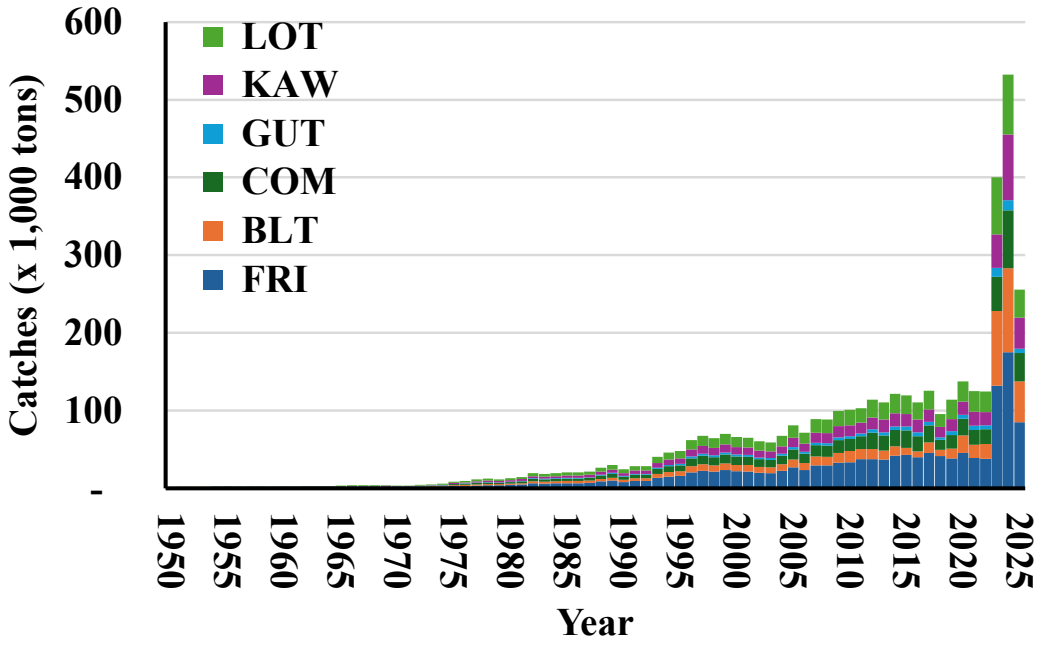

Figure 1b. Historical annual catch for the national fisheries by primary species (neritic tuna), for the IOTC area of competence for the entire history of the fisheries.

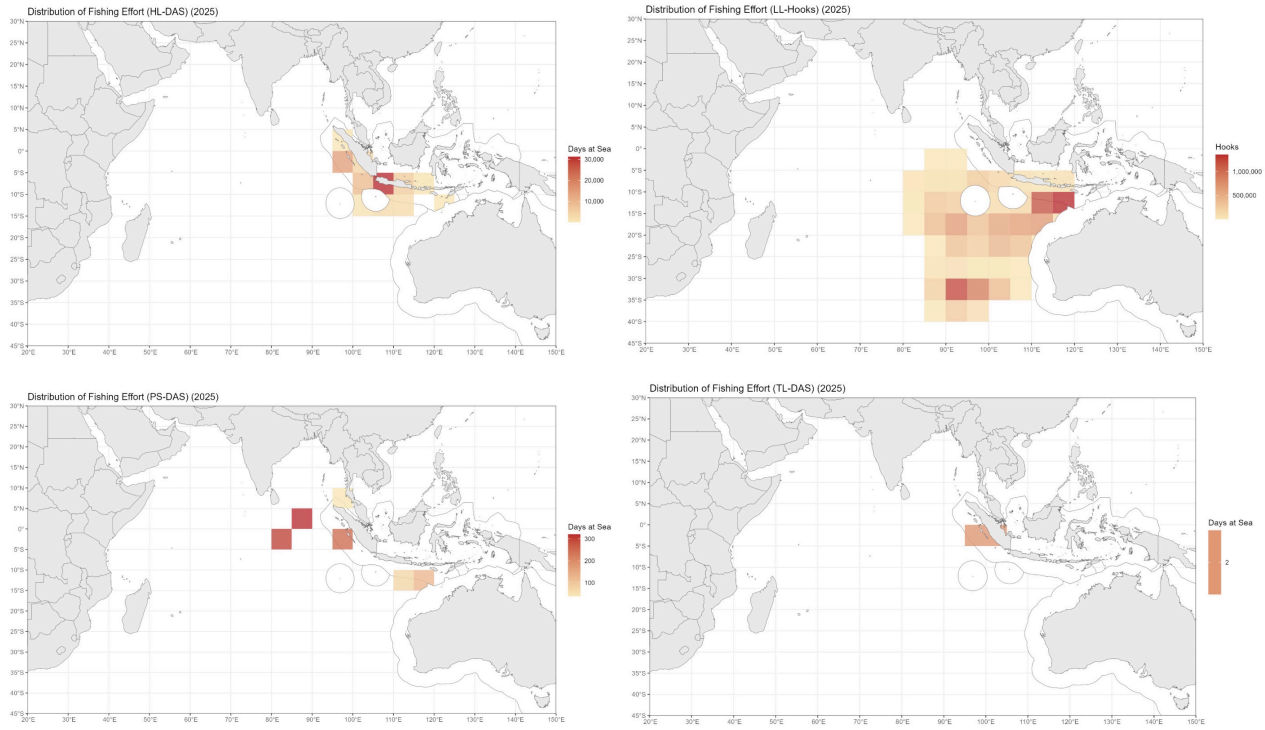

Figure 2a. Map of the distribution of fishing effort, by national fishery in the IOTC area of competence (most recent year e.g., 2025).

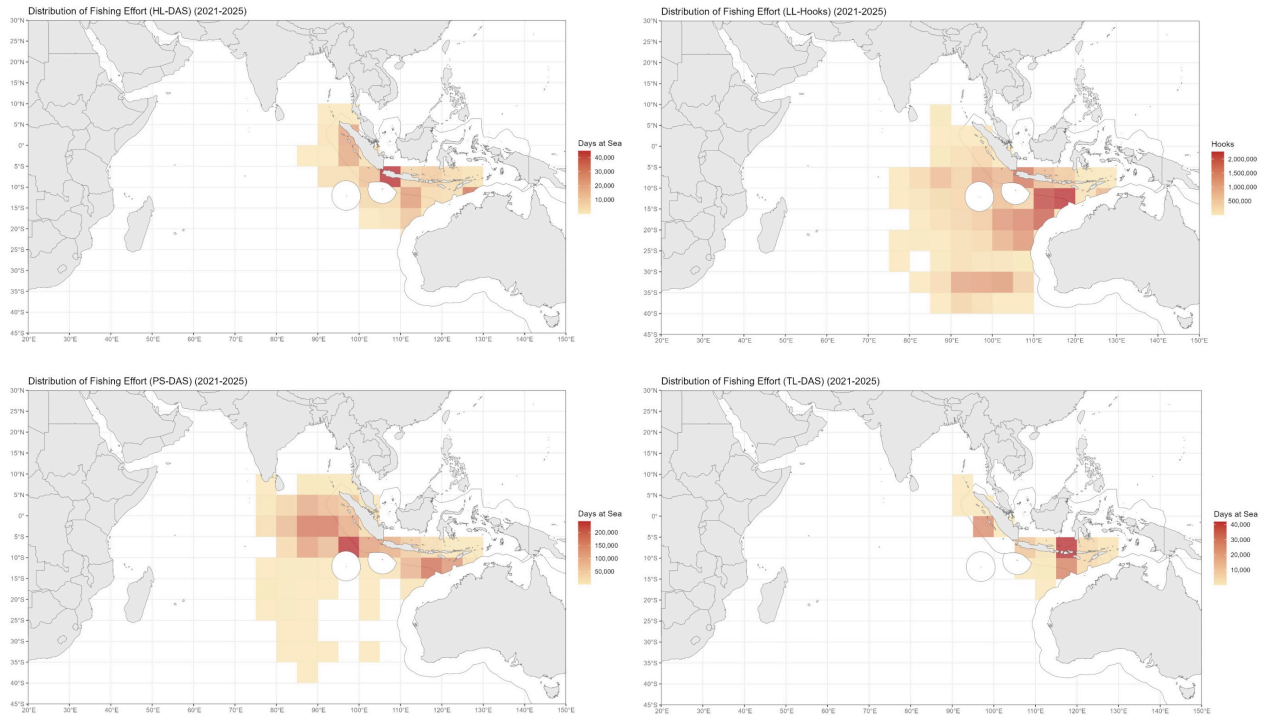

Figure 2b. Map of the distribution of fishing effort, by national fishery in the IOTC area of competence (average of the 5 previous years e.g., 2021–2025).

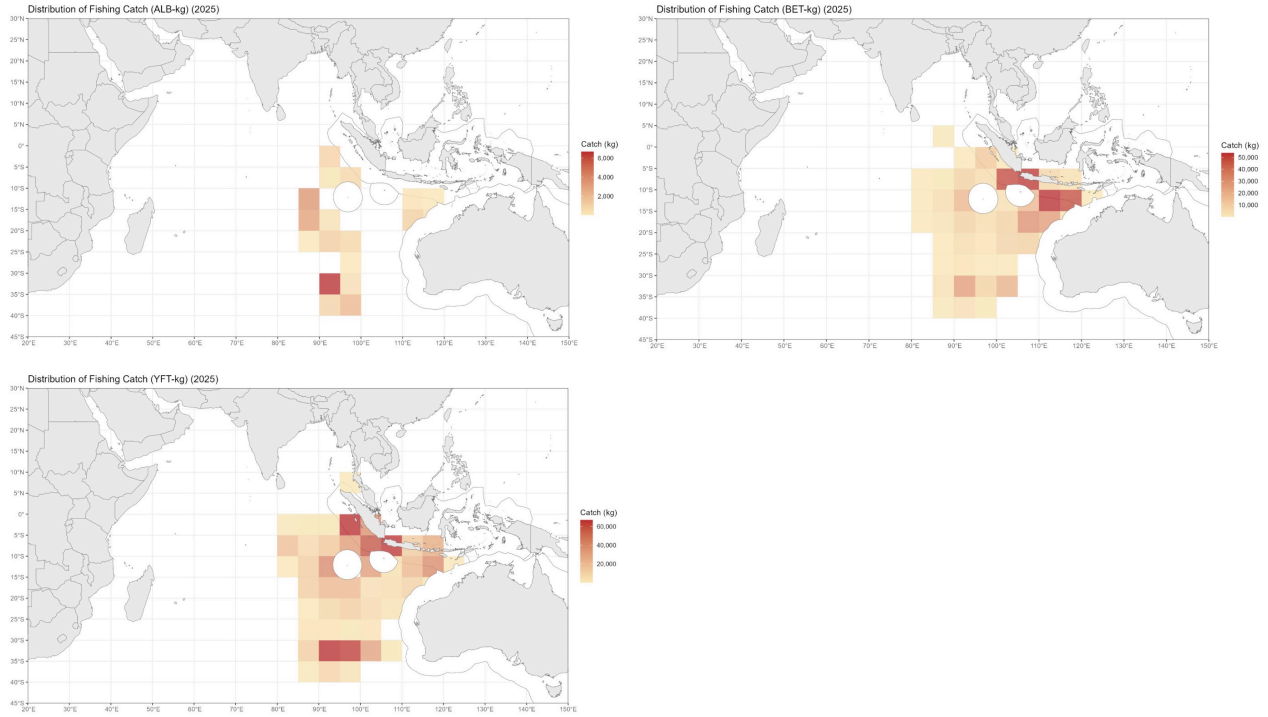

Figure 3a. Map of distribution of fishing catch, by species for the national fisheries, in the IOTC area of competence (most recent year e.g., 2025).

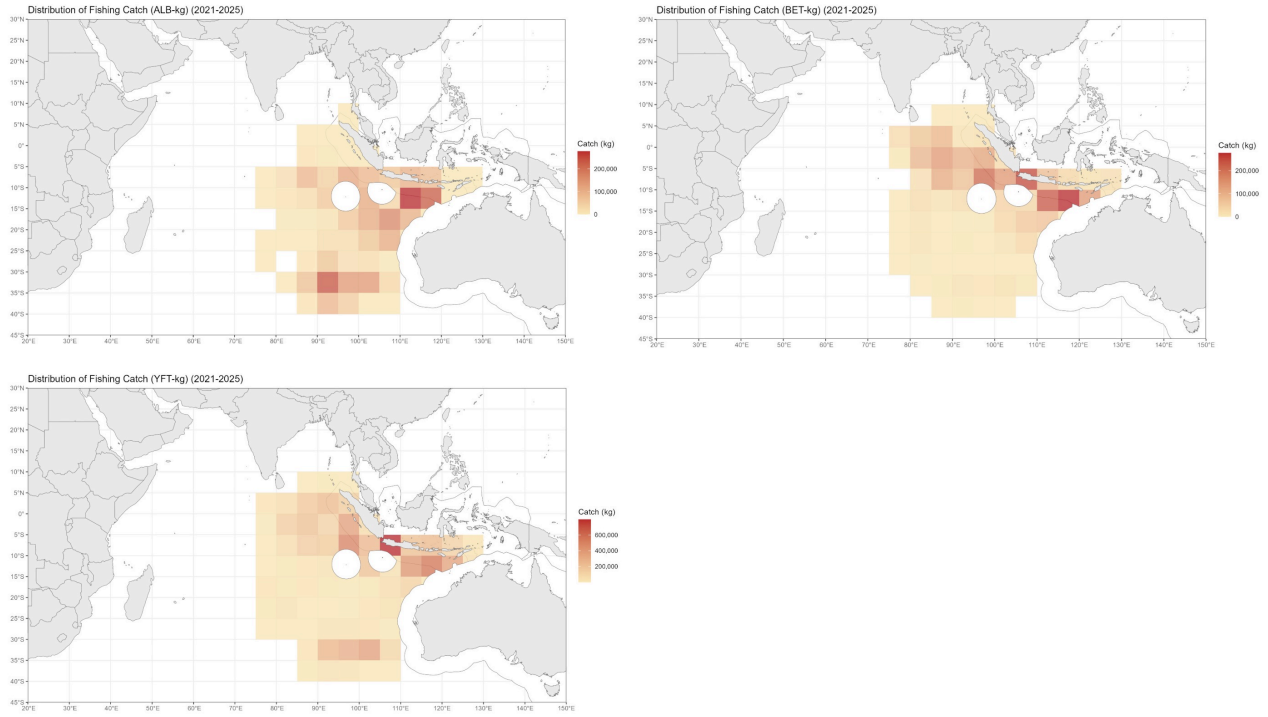

Figure 3b. Map of distribution of fishing catch, by species for the national fisheries, in the IOTC area of competence (average of the 5 previous years e.g., 2021–2025).

4 Recreational fishery

Indonesia currently does not have official records on recreational fishing catch. The Indonesian Fishing Sports Federation (FORMASI), established in 1997, is a member of the International Game Fish Association (IGFA). However, there have been no recent updates on FORMASI's activities. The Indonesian government is primarily focused on assessing and managing commercial fishing.

5 Ecosystem and bycatch issues

Indonesia continues to strengthen its efforts to minimise the impacts of fishing activities on marine ecosystems and vulnerable marine species in the Indian Ocean. Fishing activities conducted by Indonesian fleets within the IOTC Area of Competence, particularly in Fisheries Management Areas (FMAs) that the part of Indian Ocean, may interact with various non-target and ecologically related species, including sharks, rays, seabirds, marine turtles, cetaceans and whale sharks. The management of these interactions is supported by national fisheries regulations, conservation measures, fishing logbook systems, scientific observer programmes and port-based monitoring activities.

The management of ecologically related species and bycatch is supported by Minister of Marine Affairs and Fisheries Regulation No. 10/2021 concerning standards for business activities and products in the implementation of risk-based business licensing in the marine and fisheries sector. In addition, Ministerial Regulation No. 33 of 2021 provides the regulatory framework for fishing logbooks, onboard monitoring, inspections and fishing vessel governance. These instruments support the recording and monitoring of fishing activities and interactions with vulnerable species. Indonesia has also continued to improve fisheries data collection through the implementation of electronic fishing logbooks and the development of electronic monitoring (EM) systems.

In 2025, Indonesia submitted its reporting on interactions with endangered, threatened and protected (ETP) species under the relevant IOTC reporting requirements. The submission covered part of the Indonesian longline fisheries rather than the entire longline fleet. According to the 2025 observer reporting, no interactions with marine turtles, whale sharks, cetaceans or mobulid rays were recorded. However, seabird interactions were reported by observers, with the individuals recorded as released dead. Meanwhile, fishing logbook reports indicated no interactions with seabirds, marine turtles, whale sharks or cetaceans during 2025. These results demonstrate the importance of maintaining and improving the consistency of information collected through observer programmes and fishing logbooks.

5.1 Sharks

Sharks and rays are important components of marine ecosystems and are among the principal groups of non-target species encountered in Indonesian tuna fisheries, particularly tuna longline fisheries operating in the Indian Ocean. Indonesia recognises the vulnerability of several shark species to fishing pressure due to their biological characteristics, including slow growth, late maturity and relatively low reproductive capacity. Consequently, the management and conservation of sharks and rays have been incorporated into Indonesia's national fisheries management framework through regulations, national action plans, catch monitoring and scientific research.

Shark and ray fisheries management is regulated through Minister of Marine Affairs and Fisheries Regulation No. 58/PERMEN-KP/2020 concerning capture fisheries business activities, which was subsequently superseded by Minister of Marine Affairs and Fisheries Regulation No. 10/2021 concerning standards for business activities and products in the implementation of risk-based business licensing in the marine and fisheries sector, particularly Section 7, No. 5. The regulation provides management measures for bycatch and ecologically related species in Indonesian jurisdictional waters and on the high seas. Indonesia has also established specific protection measures for vulnerable shark and ray species. Whale sharks (*Rhincodon typus*) and manta rays (*Mobula* spp.) have been granted full protection through Ministerial Decrees No. 18/KEPMEN-KP/2013 and No. 04/KEPMEN-KP/2014, respectively. The annual catch quota for hammerhead sharks (Sphyrna spp.) is regulated under the relevant conservation authority's decree, while Ministerial Regulation No. 05/PERMEN-KP/2018 regulates the prohibition of exporting whitetip sharks. Indonesia continues to promote awareness of shark conservation and sustainable fisheries through workshops, seminars and the distribution of information materials and posters on the protection of vulnerable shark species. Shark catches and interactions are monitored through fishing logbooks, scientific observer programmes and port inspection activities. These monitoring mechanisms provide information on shark species composition, catch numbers and catch disposition, supporting the improvement of national shark fisheries statistics and the implementation of IOTC conservation and management measures.

Recent scientific research has further improved information on shark species composition and size distribution in Indonesian tuna longline fisheries operating in the Indian Ocean. Based on onboard observer data collected during 2005–2021, a total of 4,763 sharks representing 18 taxa were recorded from 66,850 observed individuals. Blue shark (*Prionace glauca*) was the dominant species, accounting for 55.13% of the observed shark catches, followed by crocodile shark (*Pseudocarcharias kamoharai*) at 29.12%. Other important species included silky shark (*Carcharhinus falciformis*), shortfin mako (*Isurus oxyrinchus*), oceanic whitetip shark (*Carcharhinus longimanus*) and spinner shark (*Carcharhinus brevipinna*), accounting for 2.52%, 2.29%, 2.02% and 1.64%, respectively. The study also identified spatial differences in the size composition of dominant shark species, suggesting differences in habitat use among life-history stages. However, differences in observer coverage, fishing locations, fishing periods and gear configurations need to be considered when interpreting these spatial patterns, and the available data alone are insufficient to confirm specific shark nursery areas.

Indonesia will continue to improve shark species identification, catch monitoring, biological sampling and the reporting of catch disposition, including retained catches and discarded individuals. Strengthening observer coverage and improving the quality and completeness of data submitted to the IOTC Secretariat remain important priorities for supporting shark stock assessments and sustainable fisheries management in the Indian Ocean.

5.1.1 NPOA sharks

In response to the mandate for the establishment of an international plan of action in terms of conservation and management of sharks and rays by the member of United Nations through Fisheries and Agricultural Organization (FAO), as well as increasing global concern towards sharks and rays sustainability, Indonesia issued the first National Plan of Action (NPOA) for sharks and rays for 2010-2014. The document outlines strategy and action plan for the sustainability of the entire sharks and rays species. The 2nd NPOA for the period 2016-2020 then also has been issued and implemented as the continuation action plan of the 1st NPOA.

It is managed within those regulations that every fishing vessel that accidentally caught thresher shark, silky shark, oceanic whitetip shark, Mobula ray, and whale shark within the RFMOs Convention Area needs to release and report them to the Head of Fishing Port based on the license. The report is in the form of a fishing logbook. The recording of sharks' data is covered by the fishing logbook and monitored by the port inspection and observer program as regulated in the Ministerial Regulation No. 33 of 2021 on the Fishing Logbook, Observer, Inspection, Marking of Fishing Vessels, and the Fishing Crew Governance. It is explained within the regulations that every fishing vessel that violates the regulation will be given an administrative sanction based on the level of violation. Currently, Indonesia is developing the latest Shark NPOA.

In 2025, Indonesia's shark trade was increased for export and decreased for domestic markets compared to 2024. Export volumes saw particularly increase, with shark carcasses rise around 12 times, with no fins exported. Domestically, the carcass volumes fell by around 40% and local fin trade with a 30% decline (Table 3a).

In the same year, the shark trade values (million IDR) showed decreased compared to 2024, amid tightening conservation measures and shifting market dynamics, except carcasses export. While carcasses exports increased almost 8 times, domestic fin increased almost double and carcasses domestically were dropping around 30% (Table 3b).

Table 3a. Summary of trade traffic volume (kg) for carcasses and fins of sharks and rays from Denpasar, Bali for the period 2021-2025 (Source: BPSPL Denpasar).

Destination	Products	Volume (kg)				
		2021	2022	2023	2024	2025
Export	Carcasses	560,648	137,877	14,413	5,550	71,168
	Fins	247,467	11,947	48,806	-	-
Domestic	Carcasses	2,751,298	1,245,305	1,780,694	382,192	223,888
	Fins	49,279	51,964	146,154	60,957	43,874

Table 3b. Summary of trade traffic value (millions) for carcasses and fins of sharks and rays from Denpasar, Bali for 2021-2025 (Source: BPSPL Denpasar).

Destination	Products	Value (millions) - IDR				
		2021	2022	2023	2024	2025
Export	Carcasses	13,118	4,454	111	437	3,563
	Fins	55,784	692	2,639	-	-
Domestic	Carcasses	30,766	13,300	15,999	3,550	2,479
	Fins	6,134	12,442	4,967	1,332	2,813

5.1.2 Blue shark

Blue shark (Prionace glauca) is the most frequently encountered shark species in Indonesian tuna longline fisheries operating in the Indian Ocean. Its catches and fishing effort are monitored through the national scientific observer programme, scientific port sampling and fishing logbook systems. These monitoring activities provide information on species identification, catch numbers, fishing locations and the disposition of captured individuals.

According to Indonesian tuna longline observer data for the period 2020–2024, blue shark remained the dominant shark species recorded by observers. The number of observed individuals increased from 119 in 2020 to 143 in 2021 and reached a peak of 334 individuals in 2022. The number subsequently declined to 155 individuals in 2023 before increasing slightly to 171 individuals in 2024. Of the 171 blue sharks recorded in 2024, 118 individuals were retained and 53 were discarded, consisting of four individuals released alive and 49 discarded dead. These observations indicate that blue shark remains an important species in the bycatch monitoring activities of the Indonesian tuna longline fleet.

In addition to the recent observer records, historical scientific observer data collected during 2005–2021 recorded 2,626 blue sharks, representing 55.13% of the total 4,763 observed sharks. The recorded total length ranged from 72 to 298 cm, with a mean total length of approximately 156.9 cm. The study also identified spatial variation in blue shark size composition, providing additional biological and geographical information that may contribute to the understanding of its distribution and life-history patterns in the Indian Ocean.

To monitor blue shark catches domestically, Indonesia implements several complementary monitoring activities. Scientific observers onboard Indonesian tuna longline vessels record blue shark interactions, catch numbers, species identification and catch disposition, including retained and discarded individuals. Fishing logbooks provide additional information on fishing operations and catches, while scientific port sampling supports the collection of biological information and species-specific catch data. Fishing effort information, including the number of hooks deployed and fishing locations, is also collected to support the analysis of catch trends and the standardisation of catch per unit effort (CPUE).

Indonesia will continue to strengthen the monitoring of blue shark catches through improvements in observer coverage, fishing logbook reporting, port sampling and data verification. In the 2026 WPEB22 discussions, Indonesia supported the harmonisation of blue shark CPUE standardisation methods to improve the comparability and reliability of stock assessment information among fleets operating in the Indian Ocean. These activities are undertaken to support the reporting requirements under IOTC Resolution 18/02, paragraph 4, and the implementation of relevant subsequent IOTC conservation and management measures.

In 2025, longline observer data revealed that shark catches were dominated by blue sharks, followed by crocodile sharks and thresher sharks. However, the only dominant retained species was the blue shark, with a few crocodile sharks kept and no thresher sharks retained (Table 4).

Table 4. The total observed number of sharks, by species, released/discarded by the Indonesian tuna longline fleet in the IOTC area of competence (2021–2025).

Code	2021				2022				2023				2024				2025			
	N	Retained	Discarded		N	Retained	Discarded		N	Retained	Discarded		N	Retained	Discarded		N	Retained	Discarded	
			Alive	Dead			Alive	Dead			Alive	Dead			Alive	Dead			Alive	Dead
PTH	1	Nil	nil	1	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil
BTH	13	13	nil	nil	15	15	nil	nil	1	1	nil	nil	17	nil	12	5	4	nil	3	1
FAL	5	2	nil	3	65	65	nil	nil	16	14	2	nil	3	3	nil	nil	1	1	nil	nil
OCS	9	7	nil	2	13	6	2	5	3	1	nil	2	3	nill	nil	3	nil	nil	nil	nil
CCL	nil	Nil	nil	nil	1	nil	nil	1	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil

SMA	4	4	nil	nil	9	9	nil	nil	2	2	nil	nil	12	3	4	5	19	1	7	11
LMA	1	Nil	nil	1	1	1	nil	nil	1	1	nil	nil	2	2	nil	nil	4	1	2	1
BSH	143	116	1	26	334	287	nil	47	155	149	4	2	171	118	4	49	693	625	9	59
PSK	66	2	1	63	134	2	84	48	11	3	8	nil	62	6	47	9	70	10	39	21
TIG	4	4	nil	nil	2	2	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil
SPY	nil	Nil	nil	nil	1	nil	1	nil	nil	nil	nil	nil	nil	nil	nil	nil	2	nil	nil	2
ALV	nil	Nil	nil	nil	nil	nil	nil	nil	1	1	nil	nil	nil	nil	nil	nil	3	nil	nil	3
POR	nil	Nil	nil	nil	nil	nil	nil	nil	2	nil	2	nil	nil	nil	nil	nil	5	nil	2	3
SPZ	nil	Nil	nil	nil	nil	nil	nil	nil	2	nil	nil	2	nil	nil	nil	nil	nil	nil	nil	nil
DUS	nil	Nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	4	3	1	nil	nil	nil	nil	nil
THR	nil	Nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	21	nil	4	17

5.2 Seabirds

Mitigation measure on seabirds is regulated through Ministerial Decree 58/PERMEN-KP/2020 and 10/PERMEN-KP/2021 related to mitigation for ecologically related species, including seabirds in which the tori line is obligatory for every vessel operated beyond 25°S (high seas). The identification card for Seabird from IOTC had been translated into Bahasa. In addition, Indonesia already developed NPOA for Seabird back in 2016, and has been reviewed by Birdlife South Africa, with full compliance remarks and obtained green status. There were 11 seabirds interaction reported by onboard observer. Five of great-winged petrel and six other seabirds. All the seabirds are discarded in dead condition (Table 5).

Table 5. The number of observed incidental interactions of seabirds in tuna longline fishery from 2020-2025.

Code	Species	2020	2021	2022	2023	2024	2025
DCU	Shy albatross	nil	1	nil	nil	nil	nil
PDM	Great-winged petrel	nil	nil	nil	nil	nil	5
PTZ	Petrels nei	nil	nil	nil	nil	nil	nil
PHU	Sooty albatross	nil	nil	nil	nil	nil	nil
PFC	Flesh-footed Shearwater	2	1	nil	nil	nil	nil
USB	Other seabirds	nil	nil	nil	nil	nil	6

5.3 Marine Turtles

Six out of 7 world's marine turtles are known to inhabit Indonesian waters. Since 1999, they have been nationally protected species following the latest regulation from the Ministry of Environment and Forestry Decree No. P.106/2018. Any catch and direct use are prohibited. Olive ridley turtle, loggerhead, and leatherback turtles are classified as vulnerable. At the same time, green turtles are endangered, and even hawksbill in a state is highly endangered.

Indonesia, through the Minister of Marine Affairs and Fisheries has established the Minister Decree No. 65/2022 concerning the Marine Turtles National Action Plan 2022-2025. Indonesia also developed a cooperation with the Coral Triangle countries like Malaysia, the Philippines, the Solomon Islands, Papua New Guinea, and Timor Leste through the Coral Triangle Initiatives on Coral Reefs, Fish, and Food Security (CTI CFF) platform to protect threatened migratory species, including marine turtles. Bilateral Cooperation between Indonesia and the US is also being devised to protect hawksbill turtles migrating from Papua to California. There were no marine turtles were caught in 2025 (Table 6).

Table 6. The number of observed incidental interactions with marine turtles in tuna longline fishery from 2020-2025.

Code	Species	2020	2021	2022	2023	2024	2025
DKK	Leatherback turtle	nil	1	nil	nil	nil	nil
LKV	Olive-ridley turtle	nil	nil	nil	nil	1	nil
TTH	Hawksbill turtle	nil	nil	nil	nil	nil	nil
TUG	Green turtle	nil	2	nil	nil	nil	nil
TTX	Marine turtles	nil	nil	nil	nil	nil	nil
TTL	Loggerhead turtle	nil	nil	nil	nil	1	nil

5.4 Other ecologically related species (e.g., cetaceans, mobulid rays, whale sharks)

Indonesia recognises the importance of conserving other ecologically related species, including cetaceans, mobulid rays and whale sharks, which play important roles in marine ecosystem functioning and may interact with fishing activities. National conservation measures, species-specific action plans, fishing logbook systems and scientific observer programmes provide the basis for monitoring and managing interactions with these vulnerable species. Indonesia continues to improve the collection of information on incidental interactions and to promote appropriate handling and release practices in accordance with national regulations and relevant IOTC conservation and management measures.

Cetaceans, including dolphins and whales, are protected under Indonesia's national marine conservation framework. The Government has developed a National Action Plan for Marine Mammal Conservation for the period 2018–2022 through Ministerial Decree No. 79/2018. Cetacean interactions are monitored through fisheries reporting and observer activities. According to the 2025 observer reporting for Indonesian longline fisheries, no cetacean interactions were recorded. Fishing logbook reports also indicated no cetacean interactions during 2025. Nevertheless, these results are limited to the reporting coverage of the monitored fisheries and do not necessarily represent the interaction status of all fishing gears operating in Indonesian waters and the IOTC Area of Competence.

Mobulid rays, including manta rays and devil rays, are vulnerable species that may interact with various fishing gears. Indonesia has established full protection for manta rays through Ministerial Decree No. 04/KEPMEN-KP/2014. The conservation and management of sharks and rays are also addressed through the national NPOA-Sharks and Rays. Historical observer data from Indonesian tuna longline fisheries during 2005–2021 recorded mobulids as a very small component of the total observed catch, accounting for approximately 0.02%. The 2025 national reporting data indicated no mobulid ray interactions recorded through the observer and fishing logbook reporting systems. Indonesia recognises the need to strengthen species-specific monitoring and reporting, particularly in fisheries using purse seines and gillnets, and to further develop catch monitoring arrangements in accordance with relevant IOTC requirements, including Resolution 26/03.

Whale sharks (*Rhincodon typus*) have been granted full protection in Indonesia through Ministerial Decree No. 18/KEPMEN-KP/2013. Indonesia has also developed a specific National Action Plan for Whale Sharks for the period 2021–2025 through Ministerial Decree No. 16/2021. The action plan provides a framework for supporting whale shark conservation, research, monitoring and stakeholder engagement. In the IOTC Area of Competence, fishing vessels are required to take appropriate measures to avoid intentional encirclement of whale sharks during purse seine operations and to ensure safe release when accidental encirclement occurs. According to Indonesia's 2025 observer and fishing logbook reporting, no whale shark interactions were recorded by the monitored longline fisheries. The Government will continue to strengthen monitoring and reporting of incidental interactions and promote safe handling and release practices for this fully protected species.

In 2025, Indonesia's observer reporting indicated no interactions with marine turtles, whale sharks, cetaceans or mobulid rays in the monitored longline fisheries, while seabird interactions were reported with the individuals recorded as released dead. In contrast, fishing logbook reports indicated no interactions with seabirds, marine turtles, whale sharks or cetaceans. The submission was reported as partially covering Indonesian longline fisheries. Indonesia will continue to improve the monitoring of ecologically related species through scientific research, fisheries data collection, stakeholder engagement and the implementation of national and IOTC conservation measures.

For other ERS catch in 2025, the highest catch was escolar (*Lepidocybium flavobrunneum*) with 2,633 catches. Followed by long snouted lancetfish (*Alepisaurus ferox*) and moonfish (*Lampris guttatus*) and with 801 discards and 329 catches, respectively (Table 7).

Table 7. The number of the observed catches of other ecologically related species in longline fisheries from 2020-2025.

Code	Species	2020	2021	2022	2023	2024	2025
BAR	Barracuda	nil	11	9	nil	8	7
DOL	Common dolphinfish	4	15	22	57	25	43
DCO	Dolphin	nil	nil	nil	nil	nil	nil
EIL	Brilliant pomfret	nil	nil	nil	nil	nil	nil
HAR	Longnose chimaeras	nil	nil	nil	256	nil	nil
LEC	Escolar	253	781	621	1,374	340	2,633
LAG	Moonfish	57	73	177	251	198	329
MOX	Ocean Sunfish	1	nil	nil	nil	1	3
ALX	Long snouted lancetfish	690	1112	527	791	163	801
OHR	Other hairtail fish	nil	nil	nil	nil	nil	Nil
OIL	Oilfish	5	16	1,367	43	42	62
TCR	Pomfret	5	14	7	8	nil	60
TRF	Tappertail ribbon fish	nil	nil	nil	nil	nil	nil
TST	Sickle pomfret	18	38	23	59	75	212
WAH	Wahoo	23	85	115	141	120	71

6 National data collection and processing systems

6.1 Logsheet data collection and verification (including date commenced and status of implementation)

Fisheries logbook submission is mandatory for all fleets. Fleets above 5 GT were using a simplified fishing logbook, according to Ministerial Regulation No. 28/2023 issued on 1 September 2023. Although data entry, validation, and verification before analysis are still the remaining issues, the data quality is incrementally improving every year. Hence, for effective implementation of this program, it is necessary to keep introducing and strengthening its capacity to fishers and port officers. In 2025, the number of vessels submitted logbook was decreased in FMA 571 and 572 but increased in FMA 573 (Table 8).

Table 8. The number of vessels submitted logbook for 2021 – 2025 (source: DGCF).

No	FMA	2021	2022	2023	2024	2025
1	571	348	323	298	254	11
2	572	682	848	719	4,145	1,180
3	573	1,343	1,504	2,116	1,362	1,434

6.2 Observer scheme (including date commenced and status; number of observer, include percentage of coverage by fishery. Also, a description of the protocols supporting the observer programs and sampling schemes mentioned in paragraphs 3, 4, 6 and 9 of Res [25-06])

The Government of Indonesia has shown its persistent commitment to support the implementation of Resolution 21/02 on Establishing a Programme for Transhipment by Large-Scale Fishing Vessels, amended by

Resolution 22/02 through the stipulation of relevant national regulations. The resolution is accommodated in the Ministerial Regulation No. 10/2021 on Standards for Business Activities and Products in the Implementation of Risk-Based Business Licensing for the Marine and Fisheries Sector and the Ministerial Regulation No. 33/2021 on the fishing logbook, observer onboard, inspection, testing and marking of fishing vessels, and governance of fishing vessel manning. Technical supports are through relevant monitoring instruments and technical aspects regarding the operation of the carrier vessels.

During the two-year pilot project (2019-2020), paragraphs 20 and 21 of Resolution 19/06 have already been implemented. In 2019, one of the Indonesian wooden carrier vessels listed in Annex V of Resolution 19/06 was authorized to conduct transhipment at sea. In 2020, two vessels listed in Annex V operated on the high seas. The national observers deployed on those vessels had complied with the tuna-RFMO regional observer programme standards and thus had fulfilled the requirements to conduct transhipment at sea.

Indonesia also established a scientific observer program according to IOTC resolution 11/04 related to the Regional Observer Scheme (ROS). The number of scientific observers recorded until 2022 was 67 observers. New recruitment is imminent for the continuation of the program.

The observer coverage for longline in 2025 was 3.07% (Table 9). For the observer activities in the longline fishery, the observer increased in 2025 relative to 2024. The number of observers deployed increased threefold, as well as the number of observed trips, the number of companies involved, and total day at sea (Table 9a). However, there was no observer deployment in 2025 for purse seine (Table 9b), handline (9c), gillnet (9d), and pole-and-line (Table 9e). This is occurring because we are in the process of transitioning the management of the monitoring program from the government to a collaboration with third party (the private sector). The longline observer coverage showed that the observer trip occurred from the 5°-35° S and 85°-120° E (Figure 4).

Table 9. Annual observer coverage of longline.

No	Number of trips	Number of observed	Coverage (%)
1	1,040	32	3.07

Table 9a. Summary activities of Indonesian ROS from 2014-2025 (longline).

Year	No. Of Obs	No. Of Trips	No. Of Company	Total Day at Sea	Days/Trip	Avg (d/trip)
2014	20	28	13	875	29-135	62
2015	4	5	5	241	31-61	48
2016	6	6	6	289	18-86	57
2017	12	15	13	524	15-108	58
2018	10	10	10	322	9-71	33
2019	6	10	5	348	14-104	36
2020	6	6	6	257	22-104	48
2021	16	16	13	796	18-77	44
2022	9	10	9	493	24-97	49
2023	5	7	5	358	17-116	51
2024	21	25	15	1102	18-69	44
2025	27	32	18	1276	7-93	40

Table 9b. Summary activities of Indonesian ROS from 2014-2025 (purse seine).

Year	No. Of Obs	No. Of Trips	No. Of Company	Total Day at Sea	Days/Trip	Avg (d/trip)
2014	3	2	2	11	1-9	2
2015	2	1	1	10	8-15	11
2016	23	18	9	1088	2-240	25
2017	na	na	na	na	na	na
2018	4	20	15	126	8-13	9
2019	10	17	17	345	4-56	20

2020	5	5	5	446	57-116	89
2021	4	4	3	52	6-22	13
2022	21	136	44	943	1-32	7
2023	23	85	6	655	1-64	8
2024	1	1	1	11	11	11
2025	na	na	na	na	na	na

Table 9c. Summary activities of Indonesian ROS from 2014-2025 (handline).

Year	No. Of Obs	No. Of Trips	No. Of Company	Total Day at Sea	Days/Trip	Avg (d/trip)
2014	10	70	10	70	1	1
2015	na	na	na	na	na	na
2016	9	9	4	150	8-15	10
2017	24	37	2	734	10-173	11
2018	21	48	38	903	28-78	41
2019	8	9	6	101	8-15	11
2020	2	2	2	51	10-41	26
2021	6	6	6	75	9-20	13
2022	1	264	264	274	1-2	1
2023	1	1	1	63	63	63
2024	na	na	na	na	na	na
2025	na	na	na	na	na	na

Table 9d. Summary activities of Indonesian ROS from 2014-2025 (gillnet).

Year	No. Of Obs	No. Of Trips	No. Of Company	Total Day at Sea	Days/Trip	Avg (d/trip)
2014	na	na	na	na	na	na
2015	6	3	3	41	12-15	13
2016	na	na	na	na	na	na
2017	3	3	1	46	14-18	14
2018	3	15	7	31	1-19	1
2019	1	1	1	8	8	8
2020	na	na	na	na	na	na
2021	na	na	na	na	na	na
2022	na	na	na	na	na	na
2023	na	na	na	na	na	na
2024	na	na	na	na	na	na
2025	na	na	na	na	na	na

Table 9e. Summary activities of Indonesian ROS from 2014-2025 (pole-and-line).

Year	No. Of Obs	No. Of Trips	No. Of Company	Total Day at Sea	Days/Trip	Avg (d/trip)
2023	3	3	3	32	2-19	11
2024	na	na	na	na	na	na
2025	na	na	na	na	na	na

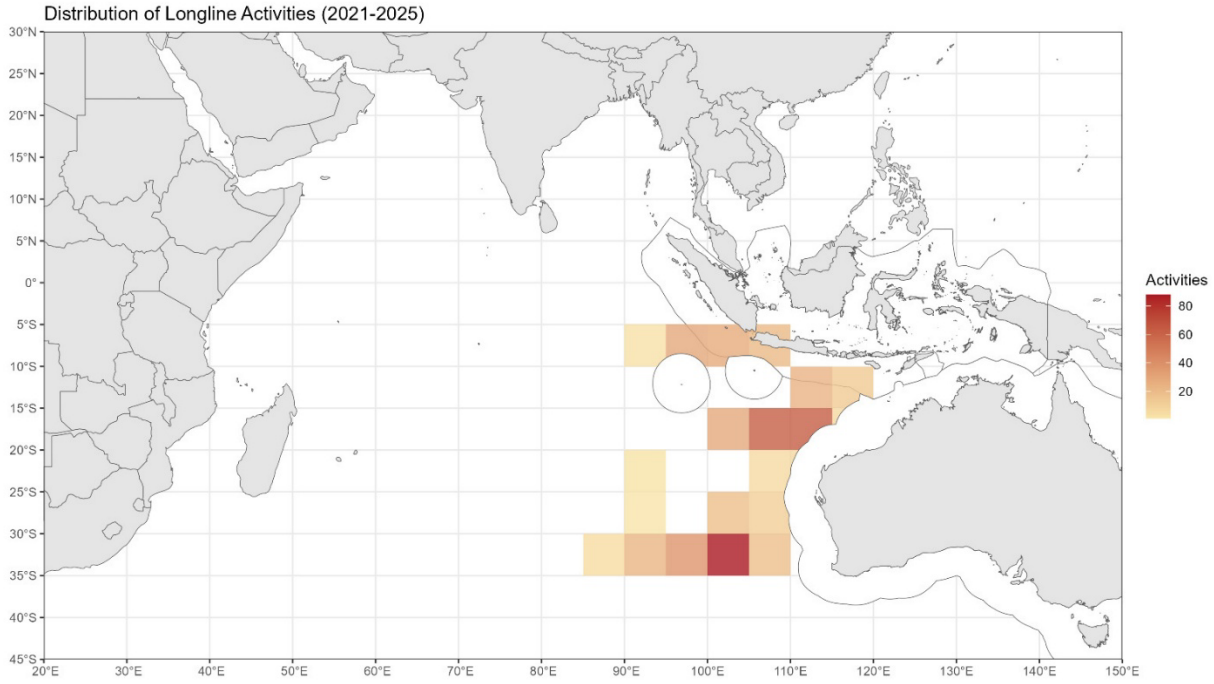

Figure 4. Map showing the spatial distribution of observer coverage.

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

Indonesia has established the port sampling program from 2005 conducted by the Research Institute for Tuna Fishery. However, the program stopped in 2021 because the institution no longer exists. Indonesia plan to restart the port sampling program in 2027 depending on the budget. For the fish measurement, there were 31 species were measured from longline fishery with the high number from escolar, bigeye tuna, and albacore (Table 10).

Table 10. Number of fish measured, by species and fishery.

No	Species	Number of individuals measured (fish)	Fishing gear / Fishery
1	ALB	1413	Longline
2	BET	1686	Longline
3	SBF	1114	Longline
4	YFT	502	Longline
5	SKJ	93	Longline
6	SWO	413	Longline
7	SFA	25	Longline
8	BLM	62	Longline
9	BUM	60	Longline
10	COM	49	Longline
11	MLS	26	Longline
12	ALV	3	Longline
13	BSH	609	Longline
14	BTH	4	Longline
15	FAL	1	Longline
16	LMA	4	Longline
17	POR	5	Longline
18	PSK	67	Longline
19	SPY	2	Longline
20	THR	19	Longline
21	DOL	43	Longline

22	BAR	7	Longline
23	LAG	320	Longline
24	LEC	1826	Longline
25	MOX	2	Longline
26	OIL	62	Longline
27	POA	48	Longline
28	RRU	1	Longline
29	SSP	21	Longline
30	TST	187	Longline
31	WAH	67	Longline

6.4 Actions taken to monitor catches & manage fisheries for Striped Marlin, Black Marlin, Blue Marlin and Indo-pacific Sailfish

Billfishes catches were monitor mainly from port data collection and observer program.

6.5 Gillnet observer coverage and monitoring

At the moment, Indonesia observer program still in the management transition from the government to the collaboration with third party (private sector). We plan to increase the gillnet observer coverage in the future.

6.6 Sampling plans for mobulid rays

At the moment, there are no sampling plans for mobulids rays. However, we will support for any collaboration to conduct sampling plan for mobulids rays.

6.7 Electronic Monitoring Standards

Electronic monitoring was launched under Directorate General Regulation No. 1/PER-DJPT/2016 for carrier vessels, initially relying on Bitung trials with at least two cameras and offline hard drives manually analysed on land by "dry observers". This regulation was strengthened by Ministerial Regulation No. 33/2021 which mentioning regarding the operation of electronic monitoring alongside with onboard observers.

The framework evolved into the Bahari Sea System integrating onboard Mini PCs and sensors, leading to the current 2025–2026 operational design where dual-angle cameras record catch landings and automatically sync data to cloud servers upon connecting to internet services such as Starlink.

Key advancements feature an Artificial Intelligence model trained to identify 25 economically important fish species—including skipjack, yellowfin, and bigeye tuna, with over 95% accuracy. This AI technology has been tested within the E-Logbook V3 application and is currently being built into an automated analytics dashboard to generate downloadable reports detailing catch counts, species, and location coordinates directly from video footage.

The EM trials encountered severe data backlogs due to manual hard disk transfers during high transhipment activity, while near-real-time satellite transmission via VMS proved prohibitively expensive. Additionally, video footage currently lacks visual calibration to accurately calculate fish lengths.

For the next steps we focus on establishing frame calibration methods using visual reference marks to enable automated AI fish length measurements. The strategy will also expand cost-effective internet auto-syncing over Starlink or shore networks to fully automate electronic reporting and eliminate dependence on manual land-based observer reviews.

7 National research programs

Indonesia plan to have a research activity for target and non-target species in 2027. The research will focus on the biological aspects, population parameters, and environmental factors. The study sites will conduct in the Western Coast of Sumatra and South of Java.

7.1. National research programs on blue shark

Currently there are no national research programmes being implemented which are relevant to blue shark.

7.2. National research programs on Striped Marlin, Black Marlin, Blue Marlin and Indo-pacific Sailfish

Currently there are no national research programmes being implemented which are relevant to Striped Marlin, Black Marlin, Blue Marlin and Indo-pacific Sailfish.

7.3. National research programs on sharks

Currently there are no national research programmes being implemented which are relevant to sharks.

7.4. National research programs on oceanic whitetip sharks

Currently there are no national research programmes being implemented which are relevant to whitetip sharks.

7.5. National research programs on marine turtles

Currently there are no national research programmes being implemented which are relevant to marine turtles.

7.6. National research programs on thresher sharks

Currently there are no national research programmes being implemented which are relevant to thresher sharks.

8 Implementation of Scientific Committee Recommendations and Resolutions of the IOTC relevant to the SC.

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].

Table 9. Scientific requirements contained in Resolutions of the Commission, adopted between 2012 and 2025.

Res. No.	Resolution	Scientific requirement	CPC progress
12/04	On the conservation of marine turtles	Paragraphs 3, 4, 6–10	Conservation and protection of ecologically related species, mainly marine turtles, is governed through Ministerial Regulation No. 12/PERMEN-KP/2012 superseded by Ministerial Regulation No.58/PERMENKP/2020 superseded by Ministerial Regulation No. 10/PERMEN-KP/2021. Indonesia have developed particular national action plan documents. For a better implementation of NPOA, Minister of Marine Affairs and Fisheries have issued Minister Decree No. 65/2022 on the National Action Plan of Marine Turtle
12/09	On the conservation of thresher sharks (family alopiidae) caught in association with fisheries in the IOTC area of competence	Paragraphs 4–8	Conservation and protection of thresher sharks (family Alopiidae) is governed through Ministerial Regulation No.

Res. No.	Resolution	Scientific requirement	CPC progress
			IOTC–2025–SC27–NRXX Page 23 of 27 Res. No. Resolution Scientific requirement CPC progress association with fisheries in the IOTC area of competence 12/PERMEN-KP/2012 superseded by Ministerial Regulation No.58/PERMENKP/2020 superseded by Ministerial Regulation No. 10/PERMEN-KP/2021.
13/04	On the conservation of cetaceans	Paragraphs 7– 9	Conservation and protection of ecologically related species, mainly cetaceans, are governed through Government Regulation No. 7/1999 and Ministerial Regulation No. 12/PERMEN-KP/2012 superseded by Ministerial Regulation No.58/PERMENKP/2020 superseded by Ministerial Regulation No. 10/PERMEN-KP/2021. Indonesia has also established Minister of Marine Affairs and Fisheries Decree No. 79/2018 on National Action Plan of Marine Mammals Conservation 2018 – 2022 Report of cetacean interaction monitored through ROS reported into a national report to SC-IOTC annually. However, no incident occurred related to cetacean interaction with tuna fishery.
13/05	On the conservation of whale sharks (*Rhincodon typus*)	Paragraphs 7– 9	Conservation and protection of Whale sharks (Rhincodon typus) are governed through Government Regulation No. 7/1999 and Ministerial Regulation No. 12/PERMEN-KP/2012 superseded by Ministerial Regulation No.58/PERMENKP/2020 superseded by Ministerial Regulation No. 10/PERMEN-KP/2021 as well as Ministerial Decree No. 18/KEPMENKP/2013. Indonesia have developed particular national action plan documents. For a better implementation of NPOA, Minister of Marine Affairs and Fisheries have issued Minister Decree No 16/2021 concerning Whale Sharks National Action Plan 2021-2025. Indonesia also has established the Director General Decree No. 41/2024 on Technical Guidelines for Handling Strandings and Bycatchof Protected and/or Endangered Fish Species. Report of whale sharks' interaction monitored through ROS reported into a national report to SC-IOTC annually. However, there are no incidents that occurred related to whales sharks' interaction with tuna fishery.
13/06	On a scientific and management framework on the conservation of shark species caught in association with IOTC managed fisheries	Paragraph 5–6	Aside from Ministerial Regulation No. 12/PERMEN KP/2012, which governed the conservation and protection of ecologically related species, Indonesia also issued the first National Plan of Action (NPOA) for sharks and rays for 2010-2014. The 2nd NPOA for the period 2016-2020 then also has been issued and implemented as the continuation action plan of the 1st NPOA. Report of sharks' interaction monitored through ROS, Port Sampling Program and logbook Fishing vessel and reported through a national report to SC-IOTC annually.
15/01	On the recording of catch and effort by fishing vessels in the IOTC area of competence	Paragraphs 1–10	Catch and effort are mandatory for vessels above 5 GT, based on Ministerial Regulation No. 33/PERMEN-KP/2021 regarding logbook program and observer scheme, which records commercial fisheries operation onboard. All mandatory data reporting has been submitted annually.
15/02	Mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs)	Paragraphs 1–7	All mandatory statistical reporting forms (1RC, 1DI, 1DR, 3CE, 4SF) have been submitted accordingly.

Res. No.	Resolution	Scientific requirement	CPC progress
17/05	On the conservation of sharks caught in association with fisheries managed by IOTC	Paragraphs 6, 9, 11	Aside from Ministerial Regulation No. 12/PERMEN KP/2012, which governed the conservation and protection of ecologically related species, Indonesia also issued the first National Plan of Action (NPOA) for sharks and rays for 2010-2014. The 2nd NPOA for the period 2016-2020 then also has been issued and implemented as the continuation action plan of the 1st NPOA. Data submission related to sharks' data 2025 had been submitted to IOTC on 30th June 2026
18/02	On management measures for the conservation of blue shark caught in association with IOTC fisheries	Paragraphs 2-5	No specific management measure for blue sharks is issued at present. However, in general, conservation and protection of ecologically related species, including sharks and rays, are governed through Government Regulation No. 7/1999 and Ministerial Regulation No. 12/PERMENKP/2012 superseded by Ministerial Regulation No.58/PERMEN-KP/2020 superseded by Ministerial Regulation No. 10/PERMEN-KP/2021. Data submission related to blue sharks 2025 has been submitted to IOTC on 30th June 2026 and reported through a national report to SC-IOTC.
18/05	On management measures for the conservation of the Billfishes: Striped marlin, black marlin, blue marlin and Indo-Pacific sailfish	Paragraphs 7 – 11	No management measure is specific for billfishes: striped marlin, black marlin, blue marlin, and Indo-Pacific sailfish. However, the catches are closely monitored through logbooks and the scientific observer program and port sampling program at main landing sites.
18/07	On measures applicable in case of non-fulfilment of reporting obligations in the IOTC	Paragraphs 1, 4	All mandatory statistical reporting forms (1RC, 1DI, 1DR, 3CE, 4SF) have been submitted annually. Improvement of data quality conducted by national validation data workshop twice a year and refreshment program for data field officers conducted annually.
19/01	On an Interim Plan for Rebuilding the Indian Ocean Yellowfin Tuna Stock in the IOTC Area of Competence (*If not provided under Res 21/01 below*)	Paragraph 22	Not Applicable
19/03	On the Conservation of Mobulid Rays Caught in Association with Fisheries in the IOTC Area of Competence	Paragraph 11	In general, conservation and protection of ecologically related species, including sharks and rays, are governed through Government Regulation No. 7/1999 and Ministerial Regulation No. 12/PERMENKP/2012 superseded by Ministerial Regulation No.58/PERMEN-KP/2020 superseded by Ministerial Regulation No. 10/PERMEN-KP/2021. In addition, Manta rays (Manta spp.) are fully protected under Ministerial Decree No. 4/KEPMEN-KP/2014. Report of mobulid rays' interaction monitored through ROS reported into a national report to SC-IOTC annually. However, no incident occurred related to mobulid rays' interaction with tuna fishery.
21/01	On an Interim Plan for Rebuilding the Indian Ocean Yellowfin Tuna Stock in the IOTC Area of Competence (*If not provided under Res 19/01 above*)	Paragraph 23	Since 2025, Indonesia has been binding with the Resolution 21/01 with the catch limit of YFT as much as 45,426 t.
23/07	On reducing the incidental bycatch of seabirds in longline fisheries.	Paragraphs 3–7	Conservation and protection of ecologically related species, significantly reducing incidental bycatch of seabirds, is governed through Ministerial Regulation No. 12/PERMEN-KP/2012 superseded by Ministerial Regulation No.58/PERMENKP/2020 superseded by Ministerial Regulation No. 10/PERMEN-KP/2021. Indonesia had NPOA for Seabird Mitigation Measures since late 2016 and implemented in early 2017.

Res. No.	Resolution	Scientific requirement	CPC progress
23/08	On electronic monitoring standards for IOTC fisheries	Paragraphs 3c	Electronic monitoring was launched under Directorate General Regulation No. 1/PER-DJPT/2016 for carrier vessels, initially relying on Bitung trials with at least two cameras and offline hard drives manually analysed on land by "dry observers". This regulation was strengthened by Ministerial Regulation No. 33/2021 which mentioning regarding the operation of electronic monitoring alongside with onboard observers.
25/06	On a regional observer scheme	Paragraph 12	Indonesia has established a scientific observer program according to IOTC resolution 25/06 related to the Regional Observer Scheme (ROS). Since 2014 the deployment of observers has been extended to other gears, such as small-scale purse seine, coastal drifting gillnet, and troll line/hand line. Ministerial Regulation No. 33/PERMEN-KP/2021 formally regulates national observers for fishing and carrier vessels, positive progress to secure the government budget for the observer program in the future.

9 Literature cited

NOEGROHO, T., JATMIKO, I., HANNY, Y.R., LESTARI, P., SADIYAH, L., SATRIA, F., TIRTADANU, & SUADELA, P. SHARK SPECIES COMPOSITION AND SIZE DISTRIBUTION OF INDONESIAN LONGLINE FISHERIES OPERATING IN THE INDIAN OCEAN. *IOTC-2026-WPEB22-13x*.

10 ANNEX A: A fleet level summary of the Vessel Monitoring Plans [Mandatory for CPC implementing EMS]

Not applicable.

A.1 The number of CPC flagged vessels implementing EM by gear/fishery type [Mandatory for CPC implementing EMS].

A.2 The range of EMS configurations implemented within the fleet (including the numbers and placements of cameras for each configuration) [Mandatory for CPC implementing EMS].

A.3 A general description of EMS requirements placed upon vessel skippers/crews by the CPC government [Mandatory for CPC implementing EMS].