

# SCIENTIFIC COMMITTEE TWENTY-FIRST REGULAR SESSION

Nuku'alofa, Tonga 13 – 21 August 2025

# ANNUAL REPORT TO THE COMMISSION PART 1: INFORMATION ON FISHERIES, RESEARCH AND STATISITICS

WCPFC-SC21-AR/CCM-12 4 July 2025

**REPUBLIC OF KOREA** 

# 2025 ANNUAL REPORT TO THE COMMISSON

#### Part 1. INFORMATION ON FISHERIES, RESEARCH AND STATISTICS

# Republic of Korea

#### **National Institute of Fisheries Science**

Scientific data was provided to the Commission in accordance with the decision relating to the provision of scientific data to the Commission by 30 April 2025

YES

If no, please indicate the reason(s) and intended actions:

#### 1. SUMMARY

Korea has two types of fishing gears, purse seine and longline, that engage in fishing for tuna and tuna-like species in the WCPFC Convention Area. These fisheries are managed by the Distant Water Fisheries Development Act of Korea. Total catch in the WCPFC convention area by the Korean fisheries in 2024 was 309,770 t, which accounted for 10.8% and 12.0% less than those of 2023 and the average for recent 5 years (2020-2024), respectively. The catch of purse seine fishery with 22 active vessels was 276,640 t in 2024, which was 14.8% and 12.6% higher than those of 2023 and the average of recent 5 years. The catch of longline fishery with 94 active vessels in 2024 was 33,130 t, which was 14.2% lower than of 2023, and 6.6% higher than the average for recent 5 years. Purse seine fishing efforts ranged from 6,098 to 7,535 sets during 5 recent years, and the number of sets in 2024 was 7,353 set. Longline fishing efforts ranged from 47,036 to 68,757 thousand hooks during 5 recent years, and the number of hooks in 2024 was 47,036 thousand hooks. The logsheet coverages through electronic reporting system in 2024 were 100% for both purse seine and longline fisheries, and the observer coverage for longline fishery in 2024 was 14.1% based on days at sea.

longline fishery, were 12,345 t and 16,259 t, respectively. Longline fishing efforts ranged from 47,036 to 68,757 thousand hooks during 5 recent years (2020-2024), and the number of hooks in 2024 was 47,036 thousand hooks, which is the lowest during 5 years.

#### **Tabular Annual Fisheries Information**

Table 1(a). Annual catch and effort estimate for the Korean purse seine fishery by primary species in the WCPFC Convention Area, 2020-2024

Year	No. of sets		Catch (t)							
i eai	i eai No. oi seis	Total	SKJ	BET	YFT	OTH				
2020	6,767	252,314	203,635	4,247	44,429	3				
2021	6,098	230,252	181,739	3,363	45,150	0				
2022	6,473	227,818	190,307	1,754	35,756	0				
2023	6,338	240,930	193,601	1,607	45,722	0				
2024	7,535	276,640	239,852	1,779	35,010	0				

<sup>\*</sup> Data for 2024 are preliminary.

Table 1(b). Annual catch and effort estimates for the Korean longline fishery by primary species in the WCPFC Convention Area, 2020-2024

Year	No. of		Catch (t)									
1 ear	hooks ( $\times 10^3$ )	Total	ALB	YFT	BET	BFT	SKJ	BLM	BUM	MLS	SWO	OTH
2020	56,374	27,374	744	10,948	13,011	0	251	39	1,389	78	554	360
2021	55,462	27,312	611	10,340	13,686	0	332	14	1,168	123	563	475
2022	57,119	28,294	1,278	11,516	12,986	0	424	6	908	80	714	336
2023	68,757	38,623	1,047	10,110	23,474	0	374	14	1,406	215	1,462	520
2024	47,036	33,130	1,502	16,259	12,345	0	478	0.7	1,526	97	482	440

<sup>\*</sup> Data for 2024 are preliminary.

Table 1(c). Average annual fishing effort for 2002-2004 and annual fishing effort for subsequent years for the Korean longline fishery directed at North Pacific albacore in the North Pacific Ocean

Area	Fishery	2002-04		20	2018		19	2020	
		Average							
		No. of	Vessel	No .of	Vessel	No .of	Vessel	No. of	Vessel
		vessel	days	vessel	days	vessel	days	vessel	days
Convention	Longline	*	*	*	*	*	*	*	*
area									
Area	Fishery	20	21	20	22	20	23	20	24
		No. of	Vessel	No. of	Vessel	No. of	Vessel	No. of	Vessel
		vessel	days	vessel	days	vessel	days	vessel	days
Convention	Longline	*	*	*	*	*	*	*	*
area									

<sup>\*</sup> Korea does not have any vessels targeting directly North Pacific albacore in the North Pacific Ocean.

Table 1(d). Annual catch and effort of southwest striped marlin by the Korean longline fishery in the south of 15°S, 2020-2024

Year	Catch (t)	Effort (number of fishing vessels)
2020	0	0
2021	0	0
2022	0	0
2023	0	0
2024	0	0

<sup>\*</sup> Korea does not have any vessels fishing for southwest striped marlin, and any southwest striped marlin catch is bycatch.

Table 1(e). Annual catch of swordfish by the Korean longline fishery in the south of 20°S, 2020-2024

Year	_	ged vessels of 20°S	Chartere	ed vessels	Other vessels fishing within the CCM's waters south of 20°S					
	Catch	Vessel	Catch	Vessel	Flag	Catch	Vessel			
	(t)	numbers	(t)	numbers	1 145	(t)	numbers			
2020	0	0	0	0	0	0	0			
2021	0	0	0	0	0	0	0			
2022	0	0	0	0	0	0	0			
2023	0	0	0	0	0	0	0			
2024	0	0	0	0	0	0	0			

<sup>\*</sup> Korea does not have any vessels fishing for swordfish in the Convention Area south of 20°S, and any swordfish catch is bycatch.

Table 1(f). Annual catch and effort of south Pacific albacore by the Korean longline fishery in the south of 20°S, 2020-2024

Year	Catch (t)	Effort (number of fishing vessels)
2020	0	0
2021	0	0
2022	0	0
2023	0	0
2024	0	0

<sup>\*</sup> Korea does not have any vessels fishing for south Pacific albacore in the Convention Area south of 20°S, and any south Pacific albacore catch is bycatch.

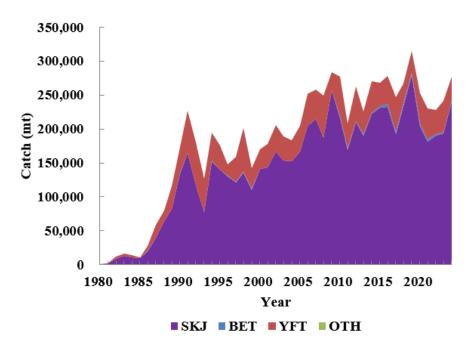


Fig. 1(a). Historical annual catch for the Korean purse seine fishery by primary species in the WCPFC Convention Area during 1980-2024.

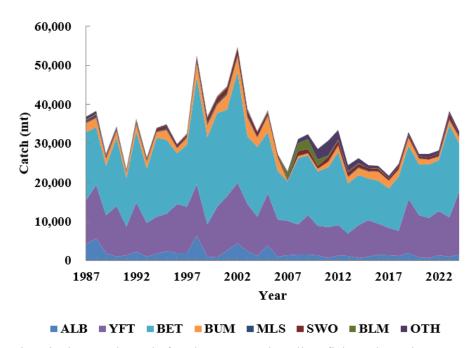


Fig. 1(b). Historical annual catch for the Korean longline fishery by primary species in the WCPFC Convention Area during 1987-2024.

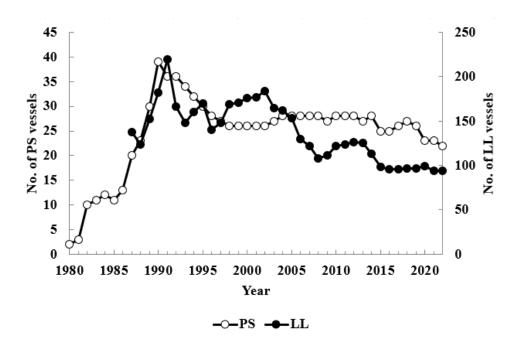


Fig. 2. Historical annual vessel numbers for the Korean tuna fisheries by gear in the WCPFC Convention Area during 1980-2024.

Table 2. Number of Korean vessels by gear and size, active in the WCPFC Convention Area, 2020-2024

					GRT	Class b	y gear					
Year		Longline					Purse seine					
1 Cai	Total	0-50	51-	201-	500+	Total	0-	501-	1,001-	1,500+		
	Total	0-30	200	500	3001	Total	500	1,000	1,500	1,500		
2020	99	0	1	98	0	23	0	5	15	6		
2021	94	0	0	94	0	23	0	2	15	6		
2022	94	0	0	94	0	22	0	3	13	6		
2023	96	0	1	95	0	22	0	2	8	12		
2024	94	0	1	93	0	22	0	2	8	12		

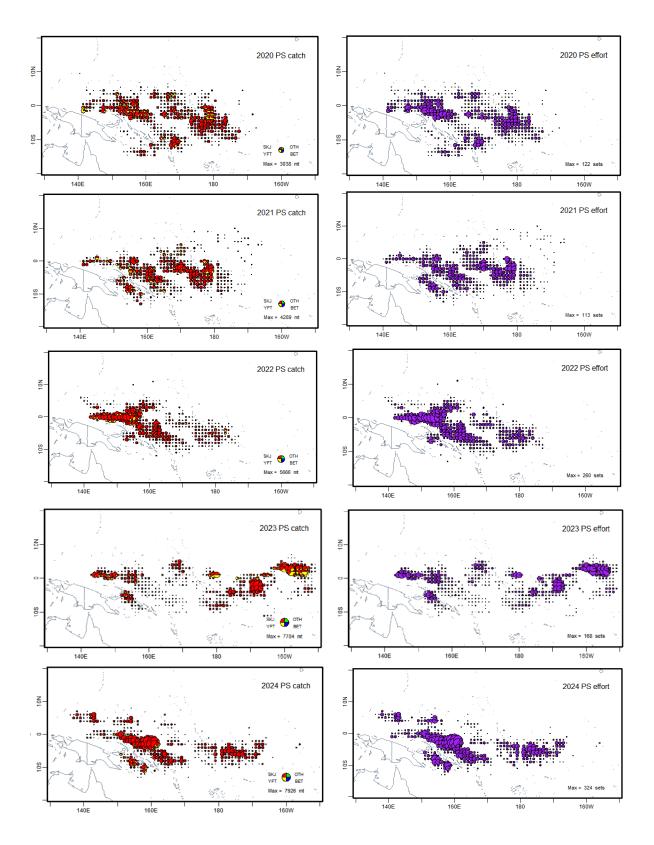


Fig. 3(a). Annual catch and effort distributions of target species by the Korean purse seine fishery in the WCPFC Convention Area, 2020-2024.

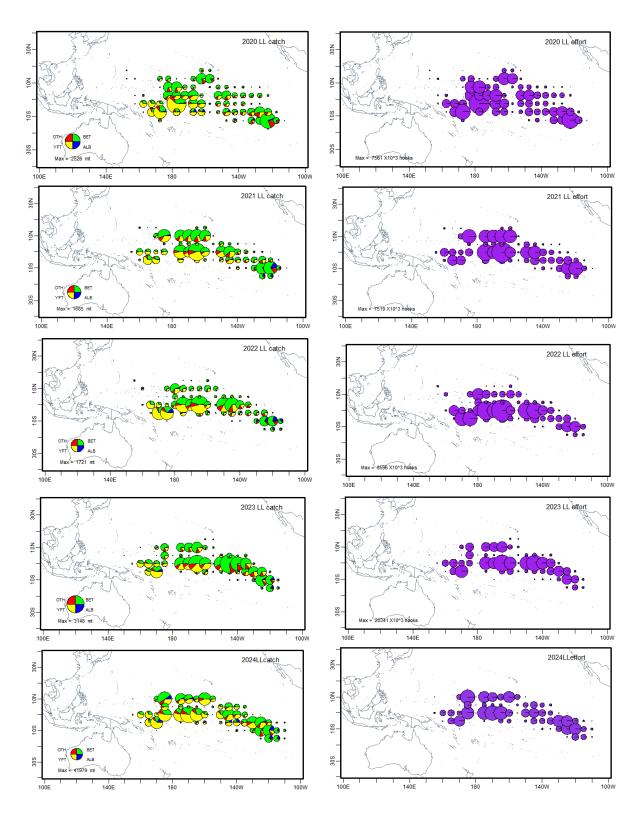


Fig. 3(b). Annual catch and effort distributions of target species by the Korean longline fishery in the Pacific Ocean, 2020-2024.

Table 3(a). Annual estimated catch or encounter of species of special interest (seabird, turtle, marine mammals, etc.) by the Korean fisheries in the WCPFC Convention Area, 2020-2024

		11415, 0					imber by s					
Fishery	Year	Whale shark	Leather -back turtle	Olive ridley turtle	Logger- head turtle	Green turtle	Other marine turtles	False killer whale	Hump- back whale	Pygmy killer whale	Other whales	Sea- birds
	2020	D: 0 A: 14	-	-	D: 0 A: 6	D: 0 A: 1	D: 0 A: 1	D: 0 A: 13	-	-	D: 0 A: 7	-
	2021	-	-	-	D: 0 A:2	-	-	-	-	-	-	-
PS	2022	D: 0 A: 1	-	-	-	D: 0 A: 1	-	-	-	-	-	-
2	2023	D: 0 A: 14	-	-	D: 0 A: 4	D: 0 A: 2	-	-	-	-	D: 0 A: 21	-
	2024	D: 0 A: 2			D: 0 A: 1	D: 0 A: 1	D: 1 A: 1					
	2020	-	-	D: 2 A: 0	-	-	-	-	-	-	-	D: 1 A: 0
	2021	-	-	-	-	-	-	-	-	-	-	D: 3 A: 0
LL	2022	-	-	-	-	-	D: 0 A: 2	-	-	-	-	D: 25 A: 0
	2023	-	-	-	-	-	D: 0 A: 9	-	-	-	-	D: 4 A: 0
	2024						D: 0 A: 2					

<sup>\*</sup> D and A indicate "dead" and "alive", respectively.

Table 3(b). Effort, observed and estimated seabird captures by fishing year for Korean longline fishery in the area of 23°N - 25°S, 2020-2024

V		Fishing		Observed seabird captures		
Year	Number of vessels			% hooks observed	Number	Rate
2020	99	56,374	1,417	2.5	1	0.002
2021	94	55,462	1,149	2.1	3	0.005
2022	94	57,119	1,370	2.4	25	0.044
2023	96	68,757	3,366	4.9	4	0.006
2024	94	47,036	3,609	7.7	3	0.006

<sup>\*</sup> Korea does not have any vessels operating in the Convention Area north of 23 °N and in the south of 30 °S.

Table 3(c). Proportion of mitigation types used by Korean longline fishery in 2024

1 dole 5(e). 1 tope	rtion of initigation t	<del>/ 1                                   </del>			
	Combination of	Proportion (		fort using mitigat	on measures
	Mitigation Measures	South of 30°S	25°S-30°S	25°S to 23°N	North of 23°N
	No mitigation			84.2	
	measure				
Options required	TL+NS				
south of 25°S	TL+WB				
	NS+WB				
	TL+WB+NS				
	HS				
Other options	WB				
25°S-30°S	TL			6.0	
Other options	SS/BC/WB/DSLS				
north of 23°N	SS/BC/WB/(MOD				
	or BDB)				
Provide any other	MOD			9.8	
combination of					
mitigation					
measures here					
	Totals			100	

TL= tori line, NS= night setting, WB= weighted branch lines, SS= side setting, BC= bird curtain, BDB= blue dyed bait, DSLS= deep setting line shooter, MOD= management of offal discharge, HS= hook-shielding device. \* This data comes from scientific observer data.

Table 3(d). Number of observed seabirds captured in Korean longline fisheries, 2024, by species and area

Species	South of 30°S	25°S-30°S	North of 23°N	23°N-25°S	Total
Frigates	-	-	-	3	3
Total	-	1	-	3	3

<sup>\*</sup> This data comes from scientific observer data.

Table 4(a). Annual estimates of retained and discarded catch of key sharks by the Korean longline fishery in the WPCFC Convention Area, 2020-2024

			Retained catcl	n (mt) by key	shark species		
Year	Blue shark	Thresher sharks	Hammerhead Sharks	Mako sharks	Silky shark	Oceanic whitetip shark	Others
2020	0	<1	<1	<1	0	0	14
2021	5	0	0	0	0	0	<1
2022	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0

<sup>\*</sup> No shark species has been retained by the Korean purse seine fishery.

		Discard catch (number) by key shark species										
Fishery	Year	Blue shark	Thresher sharks	Hammerhead sharks	Mako sharks	Others						
	2020	0	1	1	0	102						
Duman	2021	0	0	0	0	40						
Purse seine	2022	0	0	0	0	791						
Sellie	2023	1	5	0	0	7						
	2024	3	0	0	20	0						
	2020	1,688	728	3	41	1,651						
	2021	2,925	284	0	22	3,369						
Longline	2022	1,026	64	0	8	887						
	2023	3,484	514	1	130	615						
	2024	10,368	575	0	251	19						

<sup>\*</sup> These data include all of status of "dead" and "alive".

Table 4(b). Annual number of releases of oceanic whitetip shark and silky shark by the Korean fisheries in the WPCFC Convention Area, 2020-2024

Fishery	Year	Number of releases						
rishery	i cai	Oceanic whitetip shark	Silky shark					
	2020	D: 21, A: 0	D: 1,845, A: 304					
	2021	D: 0, A: 0	D: 170, A: 76					
Purse seine	2022	D: 3, A: 0	D: 466, A:322					
	2023	D: 2, A: 3	D: 569, A: 381					
	2024	D: 12, A: 7	D: 547, A: 1,186					
	2020	D: 13, A: 9	D: 106, A: 194					
	2021	D: 2, A: 18	D: 28, A: 113					
Longline	2022	D: 47, A:102	D: 227, A: 240					
	2023	D: 20, A: 31	D: 1, A: 46					
	2024	D: 4, A: 253	D:2, A: 186					

<sup>\*</sup> D and A indicate "dead" and "alive", respectively.

<sup>\*\*</sup> See Table 4(b) for oceanic whitetip shark and silky shark.

Table 5. Estimated annual coverage of operational catch/effort and observer data for the Korean fisheries by gear, active in the WCPFC Convention Area, 2020-2024

Year	Gear	Logsheet coverage (%)	Observer coverage (%)
2020	Purse seine	100	*
2020	Longline	100	3.8
2021	Purse seine	100	*
2021	Longline	100	2.0
2022	Purse seine	100	100
2022	Longline	100	4.9
2023	Purse seine	100	100
2023	Longline	100	10.5
2024	Purse seine	100	100
	Longline	100	14.1

<sup>\*</sup> WCPFC Commission agreed to suspend the requirements for observer coverage on purse seine vessels and atsea transhipment due to COVID-19 pandemic.

# \* 2024 observer coverage for Korean longline fishery

	No.	No. of Hooks			s Fished		Da	ys at Sea		No.	of Trips	
Fishery	Total Estimated	Observed	%	Total Estimated	Observed	%	Total Estimated	Observed	%	Total Estimated	Observed	%
Longline							21,819	3,074	14.1			

Table 6. Information on the transhipment of Korean fleets in 2024

# (1) Amount (kg) of transshipped fish

a);	b) transshipped in port, transshipped at sea in areas of national							c) transshipped inside the Convention Area				1	d) caught inside the Convention Area				
	juriso	diction, and trai	and transshipped beyond areas of national jurisdiction						and transshipped outside the Convention Area				and caught outside the Convention Area				
offloaded	Tran	sshipped in	Transs	hipped at s	ea '	Transsl	hipped beyond	Transshipped inside Tra		Trai	Transshipped outside		Caught inside the		the (	Caught outside the	
and	port		in area	s of nationa	national area		f national	the Convention Area the		the	Convention A	rea	Convention Area		rea (	Conve	ntion Area
received			jurisdi	ction	j	jurisdiction											
Offloaded		-		-		17,275,153		17,115	,140		160,013		13,584,503			3,690,650	
	23	33,333,810		-			-	233,333	3,810		-		233,333,810		)	-	
Received	29	2,095,209	5	,972,000		22	2,341,366	319,322,281			1,086,294	3		315,515,580		4,892,995	
e) Species																	
BET		YFT		SKJ	ALB		BUM	SWO	MLS		WHM	WH	Н	OSH	Shar	k fin	OTH
10,601,41	1	4,330,025	20	05,102	56′	567,103 516,585		649,625	77,389	9	-	-		-	-	-	327,913
1,735,14	0	46,169,090	185	,429,260	2	200	-	-   -   -		-	-		-	-		120	
15,128,50	)9	81,318,455	6	8,400	1,35	55,565	604,241	605,902	220,251,	301	364,471				-		711,731
f) Product F	Form							g) Fishing g	gear								
GG(GG+GGT) Dress(HGT+DWT) Round Others					Others												
15,010,0	15,010,088 1,516,095 691,821 57,149		57,149	Longline													
767,00	767,000		00	229,874,81		10 33,000		Purse seine									
17,363,551 2,405,323 300,181,551 458,150			Carrier Ves	sel													

# (2) Number of transshipments

a)	b) transshipped	l in port, transshipped a	t sea in areas of	c) transshipped ins	ide the Convention	d) caught inside	e) Fishing	
offloaded	national jurisdi	ction, and transshipped	beyond areas of	Area and transship	ped outside the	Area and caught	gear	
and	national jurisdi	ction		Convention Area		Convention Area		
received;	Transshipped	Transshipped at sea	Transshipped beyond	Transshipped	Transshipped	Caught inside	Caught outside	
	in port	in areas of national	areas of national	inside the	outside the	the Convention	the Convention	
		jurisdiction	jurisdiction	Convention Area	Convention Area	Area	Area	
Offloaded	-	-	124	123	1	96	108	Longline
	236	-	-	236	-	236 -		Purse seine
Received	457	7 200		655	9	646	18	Carrier Vessel

#### 2. Background

The Korean distant water tuna longline fishery (herein "Korean tuna longline fishery") that stepped up the first fishing in the Indian Ocean in 1957, has explored the Pacific Ocean since 1958 and the Atlantic Ocean since 1967. The high seas and the waters within coastal states in the South Pacific Ocean have been the main fishing grounds for Korean longline fishery. There was a change in the longline fishing operation types. Longline vessels used foreign ports for fishing base near the fishing grounds from the beginning but they have gradually equipped with deep freezing facilities and used home ports for fishing base since 1972. All longline vessels have based domestic ports since 1999.

The Korean distant water tuna purse seine fishery (herein "Korean tuna purse seine fishery") was initiated by accessing into the Eastern Pacific fishing ground with 3 vessels in 1980. Helicopter-aided mass operations were introduced in 1980 or the first time, and the number of active vessels was the highest of 39 in 1990, but has decreased to 23-27 in recent years. Most of the catches are supplied to the packers for domestic consumption and are exported to foreign canneries.

These fisheries are managed by the Distant Water Fisheries Development Act put into effect on the 4 February, 2008, and the Act has been amended several times according to RFMOs' CMM amendments. The electronic reporting (ER) system has been implemented since 1 September, 2015.

## 3. Flag State Reporting

#### 3.1. Annual catch and effort

Annual catch and effort for Korean tuna fisheries by gear and primary species are shown in Table 1 and Fig. 1. The average of total catch in the western and central Pacific Ocean (WCPO) by Koran tuna fisheries was 276,537 t in recent 5 years (2020-2024). Total catch in 2024 was 309,770 t, which accounted for 10.8% and 12.0% higher than those of 2023 and the average for 5 recent years, respectively.

The average catch of purse seine fishery was 245,591 t during 5 recent years (2020-2024). The purse seine catches in 2024 was 276,640 t with 22 active vessels, which was 14.8% and 12.6% higher than those of 2023 and the average for 5 recent years (2020-2024). Purse seine fishing efforts ranged from 6,098 to 7,535 sets during 5 recent years (2020-2024), and the number of sets in 2024 was 7,535 set, which is the highest during 5 years.

The average catch of longline fishery was 30,947 t during recent 5 years (2020-2024). The catch of longline fishery with 94 active vessels in 2024 was 33,130 t, which was 14.2% lower than of 2023, and 6.6% higher than the average for 5 recent years(2020-2024). Catches of bigeye and yellowfin caught by longline in 2024, which are target species by the Korean tuna longline fishery, were 12,345 t and 16,259 t, respectively. Longline fishing efforts ranged from 47,036 to 68,757 thousand hooks during 5 recent years (2020-2024), and the number of hooks in 2024 was 47,036 thousand hooks, which is the lowest during 5 years.

Catches and efforts of north Pacific albacore, southwest striped marlin, south swordfish and south Pacific albacore in 2024 are shown in Table 1(c, d, e, f).

#### 3.2. Fleet structure

The number of active vessels by gear and size is represented in Fig. 2 and Table 2. The number of purse seine vessels, once peaked at 39 in 1990, reduced to 28 in 1996, and after that decreased to 22~23 up to now. In 2024, the number of fishing vessels was 22, of which 2 vessels were of 501-1,000 class, 8 vessels of 1,001-1,500 class and 12 vessels of over 1,500 class. The number of longline vessels reduced from 220 in 1991 to 108 in 2008, and slightly increased and ranged from 111 to 126 thereafter. Since 2015 it has decreased to less than 100. In 2024, the number of active vessels was 1 vessel of 51-200 class and 93 of 201-500 GRT class, which reduced 2 vessels compared to 2023.

#### 3.3. Fishing patterns

The distributions of catch and effort of target species by gear are shown in Fig. 3. Korean tuna purse seine fishery has generally been operating throughout the year in the tropical area of the WCPO between 140°E-170°W and from time to time extended to the east subject to oceanographic conditions. Purse seine fishing efforts from 2020 to 2022 were relatively concentrated in the western Pacific side such as, east of 165°E. In 2023, the fishing area was extended towards EPO, with fishing concentrated particularly in the northern part of the tropical area. And main fishing area moved to WCPO mainly in the area of 150-170 °E.

Longline fishery efforts were normally higher in the central and eastern Pacific Ocean. The fishing efforts in 2020 was more concentrated on the central tropical area 170°E-160°W of 15°N-15°S compared to the previous years. In recent years, their fishing efforts were more concentrated on the central tropical area, which was the same as previous years, and the eastern part of 115 °E-130 °E in the southern tropical area.

#### 3.4. Annual estimated catches of species of special interest

The species of special interest (seabirds, turtles, marine mammals, etc.) encountered or bycaught incidentally by Korean purse seine and longline fisheries are presented in Table 3. The data were compiled from logsheet recorded by captain on board and collected by scientific observer programs. In 2024, 2 whale sharks, 1 loggerhead turtle, 1 green turtle and 2 marine turtles were encircled by purse seine nets, and 2 marine turtles were bycaught by longline fishery, respectively. All these species were encountered with purse seine nets or bycaught incidentally by longline, and they were released promptly under the guideline for safety release of each species. All Korean fishing vessels operated in the areas between 20°N and 20°S (Fig. 3), and the observed seabird capture rate were 0.044, 0.006 and 0.006 in 2022, 2023 and 2024, respectively (Table 3(b)). Several vessels were taken mitigation measures like tori line and management of offal discharge in 2024 (Table 3(c)). 3 seabirds were encountered by longline fishery, two individual were all frigates (Table 3(d)).

#### 3.5. Annual estimated catches of non-target, associated and dependent

The shark species caught by longline fishery are presented in Table 4(a). These data were compiled from logsheet recorded by captain onboard. As key shark species, the catches in 2023 were 0 t. In accordance with CMM 2011-04 and 2013-08, the number of releases of oceanic whitetip shark and silky shark are presented in Table 4(b). All these species bycaught were released promptly in a manner that results in as little harm to individual as possible.

#### 3.6. Estimated annual coverage of catch and effort and observer data

Estimated annual coverages of logsheet (catch and effort data) and observer data are shown in Table 5. The coverage of logsheet data has been 100% for both purse seine and longline fisheries since 2013. The observer coverage for longline fishery in 2024 was 14.1% based on days at sea.

### 4. Coastal State Reporting

N/A

### 5. Onshore developments

Korea consistently promotes investment plans on land facility in the coastal states where its distant waters fleets are operating.

# 6. Future Prospects of the fishery

The fleet power of purse seine and longline is expected to keep the current level, and production seems to be affected by fisheries resources trend in the oceans, conservation and management measures of RFMOs and permission policy of the coastal states. Meanwhile recognizing that demand at international and domestic market is increasing on production caught from responsible and sustainable fishing activity, Korea strives to strengthen on MCS, scientific survey and education relating to bycatch for fishermen.

### 7. Status of tuna fishery data collection systems

#### 8.1. Logsheet data collection and verification

Catch statistics of Korean distant water fisheries are obtained from two sources of data reporting. The Korea Overseas Fisheries Association (KOFA) collects monthly catch by gear and species from the Korean tuna industries, and the National Institute of Fisheries Science (NIFS) collects operational effort and catch data through the Electronic Reporting (ER) system. In accordance with data reporting and submission requirement by the RFMOs, necessary

improvements have been continuously made in data coverage, accuracy and verification through cross-checking between NIFS and KOFA. Since 1<sup>st</sup> September 2015, the Act on Fisheries Information and Data Reporting has obliged fishers of distant-water fisheries to report fishing information to the NIFS in real time through the Electronic Reporting (ER) system. This system continuously be reviewed and updated to include data reporting and collection requirements recently adopted by tuna RFMOs regarding ecologically important species, discard/release and bycatch mitigation, etc. The coverage of data reporting by the ER is 100%.

#### 8.2. Observer programme

The scientific observer program of distant-water fisheries of Korea was started in 2002. The National Institute of Fisheries Science (NIFS) and Korean Fisheries Resources Agency (FIRA) are responsible for implementing and developing the program. The basic requirement for observers is college graduated with the major field of nature science or fisheries high school graduated with at least 1-year experience on board and certificate of qualification to deck officer. Candidates for observer who have passed the paper review (including medical check) and oral interview have to take training programs for 3 weeks. Observer training programs include basic safety training for seafaring, operations of navigation devices, biological information training for target and non-target species and data collecting/reporting method for fishing activities. During the training program they have two kinds of test. First is the test for a technical term of fisheries and biology, and the other is the test for species identification. The person who scored 70% overall in the two tests and attended 100% of the course timetable can be qualified for a scientific observer and deployed on board. Korea has a total of 61 scientific observers at present.

#### 8.3. Port sampling programme

In Korea, there are 4 domestic landing ports for tunas caught in WCPO, which are Busan, Masan, Tongyeong and Mokpo, all located along the southern coast of Korea, nearby the landing port, there are 5 canneries owned by 4 companies in which about 100,000 tons of tunas from WCPO are landing.

The National Institute of Fisheries Science (NIFS) used to conduct biological sampling in the domestic cannery from 1997 to 2006. A preliminary study for species identification from the catch of purse seine was conducted in a cannery of Korea in 2011 and the result was provided to the WCPFC SC7 (ST-IP-09).

#### 8.4. Unloading/Transhipment

In accordance with Article 13 of the Distant Water Fisheries Development Act, all distant water fishermen shall comply with procedures and regulations established by Regional Fisheries Management Organizations. Therefore, all transhipments by Korean vessels fishing all high migratory fish stocks covered by the WCPFC Convention take place in accordance with WCPFC CMM 2009-06. Also, vessel operators are encouraged to assist the WCPFC ROP observers in having full access to both the unloading and the receiving vessels to verify that the transhipped quantities of fish are consistent with other information available to observers. After the completion of transhipment, the transhipment declaration is subject to verification

against fishing vessel's monthly catch report, logsheets and observer reports (if available). The information on the transhipment of Korean fleets in 2024 is summarized in Table 6.

#### 8. Research activities covering target and non-target species

Korea carried out a sea trial to mitigate bycatch of seabird in the Korean tuna longline fisheries with BirdLife International, 2013-2016, and conducted a project in the Indian Ocean for developing FAD to the extent possible minimize the capture of small bigeye and yellowfin and to reduce the entanglement of bycatch, 2016-2018.