



**SCIENTIFIC COMMITTEE
FOURTH REGULAR SESSION**

11-22 August 2008
Port Moresby, Papua New Guinea

**ANNUAL REPORT – PART 1
INFORMATION ON FISHERIES, RESEARCH, AND STATISTICS**

WCPFC-SC4-AR PART 1/WP-4

CHINA

Summary of China Tuna Fishery Report in the WCPFC in 2007

There are two types of tuna fishery(LL and PS) in the WCPFC waters in 2007. The total number of LL vessels in 2007 were 86, which included the ice fresh tuna longline vessels(IFLL) 36 and deep frozen tuna longline vessels(DFLL) 50. The IFLL vessels mainly operate in the Exclusive Economic Zone(EEZ) of Pacific Island Countries(PIC) targeting bigeye tuna and albacore. The major fishing grounds distributed among the EEZ of Federated States of Micronesia, Marshall Islands, Fiji etc. Most of the DFLL vessels targeting bigeye tuna in the high seas and the EEZ of PIC. The size of the LL vessels ranged from 67 GRT to 742 GRT. The number of PS vessels in 2007 went up to 10.

The total catch of tuna and tuna-like species by Chinese LL and PS fishery were 73428 MT in 2007, of which were mainly composed of albacore(5453 MT), bigeye tuna(7821 MT), yellowfin tuna(7776 MT), and skipjack(48745MT). The catch by Chinese LL fishery and PS fishery were 18487 MT and 54941 MT respectively. The catch by IFLL and DFLL were 9087MT and 9400 MT respectively in 2007. The composition of catch by IFLL are mainly ALB(53%, 4835MT), BET(22%,2024 MT) and YFT(2%, 183MT) and SWO(13%,1221MT). The composition of catch by DFLL are mainly ALB(7%, 618MT), BET(62%, 5797 MT) and YFT(15%,1397MT) and SWO(9%, 892MT). The composition of catch by PS were skipjack(86.9%, 47745MT), YFT(11.3%,6196MT) and BET(1.8%,1000MT)

Data coverage of catch and effort was 100%. Scientific observer programm have been carried out and three observers are being sent to longline vessels in the high seas since early 2008. Observers collect fishery data of tunas and other pelagic fishes, collect size-frequency data of all pelagic fishes

CHINA TUNA FISHERIES IN THE WESTERN AND CENTRAL PACIFIC OCEAN 2007

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1. Brief introduction

China began to develop its oceanic tuna fisheries in 1988 in the Pacific Ocean and this region is one of the earliest fishing grounds by China tuna fishery. There are currently two types of tuna fisheries in the WCPFC Convention area: tuna longline fishery, purse seine fishery. The catch of four main tuna species (skipjack, yellowfin tuna, bigeye tuna and albacore) by China in 2004 was 40165 MT. The four species catch hit the historical record 73723MT in 2006. However, catch of four species reduced to 69795 MT in 2007.

2. Fleet structure

2.1 Longline (LL)

All the Chinese LL vessels operated in the high seas and EEZ Pacific Islands Countries (PIC). The number of LL fishing vessels has shown increase trend since the year 2000. By the year 2004, the number of LL vessels go up to 212 and remained previous level in 2005. The number of vessels reduced to 157 in the 2006. But in 2007 the number of vessel continued to reduce to 86.

The size of the LL vessels ranged from 67 GRT to 742 GRT. There are two types of tuna longline vessels, ice fresh tuna longline (IFLL) and deep frozen tuna longline (DFLL). The number of IFLL vessels is 36 and the number of DFLL vessels is 50. Most of the DFLL vessels targeting bigeye tuna in the high seas and the EEZ of PIC, accounting for the 58% of the total vessels. The IFLL vessels mainly operate in the EEZ of PIC, targeting bigeye tuna and albacore. The major fishing grounds distributed among the EEZ of Federated States of Micronesia, Marshall Islands, Fiji etc.

2.2 Purse seine (PS)

Purse seine fishery began in 2001 in WCPFC Convention area and has become very important tuna fishery in China. The number of PS vessels in 2004 was 6 and increased at 8 in 2005 and 9 in 2006. The number of PS vessels in 2007 amounted to 10.

3. Catch by species for each type of Chinese tuna fisheries

3.1 Longline (LL)

When China began to develop its oceanic tuna fisheries in 1988, only seven longliners were operating in the WCPFC Convention area, with total catch of 42 MT in round weight. Since then,

the number of fishing vessels increased rapidly and reached 457 in 1994, with 14,062 MT of the nominal catch, the highest record level in the 1990's. The main species of the catch are bigeye tuna and yellowfin tuna, which accounted for 54% and 32% of the total catch respectively in 1994. After 1994, however, the number of boats and total catch went down. In 1998, there was a dramatic reduction in the number of Chinese tuna longliners in the WCPFC Convention area. Only 66 longliners were operating in 1998, decreasing by 391 vessels compared with those of 1994. Total nominal catch in 1998 was 1,116 MT . Before 1998, catch of albacore accounted for a small part of the annual total catch, less than 15 MT for each year. However, the number of fishing vessels and the total catch rose again in 1999, with 117 fishing boats and 8,333 MT of catch in round weight. The main targeted species have become albacore tuna, bigeye tuna, yellowfin tuna and swordfish, accounting for 41.7%, 13.0%, 26.8%, and 4.8% of the total catch respectively. Longline fishery operated in 2000, with fishing effort 24,707 thousand hooks and total catch of 7,291 MT. Targeted species included albacore tuna, bigeye tuna and yellowfin tuna. After the year 2000, the catch of tuna and tuna-like species has shown increase trend. The catch in 2002 reached at 7941 MT. And the catch in 2004 amounted to 22121 MT. The catch reduced to 15005 MT in 2005 and increased to 26133MT. But the catch by LL decreased in 2007, amounting to 18487 MT.

The catch are mainly composed of BET, YFT and ALB. The percentage of BET, YFT and ALB in 2005 by LL are 42%, 9% and 29% respectively in 2007.

The catch by Ice Fresh Longline(IFLL) and Deep Frozen Longline (DFLL) are 9087 MT and 9400 MT respectively in 2007. The composition of catch by IFLL are mainly ALB(53%), BET(22%) and YFT(2%) and SWO(13%). All the IFLL vessels operated in the EEZ of Pacific islands and fishery data submission should comply with the FFA requirement. Chinese government are requiring the fishery companies to submit specific species data and also hope obtain assistance from FFA to reduce OTH percentage.

3.2 Purse seine (PS)

The total catch by Chinese PS in the WCPFC Convention area are shown Table 2. The catch by PS has increased since the year 2001. The catch was only 3090 MT in 2001 and amounted to 54941 MT in 2007.. The main catch species by PS fishery are SKJ and YFT and bigeye tuna. The catch of yellowfin tuna was 6196 MT . The catch of skipjack was 47745 . Based on the port sampling of bigeye composition by Pacific Island countries , the catch of juvenile bigeye tuna by PS was estimated to 1000 MT

4. Disposal of Catch

Bigeye tuna and yellowfin tuna caught by longline vessels operated in the Exclusive Economic Zone (EEZ) of Pacific Island Countries and high seas were exported to Japan sashimi market. Other species caught as by-catch are sold to local market of operating ports. Albacore catch were landed at Fiji for canning. Catch by PS fishery were mostly transhipped to Thailand for canning.

5. Research and Statistics

Bureau of Fisheries, Ministry of Agriculture of China has been very much concerning the quality of tuna data collection. National-wide meeting on tuna data collection had been organized at least once a year during past years. Participants are managers of tuna fishing companies and tuna-related fishery enterprises. In addition, each vessel of all the companies engaged in tuna fishing and tuna fisheries has been required to submit their fishery data (such as catch and fishing effort by species, month, gear, area etc.) to China Fisheries Association, a nongovernmental organization, before the set dead line every year.

Data coverage of catch and effort was 100%. Scientific observer programm have been carried out and three observers are being sent to longline vessels in the high seas since early 2008. Observers collect fishery data of tunas and other pelagic fishes, collect size-frequency data of all pelagic fishes.

Table 1 Number of Chinese tuna fishing vessels operating in the WCPFC Convention area in 1988-2007.

Year	LL	PS	Total
1988	7	0	7
1989	9	0	9
1990	23	0	23
1991	39	0	39
1992	72	0	72
1993	310	0	310
1994	457	0	457
1995	416	0	416
1996	314	0	314
1997	148	0	148
1998	66	0	66
1999	115	0	115
2000	106	0	106
2001	116	1	117
2002	123	2	125
2003	179	4	183
2004	212	6	218
2005	212	8	220
2006	157	9	166
2007	86(36+50)	10	96

Table 2. Nominal Catch of tuna and tuna-like species by the Chinese tuna fishery in the WCPFC Convention area in 2004-2007 Unit of Catch: MT in Round Weight

Year	Gear	ABL	BET	YFT	SWO	SKJ	BIL	OTH	Total
2004	LL	6104	9314	4048	1003	0	570	1082	22121
	PS	0	0	595	0	20104	0	0	20699
	Total	6104	9314	4643	1003	20104	570	1082	42820
2005	LL	4103	6399	2367	608	0	479	1049	15005
	PS	0	0	9732	0	38928	0	0	48660
	Total	4103	6399	12099	608	38928	479	1049	63665

2006	IFLL	5826	2076	2135	260	0	475	2385	13157
	DFLL	1365	7714	1862	1024	0	339	672	12976
	PS	0	0	4968	0	47776	0	0	52774
	Total	7191	9790	8965	1284	47776	814	3057	78877
2007	IFLL	4835	2024	183	1221	0	570	254	9087
	DFLL	618	5797	1397	892	0	185	511	9400
	PS	0	0	6196	0	48745	0	0	54941
	Total	5453	7821	7776	2113	48745	755	765	73428

Note: The catch of Skipjack in 2007 including 1000 MT juvenile bigeye tuna.