

## **Review of Taiwan's SBT Fishery of 2003/2004**

### **1. INTRODUCTION**

Taiwan has traditionally been fishing for southern bluefin tuna (SBT) since 1970s. The SBT was caught partly by seasonal target fishery and partly by albacore/bigeye fisheries as a by-catch. Seasonal target fishery was conducted mainly by longliners equipped with super cold freezers, fishing in two seasons, i.e. one from June to September and the other from October to February of the following year, in the waters around 30°S-35°S. However, no year-round target fishing has yet been conducted. The total annual catch in 2004 was preliminarily estimated to be 1,298 mt, an increase of 170 mt compared to the previous year 2003. The annual catch in 2004 was outreached to 1,140 mt, the catch limit allocated by CCSBT. Therefore, the outreaching amount of over catch 158 mt will be deducted from the quota in 2005.

### **2. OPERATIONAL CONSTRAINTS ON EFFORT**

#### *Regulatory Measures*

Taiwan has become a member of the Extended Commission of CCSBT in 2002, and agreed to its national catch limit of 1,140 mt. Two groups of fishing vessels for seasonal target fishery and by-catch on SBT are differentiated and each of those authorized vessel is allocated with individual quota. Each vessel is required to register with the Taiwan Tuna Association either for target or by-catch fishery. Besides, those vessels have to be reviewed and approved by the government before catching SBT. About 99% of the annual catch was allocated to the seasonal target vessels, while the remaining 1% to the by-catch vessels in 2004.

In order to collect SBT catch information in a timely basis and to manage the total SBT catch not exceeding the catch limit, every vessel that catches SBT has been required to submit weekly report on it's catches of SBT in weight and fishing location to the fisheries authorities since 1996. This system has been refined in 2002 to obtain more accurate catch information including the length measurement of each fish caught. Taiwan has undertaken issuing of SBT Statistical Document for exportation of SBT from June 2000 to be in line with the requirement of Trade Information Scheme (TIS). All vessels fishing for SBT have also been required to be equipped with Vessel Monitoring System's (VMS) equipment for transmitting the vessel location in real time to the monitoring center since 2002. Fishing in spawning area of SBT suggested by Scientific Committee is prohibited and document of TIS will not be issued to any catch from this area to protect the spawning stock.

### **3. CATCH AND EFFORT**

In the 2004 fishing season, SBT catch limit of Taiwan maintained at 1,140 mt, and the actual catch was 1,298 mt caught by 107 vessels including seasonal target and by-catch fishery. About 91% of the Taiwanese SBT catch was caught in the southern and central Indian Ocean, 9% was caught in the southern and western Indian Ocean extending to the

eastern boundary of the Atlantic Ocean. There were 76 vessels in total approved as seasonal target or by-catch fishery in 2005.

#### **4. HISTORICAL CATCH AND EFFORT**

In early 1980s, annual catch of SBT was relatively small as less than 250 mt. With continuously expanding of tuna long-line fleet and fishing grounds, increase in annual catches was prominent afterwards. Between 1989 and 1992, there was significant increase of SBT annual catch exceeding 1,100 mt, of which drift net fishery accounted for about 1/4 of the catches. With the prohibition of drift net fishery on the high seas since 1993 for compliance with the United Nations Gillnet Moratorium, the annual catch of SBT decreased to a stable level fluctuating between 800 and 1,600 mt during the last decade (Table 1). The discard amount of SBT in 2004 was preliminarily estimated from weekly reports to be 2 mt. Since 2004, the discard information was added in logbook, the preliminarily discard amount need to be crosschecked with the logbooks which will be recovered in 2005.

#### **5. ANNUAL FLEET SIZE AND DISTRIBUTION**

In 2004, 107 longline vessels were approved for catching SBT, of which most vessels operated in the Indian Ocean. Their fishing grounds were mainly in the waters of 20°S - 40°S, seasonally distributed in the southern and central Indian Ocean from June to September, and in the southern and western Indian Ocean extending to the eastern boundary of the Atlantic Ocean from October to February of the following year.

#### **6. HISTORICAL FLEET SIZE AND DISTRIBUTION**

SBT was caught only by longline fishery after 1992 in the three oceans, but mainly in the Indian Ocean. According to the weekly reports from the fishing vessels and trader's information, about 140 Taiwanese deep-sea longliners landed SBT each year during 1998-2002, and most of them operated in the Indian Ocean.

#### **7. FISHERIES MONITORING**

Intensive efforts have been continuously exerted for better understanding and monitoring the fishery through the following measures:

1. The weekly report for SBT catch is required through Taiwan Tuna Association to submit to Fishery Agency. Provision of daily records, including catch, fishing location and discards in the weekly report has been required while applying for SBT statistical document since 2002.
2. From April 2002, it is mandatory for the vessels that catch SBT shall be equipped with VMS's equipment in order to monitor location of the vessels.
3. The experimental scientific observer program has been launched since 2001. The coverage was 4% by catch in number in 2004.
4. TIS program has been implemented to collect more updated and detailed catch

information. While applying for TIS document, the applicant is required to submit the transshipment document issued by the cargo carriers. After unloading catch in Japan, the applicant is required to submit to Fisheries Agency the unloading documents issued by the Japanese Customs for further verification of catch statistics.

## **8. OTHER FACTORS**

### *Markets*

Currently, all SBT caught by Taiwanese vessels are exported to Japan for sashimi market. Domestic consumption is negligible.

Table 1. Annual SBT catches by Taiwanese deep-sea longline and drift net fisheries during 1971-2004. (Data of 2004 is preliminary.)

Unit: metric ton

Year	Deep Sea Longline	Drift Net	Total
1971	30		30
1972	70		70
1973	90		90
1974	100		100
1975	15		15
1976	15		15
1977	5		5
1978	80		80
1979	53		53
1980	64		64
1981	92		92
1982	171	11	182
1983	149	12	161
1984	244	0	244
1985	174	67	241
1986	433	81	514
1987	623	87	710
1988	622	234	856
1989	1,076	319	1,395
1990	872	305	1,177
1991	1,353	107	1,460
1992	1,219	3	1,222
1993	958		958
1994	1,020		1,020
1995	1,431		1,431
1996	1,467		1,467
1997	872		872
1998	1,446		1,446
1999	1,513		1,513
2000	1,448		1,448
2001	1,580		1,580
2002	1,137		1,137
2003	1,128		1,128
2004*	1,298		1,298