

Review of Korean SBT Fishery in the 2007 Fishing Season

1. Introduction

Southern bluefin tuna (SBT) fishery is the most recently developed tuna fishery by Korean distant-water fishing industry. The SBT catch made by Korean longline fleet reached a maximum in 1998, followed by continuous decrease until 2006. From 2007 Korean longliners targeting for SBT were increased and the catches of SBT were account for about 500 mt. Annual number of fishing vessels for SBT largely depends on Japanese market price for SBT and fishing condition on the fishing grounds.

2. Operational constraints on effort

Korean become a member of the Commission of CCSBT in 2002, and agreed to limit its annual catch of SBT to 1,140 mt. There is no restriction to fish SBT for Korean distant water tuna longliners which have the license issued by Ministry for Food, Agriculture, Forestry & Fisheries (MIFAFF). Korean tuna fisheries companies, however, have restricted the number of fishing vessels and have allocated individual quota by Fishery Company by themselves.

In order to collect SBT catch information in a timely manner and to control the total SBT catch not to exceed the catch limit, every vessel that catches SBT was required to submit weekly report on its catch of SBT by weight as well as its fishing location to the fishery authority through her company. And then the authority report the monthly catches of SBT to CCSBT Secretariat.

All Korean tuna longliners of distant water fishery installed satellite-based Vessel Monitoring System (VMS) for transmitting the position of vessels in a timely manner to the monitoring center.

3. Catch and Effort

In the 2007 fishing season, the actual catch was 453 mt caught by 12 active vessels including by-catch fishery and there was no report of discarding from these fishing vessels. There was no

report of SBT catches by recreational fishery either. Most of the SBT caught by Korean tuna fishing vessels are considered to be exported to Japan directly.

4. Catch and effort in the past

Typically fishing season of Korean SBT longline fishery usually started in March and ends by November or December. In the first half of fishing season from March to July or August, usually Korean longliners are fishing on the high seas of the western Indian Ocean off South Africa, with occasional expanded operation to the southeastern Atlantic, while in the second half they move to the eastern Indian Ocean off the western Australia. This fishing pattern and fishing grounds have rarely been changed for the past 16 years of fishing history for SBT except for 1991, but in 2006 and 2007, some catches were also taken from the western and eastern fishing grounds of Indian Ocean from March to December.

In 2006, 9 out of 16 registered longliners fished for SBT and made a catch of 130 mt (reported as processed weight), showing an increase by about 394% from 2005.

5. Annual scale and distribution of fishing fleet

SBT catches in 2007 by Korean longliners were mainly caught from April to December. About 83% of the Korean SBT catch was caught in the eastern South Africa of the western Indian Ocean, and remaining 17% in the eastern Indian Ocean and southeastern Atlantic Ocean. . The reason why the Korean fishing ground was formed in the area periodically was that the Korean longliners were mainly operated targeting the yellowfin and bigeye tunas recently in the Indian Ocean near the South Africa and Mozambique.

6. Scale and distribution of fishing fleet in the past

Korean SBT fishery commenced in 1991 with a few longliners shifted from tropical waters where they targeted bigeye and yellowfin tuna. Thus, in the early years of this fishery, SBT did not attract Korean fishing industry, but because of higher market price number of longliners rapidly increased to reach a maximum fleet size of 19 longliners in 1998. However, by the voluntary regulation of fleet size among fishing industries, annual fleet size for SBT fishery never exceeded 18 registered numbers since then and number of longline vessels active was 9 in 2006 and 12 in 2007. Annual number of fishing vessels for SBT largely depends on Japanese market price for SBT and fishing condition on the fishing grounds.

7. Monitoring of fishing

Fisheries statistics are collected and reported for a calendar year. Catch and effort data based on the logbooks are routinely collected through a fisheries data collection system which was lawful in 1977. According to this domestic regulation, distant-water fishing vessels have to submit the reports of their fishing operations within 30 days (home-based) or 60 days (foreign-based) after completion of their operations to the National Fisheries Research and Development Institute (NFRDI).

Korea initiated a fisheries observer program for distant-water fisheries including tuna fisheries in 2002. The purpose of this program is to meet the requirements of relevant regional fishery bodies and therefore the mission of trained observers is similar to those set out in the convention of the fishery bodies.

In 2007, one observer was deployed to monitor tuna longline fishery including by-catch species in the southwestern Indian Ocean, between 27°-39°S and 40°-48°E for three months starting from the end of August to early December. The observer recorded a total catch of 36.3mt of yellowfin and bigeye tunas, and a total catch of 11.7mt of SBT during 95 days of observation period.

Table 1. Summary of observed catch and effort coverage by Korea in 2004-2007.

Year	Sector	Observers Deployed	Sea Days	Sets/Tows Observed	Observed Vessels	Observed Effort (% , units)	Observed Catch (% , units)	Total Cost (Won)
2004	Longline	1	39	38	9%	2% (hooks)	0.2%	7,050,000
2005	Longline	1	29	20	9%	2% (hooks)	-	6,459,000
2006	Longline	1	24	21	9%	2% (hooks)	-	8,400,000
2007	Longline	1	95	76	9%	2% (hooks)	27.5%	16,350,000

8. Others

Mandatory Measures for Each Fleet

Currently there are no mandatory measures taken by Korean Government to reduce the incidental catch of seabird by its tuna longline fishery. However, the Ministry of Food, Agriculture, Forestry and Fisheries (MIFAFF) is developing the National Plans of Action for the reduction of seabird and shark bycatch from longline fisheries and the preliminary NPOA-seabird and sharks is under compilation. It completed the NPOA-IUU fishing and reported to

FAO in 2005.

Voluntary Measures for Each Fleet

While no mandatory measures to reduce seabird bycatch was taken by the Korean Government, fishermen voluntarily adopted seabird deterrent device called tori line. Based on fishermen's interview, it was around 1990s when Korean longliners voluntarily began to deploy tori line to deter seabirds from baited hooks. Fishermen recognize from their experiences that deterring seabirds from contacting baits during SBT longline sets is beneficial not only to reduce seabird mortality but to their fishery by reducing bait and effort loss.

In 2006 and 2007, MIFFAF and NFRDI published guidebooks, information booklets and posters to educate fisherman through recent information and identification key for bycatch species in tuna fisheries.

To avoid or reduce mortality of seabird and sea turtle by tuna longline vessels, guidebooks, information booklets and posters for the information and release manual of these species were distributed to fishing boats including tuna longliners in 2006 and 2007.

NFRDI opens a training session for fishing vessel captains as they make a visit to Korean Tuna Longline Fishing Association before they begin their fishing trip. Last year, 5 training sessions were taken for fishing captains. The session largely includes reporting of fishing activity, target species and implementation of international regulation. However, the importance of bycatch reporting is also emphasized and encouraged.