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Report on CMM 2018-02 (Pacific bluefin tuna)

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KOREA

Implementation Report on the Conservation and Management Measure for Pacific Bluefin Tuna (CMM 2018-02)

July 31, 2019

Ministry of Oceans and Fisheries of the Republic of Korea

Pursuant to paragraph 4 and paragraph 10 of the Conservation and Management Measure for Pacific Bluefin Tuna (CMM 2018-02), the Republic of Korea hereby reports on its implementation of the CMM as follows:

A. Overview

In 2018, Korea's catch limit for Pacific Bluefin tuna (hereinafter referred to as "PBF") was 598.856 tons.

Korea's annual catch limit for PBF less than 30kg is set as 718 tons—50% of its 2002-2004 annual average (1,435 tons) while that for PBF 30kg or larger is set as 0 ton. However, as an overage of 469 tons of PBF 30kg or larger occurred in 2016, Korea announced its voluntary payback plan at the 13th Regular Session of the Commission in which 50% (235 tons) of the total overage would be equally deducted from each year's catch limit for PBF less than 30kg over the period of 2017 to 2021 (47 tons each year for a period of five years). In addition, in 2017, 72.1 tons were overrun and this was also subsequently deducted from the 2018 catch limit.

In 2018, Korea's annual catch limit for PBF was allocated by fishery as follows: 93.5% to large purse-seine fishery; 0.5% to set net; 1% to other fisheries; and 5% reserved. In 2018, the number of fishing authorizations or licenses issued as follows: 24 to large purse-seine fishery; 494 to set net; 81 large-scale bottom trawl fishery and 90 to troll fishery¹.

B. Further Details

Effort Control and Juvenile Catch Reduction

2. *CCMs shall take measures necessary to ensure that:*

(1) Total fishing effort by their fishing for Pacific Bluefin tuna in the area north of the 20° N shall stay below the 2002–2004 annual average levels.

(2) All catches of Pacific bluefin tuna less than 30 kg shall be reduced to 50% of the 2002-2004 annual average levels. Any overage of the catch limit shall be deducted from the catch limit for the following year.

¹ Large-scale bottom trawl and troll fisheries are recorded as other fisheries.

- Effort Control

In 2018, twenty-four (24) large-scale purse seiners were registered and twenty-three (23) of them actually caught PBF, which are below the level of 2002-2004 annual average (30 vessels).

Table 1: The Number of Vessels Caught PBF from 2002 to 2004

Year	No. of Vessels
2002	32
2003	29
2004	29

- Juvenile (age 0-3, less than 30kg) Catch Reduction

- a. Institutional Framework for Compliance

In accordance with the *Ministerial Directive on the Conservation and Management of Pacific Bluefin Tuna of the Ministry of Oceans and Fisheries of Korea*, which ensures the national implementation of CMM 2018-02, the Korean government sets Korea’s annual catch limit for PBF less than 30kg (age 0-3) to 50% (718 tons) of Korea’s 2002-2004 annual average (1,435 tons). The Directive requires that any PBF catches must be reported to the National Institute of Fisheries Science (NIFS) within 24 hours of the catch. Since 2005, the government has been crosschecking the reported PBF catches by Korean purse seiners with the sales log sheets maintained at designated consignment markets for the purpose of verification.

Major requirements of the Ministerial Directive also include:

- The efforts for PBF and the catches of juvenile PBF shall stay below the level prescribed by the relevant conservation and management measures of the WCPFC;
- Catches of PBF (e.g. target/non-target, quantities) shall be reported to the government, and be sold only at a designated consignment market; and
- When total PBF juvenile catches are deemed to approach or exceed its annual catch limit, the government shall take necessary measures to prevent the total catches from exceeding the catch limit (e.g. prohibition of PBF catches and closure of designated consignment market for PBF).

In addition, when 80-90 percent of the annual catch limit for juvenile has been exhausted, the government immediately prohibits any sales of PBF in both domestic and international markets through the closure of designated consignment markets for PBF and statistical documents. In 2018, the government issued an order to prohibit the capture of

any PBF as from 00:00 on March 26 in order to ensure compliance with the catch limit and stable management of PBF catch.

Catch Management on Non-Juvenil PBF

3. CCMs shall take measures necessary to ensure that all catches of Pacific Bluefin tuna 30kg or larger shall not be increased from the 2002-2004 annual average levels. Any overage of the catch limit shall be deducted from or may be added to the catch limit for the following year. The maximum underage that a CCM may carry over in any given year shall not exceed 5% of its annual initial catch limit. However, in 2018, 2019, and 2020 CCMs may use part of the catch limit for Pacific bluefin tuna smaller than 30 kg stipulated in paragraph 2 (2) above to catch Pacific bluefin tuna 30 kg or larger in the same year. In this case, the amount of catch 30 kg or larger shall be counted against the catch limit for Pacific bluefin tuna smaller than 30 kg. CCMs shall not use the catch limit for Pacific bluefin tuna 30 kg or larger to catch Pacific bluefin tuna smaller than 30 kg. The ISC is requested to review, in its work referred to in Section 5 of Harvest Strategy, the implications of this special provision in terms of PBF mortality and stock rebuilding probabilities in 2020. Based on that review, in 2020 the Northern Committee will determine whether it should be continued past 2020, and if so, recommend changes to the CMM as appropriate.

The aforementioned Directive requires that any catches of PBF 30kg or larger must be reported along with the record of corresponding fishing activities to NIFS within 24 hours of the catch. In addition, all PBF captured are required to be sold only at designated consignment markets for the purpose of verification and of preventing any illicit trade.

If and when there is a risk of seriously undermining the effectiveness of the CMM, the government takes measures including the prohibition of fishing and landing of PBF, the closure of designated consignment markets for PBF and the suspension of issuing PBF statistical documents.

Korea's annual catch limit for PBF 30kg or larger is 0. However, Korea uses part of the catch limit for PBF smaller than 30kg stipulated in paragraph 2(2) to catch PBF 30kg or larger through 2020 as allowed by the special provision in paragraph 3 of the CMM.

Reporting Requirements for Fishing Effort and Catch Levels

4. CCMs shall report their 2002–2004 baseline fishing effort and <30 kg and >=30kg catch levels for 2013 and 2014, by fishery, as referred to in paragraphs 2 and 3, to the Executive Director by 31 July 2015. CCMs shall also report to the Executive Director by 31 July each year their fishing effort and <30 kg and >=30 kg catch levels, by fishery, for the previous 3 year, accounting for all catches, including discards.

The baseline effort (2002-2004) of the Korean large-scale purse seine fleet was 30 vessels (32 in 2002; 29 in 2003; and 29 in 2004), the reference point under which Korea's efforts are being kept pursuant to paragraph 2(1) of CMM 2018-02.

PBF catches for the previous 3 year are as follows:

In 2016, 1,028 tons of PBF were caught in total, comprising 559 tons of PBF less than 30kg and 469 tons of PBF 30kg or larger. The larger PBF catches were made by large-scale purse seiners and set net fisheries.

In 2017, 743 tons of PBF were caught in total, comprising 670 tons of PBF less than 30kg and 73 tons of PBF 30kg or larger. The larger PBF catches were made by large-scale purse seiners and set net fisheries.

In 2018, 535 tons of PBF were caught in total, comprising 510.5 tons of PBF less than 30kg and 24.5 ton of PBF 30 kg or larger. The larger PBF catches were made by large-scale purse seiners or other fisheries (large-scale bottom trawler, troll).

In 2018, there was no overage of the catch limit and 89.4 percent of the catch limit (598.8 t) was exhausted.

Table 2: PBF catches (t) in 2016, 2017 and 2018 per size and by fishery

Year	less than 30kg					30kg or larger		
	Purse Seiner	set net	others	Reserve	subtotal	Purse Seiner	set net	subtotal
2016	554.7	1.7	3.0		559.4	469.1	0.05	469.1
2017	661.0	3.39	5.81		670.2	72.86	0.06	72.92
2018	498.9	1.9	4.6	5.1	510.5	24.5	0	24.5

Juvenile Monitoring

6. CCMs, in particular those catching juvenile Pacific bluefin tuna, shall take measures to monitor and obtain prompt results of recruitment of juveniles each year.

During the period of 2013-2017, NIFS had been collecting the eggs and larvae of fisheries resources that occur and spawn in and migrate through the EEZ of Korea in order to study their biological characteristics. The 2017 survey found no egg or larva of PBF. In 2018, NIFS did not conduct the same survey.

Meanwhile, NIFS conducted CPUE standardization of PBF from Korean coastal and offshore fisheries by using data derived from large-scale purse seine fishing vessels (e.g. fishing days, fishing location, effort, catch, etc.) in order to better understand the status of PBF stocks. The results (ISC/19/PBFWG-1/10) were submitted and reported to the ISC Pacific Bluefin Tuna Working Group (PBFWG) Intersessional Workshop which took place in March 2019.

Prevention of PBF Trade that Contravenes the CMM

7. Consistent with their rights and obligations under international law, and in accordance with domestic laws and regulations, CCMs shall, to the extent possible, take measures necessary to prevent commercial transaction of Pacific bluefin tuna and its products that undermine the effectiveness of this CMM, especially measures prescribed in the paragraph 3 and 4 above. CCMs shall cooperate for this purpose.

Korea's Ministerial Directive on the Conservation and Management of Pacific Bluefin Tuna requires that all PBF caught by Korean vessels be sold only at designated consignment fish markets in order to prevent any commercial transaction of PBF and its products that could undermine the effectiveness of the CMM. The international trade of PBF is also being monitored through statistical documents accompanied by PBF exported to foreign markets, mostly the Japanese market.

Also, the government takes measures including the prohibition of fishing and landing of PBF and the closure of designated consignment markets for PBF and statistical documents, if and when there is a risk of seriously undermining the effectiveness of the CMM for PBF (e.g. overages of PBF juvenile catch limits).

10. CCMs shall also monitor the international trade of the products derived from Pacific Bluefin tuna and report the results to Executive Director by 31 July annually.

The international trade of the products derived from PBF in 2018 was as follows:

All products derived from PBF were exported only to Japan and the quantities exported were 435,936.8 kg, among which 434,939.5 kg were harvested by Korean-flagged fishing vessels whereas 997.3 kg were caught by a fishing vessel flagged to Mexico. In terms of product type, 330,942.5 kg (75.9%) were fresh while 104,994.3 kg (24.1%) were frozen.

In 2018, 49,961.3 kg of PBF products were imported from Japan to Korea. To be specific, 34,692.3 kg (69.4% of the products imported) were frozen while 15,269 kg (30.6%) of fresh PBF were imported in order to be used as seed juveniles for tuna aquaculture.

Strengthening Data Collection System

9. CCMs shall also take measures necessary to strengthen monitoring and data collecting system for Pacific Bluefin tuna fisheries and farming in order to improve the data quality and timeliness of all the data reporting.

The government requires designated consignment market representatives and port-samplers to report the records of PBF sales and biological data (e.g. length, weight) to the government, respectively. Since 2015, all fishers have been required to report to the government any

catches of PBF within 24 hours of the catch. The NIFS takes some of PBF sold at designated consignment markets as a sample to collect and analyze biological data (e.g. weight, length, stomach contents and otolith, etc.) From 2016, the NIFS has been collecting tissue samples for close-kin analysis. As part of the first survey, NIFS developed 33 Microsatellite (MS) gene markers for PBF in 2018 using samples collected.

Korea reported the results at the ISC Close-kin workshop which took place in March 2019. Building on this, Korea will continue to actively participate in close-kin analysis following research directions determined by ISC members.

Cooperation with the IATTC Contracting Parties

12. To enhance effectiveness of this measure, CCMs are encouraged to communicate with and, if appropriate, work with the concerned IATTC contracting parties bilaterally.

Korea has engaged in close consultation and cooperation with the IATTC Contracting Parties, especially with Mexico, USA and EU in order to amend the CMM for PBF. /END/