

**JOINT IATTC AND WCPFC-NC WORKING GROUP MEETING ON THE  
MANAGEMENT OF PACIFIC BLUEFIN TUNA  
SEVENTH SESSION (JWG-07)**

ELECTRONIC MEETING  
11:00-13:00 Japan Standard Time, 12 July 2022  
9:00-13:00 Japan Standard Time, 13-14 July 2022

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**CHAIRS' SUMMARY OF THE 7<sup>TH</sup> JOINT IATTC AND WCPFC-NC WORKING GROUP  
MEETING ON THE MANAGEMENT OF PACIFIC BLUEFIN TUNA**

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**IATTC-NC-JWG07-2022/00**

**Agenda Item 1. Opening of the meeting**

1. The 7<sup>th</sup> Session of the Joint IATTC and WCPFC-NC Working Group Meeting on the Management of Pacific Bluefin Tuna (JWG07) was held on 12-14 July 2022. The meeting was opened by co-chairs Mr. Masanori Miyahara (Japan, Northern Committee Chair) and Ms. Dorothy Lowman (USA, IATTC).
2. A list of participants to the JWG07 is included in **Annex A**.
3. Mr. Alex Meyer (Japan) was appointed as rapporteur for the meeting.

**Agenda Item 2. Adoption of Agenda and Meeting Procedures**

4. Co-Chair Miyahara welcomed participants and outlined the meeting procedures and the agenda.
5. The provisional agenda was adopted (**Annex B**).

**Agenda Item 3. Scientific Information on Pacific Bluefin Tuna**

**3.1 Updates on the stock status of Pacific bluefin tuna**

6. Dr. H. Fukuda, the lead modeler for the ISC Pacific Bluefin tuna WG (PBFWG), made a detailed report on the latest stock assessment for PBF conducted in March 2022. As this assessment was a data update assessment, the PBFWG developed the base case model, which is basically consistent with the 2020 assessment, with the most recent two years (2019-2020 fishing year (FY)) data.
7. The base-case results show that: (1) spawning stock biomass (SSB) fluctuated throughout the assessment period (1952-2020); (2) SSB steadily declined from 1996 to 2010; (3) the SSB has increased since 2011 resulting in the 2020 SSB being back to the 1996 level, which is higher than the initial rebuilding target of this stock (historical median SSB during 1952-2014); (4) total biomass after 2011 continued to increase with an increase in young fish, creating the 2nd highest biomass peak in the assessed history in 2020; (5) fishing mortality (F%SPR), which declined to a level producing about 1% of SPR in 2004-2009, returned to a level producing 30.7% of SPR in 2018-2020; and (6) SSB in 2020 was 10.2% of SSB<sub>0</sub>, an increase from the 5.6% of SSB<sub>0</sub> estimated for 2018 in the 2020 assessment (2018 was the last year of the 2020 assessment).
8. The projection results from all examined scenarios showed that the second rebuilding target of WCPFC and IATTC, rebuilding to 20%SSB<sub>0</sub> by 2029 FY (10 years after reaching the initial rebuilding target) with at least 60% probability, is reached, and the risk of SSB falling below the historical lowest SSB

at least once in 10 years is negligible. The PBFWG evaluated projection results of sensitivity models with lower natural mortality, larger asymptotic length in the growth function, lower steepness, or the recent recruitment monitoring index fit. Though projection results from these lower productivity models are more pessimistic than that from the base-case model, the PBFWG concluded that the current advice is robust to these alternative model assumptions.

### **3.2 Reports from WCPFC-Scientific Committee (SC) and IATTC-Scientific Advisory Committee (SAC)**

9. Dr. Alex da Silva (IATTC) discussed the information presented at the 13th IATTC-SAC meeting, including the updated stock assessment and the rebuilding targets and harvest strategies for PBF, and the following IATTC scientific staff recommendations on PBF:

- a) No changes are needed to the provisions under Resolution C-21-05.
- b) Increased catches are possible under the proposed harvest strategy. The choice of catch scenario should take into account:
  - i. Desired rebuilding rate
  - ii. Distribution of catch between small and large fish

10. The IATTC-SAC did not have any further recommendations for PBF.

11. The report of the 18<sup>th</sup> WCPFC-SC meeting was unavailable because it has not yet convened.

#### **Agenda Item 4. Reports on the implementation of Pacific bluefin tuna measures**

12. The Joint WG reviewed WCPFC and IATTC members' implementation reports on conservation and management measures for PBF.

13. Chinese Taipei and Japan identified discrepancies among each other's import/export data and agreed to cross-verify these data.

14. Japan emphasized the importance of including international trade statistics in members' implementation reports.

15. The JWG noted that WCPFC CMM 2021-02 applies to PBF catch for the whole of the Convention Area, rather than just PBF caught north of the equator, and that some CCMs are either not reporting such information or not reporting it correctly.

16. The JWG reviewed a table showing PBF fishing effort and catch in the Western and Central Pacific Ocean (WCPO) by member (**Annex C**).

17. Co-Chair Miyahara requested that a similar table be compiled for the Eastern Pacific Ocean (EPO), stating that having such information for both the EPO and WCPO would be fundamental to future discussions about balance between the two.

18. The United States and Japan requested that members' future reports include members' recreational catch and monitoring information.

#### **Agenda Item 5. Review of Conservation and Management Measures for Pacific Bluefin Tuna**

19. The JWG reviewed the current Pacific bluefin tuna measures, WCPFC CMM 2021-02 and IATTC Resolution C-21-05, and did not recommend any revisions to either measure.

## **Agenda Item 6. Catch documentation scheme**

20. Mr. Shingo Ota (Japan), the Chair of the Catch Documentation Scheme (CDS) Working Group, presented the outcomes of the 3<sup>rd</sup> CDS Technical Meeting. A Chair's Summary Report of the meeting is included as **Annex D**.

21. In addition, Mr. Ota informed the JWG that he confirmed with Japan following the 3<sup>rd</sup> CDS Technical Meeting that Japan intends to continue to lead intersessional discussions to develop the draft CMM for the establishment of a CDS for PBF.

## **Agenda Item 7. Further Development of Long-Term Harvest Strategy (post rebuilding)**

### **7.1 Discussion of possible operational objectives and other elements necessary to further evaluate candidate harvest control rules and reference points**

22. Dr. Shuya Nakatsuka, Chair of the ISC PBFWG, presented the MSE related work done by the ISC. The ISC PBFWG discussed the scientific framework for MSE of PBF, which is requested by the RFMOs to be completed by 2024. This year the PBFWG reviewed an assessment model with short-term data. The short-term model was consistent with the current assessment model and yet allows more flexible assumptions than the current assessment model, which is important for MSE to address plausible uncertainties. The PBFWG agreed to use this model as a basis for the development of the operating models for the PBF MSE. The PBFWG also considered it appropriate to use the framework of albacore MSE for evaluation of management procedures. The PBFWG is in a good position to start development of MSE of PBF but for MSE to be properly conducted, input from managers is indispensable in particular on management objectives. The PBFWG discussed the timing for MSE and stock assessment. The next benchmark assessment is scheduled for 2024 while MSE is also requested to be completed in 2024. The PBF stock is projected to be close to the second rebuilding target in 2022 FY. The PBFWG considers that the stock assessment work is the priority and is seeking ISC Plenary approval for this to be conveyed to the RFMOs.

23. The United States presented a proposed list of candidate operational management objectives and performance indicators for PBF, developed after engagement with US stakeholders. The proposal contains four main categories of objectives: safety, status, stability, and yield. The United States discussed the importance of including a management objective related to proportional fishery impact that is reflective of historical fishing before the stock declined so significantly. The United States acknowledged the proportional fishery impact is a question of allocation but noted that it can be tested in MSE and is important to consider what the tradeoffs are with other objectives.

24. Japan stated that harvest control rules, management objectives, and candidate reference points are interdependent and should be discussed together in a holistic manner.

25. Japan disagreed with the proposed inclusion of an operational management objective to maintain a proportional fishery impact between the WCPO and EPO and suggested that this was an issue for discussions of allocation based on the outcomes of the MSE, rather than a management objective for the MSE.

26. The United States noted that the operational management objectives were derived from management objectives that have already been agreed to in the WCPFC harvest strategy for PBF, and that the issue of the balance of fisheries is one of the reasons the JWG was formed. The United States suggested that understanding and evaluating the fishery impact between the EPO and WCPO through the MSE would

be valuable for maintaining the appropriate biomass level and would better inform allocation decisions.

27. Dr. John Holmes, the ISC Chair, encouraged the JWG to narrow down the list of reference points and harvest control rules, as every combination of them will need to be tested.

28. Dr. Nakatsuka explained that the management procedure to be developed may not use the same model as the stock assessment model as that would make the process very time-consuming. A simpler model may be used instead and in that case management objectives that are dependent on the stock assessment model, such as those that use probability derived directly from the stock assessment model, may not be evaluated easily.

29. Dr. Maunder, IATTC staff, noted that objectives do not necessarily have to follow a narrow prescription with thresholds and probability statements as they may not necessarily fit the objective and may be difficult to calculate.

30. Based on this discussion, the JWG amended the proposed list (**Annex E**) but was unable to finalize it during the meeting. The JWG agreed to continue to discuss the proposed list at its next meeting and encouraged members to seek further input from their stakeholders during the intersessional period to facilitate the future discussions. The JWG also agreed to forward the current tentative list to the ISC PBFWG and invite the PBFWG's comments.

## **7.2 Consideration of approaches including way to further a MSE process or other options**

31. The United States presented a proposal for the establishment of an interim harvest strategy for the period from the year in which the stock is projected to achieve the second rebuilding target to when a long-term harvest strategy based on a MSE process is implemented.

32. The JWG discussed and amended the US proposal (**Annex F**) but was unable to reach consensus during the meeting. The JWG agreed to continue to discuss the proposal at its next meeting.

## **7.3 Next steps**

33. The United States presented a proposal for a work plan for conducting a MSE for PBF.

34. The JWG discussed and amended the US proposal, and developed a work plan for developing a harvest strategy, including a MSE, for PBF (**Annex G**).

## **Agenda Item 8. Next JWG meeting**

35. Japan offered to host the next JWG meeting in conjunction with the NC19 meeting, at a date to be determined after consultation among members and both RFMO secretariats. Co-Chair Miyahara suggested a possibility of having a separate NC meeting online after the WCPFC SC meeting to finalize its outcomes next year. The arrangement of the next meeting will be notified well in advance.

36. The JWG recommends extending the terms of the co-chairs Mr. Miyahara and Ms. Lowman by one year.

## **Agenda Item 9. Other business**

37. No other business was raised.

**Agenda Item 10. Adoption of Report**

38. The IATTC-NC JWG07 adopted the report.

**Agenda Item 11. Close of meeting**

39. The meeting was brought to a close on 14 July 2022.

**Annexes**

Annex A – List of participants

Annex B – Agenda

Annex C – Compiled Information on Pacific Bluefin Tuna (Fishing Effort and Catch in the WCPO)

Annex D – Chair’s Summary of 3<sup>rd</sup> CDS Technical Meeting

Annex E – Candidate Operational Management Objectives and Performance Indicators for Pacific Bluefin Tuna

Annex F – Pacific Bluefin Tuna Interim Harvest Strategy

Annex G – Work Plan for PBF MSE

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PACIFIC BLUEFIN TUNA  
SEVENTH SESSION (JWG-07)**

ELECTRONIC MEETING  
09:00-13:00, Japan Standard Time  
12-14 July 2022

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**JOINT IATTC AND WCPFC-NC WORKING GROUP MEETING ON THE MANAGEMENT OF  
PACIFIC BLUEFIN TUNA  
SEVENTH SESSION (JWG-07)**

ELECTRONIC MEETING  
09:00-13:00, Japan Standard Time  
12-14 July 2022

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**AGENDA**

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- 1. Opening of the meeting**
- 2. Adoption of Agenda and Meeting Procedures**
- 3. Scientific Information on Pacific Bluefin Tuna**
  - 3.1 Updates on the stock status of Pacific bluefin tuna
  - 3.2 Reports from WCPFC-Scientific Committee (SC) and IATTC-Scientific Advisory Committee (SAC)
- 4. Reports on the implementation of Pacific bluefin tuna measures**
- 5. Review of Conservation and Management Measures for Pacific Bluefin Tuna**
- 6. Catch Documentation Scheme**
- 7. Further Development of Long-Term Harvest Strategy (post rebuilding)**
  - 7.1 Discussion of possible operational objectives and other elements necessary to further evaluate candidate harvest control rules and reference points
  - 7.2 Consideration of approaches including way to further a MSE process or other options
  - 7.3 Next steps
- 8. Next JWG meeting**
- 9. Other business**
- 10. Adoption of Report**
- 11. Close of meeting**

**JOINT IATTC AND WCPFC-NC WORKING GROUP MEETING ON THE MANAGEMENT  
OF PACIFIC BLUEFIN TUNA  
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09:00-13:00, Japan Standard Time  
12-14 July 2022

**COMPILED INFORMATION ON PACIFIC BLUEFIN TUNA  
(FISHING EFFORT AND CATCH IN THE WCPO)**

**Table 1. Fishing effort by vessels fishing for Pacific bluefin tuna in the area north of 20° N in the Convention Area**

Fishery	Unit of fishing effort <sup>1</sup>	Baseline fishing effort (Para 2, CMM 2021-02)				Fishing effort (Para 8, CMM 2021-02)		
		2002	2003	2004	2002-2004 Average	2019	2020	2021
<b>Canada</b>								
Not applicable		0	0	0	0	0	0	0
<b>China</b>								
		0	0	0	0	0	0	0
<b>Cook Islands</b>								
Longline		Unknown	Unknown	0		N/A	N/A	N/A
<b>Fiji</b>								
Longline	No. of vessels	0	0	0	0	0	0	0
<b>Japan</b>								
Purse Seine	No. of vessels	69	60	59	63	35	45	51
Longline Dist.&Off.	No. of vessels	654	632	613	633	439	437	413
Longline Coastal	No. of vessels	399	422	386	402	337	311	328
Artisanal fisheries	No. of vessels	Unknown	Unknown	Unknown		18,127	18,138	17,412
Set Net	No. of licenses	1,876	1,956	1,956	1,929	1,784	1,784	1,784
Others	No. of vessels	Unknown	Unknown	Unknown				
<b>Korea</b>								
large-scale purse seiners	No. of vessels	32	29	29	30	23	18	19
<b>Philippines</b>								
Not applicable (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Chinese Taipei</b>								
Longline	No. of vessels	684	659	632	658	491	493	497
<b>U.S.A.</b>								
Not applicable (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Vanuatu</b>								
Longline	No. of vessels	0	0	0	0	0	0	

<sup>1</sup> e.g., sets, fishing days, vessels

**Table 2. Catches (mt), including discards, of Pacific bluefin tuna *in the Convention Area* (include all the fisheries in the previous table, plus all other fisheries that catch any Pacific bluefin tuna)**

Fishery	All catches (Para 5, CMM 2021-02)								All catches (Para 5, CMM 2021-02)					
	2002		2003		2004		2002-2004 Average		2019		2020		2021	
	<30kg	≥30kg	<30kg	≥30kg	<30kg	≥30kg	<30kg	≥30kg	<30kg	≥30kg	<30kg	≥30kg	<30kg	≥30kg
<b>Canada</b>														
N/A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>China</b>														
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Cook Islands</b>														
Longline	0	1,789	0	2,94	0	1,35	0	2	N/A <sup>2</sup>	N/A	N/A	N/A	N/A	N/A
<b>Fiji</b>														
Longline	0	0	0	0	0	0	0	0	0.191	0.360	0	0	0	0
<b>Japan<sup>3</sup></b>														
Purse Seine	5,174	3,730	4,995	774	3,466	4,792	4,545	3,099	1,328	3,131	783	3,165	962	3,230
Longline Dist.&Off.	0	52	0	97	0	240	0	130	56	415	31	585	80	562
Longline Coastal	0	794	0	1,152	0	1,616	0	1,187	112	440	118	755	95	802
Artisanal fisheries	2,607	0	2,060	0	2,445	0	2,371	0	677	42	687	73	556	96
Set Net	1,008	92	648	191	660	235	772	173	691	260	943	399	1,319	423
Others	422	210	205	241	82	432	236	294	178	180	184	288	151	251
<b>Total</b>	<b>9,310</b>	<b>4,878</b>	<b>7,952</b>	<b>2,455</b>	<b>6,785</b>	<b>7,315</b>	<b>8,016</b>	<b>4,883</b>	<b>3,042</b>	<b>4,467</b>	<b>2,745</b>	<b>5,265</b>	<b>3,164</b>	<b>5,365</b>

<sup>2</sup> No fishing effort north of the equator.

<sup>3</sup> Catches (mt) in calendar year basis, including discards, of Pacific bluefin tuna *in the Convention Area* (include all the fisheries in the previous table, plus all other fisheries that catch any Pacific bluefin tuna)

**(Japan continued)**

Catches (mt) in management year<sup>4</sup> basis, including discards, of Pacific bluefin tuna *in the Convention Area* (include all the fisheries in the previous table, plus all other fisheries that catch any Pacific bluefin tuna)

Fishery		2019		2020		2021	
		<30 kg	≥30 kg	<30 kg	≥30 kg	<30 kg	≥30 kg
Fisheries licensed by the Ministry of Agriculture, Forestry and Fisheries	Purse Seine	1,328	3,131	783	3,165	962	3,230
	Longline Dist.&Off.	56	415	31	585	80	562
Other fisheries	Longline Coastal	112	467	118	785	109	812
	Artisanal fisheries	565	72	687	86	713	141
	Set Net	725	352	1,307	401	1,312	554
	Others	165	173	181	297	179	250
<b><i>Total</i></b>		<b><i>2,950</i></b>	<b><i>4,609</i></b>	<b><i>3,107</i></b>	<b><i>5,320</i></b>	<b><i>3,354</i></b>	<b><i>5,550</i></b>
<b><i>Catch limit<sup>5</sup></i></b>		<b><i>3,757</i></b>	<b><i>5,132</i></b>	<b><i>4,238</i></b>	<b><i>6,160</i></b>	<b><i>4,238</i></b>	<b><i>6,162</i></b>

**<sup>4</sup> Management year is as follows.**

- 5<sup>th</sup> management period: January 2019 - December 2019 for Fisheries licensed by the Ministry of Agriculture, Forestry and Fisheries, April 2019 - March 2020 for Other fisheries.
- 6<sup>th</sup> management period: January 2020 - December 2020 for Fisheries licensed by the Ministry of Agriculture, Forestry and Fisheries, April 2020 - March 2021 for Other fisheries.
- 2021 management period: January 2021 - December 2021 for Fisheries licensed by the Ministry of Agriculture, Forestry and Fisheries, April 2021 - March 2022 for Other fisheries.

**<sup>5</sup> Catch limit is as follows.**

- 2019 small fish: 4,007 tons - 250 tons (transfer from small fish to large fish) / large fish: 4,882 tons + 250 tons (transfer from small fish to large fish)
- 2020 small fish: 4,007 tons - 450 tons (transfer from small fish to large fish) + 681.1 tons (carry over from the previous management year)  
large fish: 4,882 tons + 450 tons (transfer from small fish to large fish) + 527.5 tons (carry over from the previous management year) + 300 tons (transfer from Chinese Taipei)
- 2021 small fish: 4,007 tons - 450 tons (transfer from small fish to large fish) + 681.1 tons (carry over from the previous management year)  
large fish: 4,882 tons + 450 tons (transfer from small fish to large fish) + 829.9 tons (carry over from the previous management year)

Fishery	All catches (Para 5, CMM 2021-02)								All catches (Para 5, CMM 2021-02)					
	2002		2003		2004		2002-2004 Average		2019		2020		2021	
	<30kg	≥30kg	<30kg	≥30kg	<30kg	≥30kg	<30kg	≥30kg	<30kg	≥30kg	<30kg	≥30kg	<30kg	≥30kg
<b>Korea</b>														
Purse seiner	932		2,601		773		1,435	0	525.0	16.5	154.1	412.7	365.6	56.6
Set net									35.4	0.4	34.5	0.8	83.1	1.1
Others									3.3	0	2.2	0.4	3.1	0.0
<b>Total</b>	<b>932</b>		<b>2,601</b>		<b>773</b>		<b>1,435</b>	<b>0</b>	<b>563.7</b>	<b>16.9</b>	<b>190.8</b>	<b>413.9</b>	<b>451.8</b>	<b>57.7</b>
<b>Philippines</b>														
Artisanal Handline or Hook-and- Line fisheries									0	0	0	2 pcs (~300 kgs + ~220 kgs)	0	2 pcs (~220 kgs + ~270 kgs)
<b>Chinese Taipei</b>														
Longline	0	1,523	0	1,863	0	1,714	0	1700	0	486	0	1,150	0	1,478
Other coastal fisheries	0	4	0	21	0	3	0	9	0	7	0	1	0	1
<b>Total</b>	<b>0</b>	<b>1527</b>	<b>0</b>	<b>1884</b>	<b>0</b>	<b>1717</b>	<b>0</b>	<b>1,709</b>	<b>0</b>	<b>493</b>	<b>0</b>	<b>1,151</b>	<b>0</b>	<b>1,479</b>
<b>U.S.A.<sup>6</sup></b>														
American Samoa LL	0	3	0	0	1	0	0.3	1	0	0	0	0	0	0
USA LL	0	1	0	0	0	0	0	0	0	1	0	0	0	1
<b>Total</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0.3</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>Vanuatu</b>														
Longline <sup>7</sup>	0	0	0	0	0	0	0	0	0	0	0	0	0	

<sup>6</sup> Pacific bluefin tuna catches are reported on longline logsheets for the American Samoa fishery, however the species may be misidentified.

<sup>7</sup> These small catches are bycatch only. Vanuatu does not target PBF at all.



**JOINT IATTC AND WCPFC-NC WORKING GROUP MEETING ON THE MANAGEMENT OF  
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SEVENTH SESSION (JWG-07)**

ELECTRONIC MEETING  
09:00-13:00, Japan Standard Time  
12-14 July 2022

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**CHAIR'S SUMMARY OF 3<sup>RD</sup> CDS TECHNICAL MEETING**

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IATTC-NC-CDS03-2022/00

**1. Opening of Meeting**

**1.1 Welcome**

1. Mr. Shingo Ota, Chair of the CDS Working Group, opened the meeting and welcomed the participants.

**1.2 Selection of rapporteur**

2. Mr. Alex Meyer of Japan was appointed the rapporteur for the meeting.

**1.3 Adoption of the agenda**

3. The provisional agenda was adopted without any change (Appendix 1).

**1.4 Meeting arrangements**

4. The WCPFC Secretariat explained the meeting arrangements.

**2. Development of a Catch Documentation Scheme for Pacific Bluefin Tuna**

**2.1 Review of the 2<sup>nd</sup> CDS Technical Meeting and intersessional work**

5. The Chair briefly reviewed the results of the 2<sup>nd</sup> CDS Technical Meeting and related discussions at the 16<sup>th</sup> Regular Session of the Commission.

6. Japan briefly reviewed work conducted intersessionally after the 2<sup>nd</sup> CDS Technical Meeting towards developing the draft CMM for the establishment of a CDS.

**2.2 Discussion on the draft CMM**

7. The meeting participants held discussions on general pending issues based on a paper that was submitted by Japan (IATTC-NC-CDS03-2022/02). The meeting participants concluded the following:

(1) Budgetary and administrative consideration for the development of the electronic Pacific Bluefin Tuna Catch Documentation (ePBCD) system

The participants agreed to establish a small working group that will further review the budgetary and administrative considerations for the development of the ePBCD system and report on the outcomes of its review to the next CDS Technical Meeting. The small working group will be led by Japan and

participated in by Chinese Taipei and Canada. Other members interested in participating in the small working group were requested to notify Japan by the end of 15 July 2022.

The small working group will work with the secretariats of the IATTC and the WCPFC, contact the secretariats of the CCSBT and ICCAT to seek more information regarding their bluefin tuna CDSs, and take into consideration the ongoing work to develop a CDS at the IOTC. If the small working group determines that the hiring of a consultant may be required, it will present such a proposal to the next CDS Technical Meeting.

(2) Scope and functions of the draft CMM for the development of CDS

The participants agreed that the scope and functions of the draft CMM for the development of CDS would: i) not include seafood traceability and not go beyond the scope of the bluefin tuna CDSs utilized by the CCSBT and ICCAT, and ii) not include specific monitoring, controlling and surveillance measures.

(3) Next steps

The participants agreed to further review the budgetary and administrative considerations for the development of the ePBCD system through the aforementioned small working group.

The participants recommended convening two one-day meetings of the CDS Technical Meeting in 2023. The first will be held in January or February 2023 and the timing will be duly notified. The second will be held in conjunction with the 2023 Joint Working Group meeting.

### **3 Next Meeting**

8. The participants recommended convening one one-day meeting in January or February 2023 and one one-day meeting in conjunction with the 2023 Joint Working Group meeting.

### **4 Other Business**

9. No other business was raised.

### **5 Report to the Joint WG**

10. The Chair will provide his Summary of the CDS Technical Meeting to the Joint IATTC-WCPFC NC Working Group.

### **6 Close of the Meeting**

11. The meeting was closed at 10:25 am, Japan Standard Time.

**JOINT IATTC AND WCPFC-NC WORKING GROUP MEETING ON THE MANAGEMENT OF  
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**CANDIDATE OPERATIONAL MANAGEMENT OBJECTIVES AND PERFORMANCE INDICATORS  
FOR PACIFIC BLUEFIN TUNA**

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*Note: JWG07 reviewed JWG07-DP-12, produced this Annex, and agreed to revisit this at JWG08.*

Category	Operational Management Objective	Performance Indicator
<b>Safety</b>	There should be a less than [5-20%] <sup>8</sup> probability of the stock falling below the LRP	<ul style="list-style-type: none"> <li>Probability that <math>SSB &lt; LRP</math> in any given year of the evaluation period (<u>[10-30] years subject to the number of scenarios; NPA use 30 years; can be confirmed in 2023</u>)</li> </ul>
<b>Status</b>	To maintain fishing mortality at or below $F_{Target}$ with at least <u>[50-75]</u> % probability	<ul style="list-style-type: none"> <li>Probability that <math>F \leq F_{TARGET}</math> in any given year of the evaluation period</li> </ul>
<b>Stability</b>	To limit changes in overall catch limits between management periods to no more than <u>[15%]</u> downwards[, unless the ISC has assessed that there is a greater than 50% chance the stock is below the LRP]	<ul style="list-style-type: none"> <li>Percent change upwards in catches between management periods excluding periods when <math>SSB &lt; LRP</math></li> <li>Percent change downwards in catches between management periods excluding periods when <math>SSB &lt; LRP</math></li> </ul>
<b>Yield</b>	<u>[Maintain a proportional fishery impact between the WCPO and EPO [similar to the average proportional fishery impact from 1971-1994]]</u>	<ul style="list-style-type: none"> <li>Median fishery impact (in %) on SSB in any given year of the evaluation period by fishery and by WCPO fisheries and EPO fisheries</li> <li>The probability that the proportional EPO fishery impact is at least the 1971-1994 average in any given year</li> </ul>
	To maximize yield over the medium (5-10 years) and long (10-30 years) terms, as well as average annual <u>catch</u> <u>yield</u> from the fishery.	<ul style="list-style-type: none"> <li>Expected annual yield over years 5-10 of the evaluation period, by fishery.</li> <li>Expected annual yield over years 10-30 of the evaluation period, by fishery.</li> <li>Expected annual <u>catch</u> <u>yield</u> in any given year of the evaluation period, by fishery.</li> </ul>
	<u>[To increase average annual catch in all fisheries across WCPO and EPO]</u>	

<sup>8</sup> The acceptable levels of risk may vary depending on the LRP selected, but should be no greater than 20%.

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**PACIFIC BLUEFIN TUNA INTERIM HARVEST STRATEGY**

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*Note: JWG07 reviewed JWG07-DP-13, produced this Annex, and agreed to revisit this at JWG08.*

The following harvest control rules shall be applied based on the results of stock assessments and SSB projections to be conducted by the ISC during the period from the year in which the stock is projected to achieve the second rebuilding target of 20%SSB0 to 2029 or the year when a long-term harvest strategy based on an MSE process is implemented.

- a. If the SSB projection indicates that SSB will be below 20%SSB0 with a probability of 60%, management measures shall be modified to increase the SSB to at least 20%SSB0 with 60% probability. For this purpose, the ISC ~~will be~~ requested, ~~if necessary,~~ to provide information on possible management measures to achieve 60% that the stock is above 20%SSB0 after 10 years of the latest stock assessment.
- b. If the SSB projection indicates that SSB will be greater than 20%SSB0 with a probability of 60%, modifications to management measures may be considered so long as any changes maintain SSB greater than 20%SSB0 with a probability of 60%.

[Maintain a and replace b with:

If the SSB projection indicates that SSB will be greater than 20%SSB0 with a probability of 60%, management measures shall be modified to the extent that the stock is maintained above 20%SSB0 with a probability of 60%. For this purpose, the ISC is requested to provide information on possible management measures to achieve 60% that the stock is maintained above 20%SSB0.]

[Replace both a and b with:

Management measures shall be taken to ensure the stock is maintained at or above 20%SSB0 in 2029 with a probability of 60%, before 2029 or the year when harvest strategy based on MSE process is initiated whichever earlier. For this purpose, the ISC is requested to provide information on possible management measures to achieve 60% that the stock is maintained at or above 20% SSB0 in 2029.]

- c. Any adjustments to management measures shall be considered in cooperation between the two RFMOs taking into account historical and future projected proportional fishery impacts on SSB between fisheries in the EPO and fisheries in the WCPO. For this purpose, ISC is requested, to provide relevant information, including projected proportional fishery impact of potential management measures changes.
- d. This harvest control rule will be reviewed and modified, as necessary, if depletion estimates across the time-series have been adjusted due to changes in assumptions and/or settings of the stock assessment model.

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**WORK PLAN FOR DEVELOPMENT OF A LONG-TERM HARVEST STRATEGY  
FOR PBF (INCLUDING MSE)**

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The following is a proposed work plan for developing a long-term Harvest Strategy (including MSE) for Pacific bluefin tuna:

2022 (JWG7):

- JWG recommends that the ISC develop a technical work plan for the MSE process before JWG8 in 2023. This could include development of a set of MSE operating models differing in their structural uncertainty.
- JWG requests the ISC to provide feedback on the proposed objectives and indicators as discussed at JWG7.
- The JWG requests its members to solicit input from its stakeholders and task itself to address this at JWG8, as appropriate.

2023 (JWG8):

- JWG recommends a set of operational management objectives and performance indicators for use in an MSE process and considers refining candidate HCRs and RPs.
- ISC to provide an overview of their technical workplan and any progress on the MSE, including but not limited to clarifications needed, to JWG8 in 2023.
- If additional information is requested by the ISC from the JWG relevant to the MSE, the JWG should task its members to solicit input from its stakeholders and task itself to address this at JWG9 in 2024, as appropriate.
- JWG recommends an Interim Harvest Strategy to be applied during the period from the year in which the stock is projected to achieve the second rebuilding target of 20%SSB0 to when a long-term harvest strategy based on MSE process is implemented.

2024 (JWG9):

- ISC to complete a benchmark assessment for PBF and JWG may expect an update on progress of MSE.
- If additional information is requested by the ISC from the JWG relevant to the MSE, the JWG should task its members to solicit input from its stakeholders and task itself to address this at JWG10 in 2025, as appropriate.

- JWG recommends new management measures based on Interim Harvest Strategy.

2025 (JWG10):

- ISC presents results from the MSE to JWG10 in 2025
- JWG recommends a final HS to the WCPFC and IATTC for adoption.