



## PARTIES TO THE PALAU ARRANGEMENT VDS TECHNICAL & SCIENTIFIC COMMITTEE

### 7th MEETING

5 - 6 March 2018

Nauru

### VDS-T&SC7/WP.1a: Purse Seine VDS TAE for 2019-21

#### TAE Setting

1. Article 12.2 of the VDS Scheme text sets out the issues to be taken into account in setting the TAE as follows:
  - i) The best available scientific, economic, management and other relevant advice and information;
  - ii) The provisions of the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean;
  - iii) The objectives of the Management Scheme; and
  - iv) Any submission on this issue from any party, individual or organisation.

#### Current Status

2. At PA22:
  - a) 44,033 days was adopted as the TAE for 2018, and as the provisional PNA TAE for 2019 and 2020
  - b) 45,005 days was adopted as the VDS TAE (including PNA and Tokelau) for 2018 and as the provisional VDS TAE for 2019 and 2020 as follows:

**Table 1: TAE for 2018; Provisional TAE for 2019-2020 Adopted at PA22**

<b>Determining the TAE (days)</b>			
	<b>TAE 2017</b>	<b>TAE 2018</b>	<b>Provisional TAE for 2019-2020</b>
Estimated 2010 Logsheet effort	44,033	44,033	44,033
Length Adjustment factor	1.3%	0.0%	0.0%
<b>PNA TAE</b>	<b>44,605</b>	<b>44,033</b>	<b>44,033</b>
Tokelau TAE	985	972	972
<b>Total VDS TAE (PNA + Tokelau)</b>	<b>45,590</b>	<b>45,005</b>	<b>45,005</b>

## Scientific Information and Advice

3. As shown below, WCPO purse seine catches of bigeye, skipjack and yellowfin tuna are provisionally estimated<sup>1</sup> to have declined in 2016 by 11% from the peak in 2014 to around 1.8m tonnes from the record level of 2 million tonnes in 2014. Annual purse seine catches in PNA waters have fluctuated since 2010 at around 1.5 million tonnes. Annual purse seine catches in other areas of the WCPO outside PNA waters roughly doubled from 2011 to 2013 and have been around 400-450,000 tonnes since then. The increase outside PNA waters has come largely from Indonesian waters and from increased fishing by PNA flagged vessels in the high seas. 2017 catch data is not yet available but VMS data indicates an increase of around 8% in purse seine effort in PNA EEZs in 2017.

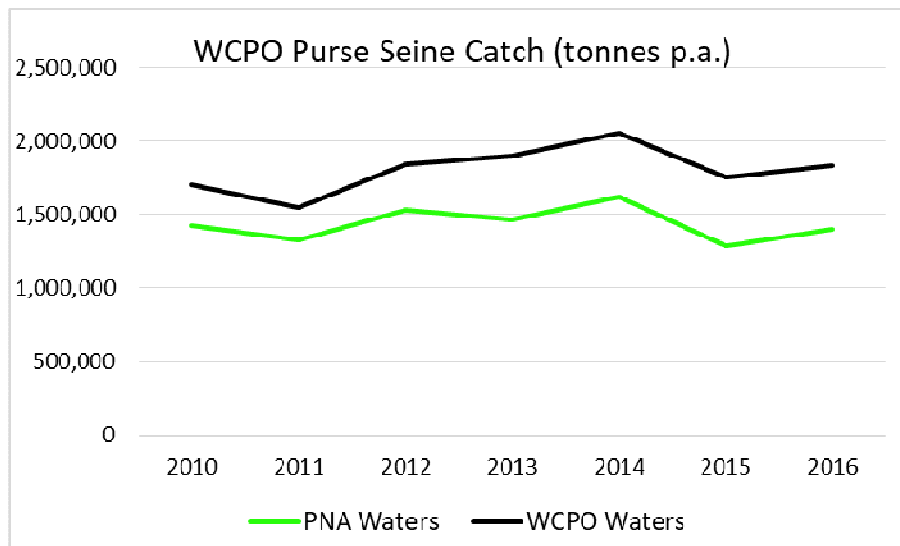


Figure 1: WCPO Purse Seine Catch (tonnes p.a)

4. The WCPFC Scientific Committee has provided the following advice:

- a) on the status of the skipjack stock:

A new assessment of the skipjack stock was conducted in 2016. In response to this assessment, the SC has advised as follows:

*“SC12 noted that fishing is having a significant impact on stock size and can be expected to affect catch rates. The stock distribution is also influenced by changes in oceanographic conditions associated with El Niño and La Niña events, which impact on catch rates and stock size. Additional purse-seine effort will yield only modest gains in long-term skipjack tuna catches and may result in a corresponding increase in fishing mortality for bigeye and yellowfin tunas. The management of total effort in the WCPO should recognize this.*

*SC12 noted that skipjack spawning biomass is now around the adopted TRP and SC12 recommends that the Commission take action to keep the spawning biomass near the TRP and also advocates for the adoption of harvest control rules based on the information provided”.*

- b) on the status of the yellowfin stock:

<sup>1</sup> Data provided by SPC in February 2018

On the basis of the new assessment of the yellowfin stock in 2016, the SC has advised as follows:

- i) *it appears that the stock is not experiencing overfishing 96% probability) and it appears that the stock is not in an overfished condition (92% probability)..” and*
  - ii) *SC13 also reiterates its previous advice from SC10 that measures should be implemented to maintain current spawning biomass levels until the Commission can agree on an appropriate target reference point (TRP).*
5. As described below, the 2010 base level of 44,033 days for the WCPFC PNA EEZ effort limit has been maintained in CMM 2017-01 in response to the scientific advice *to maintain current spawning biomass levels*. There is no room to increase fishing mortality if the spawning biomass is to be maintained at this level.

## Economic Information and Advice

### Market for Tuna for Canning

6. As discussed in the PA23 Working Paper on Purse Seine Economics, prices of tuna for canning bounced back substantially in 2017, with the average price for skipjack imported into Thailand for 2017 at US\$ 2,130/t, up by 51% from the previous year (US\$ 1,412/mt). The corresponding price of fuel increased by 9% over the same period. More recently, prices have fallen to around \$1500-1600 in early 2017, which is around the long term average trend level.
7. With current prices around the long term average trend level, and projected to cycle upwards by FFA, there is no indication of any systematic over-supply of material for tuna canning. In this circumstance, and taking into account the relatively weak effect of changes in WCPO catches on global tuna prices, there is no reason to consider reducing the TAE below the level agreed at the WCPFC in order to tighten tuna supply and promote an increase in tuna prices which can be extracted as increased vessel day prices.

### Market for Days

8. In recent years, the demand for days and the price of days generally flattened after strong earlier growth as the price of days reached an equilibrium level. However, the number of days used reported in FIMS for the last 2 years has been below previous levels and below the TAE, although almost all days were sold.

**Table 2: Utilisation of TAE (days)**

	2013	2014	2015	2016	2017
No. of Days Used	43,380	42,933	36,032	38,994	41,394
TAE	46,284	45,610	45,610	45,881	45,590
% Utilisation of the TAE	93.7%	94.1%	79.0%	85.0%	90.8%

9. For 2018, there are reports from Parties that the demand for days for 2018 is higher than for 2017. Factors indicating higher demand include:
- a) Recovery from the lower levels of effort in 2015 and 2016 that were apparently due to lower tuna prices, opening of the EHS to domestic vessels, and flight of some highly FAD-dependent vessels to other ocean areas
  - b) Higher prices in 2017
  - c) The removal of the 4<sup>th</sup> month of the FAD closure, which increases the value of the fishery to an extent that may actually encourage investment in new vessels.

On the other hand:

- a) There is some uncertainty about oceanographic conditions in 2018 as the current La Nina phase unwinds.
  - b) It is not clear what the effect will be of the changes to high seas fishing conditions. These include the removal of 7 months of the high seas FAD closure, the removal of the exemption from the high seas FAD closure and the agreement not to apply the SIDS exemption from high seas effort limits to chartered foreign vessels.
  - c) VDS Effort in the first 7 weeks of 2018 has been a little below that for the same period last year.
10. From this analysis, there is no reason to consider reducing the TAE at this point to take into account the market for days. If Parties want to increase the demand for days, they have the option available of limiting or ending access to the eastern high seas by vessels while licensed by PNA, which should increase demand for days by around 3-4,000 days, based on the increase in effort in the eastern high seas since the PNA ban on fishing in that area was dropped.

### **WCPFC Considerations**

11. In WCPFC Tropical Tuna CMMs since 2011, PNA Members have agreed to limit purse seine effort in PNA EEZs to 2010 levels through the PNA Vessel Days Scheme. In response, the PNA TAEs adopted since 2012 and the provisional PNA TAE for 2019 and 2020 have been based on the 2010 effort level in PNA EEZs. In CMM 2017-01, this limit has been specified as 44,033 days.
12. There has been continuing progress in the development of a harvest strategy for skipjack. Building on the adoption of a target reference point for skipjack proposed initially by PNA at its 2016 session, the WCPFC has adopted a harvest strategy workplan that reflects faster progress on skipjack than other stocks. At WCPFC13, the Commission also accepted a list of performance indicators for tropical purse seine fisheries for the purpose of the evaluation of HCRs. Meanwhile, PNA work is proceeding with SPC on the development of a PNA HCR for skipjack.

### **MSC Considerations**

13. With respect to decision-making on the PNA skipjack fishery and the VDS in particular, current PNA commitments for MSC certification include:
  - i) Establishment of a short-term objective: at PA17, the Parties adopted the short-term objective of limiting purse seine effort in PNA EEZs at the 2010 level.
  - ii) The link between the VDS TAEs and WCPFC requirements and the scientific advice needs to be clearly established by the PNA. Decisions taken on adjustment to the VDS scheme have to be based on the best available information. This will be derived largely from SPC scientific advice, SPC logsheet data, information compiled by the PNA Office and FFA as well as any additional work commissioned through PNA or other management organisation. Explanations on recommendations made and decisions taken, or lack of action, will be clearly documented by the PNA Office, through minutes of meetings. These minutes will be publically available on the PNA Office website.

Starting in 2012, this paper was modified from previous years to reflect these requirements. This includes clearly recording the link between the TAE and the relevant WCPFC measure and the scientific advice.

### Effort creep

14. The VDS Scheme text at Article 2.4 ii) requires the Administrator to provide information on any observed or potential increase in average effective fishing effort for each fishing day since the introduction of the Management Scheme. Successive Administrator's reports have reported on trends in vessel size classes and catch rates per day.
15. The PNAO and SPC report to Parties annually on effort creep. At VDS-T&SC6, participants concluded:
 

*At the VDS TAE level: participants noted the importance of adjusting the TAE over time for effort creep, but considered it was premature at this time because the extent to which effort creep is occurring in the fishery, and the level of any change, is not clear.*

### Management Information and advice

16. The starting point for the determination of the TAE is the estimated logsheet effort in PNA EEZs for 2010 to reflect the PNA obligation under the tropical tuna CMM referred to in para 12 above. The estimated effort level for 2010 continues to be revised by SPC, largely reflecting the failure of fishing states to provide accurate and timely operational data. In order to maintain the effectiveness of the VDS, Parties agreed at PA20 to adopt the 2010 level of effort in PNA EEZs advised to WCPFC10 in 2013 by SPC<sup>2</sup> of 44,033 days as the appropriate limit to be used in future. This limit has now been explicitly included in Table 1 of Attachment I of CMM 2017-01, along with a limit of 1,000 days for Tokelau.
17. The VDS TAE also needs to take into account the projected effect on effort levels resulting from the length adjustments to avoid any risk of the WCPFC limit in logsheet days being overshot. This adjustment has declined from 3.34% initially to 0.00% for 2018 as a result of the decline in the proportion of days fished by larger vessels. In 2017, there was again no significant difference between the VDS effort with and without length adjustments. In response, it is proposed to keep the vessel length adjustment at 0.00% in future unless there is a significant risk of the WCPFC limit being overshot.
18. At PA22, Parties decided to confirm, at their Annual Meetings, the TAE for the next year (in this case 2019) and adopt a provisional TAE for the following two years (in this case 2020 and 2021).
19. Tokelau is now part of the VDS although it is not part of the PNA TAE. It has its own TAE, which it brings to the VDS and which is transferable with PNA members. This was initially established at 1,000 days when the PNA VDS TAE was 45,284 days, and was adjusted proportionately with changes in the PNA TAE. However, now that the PNA TAE has been set at 44,033 days based on the WCPFC limit of 44,033 days with a length adjustment of 0.00%, it would be consistent to also set the Tokelau limit for the VDS at the 1,000 days which is the WCPFC limit for Tokelau.
20. Taking into account the considerations set out above, it is proposed that:
  - a) the provisional 2019 PNA TAE set last year of 44,033 days be confirmed as the 2019 PNA TAE
  - b) the provisional PNA TAE for 2019 and 2020 be set at 44,033 days
  - c) the 2019 VDS TAE be set at 45,033 days; and
  - d) The provisional VDS TAE for 2019 and 2020 be set at 45,033 days

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<sup>2</sup> from WCPFC10: Table 1 of Paper "WCPFC10-2013-12- Data Summaries in Support of Discussions on the CMM on Tropical Tunas"

as set out in the Table below.

**Table 3: Proposed TAE for 2019 and Proposed Provisional TAE for 2020 and 2021**

<b>Determining the TAE (days)</b>					
	<b>TAE 2017</b>	<b>TAE 2018</b>	<b>Provisional TAE for 2019</b>	<b>Proposed TAE for 2019</b>	<b>Proposed Provisional TAE for 2020 and 2021</b>
Estimated 2010 Logsheet effort	44,033	44,033	44,033	44,033	44,033
Length Adjustment factor	1.30%	0.0%	0.0%	0.0%	0.0%
<b><i>PNA TAE</i></b>	<b><i>44,605</i></b>	<b><i>44,033</i></b>	<b><i>44,033</i></b>	<b><i>44,033</i></b>	<b><i>44,033</i></b>
Tokelau TAE	985	972	972	1,000	1,000
<b><i>Total VDS TAE (PNA + Tokelau)</i></b>	<b><i>45,590</i></b>	<b><i>45,005</i></b>	<b><i>45,005</i></b>	<b><i>45,033</i></b>	<b><i>45,033</i></b>

## **Conclusions and Recommendations**

21. On the basis of the considerations above, there is no reason for the Parties to change their decision at PA17 to apply a PNA TAE based on the 2010 effort level, now specified as 44,033 days in CMM 2017-01, subject to consideration of the analysis on effort creep referred to in paras 14 and 15 above.
22. It is recommended that the 2019 PNA TAE and the provisional PNA TAE for 2020 and 2021 be adopted as set out in the table above.