



TECHNICAL AND COMPLIANCE COMMITTEE
Eleventh Regular Session
23 - 29 September 2015
Pohnpei, Federated States of Micronesia

PURSE SEINE FISHING ACTIVITY IN PNA WATERS

WCPFC-TCC11-2015-DP03
14 September 2015

Paper by the Parties to the Nauru Agreement (PNA)

A version of this paper was submitted to SC11 (ST-IP-04)



Parties to the Nauru Agreement
PNA Office - P.O. Box 3992
Majuro, Marshall Islands (MH) 96960
Phone: (692) 625-7626/7627 Fax: (692) 625-7628

9 September 2015

Mr. Feleti Teo
Executive Director
Western and Central Pacific Fisheries Commission
PO Box 2356, Kolonia, Pohnpei
Federated States of Micronesia

Dear Feleti,

Re: Information Paper on Purse Seine Activity in PNA Waters

I write in my capacity as the Chair of the Parties to the Nauru Agreement on behalf of the 8 members of the PNA, and Tokelau.

Please find attached an information paper prepared by PNA members and Tokelau, to provide information on purse seine activity in PNA waters since 2010.

We hope it assists in improving the general understanding of the PS fishery in PNA waters and the tropical WCPO and how they relate to bigeye tuna. We hope it also provides a good indicator of the performance of the PNA purse seine VDS and other purse seine management processes in the WCPO.

Yours Sincerely,

Eugene Pangelinan (Mr.)
Chair, Parties to the Nauru Agreement

PURSE SEINE FISHING ACTIVITY IN PNA¹ WATERS

Abstract: This paper looks at the WCPO purse seine activity in and outside PNA waters for the periods 2010 to 2014. PNA includes Tokelau, which joined the vessel days scheme (VDS) under the Palau Arrangement in 2012.

The study involves looking at the size of fleets operating in PNA waters. It also looks at effort (days) and catch (mt) in PNA waters and the rest of the WCPO, with a specific look at the corresponding bigeye catches.

The results show that the number of purse seine vessels operating in PNA waters has been fairly constant, with the related effort and catch, including bigeye catch, fairly stable over the 5 year period. This provides a good indication that the PNA VDS, with its associated fees for fishing days, has been effective in maintaining relatively stable purse seine capacity, effort and catch for the last 5 years.

Introduction

This paper is a slightly revised version of the paper submitted to SC11. It provides information on purse seine (PS) activity in the waters of the Parties to the Nauru Agreement (PNA), and in the Western and Central Pacific Ocean (WCPO) outside PNA waters, for the period 2010 to 2014.

In addition to the original study that looked at the size of fleets operating in PNA waters as well as effort (fishing days) and catch (mt) in PNA waters and the WCPO, this paper also includes bigeye (BET) catch.

The purposes of the work are:

- a) to improve understanding of BET and the PS fishery in PNA waters, and the tropical WCPO more generally; and
- b) to provide indicators of the performance of the PNA purse seine Vessel Day Scheme (VDS) and other purse seine management processes in the WCPO.

The period for the analysis is from 2010. An overall hard limit on fishing effort under the VDS was applied from 2012 in accordance with CMM 2011-01, limiting effort in PNA EEZs to the 2010 level.

The purse seine fishery in PNA waters has accounted for around 80% of the WCPO purse seine catch from 2010-2014, the balance being taken in the waters of other Commission Members, especially Indonesia and the Philippines, and the high seas.

Vessel Numbers in PNA Waters

Figure 1 below and Table 1 show the number of vessels on the PNA purse seine VDS register since 2010. Overall, there has been little change in the size of the fleets operating in PNA waters, which have ranged between 266 and 285 vessels annually over this period. Of the 278 vessels that have operated in 2015, as

¹ Parties to the Nauru Agreement plus Tokelau

indicated in Table 1, six (6) have been decommissioned and others are known to be no longer operating in PNA waters.

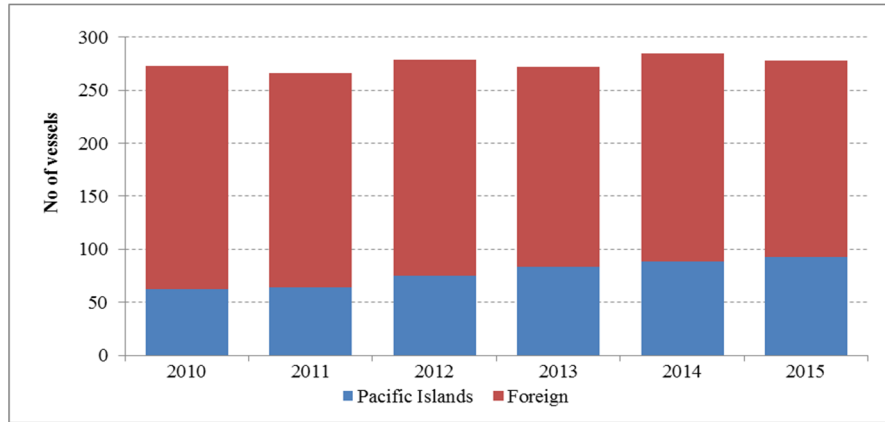


Figure 1: Annual number of vessels operating in PNA waters.

(Pacific Islands include foreign flag vessels operating under the FSM Arrangement; the 2015 figure is the number of vessels registered as at Sept 2015. Source: PNA VDS Register)

Purse Seine Fishing Effort in PNA Waters

Figure 2 below and Table 2 show the estimated purse seine fishing effort in PNA waters since 2010, based on logsheets. The data for 2014 is provisional. PNA Members are implementing electronic catch and effort reporting that will improve the timeliness of effort data. As illustrated by the graph, the logsheet data indicates that 2014 effort was slightly down from 2013. The Vessel Monitoring System (VMS) data used for the VDS indicates that, based on effort at the end of June, a significant further decline is likely for 2015.

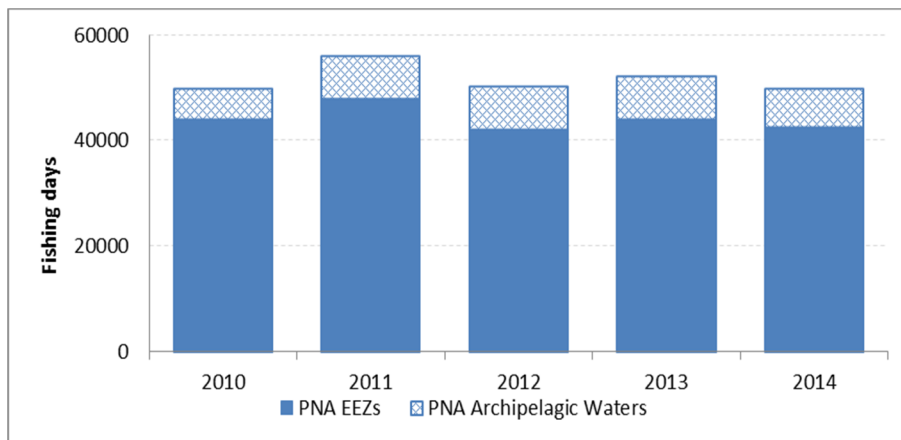


Figure 2: Purse seine effort (fishing days) in PNA waters. (Source: SPC data as at 22 July 2015)

Purse Seine Catch in PNA Waters

Figure 3 below and Table 3 show the estimated purse seine fishing catch in PNA waters since 2010, based on logsheets. The data for 2014 is provisional. PNA Members are implementing electronic catch and effort reporting that will improve the timeliness of catch data.

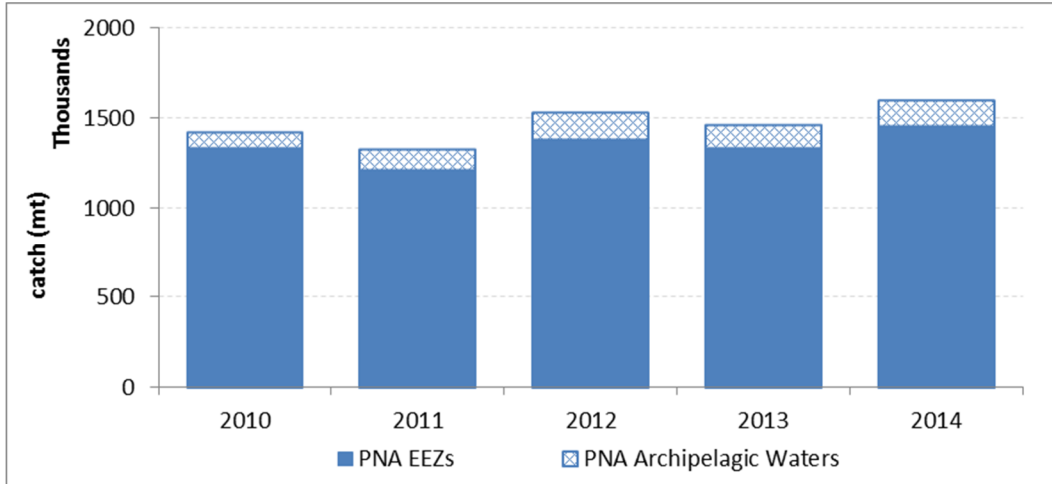


Figure 3: Purse seine catch (mt) in PNA waters. (Source: SPC data as at 22 July 2015)

Purse Seine Catch Rate in PNA Waters

Figure 4 shows the nominal purse seine catch rate per fishing day in PNA waters from the previous effort and catch above. In general, catch rates have been around 30 tonnes per day over this period apart from the dip in 2011. There was a 13.7% increase in 2014 from 2013, which appears to have been largely due to an increase in free school catch rates. Catch rates in archipelagic waters (AWs) have been lower than catch rates in the PNA EEZs.

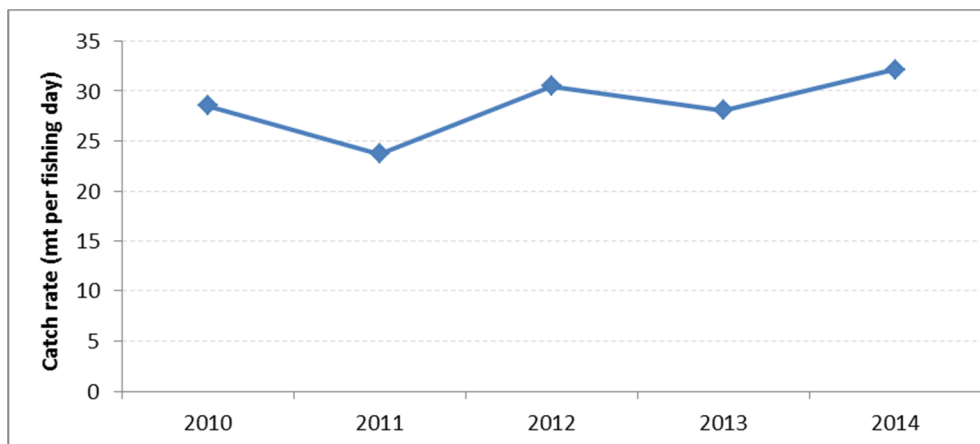


Figure 4: Catch rate (mt per fishing day) in PNA waters. (Source: SPC data as at 22 July 2015)

Purse Seine Bigeye Catch in PNA Waters

The PS bigeye catch shown in Figure 5 below and in Table 4 constitutes 3 - 5% of the total PS catch in PNA waters.

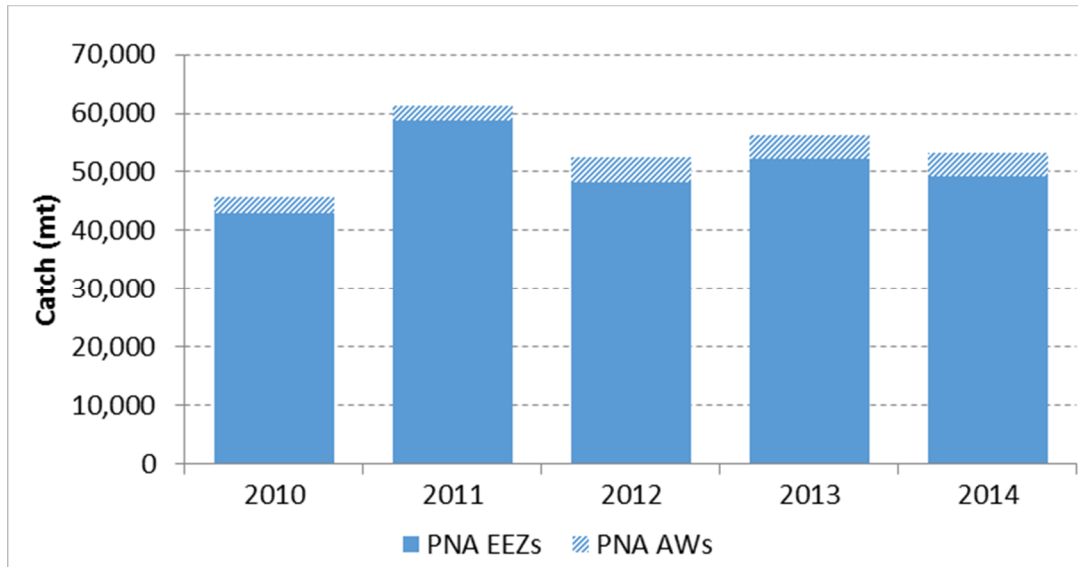


Figure 5: PS bigeye catch (mt) in PNA waters (Source: SPC data as at 22 July 2015)

WCPO Purse Seine Effort² and Catch, Outside PNA Waters

Figure 6 below and Table 5 show the estimated purse seine fishing effort and catch in the WCPO outside PNA waters since 2010, based on similar sources to the data for PNA waters shown above.

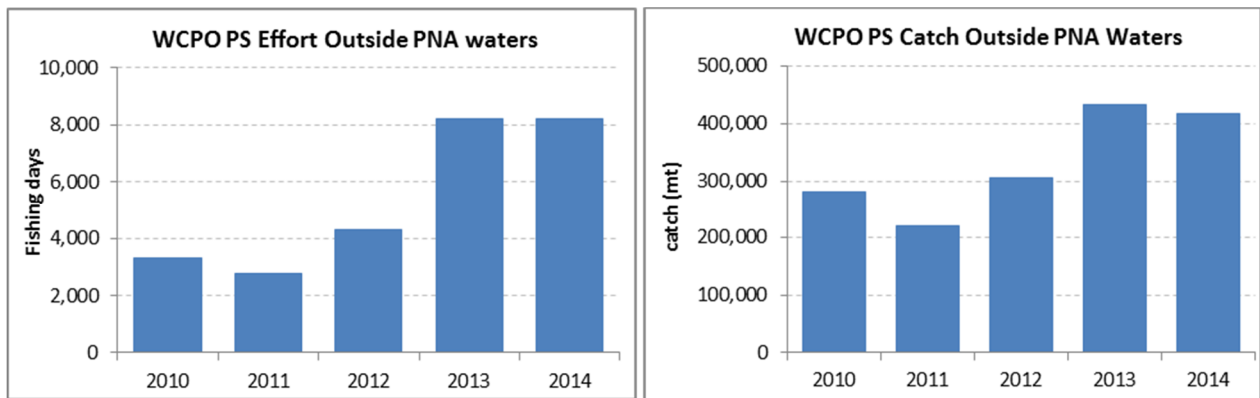


Figure 6: WCPO purse seine effort and catch, outside PNA waters.

(Effort excludes fishing in waters of Indonesia and Philippines. Source: SPC data as at 22 July 2015)

²Excludes fishing in Indonesia and Philippines

Purse Seine Bigeye Catch outside PNA waters

The PS bigeye catch outside PNA waters, shown in Figure 7 below and in Table 4, includes catch in the high seas and in other national waters. The catch in the high seas constituted over 60% of the BET catch outside PNA waters in 2014.

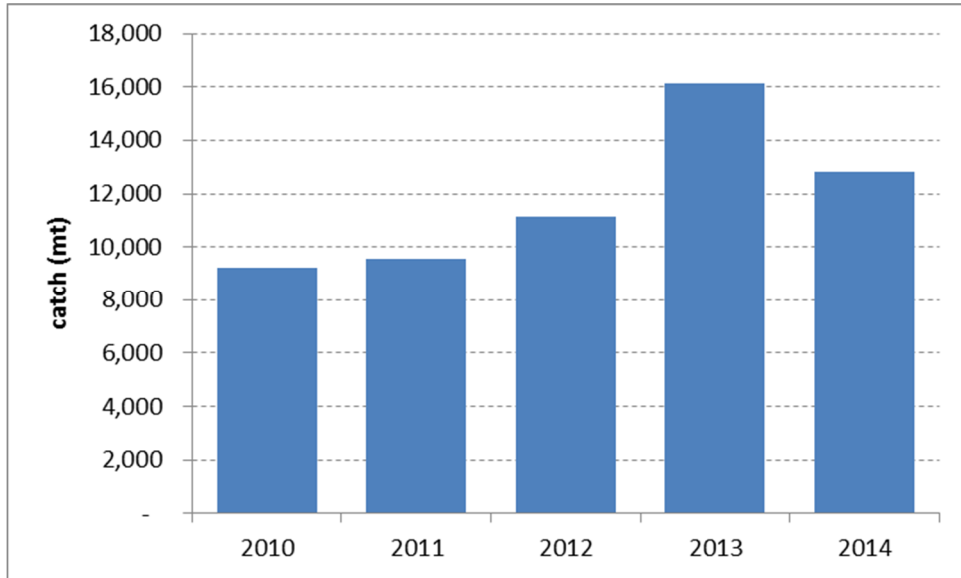


Figure 7: Purse seine bigeye catch (mt) outside PNA waters (Source: SPC data as at 22 July 2015)

Table 1: No of vessels operating in PNA EEZs for the period 2010 to 2015

(Pacific Islands include foreign flag vessels operating under the FSM Arrangement; the 2015 figure includes six (6) vessels that have been decommissioned as at September, and other vessels no longer operating in PNA waters. (Source: PNA VDS Register).

Fleet	2010	2011	2012	2013	2014	2015
Pacific Islands	62	64	75	83	88	93
Foreign	211	202	204	189	197	185
Total	273	266	279	272	285	278

Table 2: Purse seine effort (logsheet days) in PNA waters. (Source: SPC data as at 22 July 2015)

	2010	2011	2012	2013	2014
PNA EEZs	43,982	47,797	42,169	44,096	42,568
PNA AWs	5,825	8,199	8,082	7,985	7,160
Total	49,808	55,997	50,252	52,082	49,728

Table 3: Purse seine catch (mt) in PNA waters. (Source: SPC data as at 22 July 2015)

	2010	2011	2012	2013	2014
PNA EEZs	1,336,813	1,215,127	1,379,903	1,335,356	1,457,495
PNA AWs	85,091	113,113	150,261	126,933	141,260
Total	1,421,904	1,328,240	1,530,165	1,462,289	1,598,755

Table 4: Purse seine bigeye catch in PNA and outside PNA waters (Source: Same as Tables 2 & 3)

	2,010	2,011	2,012	2,013	2,014
PNA EEZs	42,870	58,817	48,287	52,339	49,313
PNA AWS	2,812	2,360	4,123	3,998	3,882
<i>Total PNA</i>	<i>45,682</i>	<i>61,177</i>	<i>52,410</i>	<i>56,338</i>	<i>53,196</i>
Outside PNA	9,237	9,570	11,154	16,127	12,815
Total WCPO	54,920	70,748	63,564	72,464	66,011

Table 5: WCPO purse seine effort and catch, outside PNA waters

Note: Effort excludes fishing in waters of Indonesia and Philippines. (Source: Same as Tables 2-4)

	2010	2011	2012	2013	2014
PS Effort (fishing days)	3,282	2,782	4,316	8,206	8,205
PS Catch (mt)	280,867	221,036	306,821	432,432	417,628