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PURSE SEINE EFFORT IN THE ZONES OF NON-PNA CCMS AND ON THE HIGH SEAS

**WCPFC5-2008/13
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Paper prepared by the Secretariat

Introduction

1. Para. 325(d) of the Summary Record of the Fourth Regular Session of the Commission (WCPFC4) states:

“the Executive Director will commence a process in early 2008 to support the implementation of similar measures [*sic.* Vessel Day Scheme (VDS)] to limit purse seine effort on the high seas, consistent with paragraph 9 of CMM 2005-01, and in waters under the national jurisdiction of non-PNA members of the Commission, consistent with paragraph 10(ii) of CMM-2005-01;”

2. The completion of this task requires consideration of the:
 - a. unit of measurable fishing effort to apply to purse seine vessels; and
 - b. availability of data for a suggested unit of purse seine effort in the high seas and the waters under the national jurisdiction of non-PNA members of the Commission.
3. The Fourth Regular Sessions of the Scientific Committee (SC4) and the Technical and Compliance Committee (TCC4) were invited to provide advice and recommendations in relation to these issues.

CMM-2005-01 and CMM 2006-01

4. Conservation and Management Measure 2005-01 provides, *inter alia*, that:

8. *CCMs shall take necessary measures to ensure that purse seine effort levels do not exceed either 2004 levels, or the average of 2001 to 2004 levels, in waters under their national jurisdiction, beginning in 2006.*

9. *The Commission shall implement compatible measures as required under Article 8 of the Convention, to ensure that purse seine effort levels do not exceed 2004 levels on the high seas in the Convention Area or the total fishing capacity will not increase in the Convention Area.*

10. (i) *For those FFA Member Countries who are Parties to the Nauru Agreement, the provisions of paragraph 8 will be implemented as a Vessel Day*

Scheme that will limit days fished to a level no greater than 2004 levels and will be fully implemented by 1 December 2007. Until that time, the current measures under the Palau Arrangement shall remain in force.

(ii) Other non-PNA member countries shall implement similar measures to limit purse seine effort in waters under their jurisdiction to no greater than 2004 levels, or to the average of 2001 to 2004 levels.

5. Further, for the purse seine fishery between 20°N and 20°S, CMM-2006-01 requires:

“3. Beginning in 2007, CCMs shall take necessary measures to ensure that the level of purse seine fishing effort by their vessels in areas of the high seas does not exceed 2004 levels or the average of 2001-2004.”

Considerations during the Scientific Committee and Technical and Compliance Committee

6. The SC4, at Port Moresby in August 2008, firstly in the Statistics Specialist Working Group (St-SWG), and then in Plenary, considered information that the Secretariat, with the assistance of the Secretariat of the Pacific Community Oceanic Fisheries Programme (SPC-OFP), had compiled in relation to fishing effort (in terms of fishing days as specified in operational level catch and effort data received by the OFP¹) on the high seas in the Convention Area (WCPFC-SC4-2008/ST-WP-4). At paragraph 297 of its Summary Report, SC4:

- noted the data contained in WCPFC-SC4-2008/ST-WP-4 represent the best assessment of purse seine fishing effort on the high seas and in the zones on non-PNA members available at this time (August 2008);
- recommended the working paper (WCPFC-SC4-2008/ST-WP-4) should be forwarded to TCC4 and the Commission;
- recommended any CCM who believe that they have additional data that should be included in this paper, should provide their proposed changes (along with supporting documentation) to the Secretariat by 15 September 2008.

7. The TCC4, at Pohnpei in October 2008 noted the discussions that took place during SC4.

8. Subsequently, between SC4 and the conclusion of TCC4, the Secretariat received additional high seas effort information from the European Community (EC) (for the period 2001-2007), Korea, Philippines and the United States of America and this is included in the information presented at Table 1. The majority of this supplementary information is yet to be verified through the submission of operational level log sheet data to the Commission. In addition, the United States informally noted, in an email exchange with staff of the SPC-OFP, that there may be a need to review the definition of “fishing day” to ensure that there is a common metric for this measure of effort in the Convention Area.

Options to support “similar” measures

9. The VDS uses “fishing days” as the unit of effort. Effort is scaled across three vessel length classes: those less than 50 meters (m) for which each fishing day is assigned 0.5 fishing days, those between 50 and 80m for which one fishing day is assigned one fishing day and those greater than 80m for which, for the purposes of the VDS, one fishing day is recorded as being

¹ Except for Japan for which operational level data is not currently available to the Commission for the high seas.

equivalent to 1.5 fishing days. The data required to support the implementation of the VDS by PNA CCMs, as the means to comply with CMM 2005-01, is available for the period 2001-2004. Monitoring this Scheme is achieved through the FFA satellite-based vessel monitoring system (VMS).

10. The requirements of CMM 2005-01 paragraph 8, 9 and 10 (ii) is that total capacity will not increase in the Convention Area, or that purse seine fishing effort levels do not exceed 2004 levels on the high seas and that purse seine fishing effort in waters under national jurisdiction do not exceed 2004 or the average of 2001-2004 levels. CMM-2006-01 requires CCMs to ensure that level of purse seine fishing effort by their vessels in areas of the high seas does not exceed 2004 levels or the average of 2001-2004 for the area between 20°N and 20°S.

11. Paragraph 10 (ii) requires an appraisal of alternatives for achieving a “similar” outcome as envisaged at paragraph 10(i). This requires consideration of the form of a “similar” measure and whether or not adequate data is available to support the application of that measure. The only apparent alternative to using vessel days, as it applies in the VDS, is vessel numbers.

12. With the exception of certain purse seine fleets (Korea, Chinese Taipei, US, New Zealand and fleets fishing under the FSM Arrangement), the Commission’s Data Services Provider, the SPC-OFP, has not received vessel specific data (e.g. logsheets) for high seas fishing operations. Aggregated data provided by Japan and others do not reference vessels, so it is not possible to construct estimates by vessel size class for these fleets for the high seas. This would only be possible if data is reported by vessel (e.g. as logsheet data), or grouped by vessel size class.

13. Estimates of effort limits, in fishing days, based on the data available to the SPC-OFP, are presented in Table 1. The rationale for estimates for non-WCPFC CCMs on the high seas in the WCPF Convention Area, Indonesian fleets in national waters and on the high seas and Philippine fleets in national waters is presented at Attachment A. The data communicated by the Philippines for their fleet on the high seas is presented at Attachment B.

Considerations

14. CMM-2005-01 requires CMMs “.....to ensure that purse seine effort levels do not exceed 2004 levels on the high seas in the Convention Area or the total fishing capacity will not increase in the Convention Area.” Paragraph 10 ii) requires that non-PNA CCMs implement “similar” measures as implemented under paragraph 10 i) for the VDS within the zones of PNA CCMs. “Similar” measures as the VDS is interpreted to mean the unit of effort is vessel days.

15. Monitoring of high seas and non-PNA Member effort on the high seas and within national jurisdiction is dependent on a fully functional satellite-based vessel monitoring system (VMS).

16. Non-CCM effort on the high seas within the WCPFC Convention Area is likely to continue whether non-CCMs are admitted to the Commission as CCMs or not.

17. The same allocation of effort applies to vessels less than 50m LOA (0.5 days), 50-80m LOA (1 day) and greater than 80m LOA (1.5 days) as applies for the VDS.

18. The Commission may decide to adopt other measures that affect purse seine fishing effort on the high seas.

19. The impact of the application of the Third Implementing Arrangement (IA3) adopted by the PNA, which links access to EEZs to a commitment not to fish on the high seas.

Options

20. Without prejudice to numerous arrangements that the Commission may consider the following options are offered to stimulate further consideration of a means to respond to the requirement of paragraph 325(d).

Option 1. An Olympic allocation to the high seas

21. Each calendar year, the Secretariat advises all CCMs when the high seas achieves [80] per cent of the total limit recorded for all CCMs in Table 1. Subsequent advisories are issued at 90, 95, 99 and 100 per cent of the total limit. CCMs will ensure their fishing vessels cease fishing activities on the high seas immediately the Secretariat advises all CCMs the total limit is achieved.

22. CCMs are responsible for taking appropriate action to ensure that the advisories issued by the Secretariat are acted upon expeditiously.

Option 2: Fishing opportunities based on historical (2001-2004) effort

23. Each calendar year, the Secretariat advises all CCMs when the high seas [or in-zone effort for a non-PNA CCM] achieves [80] per cent of the limit recorded for each CCM in Table 1. Subsequent advisories are issued at 90, 95, 99 and 100 per cent of the limit. Unless additional effort is acquired elsewhere (*see Option 3 below*) each CCMs will ensure their fishing vessels cease fishing activities on the high seas [or within waters under national jurisdiction as appropriate] immediately the limit assigned to them in Table 1 is achieved.

24. CCMs are responsible for taking appropriate action to ensure that the advisories issued by the Secretariat are acted upon and their respective effort limit recorded in Table 1 is not exceeded.

25. CCMs will report on the implementation of measures to ensure the effort limits recorded in Table 1 are not exceeded at each regular session of the Technical and Compliance Committee.

Option 3: Fishing opportunities on the high seas provide development aspirations for SIDS

26. Each calendar year up to [2]% of the total effort available for the high seas for non-SIDS will be made available to SIDS to support their fishery development aspirations on the high seas. The effort limit for each *non-SIDS* recorded in Table 1 will be reduced accordingly to support this initiative.

27. Each year, at the regular session of the TCC, each SID CCM supporting a developing purse seine fishery will apply for fishing opportunities on the high seas for the following year. The total fishing opportunities subsequently identified will not exceed [2]% of the total effort available for the high seas for non-SIDS and will be apportioned equally among all SIDS supporting fishing operations on the high seas.

28. Vessels flagged to SIDS that elect to take up these opportunities will be monitored by the Secretariat and their flag State responsible as described in paragraph 11 above.

Option 4: Fishing opportunities on the high seas support fishery research

29. The total effort for non-SID CCM for the high seas is reduced by 500 days; the limit for each CCM reduced proportionately. The 500 days are assigned to the Commission.

30. CCM bid for the available high seas days assigned to the Commission through a web-based system that supports a transparent trading scheme administered by the Secretariat. Funds generated will support research projects approved by the Scientific Committee.

Recommendation

31. The Commission is invited to:

- review the data available for purse seine fishing effort to support the implementation of similar measures to limit purse seine fishing effort in the Convention Area on the high seas and in the waters under the national jurisdiction of non-PNA members of the Commission; and
- consider the definition of “fishing day”; and
- review options for the implementation of measures, similar to the VDS, to limit purse seine effort on the high seas, consistent with paragraph 9 of CMM 2005-01, and in waters under the national jurisdiction of non-PNA members of the Commission, consistent with paragraph 10(ii) in response to the directive from WCPFC4; and
- utilize the information provided in WCPFC5-2008/13 to develop, then adopt, similar measures, as called for at para. 325(d) of the WCPFC4 Summary Report, during WCPFC5; or
- identify any additional work that may be required before a similar measure may be considered for adoption by the Commission at a subsequent session; or
- identify any other action that is required.

Table 1. Limit estimates for the high seas and the zones of non-PNA CCMs (and non-WCPFC members) established by CMM-2005-01 and CMM-2006-01 between 20°N and 20°S (average vessel days 2001-2004 or 2004)².

Entity	Vessel days			
	National Waters		High Seas	
	2004	2001-2004	2004	2001-2004
American Samoa	-	-	-	-
Australia	-	-	-	-
Canada	-	-	-	-
China	-	-	428	200
Chinese Taipei	-	-	1,913	1,809
CNMI	-	-	-	-
Cook Islands	6	73	-	-
EU	-	-	90	58
Fiji	27	13	-	-
French Polynesia	-	1	-	-
FSM	-	-	383	257
Guam	-	-	-	-
Indonesia	6,363	-	500	-
Japan	-	-	2,321	1,949
Kiribati	-	-	35	42
Korea	-	-	1,531	1,571
Marshall Islands	-	-	398	303
Nauru	-	-	-	-
New Caledonia	-	-	-	-
New Zealand	-	-	210	224
Niue	-	-	-	-
Palau	-	-	-	-
Philippines	5,477	-	4,659	239
PNG	-	-	1,005	634
Samoa	4	6	-	-
Solomon Islands	-	-	-	17
Tokelau	67	149	-	-
Tonga	1	1	-	-
Tuvalu	-	-	-	-
USA	342	396	1,066	1,038
Vanuatu	23	7	571	245
Wallis and Futuna	-	3	-	-
Non-WCPFC CCMs	-	-	-	96
LIMIT ESTIMATE [CMM-2005-01]		12,519		15,284

Notes:

Source: Raised logsheet data.

Subject to interpretation of paragraph 6 and footnote 1 of CMM 2005-01

Catches and effort of vessels operating under charters and similar arrangements have been attributed to host island states or territories in accordance with paragraph 5 of CMM 2005-01 using the best information available to SPC-OFP.

Rationale for accommodating uncertainties explained at Attachment A

² As of 29 August 2008.

Rationale for assigning effort limits for the national waters of non-PNA countries and the high seas where data was uncertain or incomplete at the time CMM-2005-01 was adopted by the Commission.

Indonesia

WCPFC (SPC-OFP) does not have any operational catch/effort data for the Indonesia domestic purse seine fleet to determine the extent of activities by area, so the following methods have been used in the absence of the data.

1. National waters

For 2004, the average CPUE (SKJ+YFT+BET)/days = 24 MT/day in the tropical waters of the WCPFC Convention Area. Applying this to the total purse seine catch estimates for domestic Indonesia purse seine fishery in 2004 (164,721 mt) gives 6,363 days (after subtracting an arbitrary estimate of 500 days for activities on the high seas – see below).

2. High seas

WCPFC (SPC-OFP) doesn't have any effort data for the Indonesia domestic purse seine fleet but presumably they fish in the high seas enclave between FSM, PNG, Palau and Indonesia. If this effort is assumed to be similar to the effort of the Philippines fleet based in PNG, a value of 500 days could possibly be attributed to fishing in the high seas by the Indonesian fleet.

Philippines

WCPFC (SPC-OFP) does not have any operational catch/effort data for the Philippines domestic purse seine fleet to determine the extent of activities by area, so the following methods have been used in the absence of the data.

National waters

For 2004, the average CPUE (SKJ+YFT+BET)/days = 24 MT/day in the tropical waters of the WCPFC Convention Area. Applying this to the total purse seine catch estimate (131,439 mt) for domestic Philippine purse seine fishery in 2004 gives 5,477 days.

High Seas

Previously determined to be 452 days for the Philippines fleet based in PNG from logsheet data. Following the presentation of an estimate for high seas effort by the Philippine fleet in the Convention Area to SC4 the Philippines provided the information presented at Appendix B.

Non-WCPFC CCM

This relates to fleets based in the Eastern Pacific Ocean or IATTC-member country fleets providing data to IATTC³. Other fleets that may support purse seine effort on WCPO tuna stocks may include Malaysia and Vietnam but data are not available to include consideration of this possible effort here.

Days in national waters within the WCPFC Convention Area.

None of these fleets were licensed to fish in national waters according to information currently available, so no fishing activity by non-WCPFC CCM fleets has been attributed to national waters. (0 days)

High Seas

From IATTC data, after removing Spain and Vanuatu fleet effort (which are already counted), the effort in 2004 for these fleets fishing in the WCPFC Convention Area was greater than the average effort for 2001-2004. The number of days effort in the WCPFC Convention Area was 96 days, according to aggregate data provided by IATTC data. (96 days).

³ Assumes that Vanuatu, for example, has provided the same data for fishing in the WCPF Convention Area to IATTC and to the WCPFC, so this effort should not be counted again in this category.

Summary of Philippine Purse Seine Effort in the High Seas (2004)

Fishing Company	Catcher Vessel	Actual # of Fishing Days	Catch Total (MT)	SJK (MT)	YFT (MT)	BET (MT)	Others (MT)	GT
Amadeo	Pelagis 105	57	1207.5	914	293.5	0	0	492.52
	Helen 28	140	1083	936	147	0	0	?
	Patricio 28	81	1083	770	313	0	0	67.5
	Juvy Deena 1	155	1109	1103	6	0	0	?
	Phindo	136	2844	1639	1182	23	0	?
	Helen 18	46	515.7	460.7	55	0	0	?
	Helen 14	73	592	544	48	0	0	?
	Patricio 1	55	540.7	375.7	165	0	0	154.65
Amadeo_Total for 2004		743	8,974.90	6,742.40	2,209.50	23.00	-	714.67
Frabelle Fishing Corporation	Blue Moon 1	241	4462.65	3693.09	769.56	0	0	164.19
	Yellow Bell 2	188	3213.57			0	0	147.64
	White Magnolia 2	45	588.06					135.79
	Lotus 2	40	432.78					125.89
Frabelle_Total for 2004		514	8,697.06	3,693.09	769.56	-	-	573.51
RBL Fishing Corp	Monalinda 89	246	4,353.60	3,609.40	604.70	4.40	135.10	481.11
	Monalinda 88	307	5,885.86	4,968.40	688.40	1.40	227.66	499.84
	Monalinda 83	126	1,906.50	1,583.00	249.75	-	73.75	477.37
	Monalinda 39	303	5,338.98	4,597.90	631.08	0.60	109.40	422.82
RBL_Total for 2004		982	17,484.94	14,758.70	2,173.93	6.40	545.91	1,881.14
RD Fishing Industry Inc	Dolly 10	88	1,961.50	1,335.10	589.40		37.00	77.70
	Dolly 14	63	1,926.00	1,018.37	837.63		70.00	118.16
RD_Total for 2004		151	3,887.50	2,353.47	1,427.03	-	107.00	195.86

Fishing Company	Catcher Vessel	Actual # of Fishing Days	Catch Total (MT)	SJK (MT)	YFT (MT)	BET (MT)	Others (MT)	GT
Trans Pacific Journey Fishing Corp***	Trm2 (Don Tobias)	99	1947.06	1331.67	615.39	0	0	481.79
	Tobias Reynald	158	3588.15	3059.55	528.6			470.15
	Mitramas Martina Marie	26	400.44	349.65	39.21		11.58	498.36
	Sagara Babylyn	192	3813.54	3134.97	678.57			490.48
	John Reynald	2	43.5	3.15	40.35			782.93
		477	9,792.69	7,878.99	1,902.12	-	11.58	2,723.71
	Trm2 (Don Tobias)	113	3013.8	2187.09	826.71			481.79
	Tobias Reynald	189	7013.1	5768.25	1244.85			470.15
	Sagara Babylyn	46	1527.9	1195.38	332.49		0.03	490.48
	John Reynald	72	1548.15	1400.55	146.7		0.9	782.93
		420	13,102.95	10,551.27	2,550.75	-	0.93	2,225.35
	Trm1 (Don Tobias)	46	1263.3	1117.77	145.53			481.79
	Tobias Reynald	110	3545.85	3122.25	423.6			470.15
	John Reynald	138	4600.53	3951.39	649.14			782.93
		294	9,409.68	8,191.41	1,218.27	-	-	1,734.87
	Trm1 (Don Tobias)	150	4300.5	3835.65	464.85			481.79
	John Reynald	209	5258.305	4701.75	556.555			782.93
TPJ_Total for 2004		359	9,558.81	8,537.40	1,021.41	-	-	1,264.72
TPJ_Average for 2001 - 2004		387.50	10,466.03	8,789.77	1,673.14	-	3.13	1,987.16
TSP Marine Industries								
	St. Gregory	109	1,251.00	1,096.00	95.00	-	60.00	?
	St. Ignacius	188	2,865.00	2,549.00	169.00	-	147.00	180.17
	Queen Victoria 998	198	5,770.00	5,581.00	189.00	-	-	498.43
	Queen Evelyn 889	168	3,577.00	3,338.00	234.00	5.00	-	492.18
TSP_Total for 2004		663	13,463.00	12,564.00	687.00	5.00	207.00	1,170.78

Fishing Company	Catcher Vessel	Actual # of Fishing Days	Catch Total (MT)	SJK (MT)	YFT (MT)	BET (MT)	Others (MT)	GT
Celebes Tuna Fishing Corporation	Sarangani Dreams	89	2,433.55	1837.25	570.15	26.15		347.00
	Sarangani One	58	1,679.00	1,258.25	396.25	24.50		135.00
	Sarangani VI	60	741.00	489.25	236.50	15.25		147.67
	Sarangani Two	76	1,748.00	1,273.75	448.75	25.50		?
	Sarangani III	102	1,051.50	871.75	152.00	27.75		116.00
CTFC_Total for 2004		385	7,653.05	5,730.25	1,803.65	119.15	-	745.67
DFC Tuna Venture Corporation	Golden Dreams	40	767.00	536	216.50	14.50		?
	Golden Sea	68	2,251.95	1797.5	427.50	26.95		498.82
	Golden Harvester	156	4046.00	2789.05	1193.70	63.25		348.00
	Golden Blessing	114	970.00	2854.50	471.25	32.25		348.00
DFCTVC_Total for 2004		378	8,034.95	7,977.05	2,308.95	136.95	-	1,194.82
Damalerio Fishing Enterprise	George I	46	465.00	165.75	26.75		299.50	87.50
	Gracia	77	1240.00	876.30	341.20	22.50		?
	Jimmy I	45	340.50	182.00	78.75	6.50	73.25	96.19
	Janet I	60	344.00	155.00	49.00		140.00	64.80
DFE_Total for 2004		228	2,389.50	1,379.05	495.70	29.00	512.75	248.49
San Lorenzo Fishing Industry Inc.**	Super Salorru	19	541.00	386.00	111.00	18.00	26.00	?
SLFII_Total for 2004		19	541.00	386.00	111.00	18.00	26.00	-
NH Agro Industrial Inc.	San Felipe-78	79	2,834.50	2,527.00	201.20	46.20	60.10	?
	San Felipe-88	74	1,400.70	1,236.00	112.80	21.10	30.80	215.42
	San Felipe-98	84	3,179.60	2,901.00	158.90	31.50	88.20	210.59
NH Agro Industrial Inc.		237	7,414.80	6,664.00	472.90	98.80	179.10	426.01

Fishing Company	Catcher Vessel	Actual # of Fishing Days	Catch Total (MT)	SJK (MT)	YFT (MT)	BET (MT)	Others (MT)	GT
RRCS Marine and Industrial Dev. Corp****	RRCS 15	?	4,052.00	4,013.00	39.00			217.53
	Rell & Renn 10	?	3,247.00	3,207.00	40.00			217.53
	RRCS 25	?	4,169.00	4,128.00	41.00			217.53
	Rell & Renn 9	?	3,131.00	3,073.00	58.00			168.15
	RRCS 20	?	4,731.00	4,685.00	46.00			217.53
RRCS Marine and Industrial Dev. Corp		-	19,330.00	19,106.00	224.00	-	-	1,038.27
TOTAL for 2004_Phils		4,659	107,429.51	89,891.41	13,704.63	436.30	1,577.76	9,453.94

Note: As of 21

Sept08

* Visit

WCPFC

website:

www.wcpfc.in

†

** Need to check fishing location (not indicated in the logsheet but at the moment assumed as catch in the High seas)

*** Need to validate summaries with the actual logsheets (only summaries were submitted)

**** Need to check the number of actual # of fishing days (not detailed in the logsheet, what was given were summary per month per vessel)