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WCPFC-SC6-AR/CCM-27

VANUATU

The Vanuatu Fisheries Department

National Tuna Fishery Report

VANUATU

07/08/10

1 . Abstract

Vanuatu is a member of the regional fisheries management organizations (RFMOs) such as IATTC, ICCAT, IOTC and the WCPFC. The membership of Vanuatu in these RFMOs has enabled Vanuatu's fishing fleet to fish these RFMOs' waters for tuna and other highly migratory fish species. Vanuatu fleet is comprised of 19 purse seiners and 76 long-liner fishing vessels. Catch and Effort coverages for the Vanuatu fleet have been high but the size data coverage is uncertain due to lack of observers on board the vessels, particularly the long distant long-liners, and also due to lack of unloading data sought from the landing ports.

In the Vanuatu EEZ the only foreign fleet with high catch and effort data coverage is the Fiji fleet. In the period 2004 – 2009 the annual catch estimates of the Vanuatu fleet have generally increased as did the fishing effort (sets) and number of fish per 100 hooks, where as for the purse seiners, there were more sets on unassociated than associated schools. The purse seine fleet's total catches have increased from 52,304mt to 144,893mt, comprising 89% skipjack, 10% yellowfin and 0.12 % bigeye. Unraised and provisional 2009 data show that catches of all major tuna species have increased with around over 129,000 mt of skipjack,15,000 mt yellowfin and 174 mt of bigeye harvested. Some of these purse seine vessels fished under the FSM Arrangement 'home party' criteria as Papua New Guinea, and therefore may have been included in the PNG-fleet catch statistics. The major tuna species in the longline fleet catch was dominated by albacore (60%), then yellowfin (16%) and lastly bigeye (10%). Unraised and provisional estimates for the longline fleet in 2009 were 8,030mtmt, 1,300mtmt and 510mt mt for albacore, bigeye and yellowfin respectively but if raised could be higher.

Data for the Vanuatu EEZ were based on unraised logsheet data. Fishing in the Vanuatu EEZ was by foreign fleets from China, Fiji, Taiwan and Korea. The Taiwanese fleet has decreased but the Chinese and Fiji fleet have increased rapidly, based on the number of license issued in 2009. In 2009 Vanuatu had a 100% Observer coverage for the locally based foreign fishing vessels and 100% port sampling during port unloading and transshipments

The Vanuatu observer progamme started lately in 2008 to early 2009 with 100% observer coverage for the locally based Foreign Fishing Vessel with 100% sampling operation during unloading in port and during transshipments. To date there has been 12 transshipments since 2008 **1.1 Introduction**

This report was prepared by *Tony Taleo (Principal Data Manager)* and Lucy Andrea Joy (Senior Data Officer) of the Fisheries Compliance Division within the Vanuatu Fisheries Department. The report covers the fishing operations of the Vanuatu flag fishing vessel fleet operating in the WCPFC area during the period 2004 to 2009, as well as the a report on the fishing operations of foreign fishing vessels operating within the

Vanuatu Exclusive Economic Zone (EEZ), unfortunately most data for Vanuatu EEZ will not be available due to some systematic problems with the Fiji data- base, as most of these vessels were unloading in Fiji ports. The report mainly focuses on the ***fleet structures, annual catch estimates, and catch/effort distributions***. The report also raises areas where new and further effort is required on the part of Vanuatu to enhance its role in contributing to the overall conservation and management of highly migratory stocks in the WCPFC area.

1.1 Information on Flag-state reporting

The Vanuatu fishing fleet is comprised of purse seiners, longliners and pole & line vessels which fish between the Pacific, Indian and Atlantic Oceans. Fishing inside the Exclusive Economic Zones (EEZ) of coastal states had been possible by way of bilateral fishing access agreements particularly for long liners and sub-regional arrangements (FSM Arrangement) for purse seiners.

Table 1. Number of fishing vessels active in tuna fisheries in WCPFC Convention Area by gear and size class.

Gear	**LONGLINE**
Fleet	*Distant-water*

Size class (GRT)	2004	2005	2006	2007	2008	2009
0–10						
10–50						
50–200	12	12	12	12	12	12
200–500	27	27	27	27	26	23
500+	25	25	25	25	23	24

Gear	**LONGLINE**
Fleet	*Offshore fleet based in Fiji and Vanuatu*

Size class (GRT)	2004	2005	2006	2007	2008	2009
0–10						
10–50						
50–200	9	9	9	9	9	9
200–500						
500+						

Gear	**PURSE SEINE**
Fleet	*Vanuatu flagged (including vessels in FSM Arrangement)*

Size class (GRT)	2004	2005	2006	2007	2008	2009
0–500	3	3	3	3	3	3
500–1,000						
1,000–1,500	14	14	14	14	10	11
1,500+	6	6	6	6	5	5

1.2 Data coverage

Data regarding the fishing operations of the Vanuatu fleet have been provided by the various members in whose jurisdictions the vessels may have operated, and also by Vanuatu Flag Management Authority. The catch and effort data coverage for the Vanuatu fleet are high, but the size data coverages are uncertain as most of these vessels are landing their catch elsewhere and this would mostly be corroborated by the observers and port samplers in whose jurisdictions catch may have been landed or transshipped in table 2. The inferences for high, medium, and low scores for the catch/effort, and size data coverage, are provided in annex 1. A high score for catch or effort implies that more than 80% of the data had been covered and question marks indicate that there was no data coverage.

Table 2: Estimated annual coverage of catch, effort and size data for VANUATU fishing fleets in the WCPFC Convention Area, 2004–2009.

Gear	Fleet	Year	Catch/Effort data coverage	Size data coverage
LONGLINE	VANUATU	2004-2005	HIGH	??
		2006-2007	HIGH	??
		2008-2009	HIGH	??
PURSE SEINE	VANUATU-Bilateral	2004-2005	HIGH	??
		2006-2007	HIGH	??
		2008-2009	HIGH	??
PURSE SEINE	VANUATU-flagged (FSM Arrangement)	2004-2005	HIGH	??
		2006-2007	HIGH	??
		2008-2009	HIGH	??

1.3 Annual Catch and Effort Estimates for the period 2004 - 2009The annual catch and effort estimates have been estimated for the Vanuatu fleet operating under bilateral arrangements, the FSM Arrangement, and the longline vessels operating in the wider WCPFC Area. The general observation was that annual catch and effort estimates have increased continuously for the purse seine and the longline fleets.

The purse seine fleet that operated under bilateral arrangements recorded an increase in effort in the number of days vessels spent fishing and searching from 779 days in 2004 to more than 1,619 days in 2009 (Table 3a). The effort in the total number of sets had also increased with the most
seen in associated sets. The total annual estimated catches decreased from 52,304 mt in 2004 to more than 37,840 in 2009, which is about 14,464 reductions. During this period, all tuna species in the catch of the main tuna species decreased. Skipjack ctches decreased by by 12,000 mt and also yellowfin (1,400 mt) and bigeye (2661mt) catches have dropped by 2009, from the 2006 level. Noticeably, the "other" fish category caught by this fleet was 14mt in 2005 and decreased in 2006 to more than 9 mt. For this fishery, skipjack is the dominant species (85%) followed by yellowfin (14%), and then bigeye (1%).

During the 2004-2009 period, the purse seine fleet operating under the FSM Arrangement attained the highest total annual effort in terms of fishing and searching days, at 3,120 recorded in 2004 (Table 3b). In terms of sets, this fleet fished on more unassociated sets than associated sets. In fact unassociated sets increased from 481 in 2004 to 2,157 in 2009. Unassociated sets fell slightly in 2005 to 1,048 down 870, from 1,918 in 2004. The annual estimated purse seine catch increased from 35,875mt in 2004 but dropped slightly in 2005 to 123,061mt then increases in 2006 to 147,138mt. For this fishery, skipjack is the dominant species (85%) followed by yellowfin (13%), and then bigeye (2%).

During this period 2004-2009, the longline fleet recorded its highest total annual catch estimate as 8, 901 mt in 2006 with a total effort of 224,579 hooks (Table 3c). This effort was the highest effort recorded for this period, and since 2002 declined to 91,223 hooks in 2005. The longline fishery recorded the highest catches for albacore in 2006 being 7,648 mt and since then declined to 6,404 mt in 2007. The highest catch for bigeye was in 2006 but this dropped from 2,145 mt to 1,574 mt in 2007. Yellowfin catches showed a similar trend for the same years as bigeye catches. Albacore was the dominant species in the catch followed by yellowfin, bigeye, blue marlin and other marlin species.

1.4 Catch distribution

The purse seine fleets were mainly operating within the 10 degrees N and 10 degrees S and between 130 degrees E and 150 degrees W. The effort in the purse seine fishery is measured as days fishing and

searching. Figures 1a, 1b show the effort distributions of purse seine vessels that operated under the FSM Arrangement and under bilateral agreements.

Purse seiners operating under the FSM arrangement effort were concentrated along the equatorial region and over the 2004-2009 periods, showed a slight movement towards the 140 degree E and towards the 10 degree S. Purse seiners operating under bilateral agreements were also distributed along the equatorial region, but more so in an easterly direction concentrating up to the 160 degree W.

The longline effort is given as 100s of hooks. The efforts are distributed between 40 degrees North and 40 degrees south. This implies that that both the southern and northern albacore stocks were targeted. However, there was more effort in south i.e between 10 degrees S and 40 degrees S with a strong concentration in the Vanuatu EEZ and little effort in the EEZs of other coastal states particularly in 2006.

Table 3. Annual catch (mt) in the **WCPFC Convention Area** by species for the VANUATU-Flagged LONGLINE fishery (Offshore and distant-water vessels).

Gear	LONGLINE
Fleet	*Offshore (Fiji and Vanuatu) and DISTANT-WATER*

Species	2004	2005	2006	2007	2008	2009
YELLOWFIN	1322	936	664	594	593	510
BIGEYE	1862	1558	2145	1574	1087	1300
BLUE MARLIN	414	528	1014	508	78	101
BLACK MARLIN	2	24	15	2	32	28
SKIPJACK	0	0	0	0	0	0
ALBACORE	9566	9339	11648	6404	6875	8030
PACIFIC BLUEFIN	0	0	0	0	0	0
STRIPED MARLIN	235	178	246	168	92	59
SWORDFISH	805	466	697	543	174	130
Total	14,206	13,029	16,429	9,793	8,931	10,158

Notes

1. These catch estimates also apply to the following areas
   a. The WCPO Area (the Pacific Ocean west of 150°W)
   b. The WCPFC Convention Area south of the equator
   c. The WCPO Area south of the equator
2. The VANUATU "offshore" longline fleet does not fish in any other areas for which catch estimates are required by the WCPFC.

Table 4. Annual catch (mt) in the **WCPFC Convention Area** by species for the VANUATU Distant-water LONGLINE fishery.

Gear	LONGLINE
Fleet	*Distant-water*

Species	2004	2005	2006	2007	2008	2009
YELLOWFIN	1153	566	429	625	333	453
BIGEYE	1661	1384	1096	1667	798	1009
BLUE MARLIN	78	53	51	81	39	92
BLACK MARLIN	6	17	15	25	28	19
SKIPJACK	0	0	0	0	0	0

Notes

1. Catch estimates were determined from logsheet data raised using information on actual vessel activity (e.g. visits to land catch and VMS data).

Table 5. Annual catch (mt) in the **WCPFC Convention Area** by species for the VANUATU-FLAG PURSE SEINE fishery (including vessels in the FSM Arrangement).

Gear	PURSE SEINE
Fleet	*Vanuatu-flagged (incl. FSM Arrangement – PNG Home party vessels)*

Species	2004	2005	2006	2007	2008	2009
SKIPJACK	48243	63700	54750	59589	93374	129593
YELLOWFIN	3750	10234	5769	7030	23423	15126
BIGEYE	311	797	434	391	370	174

Notes

1. These catch estimates also apply to the WCPO Area (the Pacific Ocean west of 150°W)
2. Catches include Vanuatu-flagged vessels that fish the FSM Arrangement vessels with HOME PARTY = PNG
3. Catch estimates were determined from logsheet data raised using information on actual vessel activity (e.g. VMS data).

Table 6. Annual catch (mt) in the **WCPFC Convention Area** by species for the VANUATU-FLAG PURSE SEINE fishery (excluding FSM Arrangement, PNG-HOME party vessels).

Gear	PURSE SEINE
Fleet	*Bilateral access – Vanuatu-flagged (excl. FSM Arrangement vessels)*

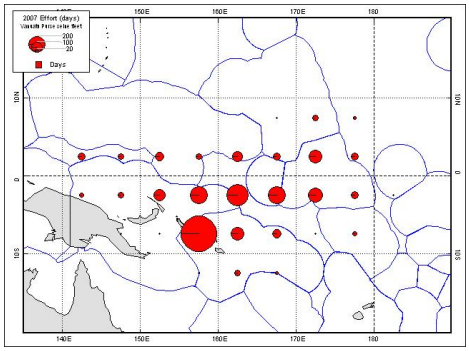
Species	2004	2005	2006	2007	2008	2009
SKIPJACK	48243	63700	55050	62631	30,512	35,454
YELLOWFIN	3750	10234	6345	8187	7,817	2341
BIGEYE	311	797	20	93	148	45

Notes

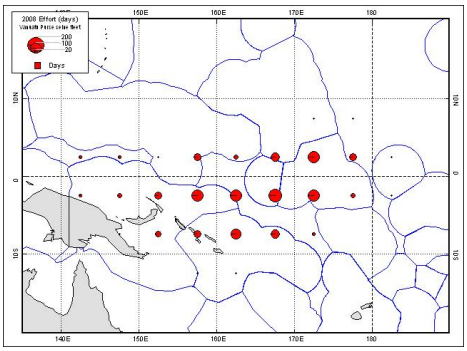
1. *These catch estimates also apply to the WCPO Area (the Pacific Ocean west of 150°W)*
2. *Catches do **not** include Vanuatu-flagged vessels that fish the FSM Arrangement vessels with HOME PARTY = PNG*
3. *Catch estimates were determined from logsheet data raised using information on actual vessel activity (e.g. VMS data).*

Vessels included are FONG SEONG 666, FONG SEONG 668, FONG SEONG 696, YU FA 2, YU FA 3, YU FA 6

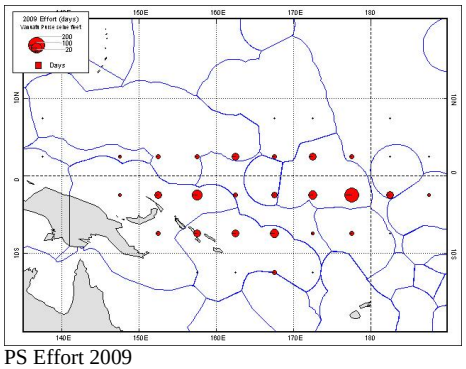
Figure 1 (a) Annual distribution of effort (days fishing and searching) for the VANUATU (Bilateral) purse seine fleet throughout the WCPFC Convention Area for 2007 (left), 2008 (right) and 2009 (bottom)



PS Effort 2007

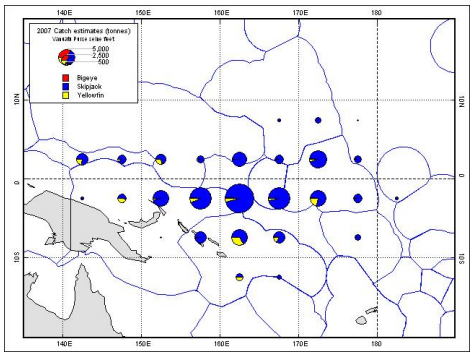


PS Effort 2008

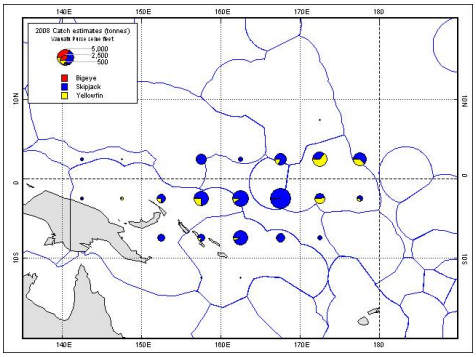


PS Effort 2009

Figure 1 (b) Annual distribution of catch (days fishing and searching) for the VANUATU (Bilateral) purse seine fleet throughout the WCPFC Convention Area for 2007 (left), 2008 (right) and 2009 (bottom)



PS Catch 2007



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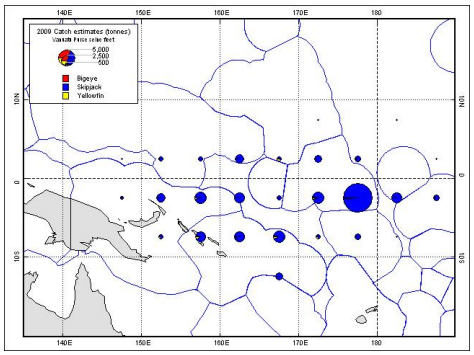
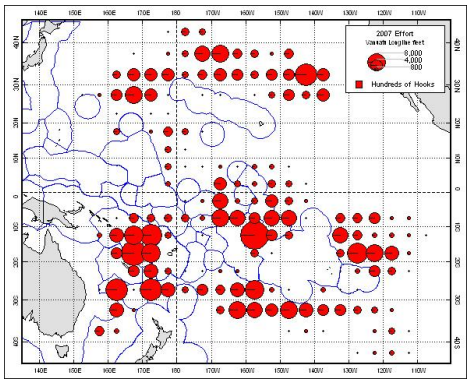
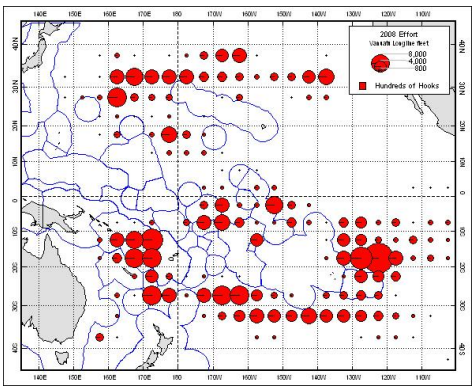


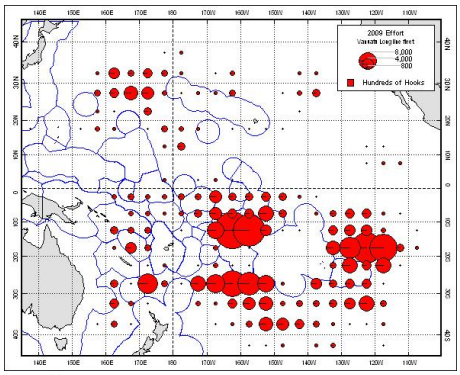
PS Catch 2009

Figure 2 (a) Annual distribution of effort for the VANUATU-flagged Long Line fleet throughout the WCPFC Convention Area for 2009 (left), 2008 (right) and 20079(bottom)





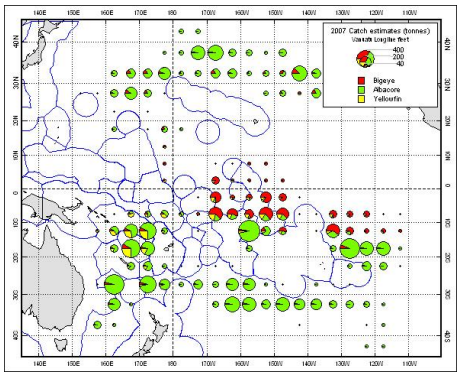
LL Effort 2007



PS Effort 2008

PS Effort 2009

Figure 2 (b) Annual distribution of catch for the VANUATU-flagged Long Line fleet throughout the WCPFC Convention Area for 2009 (left), 2008 (right) and 20079(bottom)



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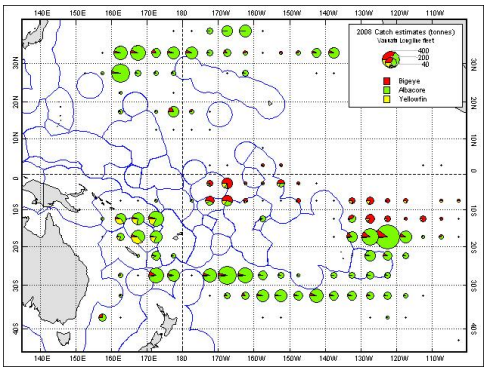

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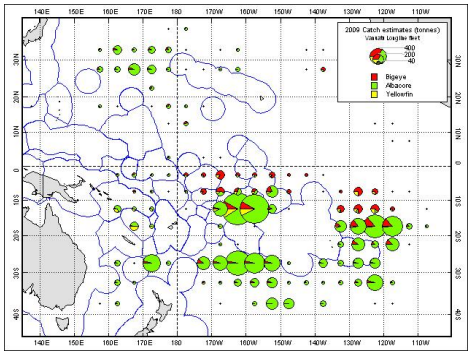


LL Catch 2009

1.5 Estimated Annual total catches of non-target, associated and dependent species by VANUATU purse seine fleets and long-line fleets, 2004-2009.

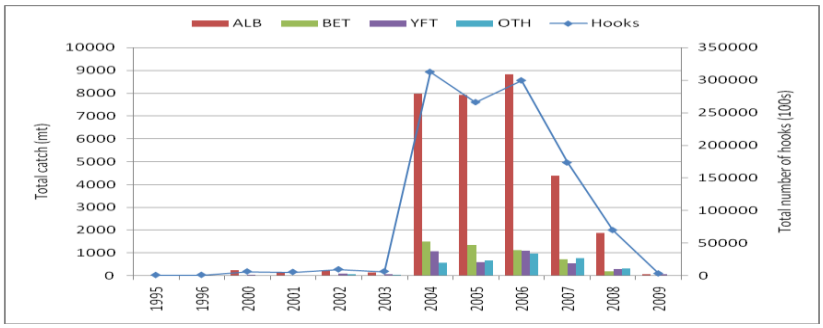
It is not known what the estimated annual total catches of non-target, associated and dependant species by the Vanuatu purse seine fleets for the period 2004-2009, as most of the Observer records have been collected by PNG and FSM observers however Vanuatu in collaboration with PNG have been successful in meeting a required observer coverage on its purse seine vessels that are fishing under the FSM Arrangement.. It is not known whether or not this information collected by observers in the other jurisdictions on vessels that were operating in their waters has been submitted to the WCPFC, SPC or FFA.

2. Coastal-state reporting

Vanuatu has had a long history of longline fishing in the vicinity of the EEZ since the early 1950s and was dominated by fleets from the distant water fishing nations namely, the Chinese Taipei and Korefaa, up to the mid-1990s Commercial tuna fishing within the Vanuatu EEZ consists of longline fishing with minimal domestic activity in local waters. Since then there has been a rapid expansion ofthe domestic fleet. Foreign fleets from Fiji, China, Chinese Taipei, and Cook Islands still fish in Vanuatu waters for tuna & tuna like species under bilateral access agreements. Most of these vessels operate out of American Samoa and Fiji

and primarily target albacore tuna for the canneries in American Samoa and Fiji. In 2009, Vanuatu licenced 109 longline fishing vessels to fish for tuna & tuna-like fish species. Fishing fleet from Fiji and China has increased whilst Cook Islands remain with 2 vessels. The Chinese fleet was the dominant fleet operating in the Vanuatu EEZ, both in terms of vessel numbers and capacity, followed by Chinese Taipei, then Fiji. Most of the vessels that have been licenced to fish in Vanuatu waters were greater than 100

Figure 3: 1995-2009 Total Catch by Species/Number



2.1 Estimated data coverage

Coverage of logsheets from foreign fleets fishing in the Vanuatu EEZ extends back as far as the 1970s and has been low and variable among years. The only recent high coverage catch and effort rates are those from the Vanuatu and Fiji fleet. There have also been significant missing data thus it hasn't been possible to estimating coverage rates for some years. Because of the uncertainty of the estimated catch, effort ,and size data coverage's amongst the fleets that operate in Vanuatu, the catch and effort levels for Vanuatu have been difficult to estimate. It is understood however that, most of these fleets have been unloading their catch in the ports of Levuka, Pagopago, and Suva.
Vanuatu will be looking into very strict measures in terms of estimated catch and effort data, as from 2010 onwards since most of our licensed vessels are currently offloading all or part of their catches, either to the factory or on the carrier vessel in port.
However the newly build processing plant in Vila harbor has already been receiving fresh Tuna for Sashimi export to Taiwan and New Zealand. So far Vanuatu had just completed it's 12th Transshipment operation in Port Vila Harbor with 100% Port Sampling coverage.

Most of the current presented data were obtained from the OFP/SPC database, and were originally collected and supplied by Vanuatu and Fiji. It should be noted that data provided for Vanuatu in this report and also from the past reports to the commission are from unraised log sheet data.

Table 6. Estimated coverage of catch, effort and size data for bilateral-arrangement, foreign fleets fishing in VANUATU's EEZ.

Gear	Fleet	Year	Catch/Effort data coverage	Size data coverage
LONGLINE	China	2003-2004	??Low	??
		2005-2006	??Low	??
LONGLINE	Chinese Taipei	2003-2004	High	??
		2005-2006	??High	??
	FIJI	2003-2004	LOW	??
		2005-2006	LOW	??
LONGLINE	Locally Based Foreign	2008-2009	High	100%

Annual catches in the Vanuatu eez
In the period 2004 to 2006, the total annual catch for all the fleets that were undertaking fishing operations in Vanuatu had increased from 1,933mt to 8,842mt – over a four fold increase. This increase was largely attributed to the Fiji fleet which recorded over 60% of the total catch for the 2004-2009 periods, and with the Taiwanese fleet contributing only 11%. In fact catches for the Taiwanese fleet have declined in comparison to other fleets since 2006 and slowly picking up pace in 2007. On the other hand, catches for the Chinese fleet have steadily increased during this period.

The annual estimated tuna catch composition by weight for 2007, was again dominated by albacore (73%), significant yellowfin (19%), and minor bigeye (3%). These catch proportions were similar to the historical tuna catch compositions.

It has been estimated that the total catch of albacore in 2006 exceeded 6,000 mt based on unraised data but it is likely that the best estimate may have approached 10,000 mt if the data were raised.

The recent tuna fishery in Vanuatu has generally seen a rapid expansion of fishing effort. It is estimated that this recent effort exceeded 25 million hooks per year based on unraised data but it is likely that the actual estimate may exceed 40 million hooks per year if the data were raised. It is noted that high catches were usually obtained with high effort.

Unfortunately due the problem with the Fiji Fisheries Data base, which resulted in the loss of Data including Vanuatu licensed vessels, therefore we are unable to provide catch data for 2008 and 2009 for most our licensed vessels based in Fiji including the Chinese, Fiji, and Cook Island vessels. The only data available for the annual catch in Vanuatu EEZ, were sought from Vanuatu and Taiwanese flag vessels, this is because most of these vessels are are fishing under the Kaoshiung Bilateral Agreement.

Tables 7. Annual catches by longline fleets in the VANUATU EEZ, by flag and species, 2004-2009 (Source : Regional tuna fisheries database – raised logsheet data; 2009m data are preliminary)

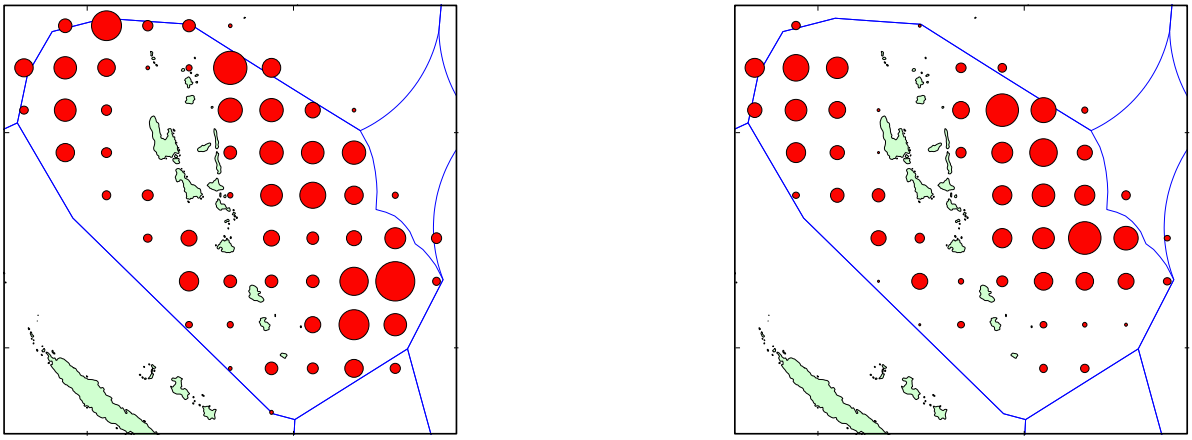
		Tuna Catch (metric tonnes)			
Fleet	**Year**	**ALB**	**BET**	**YFT**	**TOTAL**
China	2004	897	112	235	1,244
	2005	1,543	179	412	2,134
	2006	2,740	108	308	3,155
	2007	379	14	104	497
	2008				
	2009				
Chinese Taipei	2004	863	24	323	1,209
	2005	1,164	274	509	1,947
	2006	2,183	1,637	994	4,813
	2007	373	21	135	529
	2008	709	71	276	2,200
	2009				
Fiji	2004	2,698	150	633	3,482
	2005	2,590	71	567	3,229
	2006	3,482	140	654	4,276
	2007	1,210	57	229	1,496
	2008				
	2009				
Vanuatu	2004	478	60	115	653
	2005	1,149	58	243	1,450
	2006	1,305	64	159	1,528
	2007	366	29	132	527
	2008				
	2009				
TOTAL EEZ	2004	4,937	346	1,305	6,588
	2005	6,446	582	1,731	8,759
	2006	9,709	1,949	2,114	13,772
	2007	2,328	121	601	3,050
	2008				
	2009				

2.2 Annual distribution of fishing effort

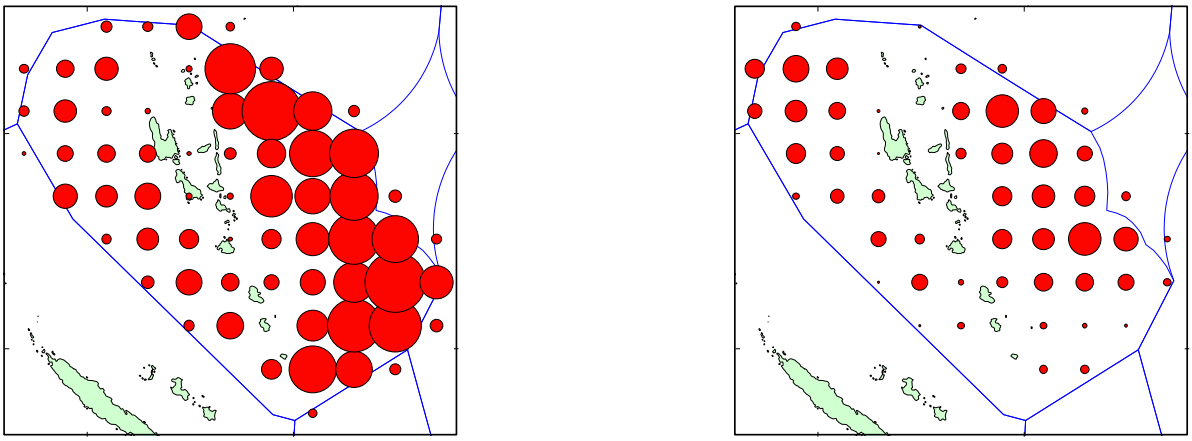
The fishing effort for the tuna fishery in Vanuatu occurred more in the eastern area of the EEZ which borders Fiji, Solomon Islands and the high seas enclave. This is probably due to economic reasons such as the closer proximity to canneries in American Samoa and Fiji.

The graphical representation of the distribution of fishing of the various fleets namely, Chinese, Chinese Taipei, and Fiji, active in the Vanuatu EEZ during 2006 and 2007 is shown in Figure 4. From this effort distribution map, it can be seen that the Taiwanese fleet annual effort have decreased while the Fiji and Chinese fleet fishing effort have increased.

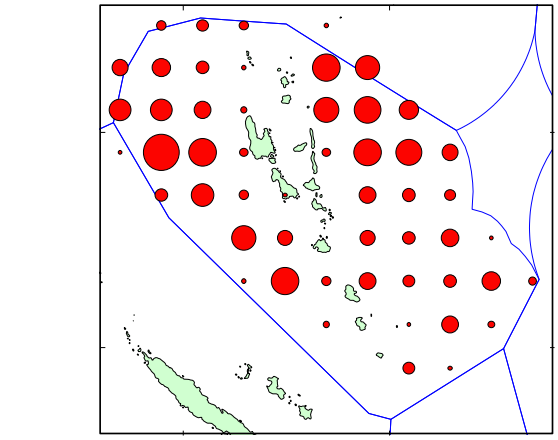
Figure 4. Annual distribution of effort by the main foreign longline fleets active in the VANUATU EEZ for 2004 (left) and 2005 (right)

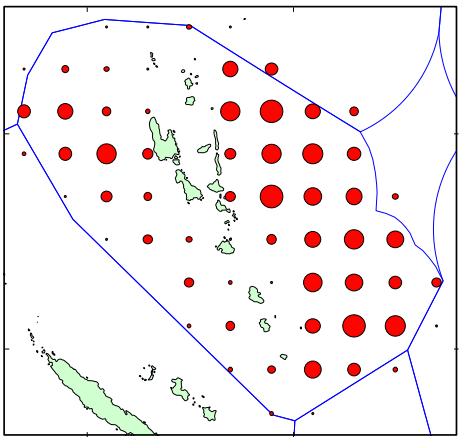


Chinese Fleet



Fiji



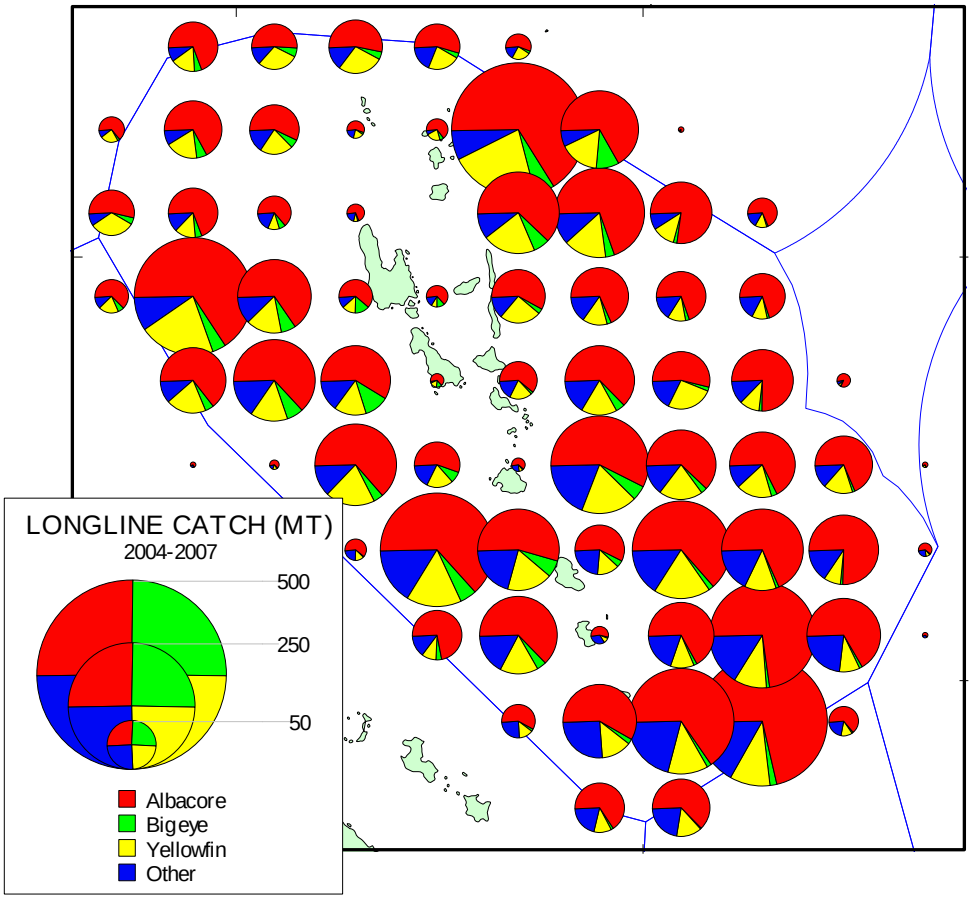


Chinese Taipei

2.3 Distribution of Catch by Species

The distribution of catch by species was similar to the distribution of effort for the same period, i.e. distributed more to the eastern part of the Vanuatu EEZ bordering the western and eastern EEZ boundaries of the Fiji and Solomon Islands including the high seas enclave between these EEZs (Table 7). Catches were high in this area with albacore being the dominant species. Increased catches of bigeye tuna were observed in the western part of the Vanuatu EEZ compared to those on the eastern part. It is likely that the vicinity of the New Hebrides trench in the western EEZ may have some influence on the catchability of bigeye.

Figure 5. Distribution of catch by species by all longline fleets combined in the VANUATU EEZ, 2004–2007



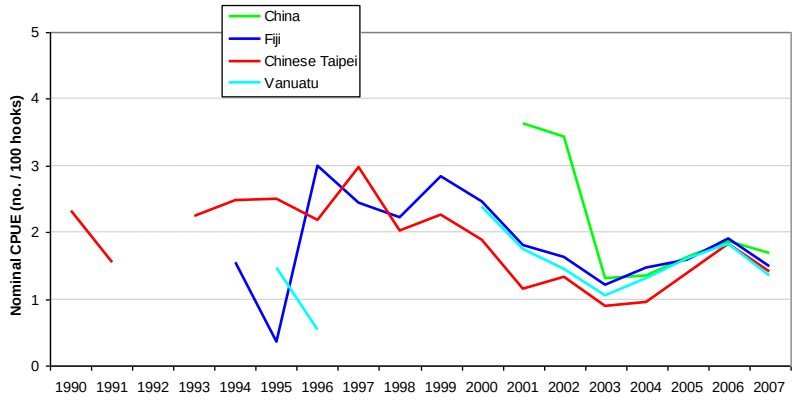
Historically, the Taiwanese fleet fished within the EEZ during the spring (October – December) and summer (January – March), with most of the effort occurring in spring. Albacore catch rates were moderate during spring and summer and lowest during fall. Yellowfin catch rates were highest at the advent of winter (July), but declined thereafter and remained low until fall.

2.4 Fishing Effort - Catch Per Unit Eeffort (cpue)

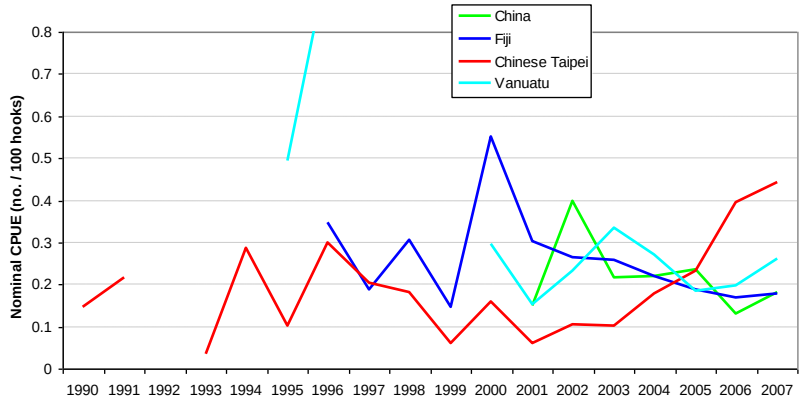
The cpue is measured as nominal cpue, which is numbers of fish per hundred hooks (no. / 100 hook). Recent cpue had been dominated by albacore and yellowfin. The Taiwanese fleet was the only fleet that showed a longer nominal cpue trend going back to 1991

During late 1990s cpue for albacore as observed by the Taiwanese fleet, was around 2 fish / 100 hooks. However since 1999 the cpue had fallen to 1 fish / 100 hooks in 2003, but has recovered since late 2004 for all fleets with 1.6 - 1.8 fish/100 hooks being obtained in 2005.

Figure 5 (a). Trends in nominal catch rates of ALBACORE TUNA taken by longline fleets operating in the VANUATU EEZ, 1990-2007

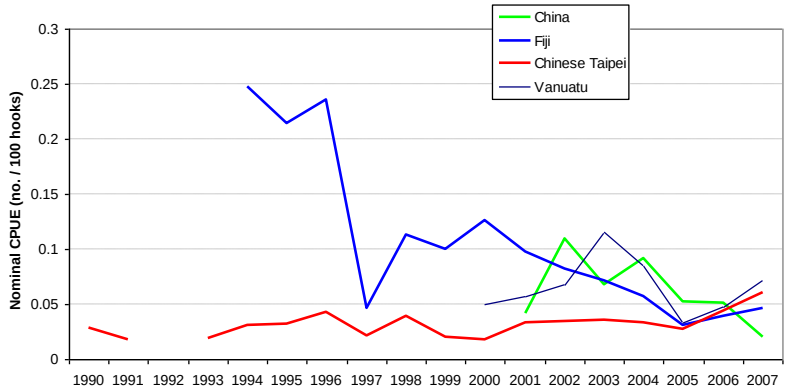


The highest recorded nominal cpue for yellowfin was just over 0.4 fish per 100 hooks in 2002. Recent nominal cpues have been variable and since 2003 showed a convergence trend among the fleets with cpues ranging from 0.2 – 0.25 fish per 100 hooks being achieved in 2005. This level of effort was similar to the 2000 level, but was still lower than the late 1990s.



With the exception of the Taiwanese fleet, nominal cpue rates for bigeye in 2001were highly variable between 0.01 to 0.13 fish per 100 hooks. Since then all fleets recorded between 0.03 to 0.05 fish per 100 hooks in 2005 with the Taiwanese displaying an increase in cpue from 2001. The cpues achieved in 2005 are similar to that achieved in 2000 was still lower than the 1992 level.

Figure 5 (c). Trends in nominal catch rates of BIGEYE TUNA taken by longline fleets operating in the VANUATU EEZ, 1990-2007



3. Research and Statistics

3.1 observer program and Port sampling 2004-2009

Vanuatu recently established the National Observer and Port Sampling Program. During thelate 2008 and early 2009 to date port activities in Vanuatu during this period was beginning to gain pace, at the moment it is fully established with 100% coverage on Locally Based Foreign Vessels and also during Transhipment and unloading with a very limited observer coverage in the Vanuatu fishery during this period for the Fiji based fleet operating in the Vanuatu EEZ.
Hence, Vanuatu recognizes that there is a critical data 'gap' that need more attention and focus. Therefore wwith the limited staffs and limited funds available we are in no position to working together with SPC, FFA and Fiji to collect as much information and data to enable us to fill in the Gaps

ANNEX 1

Table 2 Categories of coverage for catch, effort and size data.

Category	**Catch/Effort data coverage**	**Size data coverage**
HIGH	> 80%	> 15%
MEDIUM	50-80%	5-15%
LOW	0-50%	0-5%
–	No data	No data

LEGEND :
"**Catch/Effort data coverage**" is determined by the comparing the annual catch from operational (logsheet) data to the **total** annual catch, as determined by unloadings or other types of data/information.
"**Size data coverage**" is determined by comparing the number of trips covered by port sampling and observers (collecting size data) with the estimated number of **actual** trips undertaken by this fleet during that year.