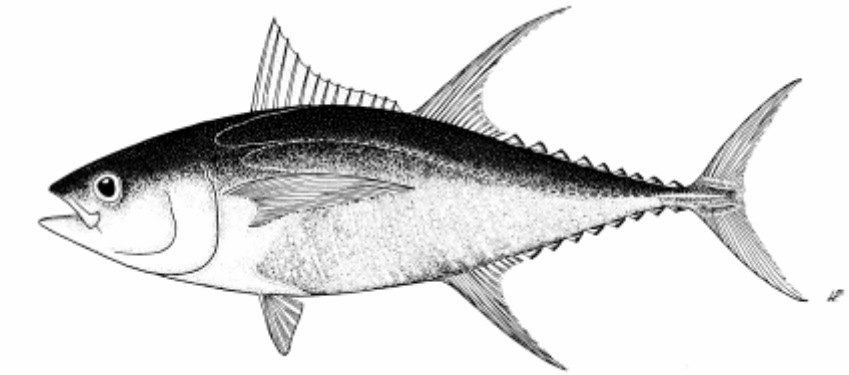
WCPFC–SC1 **FR WP–11**

1st Meeting of the Scientific Committee of the Western and Central Pacific Fisheries Commission
WCPFC–SC1
Noumea, New Caledonia
8–19 August 2005

Vanuatu Tuna Fisheries Report



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WCPFC – 1st Meeting of the Scientific Committee

Fisheries Report – Vanuatu

1. Brief introduction

Vanuatu is still a cooperating non-party of the Western Central Pacific Fisheries Commission and is determined to attain full membership at the 2nd Annual WCPFC meeting later this year. Like all members cooperating non-members have the same obligations to meet the data requirements of the WCPFC. Vanuatu is both a coastal as well as a fishing state.

2. Fleet structure

According to our records Vanuatu has around 48 vessels flying its flag and actively fishing currently in the WCPFC area. There are 24 purse seiners and 22 long liners. Most of the purse seiners are fishing under the FSM arrangement and bilateral agreements. The longliners are fishing under various bilateral fishing agreements.

In the Exclusive Economic Zone of Vanuatu, there are currently 118 foreign tuna long liners licenced to fish for the 2004/2005 fishing period.

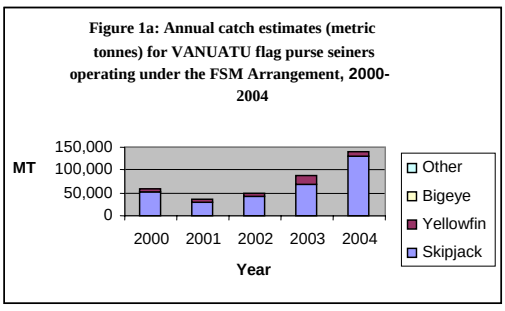
Table 1: Fleet structure of licenced to fish in VANUATU waters in 2004

Flag	Gear	Number
Belize	Longline	3
China	Longline	57
Chinese Taipei	Longline	23
Fiji	Longline	17
Korea	Longline	10
Vanuatu	Longline	8
TOTAL		118

3. Annual catches in the WCPFC Convention Area, 2000–2004

Purse Seine Catch

The Vanuatu purse fleet catch in the WCPFC area are purposely divided into two components to distinguish those that are caught under the FSM Arrangement (Table 2) and that for Bilateral Agreements (Table 2). Figures 1a and 1b, illustrates the catch composition for the 2000-2004 period for the FSM Arrangement and Bilateral Agreements respectively. It is evident that skipjack is the dominant catch followed by yellowfin in either case . Furthermore, there was a common trend in an increase in catch estimates from 2001 to 2004. The increase in catch corresponds well to the general increase in vessel numbers. It is suggested that maybe increased fishing efficiency and the influence of oceanographic conditions may contribute to this. The highest recorded catch for this period was for skipjack in 2004 with 128,851 mt.



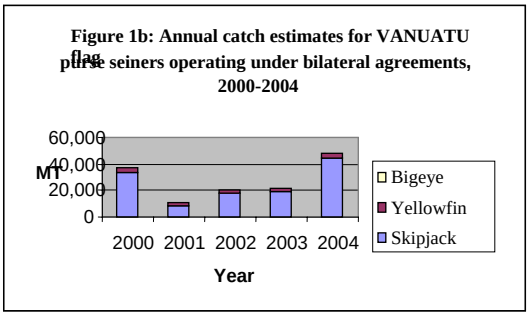


Table 2. Annual Catch estimates by species for VANUATU purse seine fleet fishing under bilateral agreements in the WCPFC Convention Area, 2000–2004 *(Source : Regional tuna fisheries database –logsheet data; coverage expected to be 100%)*

				SKIPJACK		YELLOWFIN		BIGEYE		OTHER	TOTAL	
YEAR	Days	Boats	Trips	MT	CPUE	MT	CPUE	MT	CPUE	MT	MT	CPUE
2000	1,252	8	53	34,010	27.2	3,535	2.8	0	0.0	0	37,545	30.0
2001	278	2	11	8,615	31.0	2,440	8.8	0	0.0	0	11,055	39.8
2002	527	2	22	17,500	33.2	2,600	4.9	0	0.0	0	20,100	38.1
2003	794	4	25	19,026	24.0	2,243	2.8	0	0.0	0	21,269	26.8
2004	1,530	7	46	44,809	29.3	3,503	2.3	60	0.0	5	48,377	31.6

Table 3. Annual Catch estimates by species for VANUATU-flagged purse seine vessels fishing under the FSM Arrangement in the WCPFC Convention Area, 2000–2004 *(Source : Regional tuna fisheries database – logsheet data; coverage expected to be 100%)*

				SKIPJACK		YELLOWFIN		BIGEYE		OTHER	TOTAL	
YEAR	Days	Boats	Trips	MT	CPUE	MT	CPUE	MT	CPUE	MT	MT	CPUE
2000	1,778	9	77	51,700	29.1	6,320	3.6	0	0.0	0	58,020	32.6
2001	1,041	4	46	30,710	29.5	5,165	5.0	0	0.0	0	35,875	34.5
2002	1,322	7	64	43,470	32.9	4,465	3.4	5	0.0	0	47,940	36.3
2003	3,031	16	117	69,340	22.9	17,077	5.6	17	0.0	0	86,434	28.5
2004	4,430	17	173	128,851	29.1	12,116	2.7	16	0.0	23	141,006	31.8

The distribution of effort expressed as days fished and searched, is geographically displayed in figure 2 and figure 3 respectively. As is expected, the distribution of effort is generally confined in the equatorial areas and more so towards the west.

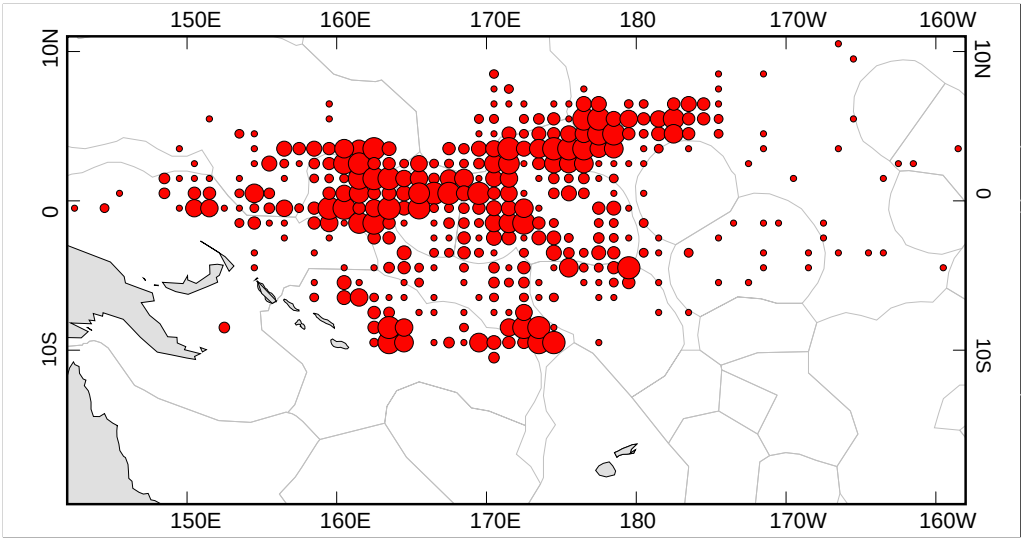


Figure 2. Distribution of effort (days fished and searched) by VANUATU-flagged purse seine vessels in bilateral agreements for 2004

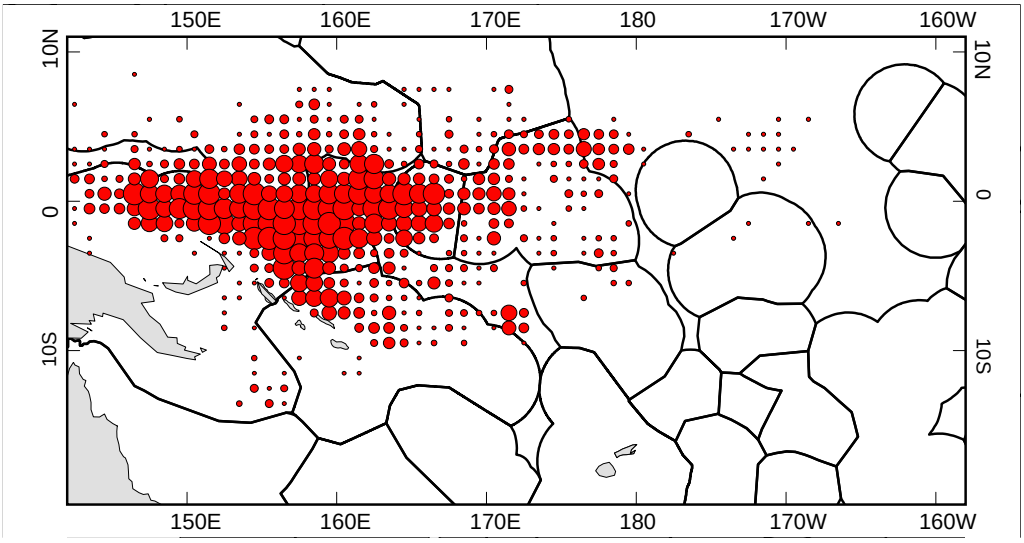


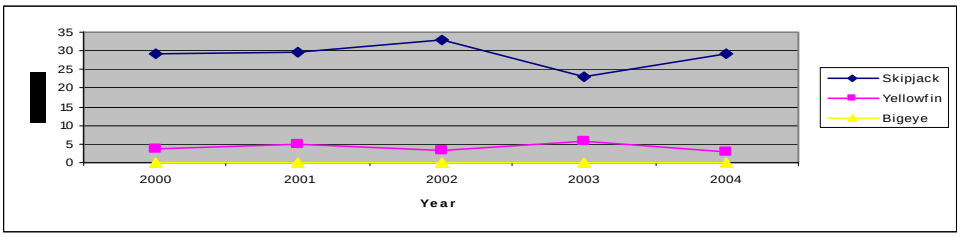
Figure 3. Distribution of effort (days fished and searched) by VANUATU-flagged purse seine vessels fishing under the FSM Arrangement for 2004

Nominal CPUES

The nominal cpue for the Vanuatu purse seine fleet indicate that the skipjack cpues were significantly higher than those for yellowfin and bigeye. The skipjack cpue dropped in 2003 but recovered in 2004 above the 2000 level.

The cpue for Vanuatu purse seine fleet under the FSM Arrangement is provided in figure 4

Figure 4: Nominal CPUE (metric tonnes per day) for VANUATU purse seine fleet operating under the FSM Arrangement, 2000-2004



Vanuatu Flagged Longline Fleet

Estimates of catch is provided in table 4. From this it is clear that albacore is the dominant species, followed by yellowfin. In 2004, albacore made up about 60 percentage of the total catch.

Table 4. Estimates of the catch by species for VANUATU flagged longline fleet in the WCPFC Convention Area, 2000–2004
(Source : Regional tuna fisheries database – logsheet data; coverage unknown)

YEAR	Boats	Trips	ALB MT	BET MT	YFT MT	BLM MT	BUM MT	MLS MT	SWO MT	SHK MT	OTHER MT	TOTAL MT
2000	4	5	398	6	27	0	0	2	1	0	0	434
2001	6	8	524	12	12	1	3	2	3	3	4	564
2002	25	61	2,645	113	196	2	20	13	28	35	62	3,113
2003	30	110	2,320	294	382	3	44	27	32	46	140	3,288
2004	22	72	1,117	178	396	2	28	14	19	36	73	1,862

The Vanuatu flagged longline fleet effort distribution for 2004 is provided in figure 5. Fishing effort is more concentrated fished extensively in the WCPFC area but were more concentrated in the Vanuatu EEZ and in the high seas pocket to the east of its EEZ. Fishing effort both occurred in coastal state EEZs and in the high seas.

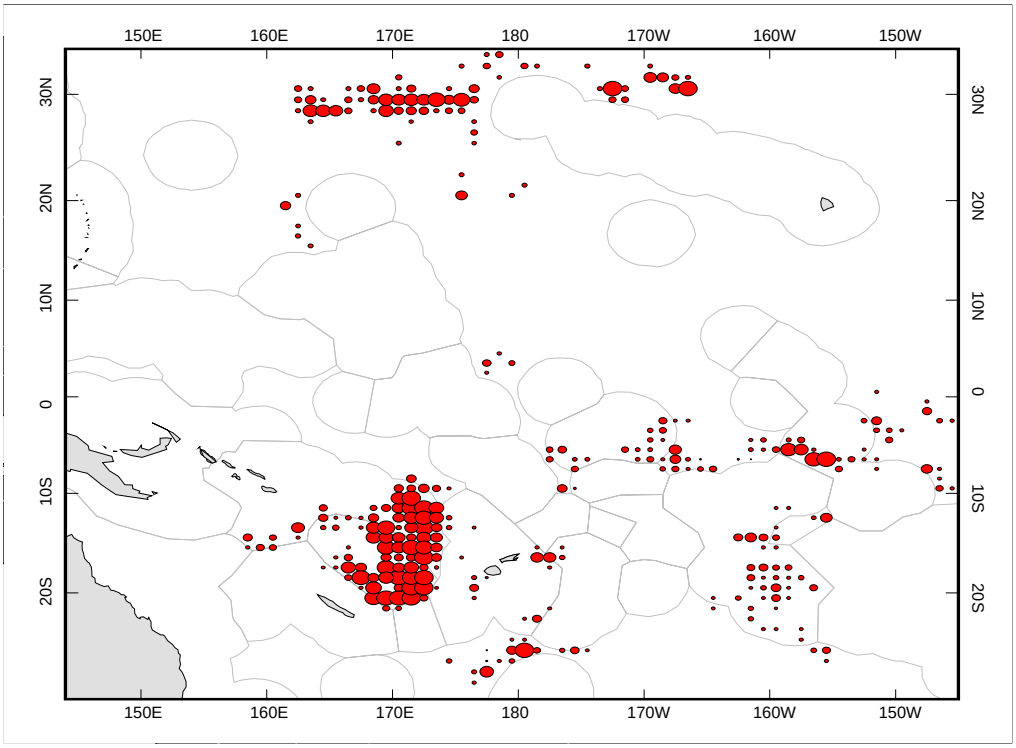


Figure 5. Distribution of VANUATU flagged longline effort for 2004

4. Annual catches in the Vanuatu EEZ, 2000–2004

Tuna longline fishery is the main fishery in the Vanuatu EEZ and is operated by foreign fishing vessels. Purse seine fishing in the Vanuatu EEZ is rare. During the 2000-2004 only 334.7 MT was caught by US purse seiners from 5 out of 6 sets made, table 5.

Table 5: Annual estimates of the catch by species for the US purse seine in the VANUATU EEZ, 2000-2004. *Source: Regional tuna database*

							Bigeye		Skipjack		Yellowfin		Other		Total	
Yr	**flag**	**school**	**days**	**sets**	**boats**	**trips**	**MT**	**CPUE**	**MT**	**CPUE**	**MT**	**CPUE**	**MT**	**CPUE**	**MT**	**CPUE**
2000	US	UNA	0.878	1	1	1	0	0	0	0	0	0	0	0	0	0
2000	US	UNA	3.693	3	1	1	0	0	271.2	73.436	0	0	0	0	271.2	73.436
2001	US	OTH	0	0	1	1	0	0	0	0	0	0	0	0	0	0
2002	US	ASS	1.203	1	1	1	0	0	22.7	18.869	0	0	0	0	22.7	18.869
2002	US	OTH	0	0	1	1	0	0	0	0	0	0	0	0	0	0
2002	US	UNA	1.203	1	1	1	0	0	40.8	33.915	0	0	0	0	40.8	33.915
2004	US	OTH	0	0	1	1	0	0	0	0	0	0	0	0	0	0

The longline catch in the Vanuatu EEZ in the 2000-2004 period was mainly caught by Chinese, Fiji, Vanuatu, and Korean flag vessels, however, the Fiji fleet was the dominant fleet, catching about 52% of the total catch during this period, followed by the Taiwanese fleet distant water fleet, table 6.

Table 6: Annual estimates of the catch by species for longline fleets operating in VANUATU EEZ, 2000–2004 in VANUATU waters. (Source : SPC Regional tuna fisheries database – logsheet data; coverage unknown)

YEAR	FLAG	BOATS	TRIPS	ALB MT	BET MT	YFT MT	BLM MT	BUM MT	MLS MT	SWO MT	SHK MT	OTH MT	TOTAL MT
2000	FJ	18	109	884	55	217	4	17	45	14	24	86	1,345
2000	TW	28	39	1,799	27	245	1	13	10	8	9	1	2,112
2000	VU	3	4	58	2	9	0	0	0	0	0	0	69
			152	2,740	83	470	5	30	55	22	33	86	3,526
2001	FJ	21	67	392	38	141	2	10	7	4	15	41	649
2001	TW	24	35	1,052	19	115	1	6	4	2	17	1	1,217
2001	VU	1	1	65	1	1	0	0	0	0	0	0	66
			103	1,509	58	257	3	15	11	6	31	42	1,932
2002	CN	3	6	100	6	26	3	1	0	1	1	4	143
2002	FJ	50	189	955	107	317	3	16	13	13	24	125	1,573
2002	KR	4	5	62	14	143	2	6	0	0	1	1	229
2002	TW	25	47	940	32	175	1	8	3	3	8	48	1,218
2002	VU	15	24	317	20	84	1	5	5	6	10	32	478
			271	2,373	178	745	11	37	22	22	44	210	3,641
2003	CN	13	36	248	17	46	3	3	1	6	3	31	358
2003	FJ	64	318	1,345	161	651	8	27	18	20	26	159	2,413
2003	KR	2	2	3	3	18	0	3	0	0	0	0	27
2003	TW	18	31	305	10	34	0	4	3	1	3	16	375
2003	VU	16	52	451	51	160	1	14	6	7	13	60	763
			439	2,351	241	910	12	51	27	34	44	265	3,935
2004	CN	15	52	436	33	93	2	5	1	3	5	36	614
2004	FJ	63	328	2,182	121	508	9	30	18	20	67	191	3,145
2004	KR	1	1	32	1	6	0	0	0	0	2	0	41
2004	TW	7	11	138	2	28	0	2	1	1	0	11	183
2004	VU	11	37	299	18	85	1	6	5	4	16	33	467
			429	3,086	175	720	12	43	25	28	89	271	4,449

The distribution of the longline effort in the Vanuatu EEZ in 2004 is provided in figure 6 and is distributed to the east of the Vanuatu EEZ.

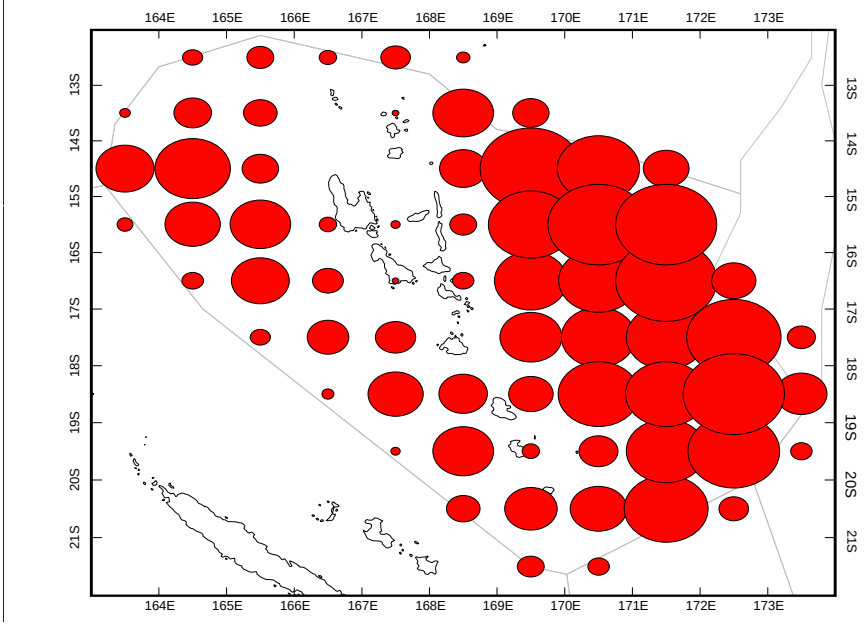


Figure 6. Distribution of longline effort in the VANUATU EEZ for 2004

The distribution of the long line catch in 2004 (figure 7) is mostly to the eastern part of the Vanuatu EEZ with albacore featuring as the dominant species. This is not surprising as this is albacore country.

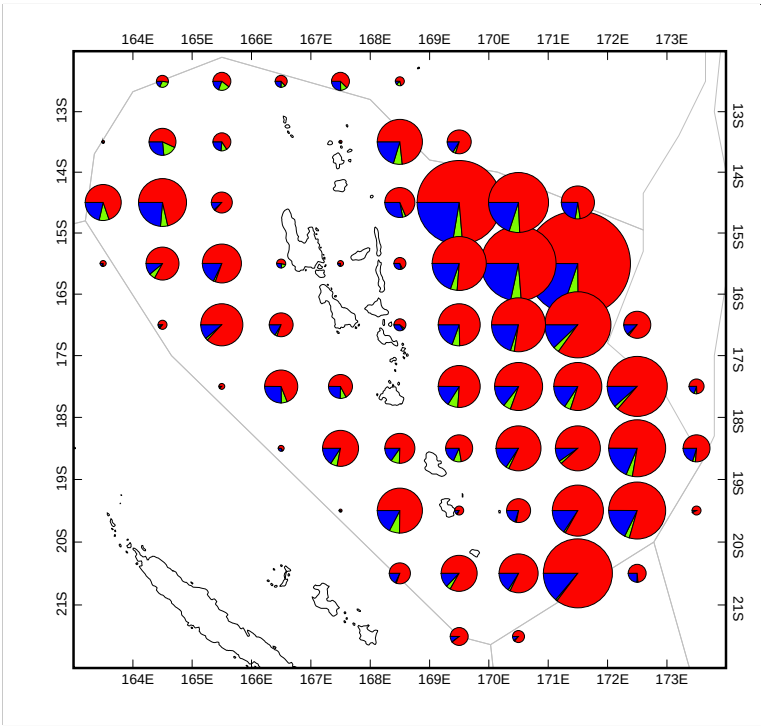


Figure 7. Distribution of the longline catch (metric tones) by species in the VANUATU EEZ, 2004 (Red–Albacore; Green–Bigeye; Blue–Yellowfin

The nominal albacore CPUE (figure 8) for longline fleets fishing for tuna in the Vanuatu EEZ more or less follow each other with improved cpue for the Chinese and Fiji fleets since 2003.

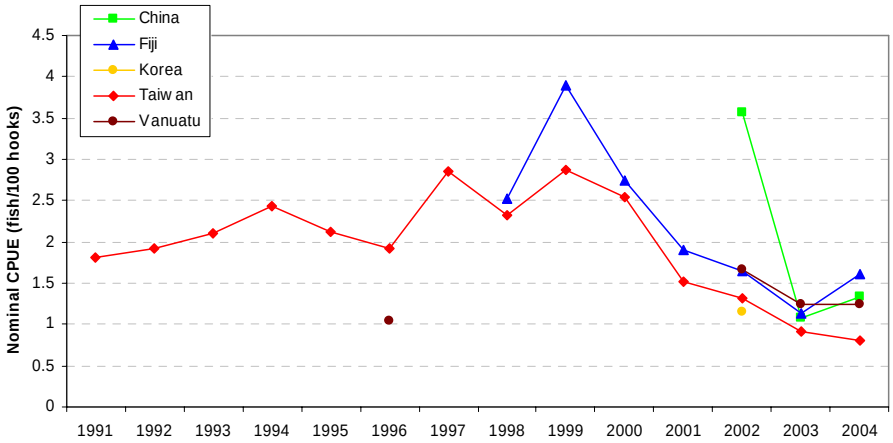


Figure 8. Annual trends in nominal albacore CPUE (number of fish per 100 hooks) for longline fleets operating in the VANUATU EEZ (Data for fleets where effort was <100 days per year were excluded)

The annual trends in nominal bigeye cpue (figure 9) for longline fleets operating in the Vanuatu EEZ suggest that it has generally declined for all fleets with the exception for the Chinese fleet.

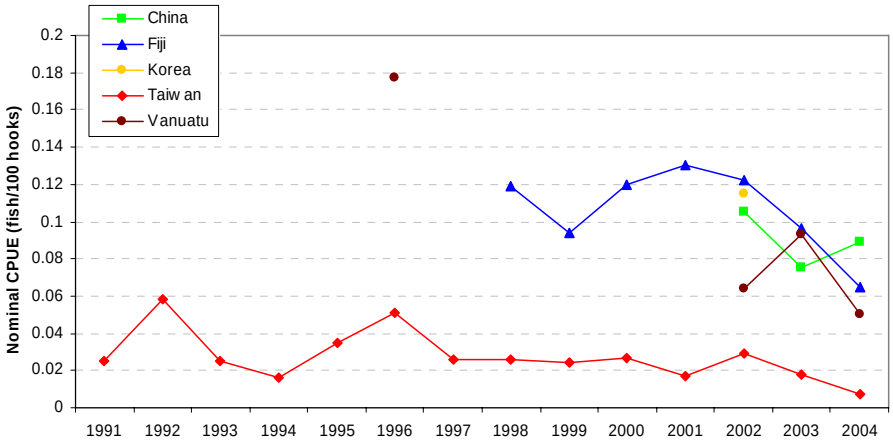


Figure 9. Annual trends in nominal bigeye CPUE (number of fish per 100 hooks) for longline fleets operating in the VANUATU EEZ (Data for fleets where effort was <100 days per year were excluded)

Annual trends in nominal yellowfin cpue (figure 10) for longline fleets operating in the Vanuatu EEZ indicate that it is generally increasing, with the exception of the Fiji fleet for some unknown reason.

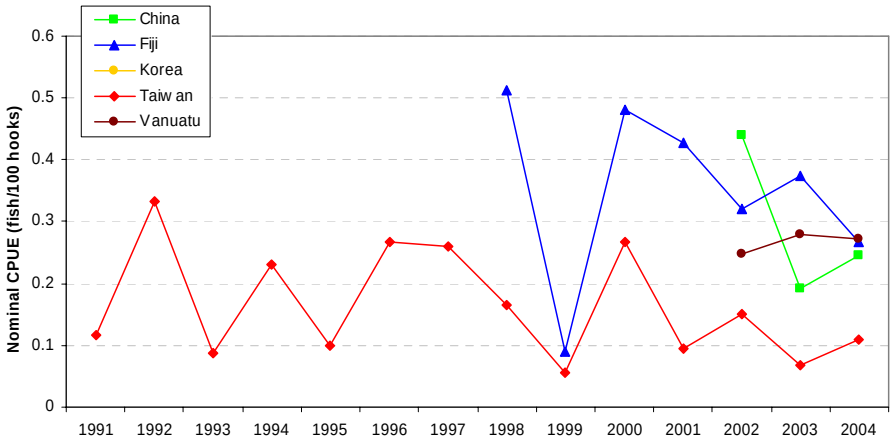


Figure 10. Annual trends in nominal yellowfin CPUE (number of fish per 100 hooks) for longline fleets operating in the VANUATU EEZ (Data for fleets where effort was <100 days per year were excluded)

4. Final market destinations of catches

It is not known for certain where final destinations of fish caught by Vanuatu licenced foreign fishing vessels are. It is assumed they are transshipped to distant markets from various pacific island ports or to pacific island canneries.

As for Vanuatu flag fishing vessels the catch are either offloaded in pacific island countries where there are bilateral agreements, onshore processing facilities, or transshipped to distant markets. Table 7 shows the export statistics of Vanuatu flagged vessels to the Japanese market.

Table 7. Total export statistics (metric tonnes) from Vanuatu flagged purse seiners and longliners authorized to land their catch in Japanese market, 2004 & 2005.

BE	YF	BF	SBT	SW	ML	Others	Total
220.796	240.375	0.000	0.000	28.520	33.626	4.542	527.859

2005 wcpfc catch sent to Japan

BE	YF	BF	SBT	SW	ML	Others	Total
883.718	811.606	0.000	0.000	115.224	91.356	13.147	1915.051

2004 wcpfc catch sent to Japan

5. Onshore developments

There are currently no major on shore developments

6. Developments concerning tuna fisheries research and statistics, such as port sampling and observer programmes

There is no national observer program. A small port sampling program took place around 2003 when some transshipments took place in Vanuatu waters, but no further activity has taken place again since then.

7. Future prospects for fisheries, marketing, onshore developments, and research and statistics

There is still has plans to have an onshore processing plant with the location of a suitable site.

Once the onshore development is up and running, there are plans to under take a full port sampling and observer program going. The Fisheries Department is going through a restructuriing exercise to cater for these planned developments.

There are still plans to formally establish our cooperation with neighboring countries, in particular Fiji, for the facilitation of continuous observer duty by observers from either country in the respective EEZs.