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**ANNUAL REPORT TO THE COMMISSION  
PART 1: INFORMATION ON FISHERIES, RESEARCH, AND STATISTICS**

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**WCPFC-SC6-AR/CCM-21**

**SOLOMON ISLANDS**





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**ABSTRACT**

The total catch estimates for the commercial tuna fishery of Solomon Islands for 2009 was slightly increased to 105,186 tons compared to 96,108 tons in 2008. The total estimates are obtained from the catch and effort logsheets for both the national and foreign fleets. The total tuna catch for 2009 consists of 79,312 t of skipjack tuna (*katsuwonus pelamis*), 24,383 t of yellowfin tuna (*Thunnus albacores*) and 1,490 t of bigeye tuna (*Thunnus obesus*). These catch estimates are for both the foreign and national fleets

In 2009 the foreign fleet recorded about 87,434 mts , which 79,312 t of skipjack tuna, 16,288 t of yellowfin tuna and 1,298 tones of bigeye tuna respectively. The national domestic fleet recorded only 17,752 tones, which 9,464 of skipjack tuna, 8,095 yellowfin tuna and 1,298 t of bigeye tuna. The majority of the tuna catch in Solomon Islands EEZ is taken by purse seining with a total of 97,477.2 t, the longline and pole and line make up the remaining 7,709 t in the same year.

Generally, most purse seine fishing efforts in 2009 were widely distributed mainly in the northern part of the EEZ, which the national fleet spreading towards the west and the foreign towards the eastern side. On the other hand the foreign longline fleet fishing effort distribution scattered mostly down south towards the east of the EEZ.



## INTRODUCTION

The Solomon Islands tuna fishery can be divided into 2 broad categories, (i) the commercial tuna industry and, (ii) Non- commercial tuna fishery. The commercial tuna industry comprises of (i) the commercial domestic (national) fleet and (ii) the foreign distant water fleet. Generally these two fleets are equally important to the national economy. The non-commercial component is the subsistence or artisanal tuna fishery. This sector is characterized as using of traditional dug-out canoes or outboard motor (OBM) powered canoes. The artisanal fishery had been existed well before the introduction of the commercial tuna industry, and played an important role in the rural food security for decades.

The commercial domestic (National) fleet comprises of the purse seine vessels operated by the National Fisheries Development Ltd (NFD), the pole and line fleet by the Soltai Fishing and Processing Ltd and the long line fleet by the Solgreen Enterprise Ltd.

The Foreign fleet on the other hand comprises of purse seine, long line and pole and line vessels, which fished in Solomon Islands waters under (i) bilateral arrangements, (ii) multilateral arrangements and (iii) joint venture (development) agreements.

This report looks at the fishing operations by both the National fleet and foreign fleet that are licensed to fish in Solomon Islands EEZ. The report will not focus on the non-commercial or artisanal tuna fishery.

### 1. Annual Fisheries Information on National Fleet

#### 1.1. *National Fleet Reporting*

The Solomon Islands National fleet comprises of the locally registered purse seine, pole and line and long line vessels that are actively fished in the waters of the jurisdiction of Solomon Islands. All the national vessels are operated from their locally shore base establishments.

Generally the total number of vessels for the national fleet has been declined over the years. The Solomon Taiyo Ltd had been operated a very productive pole and line fleet in the 1980s and 90s. However their fleet has been dropped significantly since 2000s, which indicated that the number



of vessels drop from more than 25 boats in late 90s down to 11 vessels in 2002. In 2005 only 5 vessels were active and subsequently no vessels were registered in late 2008.

On the other hand the number of purse seine vessels for the national fleet is constantly around 3 to 4 vessels over the years. The number was slightly increased to 7 vessels in 2009. The National longline fleet was actively participating in exporting of chilled fresh tuna to the Japanese markets in 1990s and early 2000s. Due to financial problems the company stopped all her operations in 2006.

*Table 1: Number of Solomon Islands locally based fishing vessels by gear type actively operating in the WCPFC Convention Area for 2004-2009.*

Gear type	Year					
	2004	2005	2006	2007	2008	2009
Long line	8	5	0	0	0	0
Purse seine	3	3	4	5	4	7
Pole & Line	10	7	11	9	1	0
<b>Total</b>	<b>19</b>	<b>13</b>	<b>13</b>	<b>14</b>	<b>5</b>	<b>6</b>

## 1.2. Data Coverage

The data coverage for the national fleet is determined based on the catch and effort logsheets received from the fishing vessels. Generally the catch and effort logsheets received in 2009 is slightly less than all the vessels trips actually undertaken. However the data coverage for the purse seine fleet is quite higher compared to the longline and pole and line in the past years.

The MFMR has been trying its best to get all the logsheets from the vessels and this has been a major problem over the years. It is a requirement that all vessels fishing in Solomon Islands waters must submit their fishing reports to Ministry of Fisheries within a time frame after the completion of any trip. Implementing and enforcing this requirement will improve the level of data coverage.



*Table 2: Estimated annual coverage of catch, effort and size data for Solomon Islands fishing fleets in the WCPFC Convention Area, 2004-2008*

Gear	Fleet	Year	Catch/Effort data coverage	Size Data Coverage
Longline	Solomon Islands	2005-2006	Medium	Low
		2006-2007	Nil	Nil
		2007-2008	Nil	Nil
		2008-2009	Nil	Nil
Purse Seine	Solomon Islands	2005-2006	High	Low
		2006-2007	High	Low
		2007-2008	High	Low
		2008-2009	High	Low
Pole&Line	Solomon Islands	2005-2006	High	Low
		2006-2007	High	Low
		2007-2008	Low	Low
		2008-2009	Nil	Nil

### **1.3. Annual Catch and Effort Estimates**

The annual catch estimates for the national fleet was obtained from the catch and effort logsheets received by the MFMR. The annual catch estimates for this report covers the period from 2004-2009. For this period the highest catch estimate was recorded in 2006 with the total annual catch of 29,301 tonnes for all tuna species, and the lowest catch was made in 2008 with only 17,412 t. Skipjack tuna has been dominating the catch proportion for years (fig 1), however the 2008 catch estimates shows that YFT has the highest catch of 9,606 t compared to SKJ tuna with 7,679 t.

The purse seine fleet has been dominating catch proportion for the national fleet over the years. The pole and line catch has been declining since the reduction of their fishing effort in early 2000s. In the last 10 years, the highest catch made by the pole and line fleet was in 2003 with a total of 10,793 t, the second was in 2002 with a total of 9,786 t. The pole and line catch drop significantly to 2,762 t in 2007 and further down to 1,340t in 2008.

The national longline fleet does not operate since 2006, due to financial problems.



**Table 3: Annual catch and effort estimates for the Solomon Islands local purse seine vessels by species in the WCPFC Convention Area for 2004-2009**

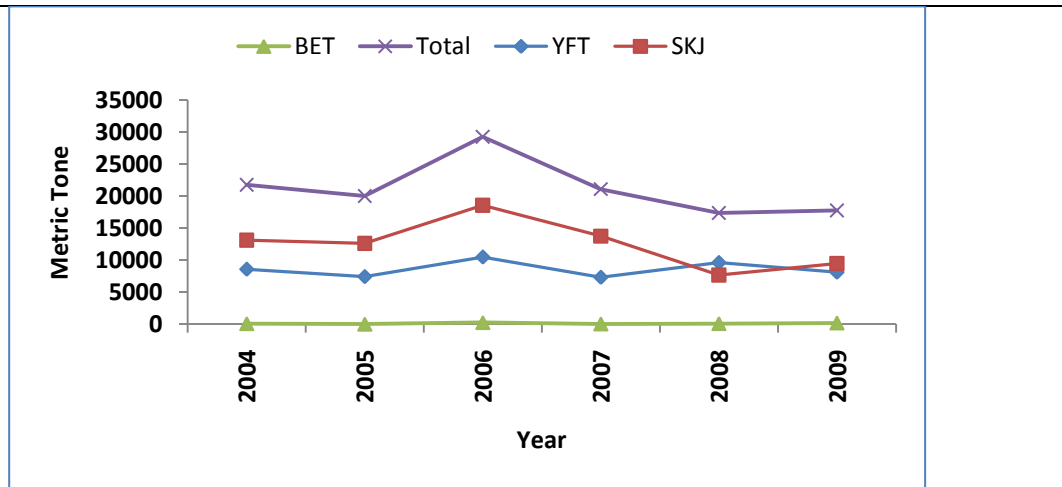
Year	Searching & Fishing days	Assoc. Sets	Un-assoc. Sets	Catch (mt)				
				SKJ	YFT	BET	Others	Total
2004	437	367	68	6,497	8,313	80	0	17,043
2005	327	341	43	9,554	6,871	0	0	16,425
2006	424	335	67	12,333	9,732	248	0	22,313
2007	614	427	52	10,164	6,984	159	0	17,306
2008	634	573	56	6,528	9,417	93	34	16,072
2009				9,464	8,095.5	192.8	0	17,752.3

**Table 3(a): Annual catch and effort estimates for the Solomon Islands Pole and Line fleet, by species in the WCPFC Convention Area, 2004-2009**

Year	Searching & Fishing Days	Assoc. Sets	Un-Assoc. Sets	Catch (MT)			
				SKJ	YFT	BET	Total
2004	1,102	-	-	6,625	257	0	6,882
2005	1,020	-	-	3,051	538	0	3,599
2006	1,640	-	-	6,224	734	0	6,988
2007	1,044	-	-	3,579	321	37	4,003
2008	-	-	-	1151	189	0	1,340
2009	-	-	-	0	0	0	0

**Table 3(b): Annual catch and effort estimates for the Solomon Islands Longline fleet, by species in the WCPFC Convention Area, 2004-2009**

Year	No. of Hooks	Catch (MT)								
		ALB	BET	YFT	BLM	BUM	MLS	SWO	OTH	TOTAL
2004	-	207	294	0	440	2	2	4	18	967
2005	-	0	3	0	6	0	0	0	0	9
2006	-	Local Longline Fleet is not actively fishing (No Fishing)								
2007		No Fishing								
2008		No Fishing								
2009		No Fishing								



*Fig 1. Total annual catch estimates and catch by tuna species in Solomon Islands by the National fleet for 2004-2009*

#### 1.4. Catch Distribution

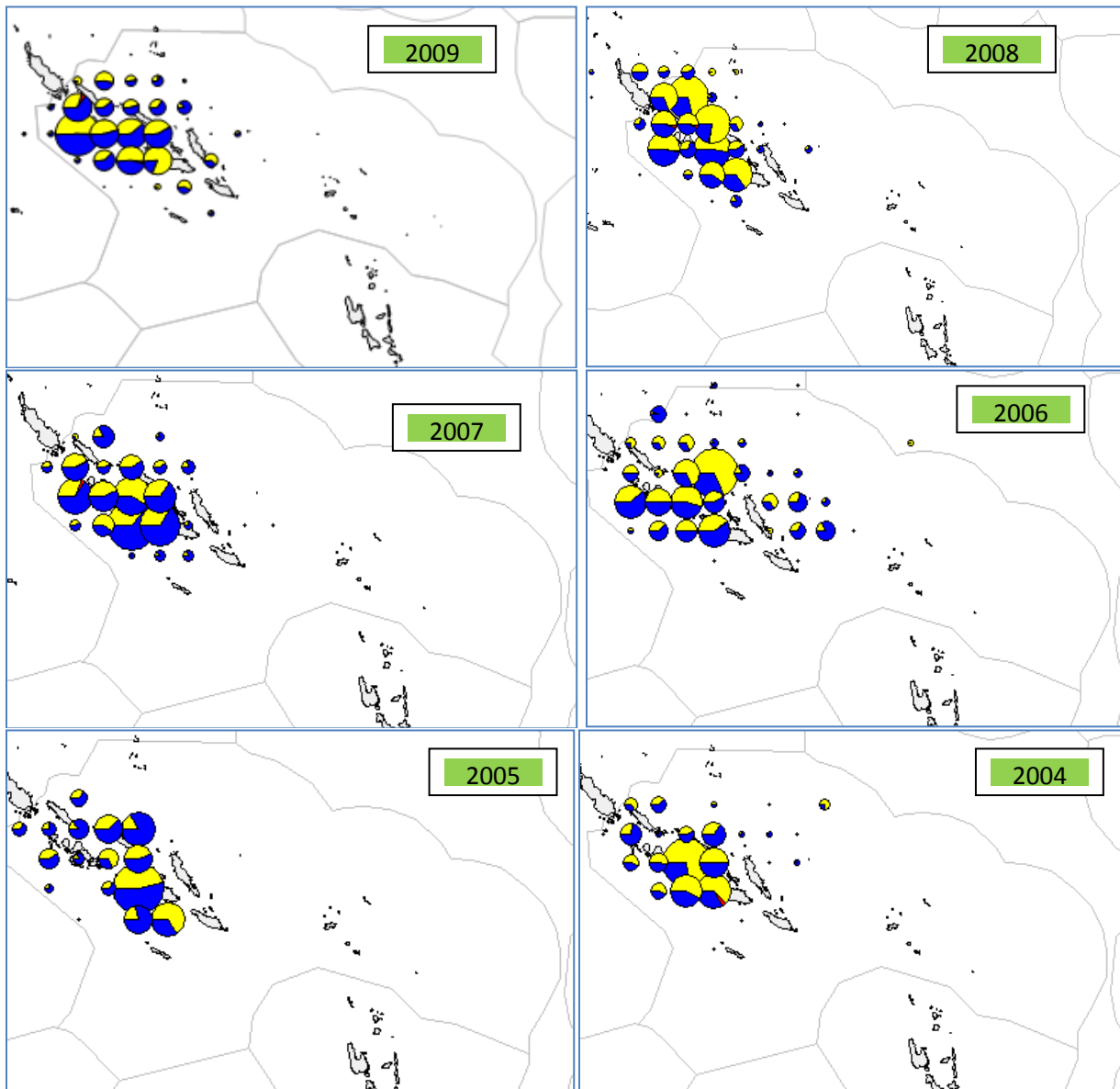
The Solomon Islands National (domestic) purse seine fleet concentrated more up in the northern part of the EEZ towards the west as shown in fig 2. The catch distribution analysis was based on the catch and effort logsheets received from the national purse seine fleet. In 2009, purse seining activities is concentrated on the western side of the EEZ and inside the main group archipelago.

The pole and line fleet was not actively fishing in 2009. However, figure 2(a), shown that most of the pole and line fishing activities in the previous years have been carried out in the main group archipelago and outside of the Islands in the Western part of Solomon Islands. There is no long line fishing activities after the closure of the Solgreen Enterprises Ltd since 2006.





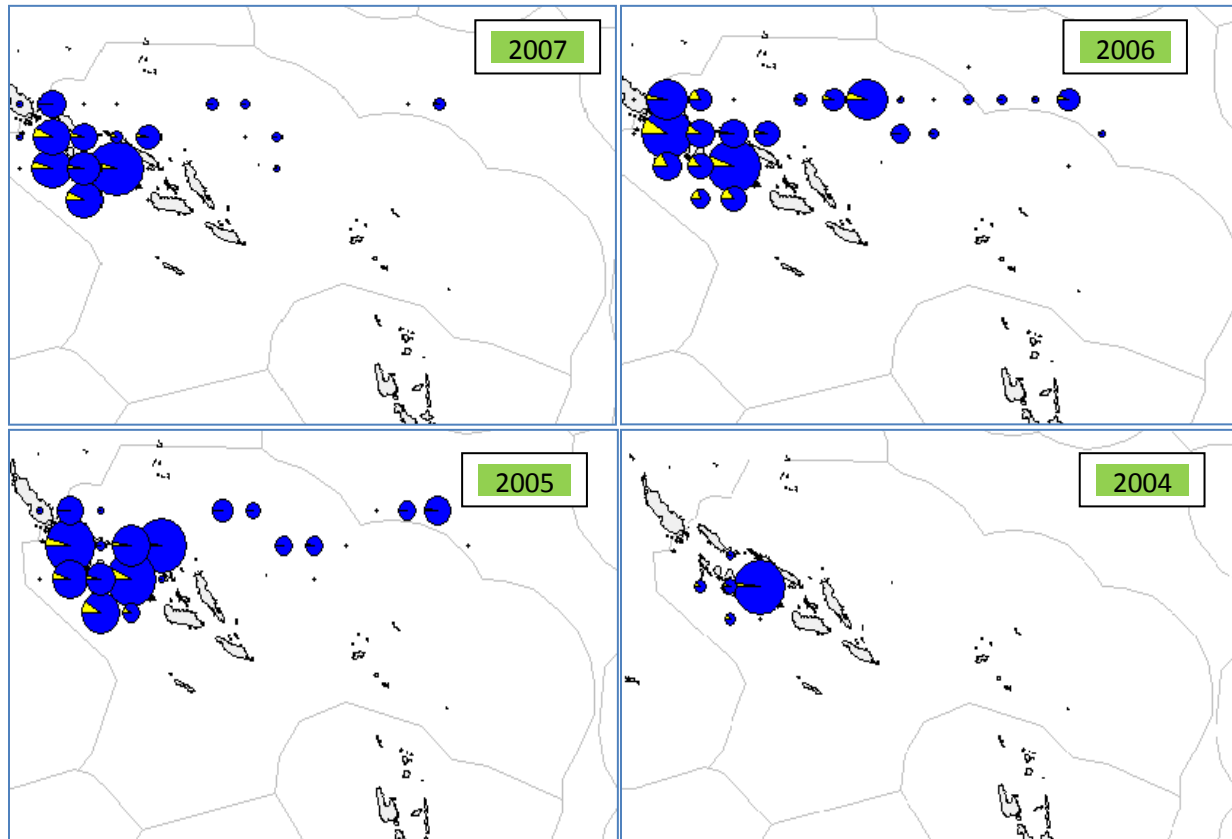
*Legend: Blue = SKJ, Yellow = YFT, Red = BET*



*Fig 2: Annual catch Distributions by Tuna species for the Solomon Islands National Purse Seine fleet for 2004-2009*



*Legend: Blue = Skipjack Tuna, Yellow = Yellowfin tuna, and Red = Bigeye tuna*



*Fig 2(a). Annual catch distribution by Tuna species for the Solomon Islands National Pole and Line fleet for 2004-2007, there is no pole and line fishing activities for 2008 & 2009 respectively.*

## **2. Annual Fisheries Information for the Foreign Fleet**

### **2.1. Foreign Fleet Reporting**

The foreign fleet consists of the vessels that are licensed to fish in Solomon Islands waters under bilateral, multilateral arrangements, and joint venture or development agreements. The bilateral arrangements include the distant waters fishing nations (DWFN) such as Japan, Korea, Taiwan and the Spain. The other arrangements include the US treaty and FSM arrangements. The vessels under these arrangements are directly administered by the Forum Fisheries Agency (FFA) on



behalf of the Pacific Island member countries. The vessels licensed under the joint venture or development arrangements, involves a foreign company and a local company or agent. Under the arrangement the vessels are registered and flying foreign flags.

The foreign vessels licensed to fish in Solomon Islands waters increased over the years compared to the national (local) fleet. In 2009, the total number of foreign vessels registered in Solomon Islands waters are 367 vessels, (182 purse seine, 175 long line and 10 pole and line vessels).

**Table 4: Number of Foreign fishing vessels licensed to fish in Solomon Islands EEZ year, flag, and gear for 2004-2009**

Flag	License Period (Year)											
	2004		2005		2006		2007		2008		2009	
	VSL	Gear	VSL	Gear	VSL	Gear	VSL	Gear	VSL	Gear	VSL	Gear
Belize	-	-	-	-	-	-	5	LL	3	LL	5	LL
China	12	LL	14	LL	24	LL	41	LL	67	LL	64	LL
	6	PS	6	PS	6	PS	6	PS	6	PS	7	PS
Fiji	3	LL	3	LL	18	LL	12	LL	1	LL	16	LL
Japan	9	LL	19	LL	31	LL	33	LL	25	LL	24	LL
	11	PL	11	PL	24	PL	8	PL	12	PL	10	PL
	21	PS	32	PS	26	PS	34	PS	34	PS	34	PS
Korea	16	LL	19	LL	37	LL	47	LL	38	LL	12	LL
	28	PS	28	PS	28	PS	28	PS	30	PS	26	PS
New Zealand	4	PS	4	PS	4	PS	4	PS	4	PS	3	PS
Taiwan	19	LL	30	LL	33	LL	36	LL	37	LL	49	LL
	29	PS	31	PS	33	PS	33	PS	34	PS	33	PS
Vanuatu	11	LL	11	LL	10	LL	10	LL	1	LL	1	LL
	5	PS	3	PS	7	PS	8	PS	6	PS	7	PS
FSM Arrangements	-	-	-	-	24	PS	26	PS	27	PS	30	PS
US Treaty	19	PS	11	PS	13	PS	12	PS	-	-	39	PS
Spain									1	LL	1	LL
									4	PS	3	PS
Cook Is									1	LL	1	LL
Kiribati									1	LL	2	LL
Tuvalu									1	PS	-	-



## 2.2 Estimated Data Coverage

The data coverage was estimated based on the catch and effort logsheets received from the fishing vessels. Data coverage for the foreign fleet is quite hard to determine. This is due to (i) most vessels do their offloading abroad, (ii) very hard to communicate with boat operators/owners as they are based overseas, (iii) transmission of loghsheets to Solomon Islands is not a priority for some, (iv) boat operators not cooperating and may not understand the importance of data and etc. Therefore the average data coverage achieves could be around less than 50% annually.

The weekly, zone reports and transshipment logsheets are also submitted to the Ministry of Fisheries by the foreign vessels. The weekly and zone reports are sent to the Solomon Islands Fisheries and are important for compliance purposes, and data verifications and reconciliations. The transshipment logsheets (especially offloading figures) are purposely used for charging of transshipment levies for the Solomon Islands Government revenue and are also use for data verifications.

*Table 5: Estimated catch, effort and size data coverage for the Foreign fishing fleet (by gear/flag) for 2004-2009*

Fleet	Gear	Year	Catch/Effort data coverage	Size Data coverage
China	LL	2004-2009	Low	Low
	PS	2004-2009	Medium	Low
Fiji	LL	2004-2009	Low	Low
Japan	LL	2004-2009	Low	Low
	PL	2004-2009	Low	Low
	PS	2004-2009	Medium	Low
Korea	LL	2004-2009	Medium	Low
	PS	2004-2009	Medium	Low
New Zealand	PS	2004-2009	Medium	Low
Taiwan	LL	2004-2009	Low	Low
	PS	2004-2009	Medium	Low
Vanuatu	LL	2004-2009	High	Low
	PS	2004-2009	High	Low
FSM	PS	200-2009	Low	Low
US Treaty	PS	2004-2009	Low	Low
Belize	LL	2007-2009	Low	Low
Spain	LL	2008-2009	Low	Low
	PS	2008-2009	Low	Low



## 2.2. Annual catch in Solomon Islands EEZ

The total annual tuna catch estimates in Solomon Islands EEZ for the foreign fleet for 2009 is 87,434 t, which is higher than the 2008 catch of 78,736 t. The Korean fleets have dominated the catch with a total of 28,772 t, which 28,380 from purse seining and 392 from their longline fleet. The second highest catch is recorded by the Taiwanese fleets with a total of 15,818 t for 2009, which the purse seining accounted for 12,066 t and the long line for 3,752 respectively. On the other hand, the lowest catch was recorded by New Zealand fleet with only 106.9 t for their purse seiner vessels.

**Table 6: Annual Catch estimates by tuna species and Nationality for the foreign purse seine fleets in Solomon Islands Waters for 2004-2009**

Fleet	Year	SKJ	YFT	BET	OTHERS	TOTAL
China	2004-2007	-	-	-	-	-
	2008	765	105	-	-	870
	2009	575	23	-	-	598
Japan	2004	11,968	1,634	154	0	13,755
	2005	11,575	1,581	149	0	13,303
	2006	10,832	1,479	140	0	12,449
	2007	7,293	996	94	0	8,382
	2008	4,198	938	185	0.4	5,321
	2009	10,099	1,411	124	0	11,634
Korea	2004	18,342	6,064	119	0	24,525
	2005	13,623	4,504	88	0	18,216
	2006	18,560	6,137	120	0	24,817
	2007	26,708	8,940	182	0	35,830
	2008	44,921	6,815	72	4	51,812
	2009	25,591	2,705	72.2	12.3	28,380.9
Taiwan	2004	8,897	1,795	47	0	10,739
	2005	11,653	2,351	62	0	14,066
	2006	2,851	575	15	0	3,441
	2007	5,829	1,176	31	0	7,036
	2008	8,105	1,109	53	5.3	9,271
	2009	9,947	2,078.5	40	1	12,066
Vanuatu	2004-2005	-	-	-	-	-
	2006	8,410	2,138	0	0	10,548
	2007	4,075	2,005	0	0	6,080
	2008	3,846	457	9	7	4,319
	2009	6,291.4	740.9	1.2	0.9	7,034.4
New Zealand	2004-2005	-	-	-	-	-
	2006	1,754.8	144.5	64.7	0	1,964
	2007	2.7	0	0.9	0	3.6
	2008	3009	339	0.3	93	3,479
	2009	100.6	2.7	3.6	0	106.9
US Treaty	2004	6,682.9	1,341	46	0	8,071
	2005	1,696.2	548	4	0	2,248
	2006	6,916	702	30	0	7,542
	2007					
	2008					



PART 1: INFORMATION ON FISHERIES RESEARCH AND STATISTICS

SOLOMON ISLANDS - 2010

	2009	10,326.2	922.4	19	0	11,267.60
Spain	2004-2006	-	-	-	-	-
	2007	216	19	0	0	235
	2008	31	17	-	0	48
	2009	-	-	-	-	-
FSM Arrang.	2004-2008	-	-	-	-	-
	2009	6555	2028	54	0	8637.12

Note: US Treaty and FSM arrangement annual catch estimates for 2009 obtained from FFA

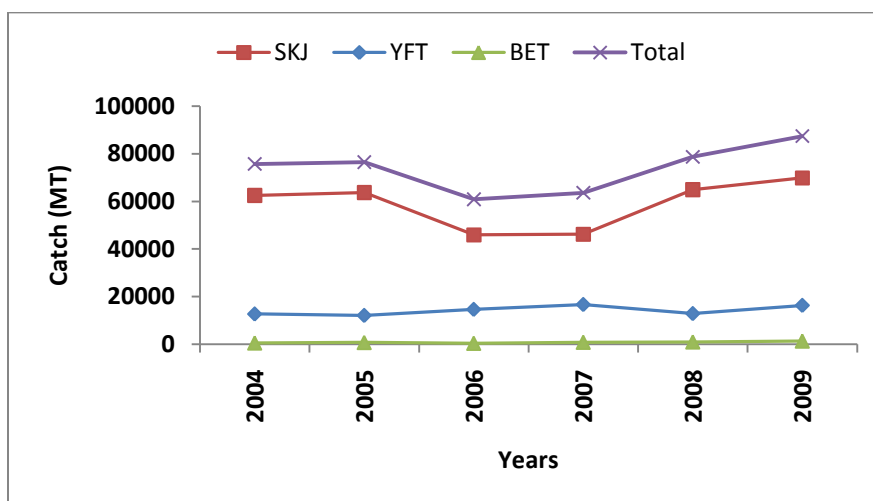
**Table 6(a): Annual Catch estimates by species and nationality for the foreign Longline fleets in Solomon Islands Waters for 2004-2009**

Fleet	Year	ALB	BET	YFT	OTHERS	TOTALS
Belize	2004-2006	-	-	-	-	-
	2007	4.7	13.5	36.9	12.3	67.3
	2008	3.6	18.8	24.3	7.4	54.1
	2009	7.166	5.158	10.211	1.397	23.8
China	2004-2006	-	-	-	-	-
	2007	186.4	20	30.7	23.5	288.1
	2008	713.8	51.4	151.9	74.3	991.4
	2009	3,057.1	148.5	951.6	366.6	4,523.7
Fiji	2004-2006	-	-	-	-	-
	2007	2.2	0.5	1.3	0.8	4.9
	2008	120.4	5.9	19.7	7	153
	2009	1198.2	102.3	527.6	93.9	1,922
Japan	2005	503	188	1,234.2	150	2,075
	2006	304.2	113.6	746.5	90.7	1,255
	2007	696	260	1,707.7	207.4	2,871.1
	2008	747.5	477.5	2,931.6	414.1	4,570.7
	2009	1,030.7	512.2	3,573.6	476	5,593.3
Korea	2004-2006	-	-	-	-	-
	2007	2,501	205	529.6	108.4	3,544
	2008	487.6	337.9	1,303.5	267.5	2,396.5
	2009	39.6	77.8	244.2	30.6	392.1
Taiwan	2004-2006	-	-	-	-	-
	2007	1,059	112.2	490.3	238.9	1,900.5
	2008	1,201.9	180.3	928.6	263.6	2,574.4
	2009	2,325.8	127.5	1,002.5	297.1	3,752.8
Vanuatu	2004-2006	-	-	-	-	-
	2007	204.1	28.3	89.6	35.3	357.3
	2008	30.7	1.9	27.7	2.42	82.72
	2009	185.5	10.9	67.2	15.9	279.7



**Table 6(b). Annual Catch estimates for the Japanese foreign Pole and line fleet operating in Solomon Islands waters**

JAPANESE POLE AND LINE FLEET				
YEAR	CATCH			
	SKIPJACK TUNA	YELLOWFIN	BIGEYE TUNA	TOTAL
2006	72	0	0	72
2007	35	0	0	35
2008	590.7	3.5	0	594.2
2009	363	2	0	365



**Fig 3. The total annual tuna catch estimates and catch by tuna species for the foreign fleet in Solomon Islands EEZ for 2004-2009.**

### 2.3. Annual Distribution of Fishing Effort

Generally the catch distributions for the foreign fishing fleet vary with the gear type. For instance in 2009, the purse seine fishing effort distribution scattered around the northern part of the Solomon Islands EEZ. The Korean fleet scattered up north and towards the north east of the EEZ.

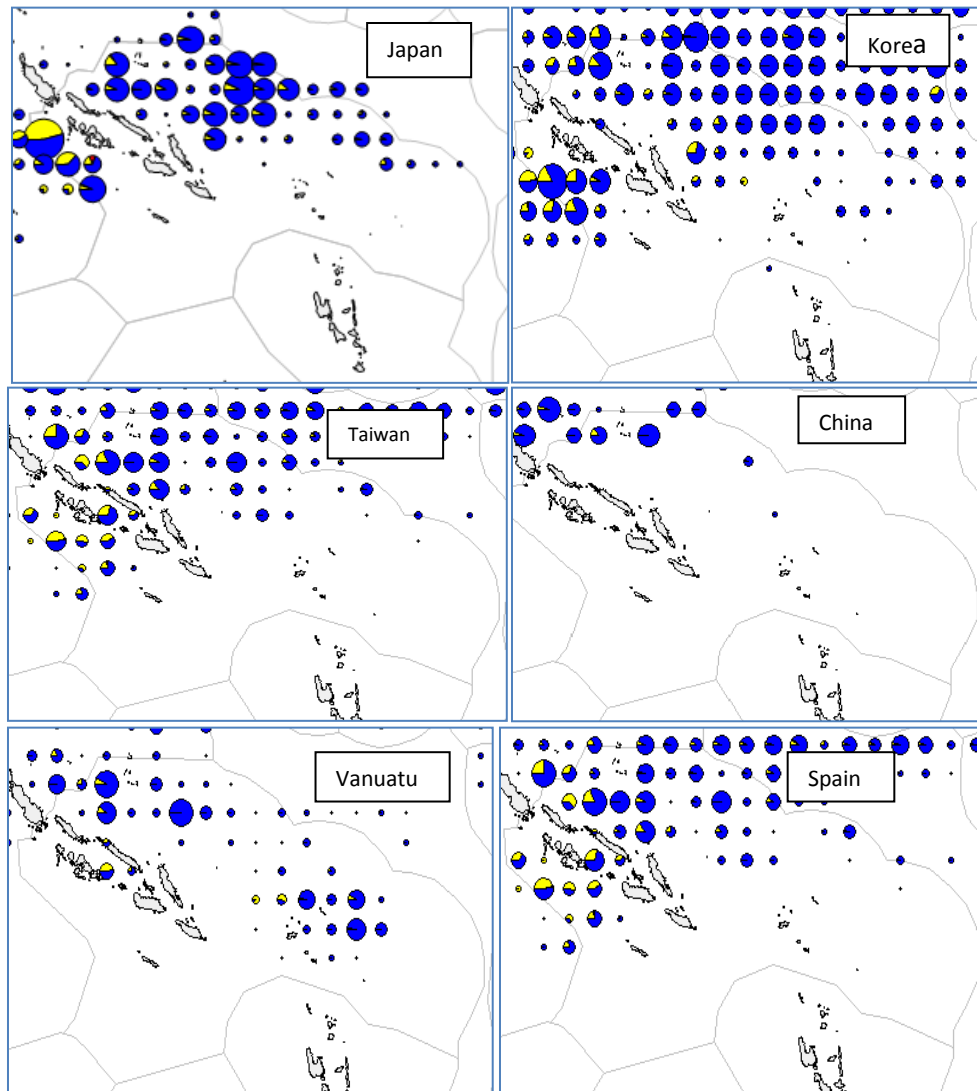
On the other hand the long line fishing effort distribution for 2009 seems to be concentrated more down south and towards the south east of the EEZ. However for 2009 the Japanese



Longline vessels fishing efforts concentrated more on the western part of the EEZ, whilst the Taiwanese down south and towards south west and the Vanuatu fleet towards south east.

The Japanese pole and line fleet fishing effort seems to occur more in the eastern part of the Solomon Islands EEZ.

**KEY (Legend) Blue = Skipjack tuna, Yellow = Yellowfin Tuna, Red = Bigeye Tuna**

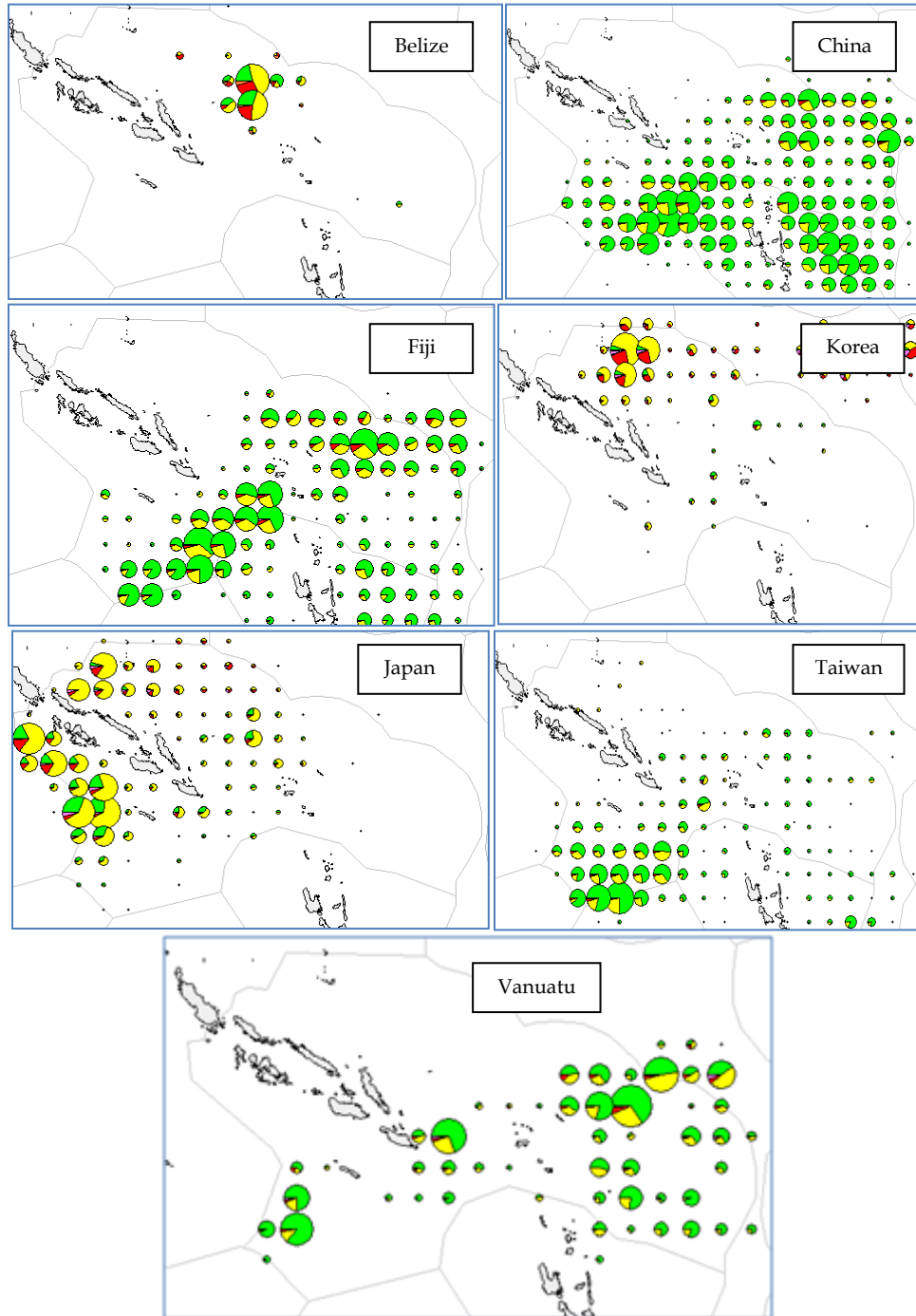


**Fig 4.. Annual fishing effort distribution for 2009 for the Foreign Purse seine Fleet that are licensed to fish in Solomon Islands waters.**





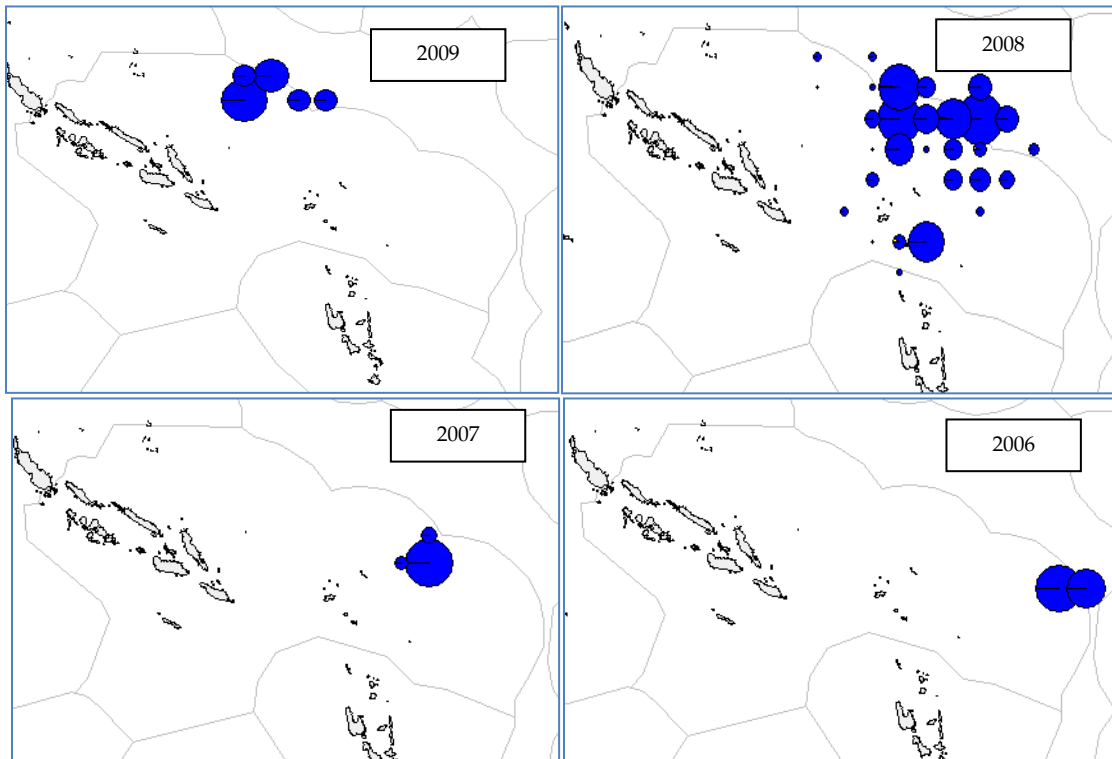
*Legend: Alb-Green, YFT-Yellow, BET-Red, SM-light blue, BLM- orange, SF-grey*



*Fig 4(a). Annual distribution of fishing effort for the Foreign Longline (by nationality) that are licensed to fish in Solomon Islands waters in 2009*



*Legend (key) SKJ Tuna-blue, YFT- yellow, BET- red*



*Fig 4(b). Annual distribution of fishing effort for the Japanese Foreign pole and line fleet that are licensed to fish in Solomon Islands waters for 2006-2009*

#### **2.4. Distribution of catch by species**

The analysis of the catch and effort data has shown that skipjack tuna is widely distributed up in the northern part of the Solomon Islands EEZ. As a result most purse seine vessels fishing activities are concentrated up in the northern part of the EEZ. The national fleet seems to move up north towards the west of the EEZ and the foreign fleet up north towards the east.

The data had shown that yellowfin tuna had distributed towards the western part of the Solomon Islands EEZ outside the main group archipelago. The Bigeye tuna seems to distribute widely down the south towards the east of the EEZ and albacore down south towards the east of the EEZ.



### 3. Research and Statistics

There is no formal field research or survey carried out by the Solomon Islands Government to determine the status of the tuna stock in Solomon Islands. However the only data source available and is currently used by the Solomon Islands Government is the catch and effort data submissions from the fishing industry.

Port sampling has been suspended for the past years due to financial constraint and lack of human resources. Observer placement is an ongoing activity within the Solomon Islands Fisheries setup. And the current number of active observers within in the Solomon Island national observer programme is about 70 observers.

#### Annex 1

##### *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 (logsheets) data to the total annual catch, as determined by unloading 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.