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

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KIRIBATI

Annual Report to the Commission Part 1: Information on Fisheries, Research and Statistics Western and Central Pacific Ocean Fisheries Commission (WCPFC) 2010

1. ABSTRACT & SUMMARY

Tuna fishing in Kiribati consists of foreign fishing fleets licensed to fish tuna in Kiribati's EEZ and the artisanal fishery, important in providing food security for the local people. The license fees of foreign fishing fleets composed significant revenue to Kiribati. In 2009, this offshore licensing revenue comprised 35% of the total government revenue.

The major type of licensed foreign fleets includes Purse-seine and Pole-line vessels targeted Skipjack and yellowfin tuna. The third which is Longline vessels mostly caught Bigeye and Yellowfin tuna. In 2009, Kiribati licensed a total of over 500 foreign fishing vessels including supporting vessels, the highest number ever recorded for the last five years.

Kiribati also engaged in a joint venture fishing vessel, owning one purse-seine fleet, Kao no.1 that currently fish under the FSM arrangement. There are additional 3 purse-seine and 1 pole-line vessels operated in the WCPFC area under Kiribati's flag. The total catch for Kiribati national fleets in 2009 was over 20000 mt. The 2009 catch was three times bigger than the average catch for the last 13 years. Such increase in the catch merely the consequence of the increase in the number of national fleets introduced to fish during that period.

Tuna remain the most important resources to Kiribati and therefore the sustainable development and management of the resource is critical for the Country. Kiribati will unite with other countries at regional and international level to ensure for the sustainable management of the resource.

2. ANNUAL FISHERIES INFORMATION

Kiribati's Exclusive Economic Zone is the 2nd largest of approximately 3.5 square kilometers, encompassing the 33 islands and was located within 167°W-146° and 8°N-14°S. It comprises three zones: the Gilbert region in the west, the phoenix region in the central part and the Line Islands in the east. Tuna is economically the most important fish harvested in Kiribati's EEZ and four main tuna species are commercially fished; Skipjack, Bigeye, Yellowfin and Albacore.

As a developing country, Kiribati does not have the capacity to develop its tuna fishing industry. Alternatively, Kiribati licensed foreign fleets from Korea, Spain, China, New Zealand, US and others to harvest tuna in its water. The major fishing gears employed includes purse-seining, longlining and pole and lining. Supporting vessels such as bunkering vessels and reefer carriers were licensed as well to support fishing operation.

Tuna licensing fees represent the most significant source of government revenue and were mostly responsible for subsidizing the government budget. In 2009, the offshore licensing for tuna fishing composed 35% of the total major revenue for the Government.

Kiribati also has an artisanal fishery which catches a certain amount of tuna. The fishery comprises of many small crafts or skiff, usually less than 7 meters that used trolling and vertical hand-lining to catch tuna in the vicinity of the 33 islands. The artisanal fishery mainly provides subsistence food for the local and feeds the local markets.

Due to the social and economical importance of tuna, Kiribati is keen to develop its tuna fishery in a sustainable manner. More importantly the country endures to cooperate and collaborate with others at the national, regional and international level to develop and managed this resource sustainably in the long term.

3. FLAG STATE REPORTING

The number of national fleets active within the Western Central Pacific Fisheries Commission area continued to increase since 2008 due to an incessantly influx of foreign fishing vessels changing flagged to Kiribati. In 2009, Kiribati registered a total of 35 fishing vessels with the WCPFC vessel register. These includes; 4 purse-seines, 1 pole-line, 21 reefer carriers and 9 Bunkering vessels. The number of vessels achieved in 2009 has increased by 45% compared to that recorded in 2008.

The 3 purse-seine fleets including one pole-line are foreign based vessels operated under Kiribati flag within the WCPFC area.

Kiribati does not have a longline fishing fleets in 2009 as those registered in 2008, de-flagged the Kiribati's flag. De-registration of the vessels made later with the Commission in March 2010.

Table 1 below provides the number of Kiribati's fishing vessels active within the Commission area for the last 5 years.

Gear	LONGLINE					
Size class (GRT)	20	005	2006	2007	2008	2009
0-10						
10-50					3	0
50-200						
200-500						
500+						
Gear	PURSE-SEINE					
Gear Size class (GRT)	PURSE-SEINE	.005	2006	2007	2008	2009
Gear Size class (GRT) 0-500	PURSE-SEINE 20	005	2006	2007	2008	2009
Gear Size class (GRT) 0-500 500-1,000	PURSE-SEINE 20	1	2006	2007	2008	2009
Gear Size class (GRT) 0-500 500-1,000 1,000-1,500	PURSE-SEINE 2	1	2006	2007	2008	2009 1 2
Gear Size class (GRT) 0-500 500-1,000 1,000-1,500 1,500+	PURSE-SEINE 20	1	2006	2007	2008	2009 1 2 1

Table 1: Number of Kiribati's vessels engaged in tuna fisheries in the WCPFC area by gear and size category for 2005-2009

Size class (GRT)	2005	2006	2007	2008	2009
0-10					
10-50					1
50-200					
200-500					
500+					
Gear	ARTISANAL TROLL				
Length (m)	2005	2006	2007	2008	2009
>7	??	??	4895	4766	4766

*Source: TUFMAN v5.03

3.1 ANNUAL CATCHES- WCPFC CONVENTION AREA

Longline Fishery

With the existing longline fishery in 2008, the catch totaled to over 50 mt of tuna (Table 2). Bigeye tuna which mainly targeted constituted 83% of the total catch. Yellowfin tuna composed only 13% while skipjack and other fish formed only 3%. Kiribati longline fishery ceased to exist in 2009.

Table 2: Annual catch (mt) in the WCPFC Convention area for Kiribati's Longline fleet for 2005-2009

Gear	LONGLINE				
Species	2005	2006	2007	2008	2009
YELLOWFIN				7	
BIGEYE				44	
SKIPJACK				0	
ALBACORE				0	
OTHERS				2	

*Source: TUFMAN v5.03

Purse-Seine Fishery

The purse-seine fishing operation for Kiribati's fleet concentrated in the west, within PNG, South of FSM and Solomon islands in 2005 and 2008. In 2006 and 2007 the operation extend a bit further east toward the eastern Gilbert region. The eastern shift observed in 2006 and 2007 further extended up toward the line region in 2009. Such extension of the fishing operation to the easterly direction related to the eastern drive of the preferred habitat for skipjack during El Nino periods ,occur in 2006 and 2009 (Lehody, 2007). Other reasons maybe because the additional 3 purse-seine fleets introduce in 2009, mainly fished within Kiribati's EEZ as not yet qualified to fish under the FSM arrangement.

Figure 1: Annual Distribution of target species catch and effort for Kiribati Purse-seine fleet active in the WCPFC Convention Area for 2005-2009



*Source: CES v8.82, by SPC, April 2010

The Purse-seine catches for the national fleets maintained below 8000 mt from 1995 to 2008. During the period (1995-2008), Kiribati owned only one purseseine fleet, Kao no.1 (Fig.2). Nevertheless in 2009, a dramatic increase in the catch observed, of over 20,000 mt (Table 3). The 2009 catch was three times bigger than the average catch for the last 13 years. The introduction of an additional 3 purse-seine fleets merely the reason for the rapid increase in the catch (Fig 3).

Skipjack tuna which is the main target tuna species constitute 88% of the total catch. Yellowfin and bigeye tuna made up the least 12% percentage of the entire purse-seine catch (Fig 3).

	Purse-Seir	ne fleet	ts for 200	05-2009			
Gear	PURSE-SEINE						
Species		2005	2006	2007	2008	200	

3367

1157

139

4178

1169

103

3937.4

1569.8

248.7

18429.6 1798.84

647.12

4990

1877

238

Table 3: Annual Catch (mt) in the WCPFC Convention area for Kiribati's

*Source: TUFMAN v5.03

S

SKIPJACK

BIGEYE

YELLOWFIN



*Source: TUFMAN v5.03 CES v8.8.2 by SPC, April 2010



*Source: TUFMAN v5.03 CES v8.8.2 by SPC, April 2010

Pole & Line Fishery

Kiribati's flagged pole-line, Akawa, which commenced fishing in 2009 fished mainly within the Kiribati's EEZ, high seas but to a greater extend within the line group (Fig 4). The vessel licensed only in Kiribati in 2009 and that why the effort concentrated within the Kiribati's waters.

The total catch for Akawa reached over 150 mt in 2009 (Table 4). Skipjack tuna comprised 89% of the total catch. Bigeye and Yellowfin tuna formed the least proportion of the catch by only 5% and 7% (Table 4).

Table 4: Annual Catch (mt) in the WCPFC Convention area for Kiribati's Pole & Line fleet for 2005-2009

	0, 2000		. =			
Gear	POLE and LINE					
Species		2005	2006	2007	2008	2009
YELLOWFIN						9.5
BIGEYE						8
SKIPJACK						141.5
OTHERS						0



Figure 4: Distribution of fishing effort for Kiribati Pole-line fleet active in the WCPFC Convention Area for 2009

*Source: TUFMAN v5.03

Artisanal Fishery

The artisanal fishery uses boat of not more that 7 meters with 30-40 HP outboard engines to catch tuna. Both trolling and handlining employed within the 12nm of the islands to fish for tuna. The result of the 2009 fisheries survey (Table 5) used to estimate the overall catch for the artisanal fishermen in Kiribati.

*Source: TUFMAN database

Table 5: Annual Catch (mt) in the WCPFC Convention area for Kiribati's fleet

for 2005-2009								
Gear	ARTISANAL TROLL							
Species	2005	2006	2007	2008	2009			
SKIPJACK	940	940	8223	8238.08	8438.08			
YELLOWFIN	1120	1120	4347	4328.8	4528.8			
BIGEYE	0	0	0	0	0			

4. COASTAL STATE REPORTING

Kiribati have existing bilateral access fishing agreement with fishing companies/associations from China, Korea, Japan, New Zealand, Spain, Chinese Taipei, EU, Tuvalu and the Cook islands. Furthermore, Kiribati is also part of the FSM multilateral arrangement and the US Treaty. In 2009 over 500 foreign fishing vessels including supporting vessels licensed to operate in Kiribati's water. Apparently, the 2009 record was the highest ever recorded for the last five years (2005-2009). By comparison with the 2008 figure, the licensed vessels increased by 14%. The major reason for an increase in the number of licensed vessels directed related to the movement of skipjack's favorable habitat into Kiribati's waters, during El Nino period in 2009. The Kiribati's water is attractive to foreign fishing fleet during El Nino period. Table 6 provides a summary of license issued to foreign vessels in Kiribati from 2005 to 2009.

Gear	2005	2006	2007	2008	2009
BU	9	9	11	9	20
LL	229	188	184	186	233
PL	4	2	7	25	25
PS	159	154	157	178	192
RC	0	0	0	27	74
TOTAL	401	353	359	425	544

Table 6: Bilateral Licensed Fishing Vessels for 2005-2009

Licensed Purse-Seine Fishery

The licensed foreign purse-seine fleets harvested a total of over 200,000 mt of tuna from Kiribati's water in 2009. Korean fleets contributed the major catch of 40% and the vessels under the US Treaty composed the second highest of 18% while those under the US treaty composed 15%. Other fishing nations like China, Taiwan, Japan, Spain etc comprise the remained 27%.

It apparent that the catch in 2009 has increased by 12.6% in relation to the 2008 figure and 29.9% to that obtained in 2007. Countries which experienced a substantial increase in the catch in 2009 in relation to that obtained in 2008 includes; Japan, Korea, US, New Zealand, Vanuatu and Taiwan and those under the FSM arrangement. Some of the reasons for an increase in catch in 2009 related to the occurrence of El Nino phenomena in 2009 which shifted the skipjack tuna habitat that normally reside in the western Pacific, toward the Kiribati's waters and consequently increased the tuna catch. Another reason was that higher fishing effort expended in the Kiribati's water in 2009 compared to that spent in 2008.

Skipjack tuna represent 86% of the total catch for 2009 as it is mainly targeted by the purse-seine fleets. Yellowfin tuna formed 11% whereas Bigeye tuna and others

constituted only 3% of the entire catch. The table below highlighted the purse-seine catch by tuna species and by country for the 2005 to 2009.

		-	CATCH (metric tonnes)				
Fleet	Year	Days	SKJ	YFT	BET	OTH	TOTAL
China	2005	287	5,138	774	44	0	5,956.00
	2006	178	3,488	0	0	0	3,488.00
	2007	8	341	33	5	0	379.00
	2008	49	450	660	1.5	0	1,111.50
	2009	41	700	54	25	0	779.00
Ecuador	2005						0.00
	2006						0.00
	2007	229	5170	690	2166	0	8,026.00
	2008	142	6647	823	1081	0	8,551.00
	2009	128	3692	408	893	0	4,993.00
El Salvador	2005						0.00
	2006						0.00
	2007	113	1691	396	355	0	2,442.00
	2008	179	6903	376	1083	0	8,362.00
	2009	14	773	82	220	0	1,075.00
Spain	2005	18	784	79	202	0	1,065.00
	2006						0.00
	2007	26	1117	623	471	0	2,211.00
	2008	204	8765	1762	2158	0	12,685.00
	2009	26	999	93	218	0	1,310.00
FSM Arrangement	2005	1,249	38,186.22	4,511.77	1160	0	43,857.99
	2006	1,191	32,124	2,701	1,035	0	35,860.00
	2007	1,064	29,607	5,123	902	0	35,632.00
	2008	964	17,351	9,888	118	0	27,357.00
	2009	1050	28,789	2551	559		31,899.00
Japan	2005	229	3,937	683	66	0	4,686.00
	2006	387	9,538	1,129	65	0	10,732.00
	2007	54	1,596	152	0	0	1,748.00
	2008	187	1012	3482	15	0	4,509.00
	2009	161	3767	848	116	0	4,731.00
Korea	2005	1,329	41,404	5,400	177	0	46,981.00
	2006	1,879	53,562	10,576	787	0	64,925.00
	2007	1,448	45,566	11,445	490	0	57,501.00
	2008	1,448	34,169	23,866	223.4	0	58,258.40
	2009	2000	78292.62	5486.7	540.92	0	84,320.24

Tables 7 Annual catches by foreign purse seine fleets in the Kiribati EEZ, by flag and species, 2005 - 2009 (

New Zealand	2005	250	5 353	1 377	106	0	6 925 00
	2003	250	5,552	1,377	190	0	0,925.00
	2006	247	4,917	/14	285	U	5,916.00
	2007	238	7,469	857	240	0	8,566.00
	2008	94	1,589.20	732.4	284.1	0	2,605.70
	2009	165	5825.05	104.125	27.12	0	5,956.30
Chinese Taipei	2005	717	17,190	2,481	196	0	19,867.00
	2006	597	12,500	772	38	0	13,310.00
	2007	447	10,241	1,417	160	0	11,818.00
	2008	669	9,410	7,418	58	0	16,886.00
	2009	727	21997	1109	135	0	23,241.00
USA	2005	1,262	22,768	9,002	3,109	0	34,879.00
	2006	666	15,466	2,180	1,126	0	18,772.00
	2007	629	15,342	1,170	2,265	0	18,777.00
	2008	1,064	20,096	10,005	562	0	30,663.00
	2009	3450	25467.2	13867.47	415	0	39,749.67
Vanuatu	2005	846	31,277	6,345	494	0	38,116.00
	2006	300	9,469	1,478	118	0	11,065.00
	2007	346	9,457	1,449	82	0	10,988.00
	2008	321	5,921	3753	117	0	9,791.00
	2009	272	12842	724	0	0	13,566.00
TOTAL EEZ	2005	6,187	166,036	30,653	5,644	0	202,332.99
	2006	5,445	141,064	19,550	3,454	0	164,068.00
	2007	4,602	127,597	23,355	7,136	0	158,088.00
	2008	5,321	112,313	62,765	5,701	0	180,779.60
	2009	8,034	183,144	25,327	3,149	0	211,620.21

Source: Raised logsheet data collected by Kiribati MFMRD

Licensed Longline Fishery

The catch of foreign longline fleets licensed to fish in Kiribati summed up to over 11000 mt in 2009. Such catch noticeably increased by 11% in contrast to the catch in 2008. Almost all countries demonstrated dramatic increase in tuna catch in 2009. The major explanation for the observed increase in catch was due to the increase in the number of longline vessels licensed in 2009. More effort for longline vessels in terms of number of vessels fish resulted in higher catch.

Korean vessels dominate the longline fishery in Kiribati which comprised the highest catch among other foreign fishing nations of about 50% of the total catch for longline. Korean vessels had been fishing in Kiribati for the past 30 years and very familiar with the fishing area within the Kiribati's EEZ. Other fishing nations such as Taiwan, China and Japan contributed the remained 50% of the absolute catch for 2009.

Bigeye tuna is preeminently the major catch of longline vessels and form 68% of the 2009 catch. Yellowfin tuna and others represent the 32% of the total catch for 2009.

Table below highlight the longline catch by country and by species within the Kiribati's water

Fleet	Year	YFT	BET	TOTAL
China	2005	28	21	49
	2006	1	0	1
	2007	21	25	46
	2008	0	0	0
	2009	629.45	2363.97	2993.42
Japan	2005	55	56	111
	2006	10	0	10
	2007	0	0	0
	2008	0	0	0
	2009	81.304	141.518	222.822
Korea	2005	1139	1871	3010
	2006	1957	2816	4773
	2007	2480	3445	5925
	2008	285	523	808
	2009	2016.168	3580.508	5596.676
Chinese				
Taipei	2005	196	354	550
	2006	104	138	242
	2007	0	0	0
	2008	0	0	0
	2009	558.462	1464.823	2023.285
Vanuatu	2005	80	433	513
	2006	96	660	756
	2007	67	449	516
	2008	1	22	23
	2009	46.114	166.843	212.957
TOTAL EEZ	2005	1499	2734	4233
	2006	2168	3615	5783
	2007	2568	3919	6487
	2008	292	589	881
	2009	3331.5	7717.66	11049.16

Tables 8 Annual catches by foreign longline fleets in the Kiribati EEZ, by flag and species, 2005 – 2009

Source: Raised logsheet data collected by Kiribati MFMRD

SPATIAL DISTRIBUTION OF CATCH FOR FOREIGN PURSE-SEINE FLEETS

Harvesting of Tuna in Kiribati by the foreign purse-seine fleets in 2009 took place within the three zones, the Gilbert region, Phoenix area and Line region. Figure 5-8 highlighted the spatial distribution of tuna catch by the major purse-seine fishing

nations Taiwan, Korea, China and El Salvador in Kiribati. It is obvious from the figures that a greater portion of tuna, caught from the Gilbert region. That is Japanese vessels fish exclusively within the Gilbert region while the Korean and Taiwanese vessels harvested tuna mostly from the Gilbert area and to a lesser extend the Phoenix region. The concentration of purse-seine catch within the western part of Kiribati, i.e. the Gilbert and Phoenix area was likely related to movement of skipjack due to the shift in its habitat toward the Kiribati's region during El Nino period. In addition, Gilbert area was much warmer compared to the line region and thus favorable to skipjack tuna (prefer warmer waters).

Figure 5: Distribution of Catch for licensed Purse-seine from El-Salvador in the Kiribati's EEZ for 2009



Figure 6: Distribution of Catch for licensed Purse-seine from Japan in the Kiribati's EEZ for 2009



Figure 7: Distribution of Catch for licensed Purse-seine from Korea in the Kiribati's EEZ for 2009



Figure 8: Distribution of Catch for licensed Purse-seine from Taiwan in the Kiribati's EEZ for 2009



SPATIAL DISTRIBUTION OF CATCH FOR FOREIGN LONGLINE FLEETS

The longline catch for 2009 spatially distributed throughout the three regions (Gilbert, Phoenix and Line zones) but the majority of the catch being harvested from the eastern regions, the line and phoenix zones (Fig 9-11). Bigeye tuna predominates the longline catch, contributing to 68% while yellowfin tuna composed only 32% of the entire catch for the 2009. The relative high catch rate of Bigeye tuna compared to yellowfin tuna within the eastern regions merely related to the temperature preference of the two tuna species. Yellowfin tuna prefers warmer region as it is unable to cope physiologically with cold temperatures (Gunn and Block, 2001). This could explain the low catch rate of Yellowfin tuna in the line region, known to have colder waters. Bigeye on the other hand has been reported to have the ability to tolerate colder waters (Gunn and Block, 2001) and hence is found to dominate the catches in the colder line region.

Additionally the catch rate for bigeye tuna tends to be higher in the line and phoenix regions compared to the Gilbert region. Bigeye tuna known to reside below the thermocline (Miyabe, 1991), will be more susceptible to longline gear in the line and phoenix region with shallower thermocline depth in contrast to Gilbert region. That is Longline gears able to reach into the habitat of bigeye tuna in the line and phoenix region compared to the very deep thermocline, formed in the Gilbert region.



Figure 9: Distribution of Catch for licensed longline from China in the Kiribati's EEZ for 2009

Figure 10: Distribution of Catch for licensed Longline from Korea in the Kiribati's EEZ for 2009





Figure 11: Distribution of Catch for licensed Longline from Taiwan in the Kiribati's EEZ for 2009

Tables 9: Summary of Purse-seine Species Catch Composition, 2006 – 2009

		Purse-Se	ine Species	s Catch Con	position
		2006	2007	2008	2009
Category	Species	%	%	%	%
Target Tuna	Skipjack	76.9273	92.1033	90.746	93.096
	Yellowfin	17.0594	7.0751	4.7532	5.5165
	Bigeye	4.2972	0.5629	4.233	1.2461
Billfish	Blue Marlin	0.1223	0.0153	0.03	0.0002
	Black Marlin	0.0494	0.0037	0	0.0008
	Other Billfish	0.0028	0.0058	0.0193	0
Sharks and					
Rays	Blue Shark	0	0	0	0
	Mako Shark	0.003	0	0	0
	Oceanic whitetip				
	shark	0.008	0	0	0
	Silky Shark	0.0518	0.0221	0.0438	0.0007
	Other Sharks and rays	0.0033	0.0004	0.0185	0.0025

Other finfish	Bullet/Frigate tunas	0	0	0	0
	Kawakawa	0.0038	0	0	0
	Rainbow Runner	1.0746	0.089	0.0429	0.1155
	Wahoo	0.0147	0.0055	0.0858	0.0038
	Common dolphinfish	0.1991	0.0086	0.0193	0
	Triggerfish	0.0766	0.0763	0.0077	0.0051
	Barracudas	0.0009	0.0002	0	0.0023
	Escolars	0	0	0	0
	Lanctfishes	0	0	0	0
	Ocean sunfish	0.0063	0	0	0
	Oilfish	0	0	0	0
	Opah	0	0	0	0
	Pomfrets	0.0063	0	0	0
	Small Baitfish	0.0855	0.0302	0	0
	Other fish	0.0078	0.0016	0	0
	Target Tuna	98.2839	99.7413	99.7326	99.8587
	Billfish	0.1745	0.0248	0.0493	0.001
	Shark	0.0661	0.0225	0.0623	0.0032
	Other fish	1.4756	0.2114	0.1557	0.1267

5. DISPOSAL OF CATCH

The only catch loaded in Kiribati was the catch of the Artisanal Fishermen, which usually for subsistence use and extra often sold in the local markets.

Catch for Commercial national tuna fishing fleets and those of the license foreign fleets usually unloaded in overseas ports like Japan, Spain and Pago Pago.

However some of the licensed purse-seine fleets unload the catch to reefer carriers at Kiribati's designated port and some licensed longlines at seas within the EEZ. Accordingly longline fleets were allowed to transship their catch to reefer at sea (within Kiribati's EEZ) in the presence of an observer either onboard the longline fishing vessel or the reefer carrier. In 2009, a total of 247 foreign fleets with only one national fleet engaged in unloading of tuna to reefer carrier in Kiribati's waters. 84% of the activity existed within Kiribati's designated port while the remained 16% takes places at sea. Among the 9 nations to conduct transshipment in Kiribati, Korea was the dominant state, having the highest number of vessels engaged and proportion of catch transshipped in Kiribati (Table 10).

Unloading of Catch to Reefer Carrier in Kiribati's Port in 2009										
Gear	Flag state	SKJ	YFT	BET	Bait	Oth	SKJ / YFT	Total		
PS	EL Salvador	910	125	305	0	0	1620	2960		
	Kiribati	910	125	305	0	0	3677	5017		
	Korea	130436.8	9792.2	708	0.5	0	0	141291.45		
	NZ	1253	29	0	0	0	0	1282		
	PNG	1905	5	0	0	0	0	1910		
	Spanish	1480	734	58	0	0	0	2272		
	Taiwan	3987	293	0	0	0	0	4280		
	USA	4004	831	17	0	10	0	4343		
	Vanuatu	8677	1246	0	0	0	0	9863		
	total	153,562.80	13,180.20	1,393.00	0.50	10.00	5,297.00	173,218.45		
LL	Korea	0	87629.37	40232.77	48.221	31650.78	134	159695.148		
	total	0.00	87,629.37	40,232.77	48.22	31,650.78	134.00	159,695.15		
Unloading of LL Catch to Reefer Carrier at sea (within Kiribati's EEZ) in 2009										
		SKJ	YF	BET	Alb	Oth	MIXED	Total tons		
LL	Korea	574.06	1,154.98	280.14	28.21	639.25	7,036.52	9,343.49		
	total	574.06	1,154.98	280.14	28.21	639.25	7,036.52	9,343.49		

Table 10: Summary of Tuna Catch Transshipment in Kiribati in 2009

6. FUTURE PROSPECT OF THE FISHERY

The key priority area for Kiribati is to develop its Tuna Fishery in a sustainable manner which will be achieved by establishing of joint ventured (JV) fishing operation and fish processing with interested foreign companies is first move. In 2009, there has been few Consultations with foreign companies to initiate the JV operations. The Government sees the JV as a way of developing its tuna industry with the anticipation that is will participate in harvesting of its own tuna resources and able to generate more employment and income to local people.

7. STATUS OF TUNA FISHERY DATA COLLECTION SYSTEM

Logsheet Data Collection

Logsheet submission from Kiribati's national fleets and licensed foreign fishing vessels still not accomplished the required 100% coverage. Higher logsheet coverage of approximately 87% being provided by Kiribati's national fleets and much lower logsheets coverage delivered from foreign fleets licensed to fish in Kiribati's EEZ.

Retrieval of logsheet data from licensed foreign longline vessels by far the major impediment in obtaining good data coverage for licensed fleets. This due to the poor compliance of the fishing masters to submit logsheets in a timely manner coupled with the submission of logsheet which usually made after completion of fishing trips, often take over a year long.

National Observer Program

The observer program in Kiribati is expanding as more observers recruited in 2009 to assist in national and regional observer data collection.

The major drawback for Kiribati to provide good quality observer data include the lack of qualified observer de-briefers to check the quality of observer data and to brief observers, especially new recruiters prior boarding fishing vessels.

Table 11: Annual observer placement (2005-2009)

Year	LL	PS	FFA	Total
2005	4	8	3	15
2006	4	13	3	20
2007	2	19		21
2008	3	21	2	26
2009	3	46	2	51

<u>Unloading/Transshipment Data</u>

Kiribati still engaged in the collection of unloading data from two designated ports, Betio port in the Gilbert group and and Christmas port in the Line Islands. At sea transshipments (within Kiribati's EEZ) permitted only to licensed foreign longline fleets but in the presence of an observer.

Port Sampling

Port sampling data collection was still ongoing in Kiribati being carried out by trained port samplers and observers. In 2009, out of the 209 boats entered Kiribati's water for transshipment, there is a total of 176 vessels being sampled. Thus the port sampling coverage was still quite high (84%).

Data collected scanned and send to SPC for re-processing.

Artisanal fishery data Collection

Fisheries artisanal survey still ongoing and responsible in collecting of artisanal data such as number of boats employed, total tuna catch by species and other fisheries baseline information