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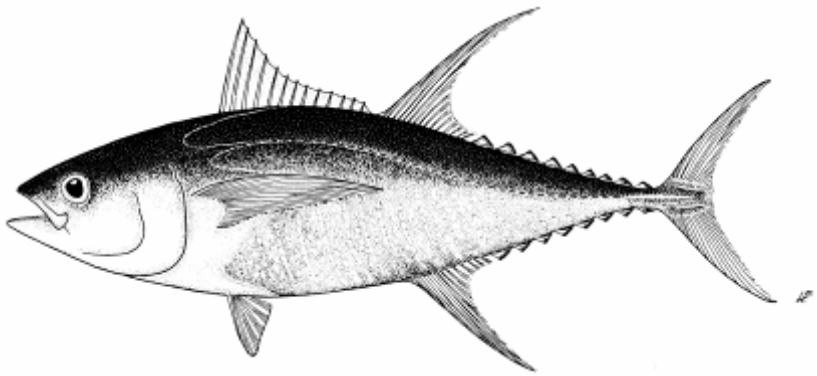
Kiribati Fisheries Report



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WCPFC – 1st Meeting of the Scientific Committee

Fisheries Report

Kiribati

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1. Introduction

Tuna is one of the important fish species for Kiribati. Even though local tuna fishery is not well established in Kiribati, there is a substantial income derived from the sale of fishing license for tuna species within the Exclusive Economic Zone (EEZ). This represents one of the highest incomes for the government and indeed is largely responsible for subsidizing government budget.

There is a need to develop local tuna fishery industry to maximize the benefits derived from tuna. Previous ventures of the same nature have failed especially because of the isolated location of the country relative to the major buyers of tuna coupled with the lack of efficient transport system and infrastructure.

2. Fleet structure

a) At present, Kiribati has only one purse seine vessel that is locally flagged. The vessel, KAO 1, is operated under a joint venture by Othoshiro Fishing Company of Japan and the Government of Kiribati.
b) The number of foreign vessels by gear and flag that are licensed to fish in Kiribati EEZ is presented in Table1. Japan and Korea are the dominant purse seine fishing nations with 34 and 26 licensed PS vessels. Korea has the largest number of longline vessels registered to fish in Kiribati EEZ.

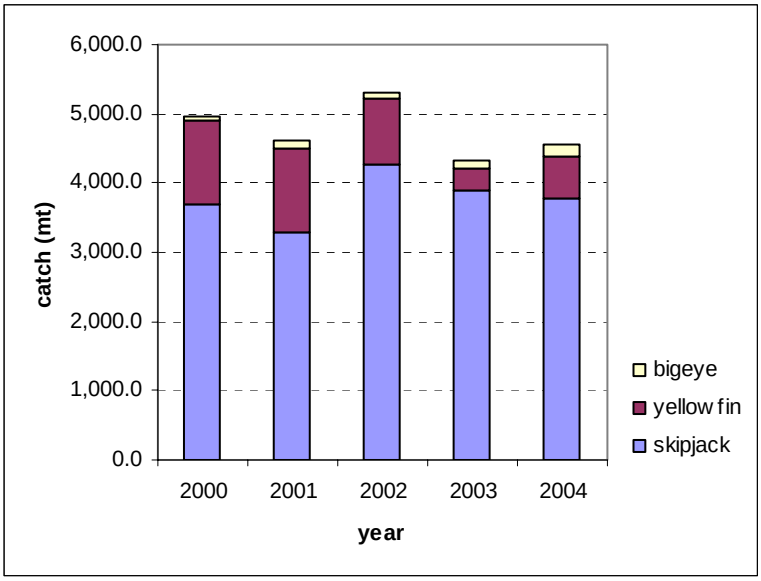
Table 1. Number of licensed foreign vessels by gear type (*Source: Kiribati License Database 2005*)

VES_FLAG	PS	LL
CH	6	
ES	4	5
FM	1	
JP	34	7
KR	26	121
NZ	1	
PG	1	
TW	18	27
US	2	
VU	6	2
Grand Total	99	162

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

Record of KAO 1 catch for the years 2000 to 2004 in the WPCF area is graphed in figure 1. The largest total catch of more than 5,000 thousand metric tons was in 2002. The catch declined in 2003 but regain a little in 2004 reaching approximately 4,500 metric tons of catch. Total catch for 2004 was dominated by skipjack representing more than 80% of the total catch. Yellowfin and bigeye were present but in low abundances of 600 and 173 metric tons respectively.

Figure 1. Estimates of total catch by species for locally flagged purse seine fleet in the WCPFC Convention Area, 2000–2004 *(Source : logsheet data)*



4. Annual catches in the member or observer's EEZ, 2000–2004

US purse seiners recorded the overall highest catch in Kiribati EEZ during the period 1999-2004 with a peak catch of 63,000 mt in 1999 (Table2 & 3). Catch for 2004 represent a big drop in catch to 19,000 mt. Skipjack is the dominant catch for 2004 (like previous years) accounting for 75% of the total catch. Yellowfin and bigeye represent 24% and 0.7% of the total catch for 2004.

Foreign longline fishing in Kiribati EEZ is mainly carried out by four countries namely Japan, Korea, Taiwan and China. Taiwan has the highest catch of more than one hundred thousand metric tons that is dominated by bigeye representing 50% of the total catch in 2004.

At this stage effort data for Kiribati EEZ is not complete. Distribution of effort by Korean longline fleet (provided by SPC) is in Figure 2. Most of the efforts are centered on and around the islands of Gilbert, Line and Phoenix groups.

Table 2. Annual purse seine catch by fleet and species in Kiribati EEZ, 1999–2004 *(Source :logsheet data – coverage is expected to be high)*

		year						
Country	species	1999	2000	2001	2002	2003	2004	Total
China	Skipjack	0.0	0.0	0.0	3,395.0	0.0	0.0	3,395.0
	Yellowfin	0.0	0.0	0.0	314.0	0.0	0.0	314.0
	Bigeye	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Sub total	0.0	0.0	0.0	3,709.0	0.0	0.0	3,709.0
New Zealand	Skipjack	0.0	0.0	1,605.0	4,512.0	2,767.0	3,950.0	12,834.0
	Yellowfin	0.0	0.0	904.0	1,351.0	699.0	869.0	3,823.0
	Bigeye	0.0	0.0	0.0	0.0	0.0	50.0	50.0
	Sub total	0.0	0.0	2,509.0	5,863.0	3,466.0	4,869.0	16,707.0
						0.0		
FSM	Skipjack	353.0	3,308.0	28,122.5	38,144.0	19,743.0	583.0	90,253.5
	Yellowfin	176.0	847.0	6,590.1	4,030.0	2,472.0	93.0	14,208.1
	Bigeye	130.0	27.0	260.0	0.0	73.0	13.0	503.0
	Sub total	659.0	4,182.0	34,972.6	42,174.0	22,288.0	689.0	104,964.6
USA	Skipjack	47,481.7	27,671.8	36,315.6	29,666.6	17,072.0	14,512.0	172,719.8
	Yellowfin	14,462.2	20,509.9	11,379.1	11,505.4	2,232.0	4,642.0	64,730.6
	Bigeye	1,151.7	385.8	213.8	26.0	274.0	145.0	2,196.3
	Sub total	63,095.6	48,567.5	47,908.5	41,198.0	19,578.0	19,299.0	239,646.6
Philipine	Skipjack	0.0	0.0	0.0	1,293.0	0.0	0.0	1,293.0
	Yellowfin	0.0	0.0	0.0	280.0	0.0	0.0	280.0
	Bigeye	0.0	0.0	0.0	15.0	0.0	0.0	15.0
	Sub total	0.0	0.0	0.0	1,588.0	0.0	0.0	1,588.0
SPAIN	Skipjack	0.0	0.0	0.0	105.0	0.0	519.0	624.0
	Yellowfin	0.0	0.0	0.0	51.0	0.0	93.0	144.0
	Bigeye	0.0	0.0	0.0	21.0	0.0	13.0	34.0
	Sub total	0.0	0.0	0.0	177.0	0.0	625.0	802.0
Japanese	Skipjack	14,137.0	23,629.0	34,799.0	43,423.0	8,372.0	3,457.0	127,817.0
	Yellowfin	6,588.0	5,854.0	12,957.0	3,016.0	2,713.0	567.0	31,695.0
	Bigeye	646.0	614.0	1,322.0	773.0	517.0	145.0	4,017.0
	Sub total	21,371.0	30,097.0	49,078.0	47,212.0	11,602.0	4,169.0	163,529.0
Korean	Skipjack	3,435.0	11,030.0	49,759.0	56,795.0	3,325.0	565.0	124,909.0
	Yellowfin	1,401.0	2,985.0	16,454.0	6,311.0	880.0	185.0	28,216.0
	Bigeye	0.0	0.0	17.0	14.0	40.0	0.0	71.0
	Sub total	4,836.0	14,015.0	66,230.0	63,120.0	4,245.0	750.0	153,196.0
Taiwan	Skipjack	10,134.0	2,500.0	15,538.0	56,061.0	20,531.0	16,578.0	121,342.0
	Yellowfin	3,456.0	95.0	6,638.0	2,875.0	2,826.0	810.0	16,700.0
	Bigeye	0.0	0.0	65.0	240.0	393.0	6.0	704.0
	Sub total	13,590.0	2,595.0	22,241.0	59,176.0	23,750.0	17,394.0	138,746.0

Table 3. Annual longline catch by fleet and species in the Kiribati EEZ, 1999–2004 *(Source : logsheet data*

Flag	Species	1999	2000	2001	2002	2003	2004	Total
Japanese	Bigeye	942.0	2,731.0	2,121.4	2,679.0	298.0	482.5	9,253.9
	Yellowfin	762.0	2,428.0	1,271.0	1,513.0	217.0	134.0	6,325.0
	Billfish	794.0	293.0	262.0	164.0	26.1	37.9	1,577.0
	Others	20.8	132.0	137.3	120.0	53.0	31.2	494.4
	Sub total	2,518.8	5,584.0	3,791.7	4,476.0	594.1	685.6	17,650.3
Korean	Bigeye	5,003.0	7,298.0	5,983.0	6,221.0	3,298.0	2,271.0	30,074.0
	Yellowfin	3,333.0	4,186.0	4,149.0	3,166.0	2,538.0	2,143.0	19,515.0
	Billfish	579.1	1,844.0	116.0	853.0	809.0	441.0	4,642.1
	Others	1,128.0	369.0	1,616.0	1,609.0	1,397.0	174.0	6,293.0
	Sub total	10,043.1	13,697.0	11,864.0	11,849.0	8,042.0	5,029.0	60,524.1
Taiwan	Bigeye	135.0	1,430.0	6,673.4	327.0	629.0	279.0	9,473.4
	Yellowfin	70.0	9,695.0	11,423.0	792.0	392.0	167.0	22,539.0
	Billfish	70.0	6,625.0	11,129.2	129.0	149.2	35.0	18,137.4
	Others	19.0	20,110.0	37,237.0	576.2	485.0	78.0	58,505.2
	Sub total	294.0	37,860.0	66,462.6	1,824.2	1,655.2	559.0	108,655.0
China	Bigeye	0.0	0.0	0.0	1,293.0	0.0	0.0	1,293.0
	Yellowfin	0.0	0.0	0.0	280.0	0.0	0.0	280.0
	Billfish	0.0	0.0	0.0	15.0	0.0	0.0	15.0
	Others	0.0	0.0	0.0	1,588.0	0.0	0.0	1,588.0
	Sub total	0.0	0.0	0.0	3,176.0	0.0	0.0	3,176.0

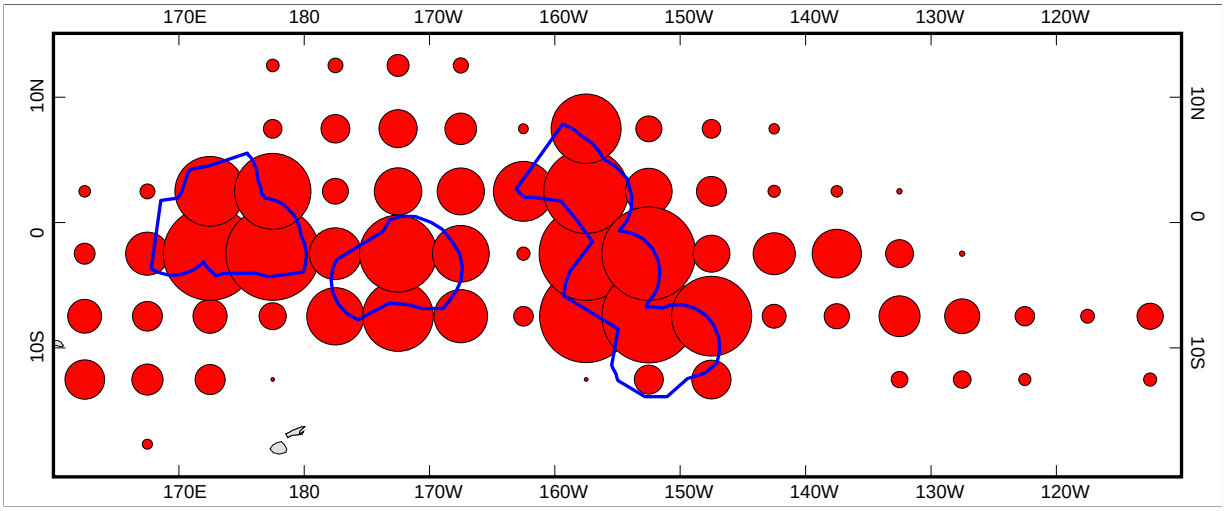


Figure 2. Distribution of Korean longline effort in and around the Kiribati EEZ for 2002 (Source : logsheets provided from Kiribati Fisheries Division)

Two peaks in bigeye nominal CPUE for Korean longline fishery in Kiribati EEZ were observed in 1994 and 1997 with CPUE of more than 1 fish/hundred hooks (Fig. 3). Lowest nominal CPUE of less than 0.6 were observed for the period 1999 to 2000. For yellowfin tuna, a peak of more than 1 fish/hundred hooks was in 1996 with a record low of less than 0.4 fish/hundred hooks in 1999. On average, nominal CPUE for bigeye has remained leveled while yellowfin showed a decline in nominal CPUE.

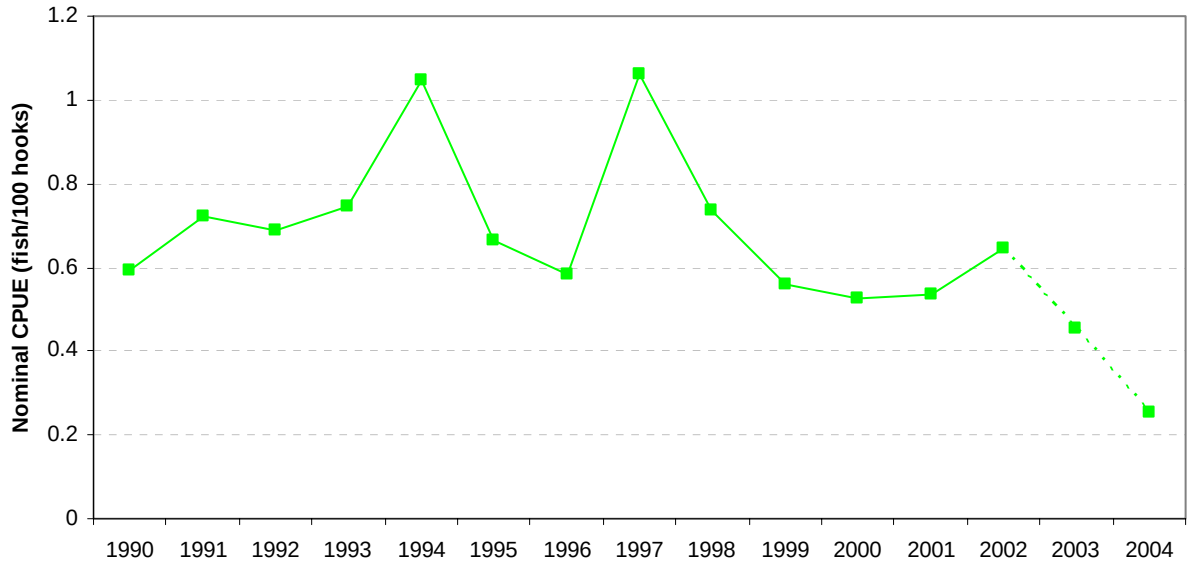


Figure 3. Annual trends in nominal bigeye CPUE (number of fish per 100 hooks) for the Korean longline fleet operating in the Kiribati EEZ (Data for years 2003 and 2004 are preliminary)

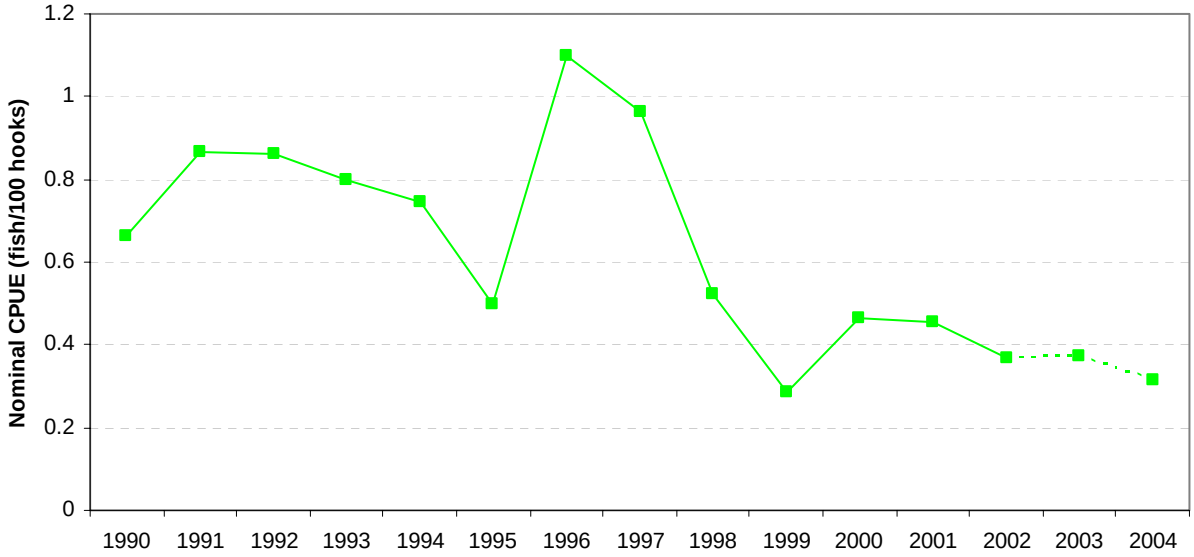


Figure 4. Annual trends in nominal yellowfin CPUE (number of fish per 100 hooks) for Koream longline fleet operating in the Kiribati EEZ (Data for years 2003 and 2004 are preliminary)

Local Tuna fishery information.

The information is from a tuna landing survey of commercial fisherman in Tarawa carried out by the Local Licensing and Data Collation Unit of the Fisheries Division. The average number of hours spent per trip was estimated at 5 hours, with an average of 4 fishing days per week. Average income from tuna fishing per fisherman was estimated at AUD170.0 per trip with a corresponding fuel consumption of approximately 60 liters per trip. The main fishing method employed was trolling and based on total landed catch, composition of catch was estimated at 83.2% for skipjack and 16.8% for yellowfin, the two main tuna species in Kiribati. Yellowfin tend to fetch a higher price than the more dominant skipjack.

Tuna longline trials using locally made skiffs are presently carried out by the Fisheries Division to determine the feasibility of this venture in Kiribati. At present, there is no commercial longline fishery in Kiribati.

5 Final market destinations of catches

At this stage, KAO 1 unloads mostly at the tuna canneries in Pagopago. With respect to licensed foreign fishing vessels fishing in Kiribati EEZ, there is no record on their final market destination.

6 Onshore developments

6.1 Transshipment

In 2002 the first recorded transshipment was carried out in Kiribati for both Christmas Island and Tarawa ports. This involved a total of more than 100 thousand metric ton of fish dominated mainly by DIC catch with a total transshipment of 50,000 metric ton.

Table 2. Amount (mt) of fish transshipped per party at Christmas Island and Tarawa for 2002.

Party	Xmas	Trw	Total
DIC	25,686.0	24515	50,201.0
Frabelle	549.4	0	549.4
FSM	4,250.0	0	4,250.0
HFI	395.0	0	395.0
ITS	710.0	0	710.0
MFT	5,094.9	0	5,094.9
KPG	9,730.0	32235	41,965.0
TDS	2,810.0	0	2,810.0
TMI	820.0	0	820.0
Total	50,045.3	56,750.0	106,795.3

Transshipment activity for 2003 was low comprising of 2 PS trips mostly by Dongwon Industries transshipping a total of 1,305 mt of catch. This is the same for 2004 with 3 PS vessels from DIC transshipping a total of 1,916 mt. In 2005 however, a total of 18,000 mt of fish was transshipped at Betio port mainly by Dongwon Industries. The majority of catch is skipjack comprising 90% of total transshipped catch (Table 3). Note that values for 2005 is incomplete.

Table 3. Current transshipment activity at Betio port.

Company	PS vessels	YFT	SKJ	YFT/SKJ	BET	ALB	Total
Dongwon	15	1,120.0	9,240.0	635.0	0.0	0.0	10,995.0
Shilla	5	55.0	4,705.0	0.0	0.0	0.0	4,760.0
Sajo	3	90.0	2,375.0	0.0	0.0	0.0	2,465.0
Total	23	1,265.0	16,320.0	635.0	0.0	0.0	18,220.0

7 Developments concerning tuna fisheries research and statistics

7.1 Observer program

Kiribati National Observer Program (KNOP) started in 2001 following the completion of 2 observer trainings jointly conducted by SPC and FFA. The Program main objectives are;

- Fisheries and biological data collection
- Monitoring and compliance purposes
- Deter illegal fishing operations
- Report and record of fishing vessels sighted, by the fishing vessel

Initial funding for the Program was provided by SPC in collaboration with FFA. Funding for the Kiribati Observer Program will slowly be taken over by the Kiribati Fisheries core funding.

There were 36 qualified observers for Kiribati following training workshops carried out in 2001. At present less than 50% observers are still with the Program. Despite the reduction in number of observers, there has been steady number of observer trips.

At present observer coverage on distant water fishing vessels is low at less than 5%. In 2001 observer coverage was 1.5%. A slight increase to 2.0% was observed for the following years.. Plans are underway to increase coverage to reach an initial 5% and then 20%. Quality of observer data is an issue and Kiribati is keen to improve its observer data quality to meet the expectations of the WCPFC.

7.2 Port sampling

Port sampling regained momentum in Kiribati during the early part of this year. This follows a port sampling training carried out by SPC OFP staff that coincides with the increased transshipment activity in Betio port. Port sampling by both observers and some fisheries staff has continued since then. Data is not available at this time, but will be made available next time.

8 Conclusion

Due to the importance of tuna to the economy, Kiribati is keen and is supportive of work (research) that is geared toward the sustainable harvest of tuna species in the WCPF area such as provided (and ongoing) by the Secretariat of the Pacific Community (SPC). It is hoped that results from such research be utilized by the WPCF Commission to assist in the formulation of effective fishing practices to be adopted by fishing nations in the WCPF area.

To effectively contribute to its part, Kiribati is eager to continue and improve on its current fishery data collection campaigns through observers and logsheets and to continually work closely with SPC and the WCPF Commission.