

ANNUAL REPORT OF THE RESOURCE ASSESSMENT
AND DATA COLLECTION UNIT OF THE FISHERIES
DIVISION. FOR YEAR ENDING DECEMBER

C. C. MEES

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- (9. MED data not yet recieved).

TEHAIKU FISH-FARM GRAND SUMMARY OF 1985

POND NUMBER 1 to 13

656

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
REGIONAL FRI (Stocked)	227.833	47.380	23.501	-	0.289	13027	128,427	118,688	-	106,871	342,986	806,131	WASILET *1,823,133
IT HARVEST (G)	135	653	210	595	1032	175	175	420	924.5	-	-	-	4319.5
WOLFISH HARVEST (F-KG)	1047.	490.2	578.6	913.2	514	324.6	840	823.3	985.2	1048	1419.8	717.5	9751.7
OTHER FISH HARVEST (KG)	?	-	-	262.6	30.8	22.2	46.8	13.4	30.5	49.2	68.5	77	620.3

ANNUAL REPORT OF THE RESOURCE ASSESSMENT AND DATA
COLLECTION UNIT - C.C. MEES

1) SUMMARY OF ACTIVITIES FOR

1. The generalized programme of the Resource Assessment and Data Collection Unit (the Unit) is now well established and is described briefly in the preface to recent reports.

2. Frame Surveys conducted during 1986:-

<u>Date</u>		<u>Island</u>	<u>Report Status</u>
February	-	South Tarawa	In prepn. (Being)
March	-	Maiama	At printery
May	-	South Tarawa	In prepn (Being)
July	-	Abemama	Draft with CFO
September	-	Nonouti	In prepn
October	-	Marakei	Requires Analysis
November	-	South Tarawa	" "
December	-	Tabiteuea Meang	" "

A summary of the data is included (see reports for full details).

3. Catch/Landing data has been collected every month from Betio, Bairiki and Bikenibeu. Landing data has been analysed quarterly and used in support of the above South Tarawa reports. A summary of all 1986 Landing data is included.

Outer Islands Landing data has been analysed for those islands which responded. There have been problems obtaining data from Outer Island FA's.

4. Mautari vessel data has been collected and a brief summary is included. A more detailed analysis is in preparation.

5. KCWS and MED data has been requested but is still not available at the time of writing this report.

6. Catch and Yield estimates were derived for Abemama, Butaritari and Tarawa in relation to the Mautari Outer Island Fishery (see report, File 7/24/1).

7. The major outstanding report (since 1985) is the Line Islands Resource Survey. It was completed in October 1985 but problems have arisen with typing, and reproduction. It is presently awaiting photocopying.

8. Analytical programmes which utilize the Apricot Xi microcomputer have been written for the Frame Surveys and Landing Records.

Data-bases have been established for the Mautari vessel data and Catch Records also, but analytical programmes have not yet been prepared.

A FULL LIST OF THE REPORTS PRODUCED BY THE
RESOURCE ASSESSMENT AND DATA COLLECTION UNIT.

- 1 Marriott, S.F.M. (1981) South Tarawa Artisanal Fishery I, 47pp.
- 2 Marriott, S.F.M. (1982) South Tarawa Artisanal Fishery II, 65pp.
- 3 Marriott, S.F.M. (1983) A Summary Report of the South Tarawa Artisanal Fishery, 21pp.
- ~~4 Marriott, S.F.M. (1984a)~~ Rural Fisheries in Kiribati. (Frame Surveys of Abemama, Kuria, and North Tarawa), 30pp.
- 5 Marriott, S.F.M. (1984) The Aranuka Fishery, 5pp.
- ~~6 Mees, C.C. (1984a)~~ A Fisheries Related Market Survey of South Tarawa, 3pp.
- 7 Mees, C.C. (1984b) The Fisheries of Tamana and Arorae, 14pp.
- 8 Mees, C.C. (1985a) The Fisheries of Butaritari Island, 20pp.
- 9 Mees, C.C. (1985b) The Fisheries of Makaei Island, 23pp.
- 10 Mees C.C. and B.M. Yeeting (1985) Fisheries Data Collection on South Tarawa - A three month summary of data collection for the months of Jun-Aug 1985, 27pp.
- 11 Yeeting, B.M. (1985) Fisheries Data Collection on South Tarawa - A four month summary of data collection for the months of Sep-Dec 1985, 24pp.
- 12 Mees, C.C. (1986a) A Summary Report of the Fisheries Resource Survey of the Northern Line Group of Kiribati, 17pp.
- ~~13 Mees, C.C. (1986b)~~ The Fisheries of Abemama Island, 41pp.
- 14 Mees, C.C. (1986c) Annual Report of the Resource Assessment and Data Collection Unit of the Fisheries Division for the Year Ending December 1986, 25pp.
- 15 Mees, C.C. and B.M. Yeeting (1986) The Fisheries of South Tarawa, A report of two surveys conducted during September and December 1986, 32pp.
- 16 Yeeting, B.M. (1986) The Fisheries of Makaei Island, 34pp.
- 17 Fisheries Division (1987) Report of a Fisheries Resource Survey of the Northern Line Group of Kiribati, 142pp.

2) A SUMMARY OF OUTER ISLAND FRAME SURVEY DATA

1. Islands surveyed prior to 1986 are:

Abemama ✓	Marriott
Aranuka •	Marriott
Kuria	Marriott
North Tarawa ✓	Marriott
Tamana ✓	Mees
Arorae ✓	Mees
Marakei ✓	Mees
Butaritari ✓	Mees.

A summary of the results of these surveys is presented in the 1985 Annual Report.

2. During 1986 two of the above islands were resurveyed: Abemama Abemama (a proposed location for Mautari Outer Island Fishery) and Marakei (following a request in the house after closure of the passages linking lagoon and ocean).

Table 1. Summarizes the work done in 1986 but the preview data for Abemama and Marakei is included for comparison. Table 2 examines the catch per island by species type.

3) 3. SUMMARY OF SOUTH TARAWA FRAME SURVEY DATA.

- 3.1. Three South Tarawa Surveys were conducted during 1986. That during February surveyed only the main villages of Betio, Bairiki and Bikenibeu. The May and November surveys included all villages in South Tarawa. At the time of writing this report the November data was not yet entered onto computer-file for analysis.
- 3.2. Table 3 summarizes the information obtained during the February and May surveys. Table 4 examines the species caught. The data obtained during 1985 is also shown for comparison. For individual village analyses the original reports should be referred to. Note that the 1985 data, like that for February 1986, refers only to the main villages (Bik, Bai, Bet) whilst that for May 1986 refers to all the villages in South Tarawa. The data relating to absolute figures (eg catch, no boats etc) should be raised by approximately 30% to estimate the total value for all of South Tarawa.
- 3.3. Table 4 summarises the species caught during each survey. Greater detail may be found in the original reports. Note also that since the analysis has become computerized detailed appendices are produced relating to catches by method and area. These are not shown in the published reports but the data is available at the Fisheries Division.

4. A SUMMARY OF SOUTH TARAWA LANDING RECORDS

- 4.1. Landing Records are based on accurate weightings of fishermen's catches when they are landed. This the catch per fishing household is a known measurement, unlike that in the Frame Surveys in which catch volumes are estimated.
- 4.2. South Tarawa Landing Records are analysed quarterly and an overall analysis for 1986 was also conducted.

A summary of the results appears in Table 5.

5. A SUMMARY OF OUTER ISLAND LANDING RECORDS

- 4.2 Outer Island Fisheries Assistants are required to measure the Landings of at least two fishermen per week. However, as may be seen in Table 6 which summarises Outer Island landing records this is not the case. The analysis is for the year of 1986 Jan - Dec and so we would expect at least 100 fishing trips recorded per island. In fact it ranges from 4 to 70. Some islands have not sent any data in at all. These are:

Makin	No FA
Kuria	No FA
Maiana	
Nikunau	
Onotoa	
Aroa	FA only present from October 1986.
Marakei	

TABLE 1: A SUMMARY OF OUTER ISLAND FRAME SURVEY DATA FOR 1986

DETAILS		Abemama/82	Abemama/86	Marakei/85	Marakei/86	Maiana/86	Nonouti/86	Tab.N. 1986
Census No. H/H on Island		411	502	464	475	353	546	591
% Of Fishing Households		70.6	85.2	82.3	85.7	95.4	91.3	89.0
% Full Time Fishermen ?		46.7	22.6	27.2	13.4	13.3	14.0	28.5
% Part Time Fishermen ?		8.9	15.1	34.1	23.8	14.9	22.0	19.2
% Subsistence Fishermen		44.4	58.6	38.7	58.1	71.8	62.3	51.4
% Of H/H Fishing per Area During Week of Survey:								
FT	OCN	N/a	17.6	42.2(t)	12.8	10.6(t)	26.0	5.8
	RFF	N/a	25.4	22.6	41.0	24.5	30.4	22.0
	LGN	N/a	78.4	22.3	23.0	54.8	36.9	34.8
	COL	N/a	17.6	8.4	10.2	33.5	13.0	4.6
PT	OCN	N/a	5.8	-	24.6	-	5.5	3.4
	RFF	N/a	29.4	-	44.9	-	20.8	18.9
	LGN	N/a	67.6	-	17.3	-	59.7	29.3
	COL	N/a	35.2	-	5.7	-	20.8	6.8
SB	OCN	N/a	5.3	-	13.6	-	1.9	0.6
	RFF	N/a	28.0	-	45.2	-	29.4	20.0
	LGN	N/a	53.0	-	22.0	-	50.0	43.2
	COL	N/a	37.1	-	11.3	-	13.7	5.8
TOTAL EFFORT APPLIED DURING DURING WEEK OF SURVEY BY AREA:								
NO. TRIPS	OCN	N/a	73	N/a	185	N/a	70	29
	RFF	N/a	235	-	487	-	299	266
	LGN	N/a	696	-	239	-	596	485
	COL	N/a	276	-	84	-	197	54

TABLE 1 CONTD.

DETAILS		Abemama 1982	Abemama 1986	Marakei 1985	Marakei 1986	Maiana	Nonouti	Tab.N	
Contd.	TIME (HRS)	OCN	N/a	516	N/a	756	-	395	242
		RFF	N/a	747	-	1,930	-	998	715
		LGN	N/a	1,568	-	739	-	2,505	1,443
		CCL	N/a	422	-	190	-	431	133
ESTIMATED CATCH DURING WEEK OF SURVEY (KG)		OCN	N/a	3,662	12,558	2,844	3132	2,811	1,412
		RFF	N/a	5,598	1,888	12,662	5219	4,616	3,273
		LGN	N/a	31,121	4,483	8,590	26099	21,087	6,476
		COL		9,263	844	452	8811	2,750	627
		TOTAL	22,346	49,584	19,773	24,548	37,263	31,264	11,788
ESTIMATED DAILY PER CAPITA FISH CONSUMPTION (KG)			1.2	2.3	1.04	1.22	2.48	1.4	0.46
PROPORTION OF CATCH SOLD				16.3	20.8		3.1	23.2	15.6
AVGE INCOME FROM FISH SALES		PT		15.30	12.25 (t)	15.80	12.50 (t)	10.40	11.5
		PT		11.70		10.70	-	7.60	6.3
% FISHING H/H WITH BOAT			60.0	55.5	68.0	69.8	43.4	66.3	58.1
% NON - FISHING H/H WITH BOAT			N/a	16.6	N/a	23.4	1.2	12.9	18.9
TOTAL NO. OF	CANOE	174	285	286	322	172	305	350	
	FAO CANOES	-	1	-	1	-	1	6	
	SKIFFS	14	12	2	3	3	7	5	
	OTHER	-	2	-	0	-	-	1	
	ENGINES	14	8	3	4	5	8	6	

DETAILS	Abemama 1982	Abemama 1986	Marakei 1985	Marakei 1986	Maiana	Nonouti	Tab. N.
2. GEAR OWNERSHIP:							
Z No H/H with an ice box	N/a	3	N/a	2	3	-	-
Nof of Items:							
Hooks and Lines	388	572	613	1008	491	974	1173
Gill Nets	866	595	343	223	304	467	419
Cast Nets	N/a	7.5	N/a	-	-	-	-
Traps	N/a	5.5	-	-	-	-	-
Misc.	34	88	-	195	37	92	141
3. % OF H/H OWNING A SEAWEED FARM:							
FISHING H/H	N/a	7.5	N/a	-	-	-	-
NON. FISHING H/H	-	5.5	-	-	-	-	-
TOTAL:	-	7.2	-	-	-	-	-
4. TOTAL NUMBER:							
SEAWEED FARMS	-	36	-	-	-	-	-
SEAWEED LINES	-	1994	-	-	-	-	-

(t) % of FHH fishing during week of survey per area refers to all sectors combined. Income refers to all sectors combined.

TABLE 2: TO HOW THE PROPORTION OF THE CATCH DURING THE

WEEK OF THE SURVEY REPRESENTED BY DIFFERENT SPECIES-TYPES

SPECIES - TYPE		Abemama 1982	Abemama 1986	Marakei 1985	Marakei 1986	Maiana	Nonouti	Tab. N.	
BONY FISH:	Atherinidae	23.2	26.8	3.2	32.	29.3	8 1.1		
	Clupeidae	2.2	3.3	5.8	4.1	3.5	8.7 11.0	8.7	
		-	=	-	0.0	-	-	0.0	
		-	3.9	6.3	6.	-	0.1	-	
		-	37.4	0.4	-	-	-	0.0	
		4.4	-	2.7	-	5.9	- 5.8	-	
		4.7	1.5	.7	12.4	-	8.0 8.1	-	
	Lutjanidae	18.3	7.8	3.2	11.9	3.1	8.9	10.9	-
	Mugilidae	4.3	2.3	3.4	0.4	-	.5	- 3.2 1.	-
		2.8	7.3	1.6	-	2.0	4.5	- 3.2	-
		-	5.7	8.1	-	0.2	1.6	-	1.
	Sphyraenoidei	-	-	-	0.7	1.6	-	0.0	1.
Serranidae	2.4	3.0	1.4	-	9.0	-	3.8	4.6	
OSTRACODS									
ARTILAGINOUS FISH:	All Elasmobranchs	11.4	1.7	3.6	1.8	3.8	2.7 4.3		
VERTEBRATES		-	0.3	0.0	-	-	-	0.1	
Crustaceans		0.1	0.5	1.2	-	-	0.5	-	
Molluscs	9.5	23.1	6.6	-	2.7	7.9	31.3	-	
SCELANICUS FISH		1.8	8.9	18.6	52.0	14.0	12.9	36.4	

TABLE 3: A SUMMARY OF SOUTH TARAWA FRAME SURVEY DATA FOR 1985 AND 1986

DETAILS	SEPT 1985	DEC 1985	FEB 1986	MAY 1986
1. CENSUS No H/H ON ISLAND	2192	2192	2231	2964
2. % OF FISHING HOUSEHOLDS	77.3	70.1	69.6	78.1
3. % FULL TIME FISHERMEN	13.9	7.2	8.6	11.3
% PART TIME FISHERMEN	13.1	7.7	14.8	9.6
% SUBSISTENCE FISHERMEN	73.1	85.1	75.3	78.2
4. % OF H/H FISHING DURING WEEK OF SURVEY PER AREA:				
FT OCN	13.9	13.3	71.4	41.3
RFF	10.6	27.7	14.2	6.5
LGN	35.5	36.4	33.3	69.5
COL	25.6	22.5	14.2	19.5
PT OCN			38.8	23.0
RFF			16.6	15.3
LGN			47.2	56.4
COL			19.4	38.4
SB OCN			1.0	2.2
RFF			20.2	10.7
LGN			22.4	26.5
COL			39.3	48.4

TABLE 3 CONT.

DETAILS	SEPT 1985	DEC 1985	FEB 1986	MAY 1986
TOTAL EFFORT APPLIED DURING WEEK OF SURVEY BY AREA:				
NO. TRIPS	N/a	N/a	601	751
OCN	-	-	653	532
RFF	-	-	902	1,974
IGN	-	-	1,165	2,256
COL	-	-	3,203	4,186
TIME (HRS)	N/a	N/a	2,163	1,534
OCN	-	-	3,489	10,645
RFF	-	-	2,589	5,725
IGN	-	-	51,204	34,294
COL	-	-	85,533	7,668
ESTIMATED CATCH DURING WEEK OF SURVEY (KG)				
OCN	64,592	21,000	20,008	81,649
RFF	5,644	12,473	32,735	49,876
IGN	25,807	19,071	112,480	173,487
COL	31,708	10,933		
TOTAL:	127,746	63,477		

TABLE 3 CONTD.

DETAILS	SEPT 1985	DEC 1985	FEB 1986	MAY 1986
7. ESTIMATED DAILY PER CAPITA FISH CONSUMPTION (KG)	1.19	0.59	1.05	1.14
8. PROPORTION OF CATCH SOLD	32.9	26.9	66.3	53.1
9. AVERAGE INCOME FROM FISH SALES	42.12*	42.12*	128.30	41.70
	PT	-	55.20	47.00
10. % FISHING H/H WITH BOAT	38.8	37.5	48.5	45.5
11. % NON FISHING H/H WITH BOAT	-	4.4	16.3	14.1
11. TOTAL NO. OF:	475	583	652	900
CANOES				
FAO CANOES	-	-	12	27
SKIFFS	151	211	156	185
OTHER	120	-	138	193
ENGINES	240	216	307	399
12. GEAR OWNERSHIP:				
NO. H/H WITH AN ICE BOX	N/a	N/a	127	171
NO. OF ITEMS	1983	1839	2647	3831
HOOK + LINES				
GILL NET	896	919	1314	2085
CAST NETS	-	-	115	160
TRAPS	-	-	32	51
MISC	411	150	301	338

TABLE 3 CONT'D

DETAILS	SEPT 1985	DEC 1985	FEB 1986	MAY 1986
3. % OF H/H OWNING A SEAWEED FISHING H/H FARM:	-	-	2.4	4.9
NON. FISHING H/H	-	-	0.0	0.0
TOTAL:	-	-	1.7	3.8
4. TOTAL NUMBER: SEAWEED FARMS		25	38	114
SEAWEED LINES		550	1455	5778

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TABLE 4: TO SHOW THE PROPORTION OF THE CATCH DURING THE WEEK OF THE SURVEY REPRESENTED BY DIFFERENT SPECIES -- TYPES -- STRM

SPECIES -- TYPE	SEPT 1985	DEC 1985	FEB 1986	MAY 1986
NY FISH:				
Albulidae	*	5.4		17.4
Carangidae	*	3.5		1.8
Chipeoids	=	0.5		0.7
Chanidae	-	-		-
Exocetidae	-	3.1		3.4
Gernidae	-	-		2.4
Lethrinidae	-	8.8		6.2
Mugilidae	-	11.1		5.3
Mullidae	-	1.8		1.6
Scombridae	-	15.2		11.3
Sphyraenoidae	-	-		-
Serranidae	-	1.9		0.8
ARTILAGINOUS FISH				
All Elasmobranchs	-	0.4		-
INVERTEBRATES				
Cephalopods	-	-		1.1
Crustaceans	-	0.7		-
Molluscs	-	34.5		38.9
CELANICOS FISH				
	-	12.7		7.6

* 1985 Data is the average of both September and December Surveys.

TABLE 2: A SUMMARY OF SOUTH TARAWA LANDING RECORD FORMS

TIME PERIOD: VILLAGES:	COMBINED VILLAGE DATA, QUARTERLY									
	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC.	BAI	BETIO	RIK	ALL VILLAGES		
DETAILS:										
NO. FISHING TRIPS RECORDED	139	90	93	66	141	102	145	388		
% RECORDED LANDING: OCN	79.2	92.8	77.2	70.4	87.6	59.0	18.3	63.1		
RFF	3.1	1.0	5.9	4.1	2.6	7.9	12.1	6.3		
IGN	17.6	16.0	16.8	25.3	9.6	32.9	69.4	30.5		
AVGE CATCH/TRIP (KG)										
OCN	109.3	97.6	128.7	103.4	94.4	54.4	10.3	53.0		
RFF	8.1	11.3	41.0	8.4	9.0	8.4	40.3	14.8		
IGN	24.3	23.4	45.4	29.2	16.2	21.3	44.6	29.3		
AVGE CATCH/TRIP(KG) BY METHOD										
SCOOP NETS	44.8	27.5	4.0	9.0	-	18.2	87.6	29.7		
HARPOONS	-	-	-	-	-	-	-	-		
BEACH SEINE	-	-	-	-	-	-	-	-		
CAST NETS	10.9	11.4	79.0	8.1	7.5	51.0	6.3	23.1		
SET NETS	62.6	33.0	45.7	43.3	20.7	21.8	78.8	43.5		
DRIFT NETS	-	-	-	-	-	-	-	-		
ENCIRCLE NET	7.2	24.4	10.3	5.6	6.4	14.4	29.7	13.4		
GILL NETS-UN	19.0	-	-	-	23.2	3.1	12.3	19.0		
TUNA P/LURE	-	148.3	150.7	132.9	77.6	92.0	187.4	188.9		
TUNA P/LINE	111.5	114.2	125.3	-	104.5	120.6	164.4	114.1		
LONG (D B) LINE	10.0	-	-	21.1	-	-	17.4	17.4		
HAND LINE-UN	16.5	17.3	85.9	6.4	13.8	15.0	60.0	26.3		
TROLL LINES	133.0	82.5	104.6	103.7	110.6	38.9	139.1	109.5		
COLLECTING	22.2	9.4	21.4	13.0	18.2	6.8	25.2	18.9		
TRAPS	-	-	-	-	-	12.0	-	12.0		

TABLE 2 CONTD.

COMBINED VILLAGE DATA: QUARTERLY

TIME PERIOD/ VILLAGES DETAILS	COMBINED MONTHLY DATA PER VILLAGE									
	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	BAI	BET	BIK	ALL VILLAGES		
5. % OF LANDINGS SPECIES										
CARANGIDS	3.3	8.3	13.0	13.0	2.0	4.3	9.1	6.3		
CLUPEOIDS	-	0.3	-	0.5	0.1	-	0.1	0.1		
CHANIDAE	0.7	0.5	1.8	0.2	0.5	7.1	-	0.9		
EUCETIDAE	-	-	-	-	-	-	-	-		
GERNIDAE	4.5	1.9	0.2	0.6	0.9	5.9	1.8	2.0		
LELENIIDAE	1.1	0.2	0.5	0.4	1.2	0.8	0.3	0.6		
LUTJANIDAE	1.6	2.4	2.8	3.4	0.8	6.0	2.6	2.4		
MUGILIDAE	0.5	1.1	4.0	2.8	-	6.3	2.5	2.1		
MULLIDAE	0.1	-	0.2	0.5	-	0.4	0.2	0.2		
ACOMBOIDEI	-	0.2	0.4	0.9	-	2.7	-	0.3		
SPHYRMOPODEO	73.9	80.6	79.8	67.2	87.3	51.8	76.0	76.5		
SERRANIDAE	-	-	-	0.8	-	-	0.2	0.1		
ELASMORRANCHES	0.1	-	0.4	-	-	0.3	0.2	0.2		
CEPHALOPODS	-	-	-	-	-	-	-	-		
MOLLUSCS	0.2	-	-	-	0.1	0.2	-	-		
CRUSTACEANS	10.0	1.6	2.5	4.6	4.6	2.9	5.4	4.9		
MISCELLANEA	3.2	2.3	0.6	4.3	1.9	10.3	0.9	2.3		

DETAILS. / ISLNAD:	BUTAKETARI	ABAIANG'	N. TARAWA	ARANUKA	ABEMAMA	NONOUTI	TAB.N.	TAB.S.	BERU	TAMANA
NO. FISHING TRIPS RECORDED										
% RECORDED LANDINGS:	OCN 29	42	N/A	5	7	4	70	69	11	64
	RFF 48.6	0.0	22.6	46.3	8.5	0.0	11.6	75.7	56.9	100.0
	LGN 51.3	90.5	75.2	0.0	91.5	100.00	30.4	4.2	39.4	0.0
AVGE CATCH/TRIP (KG)	OCN 69.4	-	-	91.5	119.00	30.4	27.4	29.5	57.1	0.0
	RFF -	32.0	-	70.5	-	-	15.6	11.3	14.5	-
	LGN 44.8	32.1	-	-	33.2	35.1	16.2	12.6	26.4	-
AVGE CATCH/TRIP(KG) BY METHOD										
HARPOONS	54.2	-	-	-	-	-	-	-	14.5	8.0
BEACH SEINE	-	-	-	-	-	-	-	-	-	-
CAST NETS	- 9	-	-	-	-	-	-	-	-	-
SET NETS	54.3	52.0	-	-	-	35.1	56.0	28.1	-	-
DRIFT NETS	-	-	-	-	-	-	-	-	-	-
ENCIRCLE NET	-	34.8	-	-	19.6	-	28.6	11.1	24.3	-
GILL NETS-UN	39.2	47.6	-	-	-	-	-	-	-	-
TRAPS	-	-	-	-	-	-	-	-	-	-
TUNA P/LINE	2	38.5	-	-	-	-	-	-	-	49.8
LONG (D B) LINE	-	18.5	-	79.0	-	-	15.3	18.0	45.5	38.7
HAND LINE - UN	69.9	24.0	-	69.3	62.0	-	43.9	17.4	-	49.0
TROLL LINES	55.0	-	-	98.0	-	-	42.1	28.9	60.1	-
COLLECTING	-	-	-	-	-	-	8.7	-	30.5	-

TABLE 6 CONTD.

DETAILS / ISLAND: % OF LANDING BY SPECIES	BUWASITARI	ARAIANG	N. TARAWA	ARANUKA	ABEMAMA	NONOUTI	TAB. N.	TAB. S.	BERU	TAMANA
ALBULIDS	-	35.8	41.7	-	30.6	7512	117	0.4	-	-
CARANGIDS	13.7	11.8	8.5	2.1	12.9	0.5	4.8	2.9	7.9	3.7
CLUPPEIDS	-	-	0.1	-	-	-	-	-	-	-
CHANIDAE	-	-	-	-	-	-	-	-	-	-
EXOCETIDAE	-	-	-	-	-	-	-	-	3	-
GEMIDAE	2.6	1.3	4.9	-	4.6	5.6	0.7	1.7	2.7	-
IELEHNIDAE	11.0	21.1	0.4	-	5.2	6.1	2.1	1.0	8.7	-
LUTJANIDAE	1.9	11.1	3.0	41.2	3.6	4.3	0.8	1.8	22.9	-
MUGILIDAE'	9.0	0.6	13.9	-	-	0.2	-	-	4.9	-
MULLIDAE	3.2	9.9	4.3	-	8.1	7.7	1.1	1.2	0.1	-
SCOMBROIDEI	28.0	1.7	16.6	24.8	17.8	-	2.9	24.8	14.9	67.2
SPHYRÆNOIDEI	0.7	0.4	-	-	-	-	-	0.7	-	-
SERRANIDAE	3.5	2.1	-	5.2	16.2	-	14.2	1.9	5.9	-
ELASMOBRANCHS	-	-	-	-	-	-	-	-	-	-
CEPHALOPODS	-	-	-	-	-	-	3.3	-	-	-
CRUSTACEANS	-	-	-	-	-	-	-	-	2.9	-
MOLLUSCS	-	-	-	-	-	-	13.7	-	15.1	-
MISCELANIASU	26.0	3.7	6.1	26.4	0.6	-	53.9	62.0	13.4	28.7

TABLE 7: To show the Reported Catches of the Mautari Pole and Line Fleet by Month and Species (metric tonnes), 1986

MONTH+SPECIES/VESSEL:	TOTAL	M	A	K	T	-	-
JANUARY							
-skipjack :	1.4	1.0	0.0	0.4	0.0	-	-
-yellowfin:	22.7	4.1	0.0	18.5	0.0	-	-
-Total :	24.1	5.2	0.0	18.9	0.0	-	-
FEBRUARY							
-skipjack :	1.4	1.0	0.0	0.4	0.0	-	-
-yellowfin:	21.3	3.8	0.0	17.5	0.0	-	-
-Total :	22.8	4.8	0.0	17.9	0.0	-	-
MARCH							
-skipjack :	30.6	0.0	14.9	11.7	3.9	-	-
-yellowfin:	9.7	0.0	3.1	2.1	4.4	-	-
-Total :	40.3	0.0	18.1	13.9	8.3	-	-
APRIL							
-skipjack :	92.0	6.4	30.9	36.8	17.9	-	-
-yellowfin:	56.6	2.9	12.2	26.4	14.9	-	-
-Total :	148.7	9.4	43.1	63.2	32.9	-	-
MAY							
-skipjack :	447.8	51.0	145.0	178.2	73.5	-	-
-yellowfin:	9.8	2.8	1.0	5.1	0.7	-	-
-Total :	457.7	53.8	146.1	183.3	74.3	-	-
JUNE							
-skipjack :	112.8	27.2	38.7	38.1	8.7	-	-
-yellowfin:	23.5	19.0	2.5	0.0	1.9	-	-
-Total :	136.3	46.3	41.2	38.1	10.6	-	-
JULY							
-skipjack :	235.4	74.3	0.0	126.5	34.5	-	-
-yellowfin:	39.6	24.0	0.0	9.0	6.5	-	-
-Total :	275.1	98.3	0.0	135.6	41.1	-	-
AUGUST							
-skipjack :	58.1	20.7	0.0	20.9	16.4	-	-
-yellowfin:	25.5	22.3	0.0	1.4	1.8	-	-
-Total :	83.7	43.0	0.0	22.3	18.2	-	-
SEPTEMBER							
-skipjack :	18.2	14.3	0.0	0.0	3.9	-	-
-yellowfin:	14.8	9.3	0.0	0.0	5.5	-	-
-Total :	33.0	23.6	0.0	0.0	9.4	-	-
OCTOBER							
-skipjack :	39.3	22.8	0.0	16.2	0.3	-	-
-yellowfin:	17.2	11.5	0.0	5.7	0.0	-	-
-Total :	56.6	34.3	0.0	22.0	0.3	-	-
NOVEMBER							
-skipjack :	37.2	20.7	0.1	16.2	0.0	-	-
-yellowfin:	14.1	8.7	0.5	4.8	0.0	-	-
-Total :	51.3	29.5	0.7	21.1	0.0	-	-
DECEMBER							
-skipjack :	10.3	7.7	0.3	2.1	0.0	-	-
-yellowfin:	17.6	10.6	1.0	5.9	0.0	-	-
-Total :	27.9	18.4	1.4	8.0	0.0	-	-
TOTAL(YEAR)							
-skipjack :	1087	247	230	450	159	-	-
-yellowfin:	273	119	20	96	35	-	-
-Total :	1360	367	250	547	195	-	-

TABLE 8

FISH PURCHASES BY MAUTARI (for Tuna) PER MONTH FOR 1986.

DATE	TUNA 4-8 lbs		SKIPJACK 8 lbs		YELLOWFIN 8 lbs		BIG YELLOWFIN - 20lbs	
	Wts	\$	Wts	\$	Wts	\$	Wts	\$
Jan/86	24924	8092.50	1729.5	466.89	7767.25	2174.83	2170	737.79
Feb/86	18939	4355.97	2999	890.73	1395	390.60	416	141.44
Mar/86	25176	5790.48	442	119.35	1213	339.60	1960	666.40
Apr/86	24845	5714.35	3461	934.43	4366	1222.48	5358	1825.12
May/86	81223	18681.29	11470	3096.90	3723.5	1012.58	4771	1622.14
June/86	80004	18406.19	9924	2681.68	62.90	1761.20	9057	3984.50
July/87	472593	10869.57	36882	9958.14	3496	988.88	1924	655.52
Aug/86	25514	5926.60	8960.5	2419.33	1297	360.26	1569	533.46
Sep/86	6148	1761.94	697.5	222.75	826.55	265.89	976	337.24
Oct/86	3280	754.40	582	157.14	452	126.56	905	301.70
Nov/86	2388	549.24	472	127.44	612	171.36	1612	548.08
Dec/86	873	200.79	Nil	Nil	475	133.00	22	7.48
TOTAL:	340573	81043.32	77619.50	20993.82	31903.25	8967.28	30750.	10460.87

8. A SUMMARY OF KCWS SHARKS FIN PURCHASES

8.1. The data relating to shark fin purchases for 1985 is presented since it was not available at the time of uniting the 1985 Annual Report. Table 11 indicates the purchases of sharks fins per island and by grade per month.

A summary appears below: (Table 12)

TABLE 12: SUMMARY OF SHARK FIN PURCHASES FOR 1985

ISLAND OF ORIGIN	VOLUME OF FINS (KG)		TOTAL
	1st GRADE	2nd	
Makin	10.8	45.6	56.4
Butaritari	10.2	37.9	48.1
Marakei	10.3	44.4	54.7
Abaiang	0.0	0.0	0.0
Betio	49.2	188.2	237.4
Maiana	0.0	0.0	0.0
Kuria	16.6	76.5	93.1
Araduka	16.3	37.2	53.5
Abemama	5.5	16.1	21.6
Nonouti	11.9	57.2	69.1
Tab-North	7.3	37.3	44.7

7. A SUMMARY OF MAUTARI FISH PURCHASES AND SALES

7.1. Table 8 indicates the volume of tuna purchased by Mautari from artisanal fishermen. The data is presented monthly, and by fish size, in pounds, since this is the unit employed by Mautari. Data for previous years occurs in the 1985 Annual report, whilst a summary of the 1986 purchases appears below (Table 9).

TABLE 9

SUMMARY OF TUNA PURCHASES FOR 1986

FISH SIZE	VOLUME PURCHASED
'Tuna' 4 - 8 lbs.	154,806
Skipjack 8 lbs +	35,282
Yellowfin 8 - 20 lbs	14,501
Yellowfin 20 lbs +	13,977
TOTAL:	218,566

7.2. A summary of the local sales by Mautari appears below (Table 10).

TABLE 10

TE MAUTARI FISH SALES DURING 1986

SPECIES	VOLUME SOLD	% SOLD	
		BAIRIKI	BETIO
Tuna	58,230	3.0	97.0
Reef fish	104	-	100.0
Milkfish (Xmas)	517	7.3	92.7
Salted Milkfish (Xmas)	80	7.6	92.4
Filleted Morikoi	40	-	100.0
Unspecified	155	-	100.0
TOTAL	59,126	3.0	97.0

TABLE 1: LOCAL PRODUCE/PURCHASES/SHARK FINS

	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		
	A	B	A	B	A	B	A	B	A	B	A	B	
MAKIN	-	-	-	-	16.75	55.75	2.0	27.0	3.75	9.0	0.75	5.0	
BUTARITA I	15.25	-	64.5	15.0	50.0	-	-	-	-	-	-	-	
MARAKEI	15.25	-	64.5	-	-	-	-	-	-	-	1.75	9.78	
ABAIANG	-	-	-	-	-	-	-	-	-	-	-	-	
BETIO	10.75	-	78.25	4.25	20.0	4.75	15.0	11.5	66.75	14.5	67.5	4.25	2.20
MAIANA	-	-	-	-	-	-	-	-	-	-	-	-	
KURIA	10.0	-	56.75	7.0	32.5	-	-	-	6.0	22.5	3.5	17.0	
ARANUKA	5.25	-	32.0	-	-	-	-	-	-	-	5.0	28.0	
ABEMAMA	-	-	-	-	-	-	-	-	-	-	-	-	
NONOUTI	-	-	16.0	72.25	-	-	-	-	-	-	-	-	
TAB NORTH	-	-	-	-	-	-	-	-	-	-	7.0	45.75	
TAB CENTRAL	7.5	-	29.5	-	-	-	8.75	5.0	-	-	-	-	
TAB SOUTH	-	-	8.5	25.5	-	-	2.5	11.5	-	-	-	-	
ONOTOA	51.0	-	183.5	29.0	120.5	-	-	-	11.75	46.0	-	-	
BERU	-	-	8.0	42.5	-	-	-	-	-	-	12.0	5.50	
NIKUNAU	28.5	-	121.0	4.50	18.0	-	-	-	13.0	53.0	-	-	
TAMANA	18	-	65.75	-	-	-	15.5	60.5	-	-	18.0	65.75	
ARORAE	-	-	-	-	-	-	-	-	-	-	63.0	151.0	
A = 1st Grade } B = 2nd Grade }	lbs 156.25	631.25	88.25	381.25	21.5	70.75	49.25	170.75	49.0	198.0	115.25	399.25	

TOTAL 1st 751.5 lbs
2nd 1986.75 lbs

TABLE CONTD.

	JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	A	B	A	B	A	B	8A	B	A	B	A	B
IAKIN			0.5	3.5	-	-	-	-	-	-	-	-
BUTAHITARI					-	-	-	-	-	-	7.5	33.5
IARAKEI			4.25	17.0	-	-	1.5	6.5	-	-	-	-
BAIANG			-	-	-	-	-	-	-	-	-	-
ETIO	19.5	46.0	5.75	23.75	10.25	41.0	5.75	26.0	2.25	10.75	30.75	16.75
AIANA			-	-	-	-	-	-	-	-	-	-
URIA			-	-	5.0	19.5	-	-	5.0	20.0	-	-
RANUKA			-	-	6.0	22.0	-	-	-	-	-	-
BEMAMA			12.0	35.5	-	-	-	-	-	-	-	-
ONOUTI	10.25	53.5	-	-	-	-	-	-	-	-	-	-
AB NORTH			-	-	-	-	9.0	36.5	-	-	-	-
AB CENTRAL			22.0	84.0	-	-	2.5	17.0	-	-	-	-
AE SOUTH			6.0	32.0	-	-	-	-	10.0	32.0	-	-
NOTOA	5.5	37.0	-	-	-	-	16.0	70.0	3.25	16.0	-	-
ERU			-	-	14.75	55.25	-	-	-	-	-	-
IKUNAU	7.0	29.0	-	-	7.5	29.5	-	-	-	-	2.75	10.25
AMANA	21.5	77.0	-	-	11.5	41.5	-	-	10.0	41.5	8.5	32.0
RORAE			23.0	114.0	-	-	-	-	-	-	-	-
	69.75	242.50	74.50	309.50	55.0	214.75	34.75	156.0	30.50	120.25	22.50	92.50

TABLE 12 Contd.

ISLAND OF ORIGIN	VOLUME OF FINS (KG)		TOTAL
	1st	GRADE 2nd	
Tab Central	18.5	64.6	80.1
Tab South	12.3	45.9	58.2
Onetea	52.9	215.0	267.9
Beru	15.8	46.9	62.7
Nikunau	28.8	118.5	147.3
Tamena	16.8	174.5	221.3
Arorae	39.1	120.5	159.6
TOTAL:	352.3	1,323.3	1,675.6

8.2. Exports of sharks fins occurred to Pacific Basin commodities, Sydney, Australia as follows:

TABLE 13: EXPORTS OF SHARKS FINS IN 1985

MONTH	VOLUME (KG)			TOTAL
	1st	GRADE	2nd	
February	101.8		400.00	501.8
July	109.1		509.1	618.2
August	63.6		181.8	245.4
December	40.5		181.8	222.3
TOTAL	315.0		1,272.7	1,587.7

8.3. KCMS also sold some dried milkfish (ex Christmas Island) during 1985. This was sold locally as follows:

TABLE 14: SALT FISH SALES DURING 1985

MONTH	VOLUME (KG)
January,	37.8
May	11.5
June	5.5
August	45.0
October	8.6
November	76.3
December	34.5
TOTAL:	220.6

A SUMMARY OF KCWS SHARKS FIN PURCHASES: FOR 1986

8.4. Table 15 details the sharks fin purchases by island during 1986. A monthly breakdown of this data is not yet available.

TABLE 15 SUMMARY OF SHARKS FIN PURCHASES FOR 1986.

ISLAND OF ORIGIN	VOLUME OF FINS (KG)		TOTAL
	1st	Grade 2nd	
Makin	23.00	109.00	132.00
Butaritari	7.45	34.45	41.9
Marakei	6.34	10.45	16.79
Abaiang	✓	✓	✓
Tarawa	6.34	31.00	37.34
Maiana	0.78	4.34	5.12
Kuria	4.78	18.56	23.34
Aramuka	3.12	10.45	13.57
Abemama	✓	✓	✓
Nonouti		66.67	66.67
Tab North	72.78	144.45	217.23
Tab South	8.00	31.56	39.56
Onotoa	43.34	89.78	133.12
Beru	✓	✓	✓
Nikunau	54.89	26.89	80.78
Tamama	6.23	24.89	31.12
Aradua	58.23	265.34	323.57
	280.94	866.83	1152.11

9. MARINE EXPORTS DIVISION, KERITIMATI.

9.1. The data from this Division was not available at the time of preparing this report.

