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TWENTIETH REGIONAL TECHNICAL MEETING ON FISHERIES
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COUNTRY STATEMENT - KIRIBATI
by

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Introduction

Fisheries Division under the Ministry of Natural Resources and Development is concentrating its effort in assisting the local fishermen, particularly the outer islands, to increase fish production as a source of protein. The surplus fish could be marketed as an alternative to income earning and it includes "cottage" type industries which are part of the fisheries development. The programmes form the basis of the Fisheries Extension Programme carried out by the Fisheries Assistants (FA) based on the outer islands. The activities are as follows:

1. Revolving Fund for Fishing Gears

Fishing gears are ordered in bulk from Taiwan to the Fisheries Headquarter in Tarawa and then distributed to the outer islands including direct purchase from the Tarawa fishermen. The FAs sent requests via CB radio which is scheduled twice a week. The fishing gears are then airfreighted, having all the islands visited by the local airline at a minimum of once a week.

At the beginning of this year monolines, hooks and cooler boxes were received as part of the Japanese Agreement under the Goods and Services arrangement. These were sold as part of the fund and using the Taiwanese price they were valued at less than A\$50,000.00.

Table 1 showed the operating fund with the highest purchase from urban Tarawa. It is discouraging to note that the balance brought forward was \$2,600.00 and knowing the low stock in hand the balance should be around \$50,000.00. This problem arose from the reconciliation process implemented by the Ministry of Finance and Economic Planning at the beginning of the year on all accounts. The process is time consuming and the fund miss allocation is common and therefore the fund shortage. At the moment extra budgetary aid proposal is being prepared to make the shortage.

The programme at the moment therefore is not good and as seen in the Table it is over expended by \$23,000.00. Meanwhile overseas orders can only be paid as soon as part of the \$50,000.00 goods from Japan turned to cash.

2. Boatbuilding

There are about 100 KIR canoes produced since the start of the programme and the demand is increasing even though the price is increasing tremendously as displayed in Table 2. The project therefore demonstrated its usefulness due to its smooth implementation which therefore concluded the first phase.

The beginning of the year marked the implementation of the second phase. The UNDP Boatbuilding Consultant Mr. Mike Savins is on attachment with Kiribati who assisted in the hiving off of the project to the private sector to cater for the increasing demand. The Fisheries Division boatbuilding project will mainly concentrate on the research and development.

A private importing agent will order the required boatbuilding materials after receiving 25% deposit from the fishermen. When the goods arrive the fishermen will pay the full cost. The importing agent can assist in delivering the materials to the boatbuilder. There are three certified boatbuilders in Tarawa and the fisherman will choose his builder and to organise payment for the labour. A booklet on the above arrangements are widely circulated to the island councils, FAs, Development and commercial banks and the concerned importing agent. The fishermen at a later stage can use other importing agents or privately if necessary. The advantage of the bulk order is on the cheap supplies.

The Fisheries Division will assist the outer island boatbuilders including Kiritimati in the Line Group as part of its extension.

3. Statistics

The ICO Fisheries Officer, Dr. Chris Mees, left at the end of his contract in June and the post now is taken over by the local counterpart Mr. Being Yeeting.

The programme of the unit will continue the questionnaire survey at programmed intervals. South Tarawa will be surveyed yearly while most of the outer islands will be five year intervals.

As a comparative measure the actual fishing data is collected from fishermen at landing areas. A gillnet trial is also carried out by the unit inside the Tarawa lagoon since the beginning of the year.

4. Seaweed

The major seaweed species, Euchema spinossum, is grown by the farmers for export. Table 3 showed the 1988 update production of 15 mt. which will equal to last year's production of 30mt. if projected. However there are signs of better performances as various outer islands are entering the production stage. Both Abaiang and Abemama are outstanding of 7mt each, as compared to other islands.

The world price of seaweed continues to decline due to the high Phillipine production. The future of the industry therefore is very uncertain and particularly if the Coast Biologicals Ltd. in New Zealand decided not to bother taking the Pacific seaweed. Also the low price offered is lower than the copra price which at this stage is discouraging to the farmers.

A shipment of 15mt was made in May to Coast Biologicals and a further 15mt to be sent this month.

The NZ sponsored Seaweed Manager is yet to arrive and therefore the programme is still very much part of Fisheries Division work. Further market developments will await the arrival of the manager.

5. Fish Farming

Table 4 showed the input and output activities which involve the fertilisation trials using chicken manure, fish (tilapia) use as fertiliser, copra cake and leaves using 'te mao' and 'te ren'. Experiments involve the different mixings of chicken manure and chopped tilapia which were left for about 2 months to boost the lab-lab growth. The lab-lab is further mixed with chopped leaves of 50:50 before it is applied to the ponds. The copra cake is mixed with the exported fish meal and applied through the feeder drums.

A total of 71,377 fry were collected for the period of Jan to May which were received from Nonouti (13,500) and North Tarawa (57,777). This figure is not shown in the Table but form part of the fingerling.

The output table showed the total harvest of the farm at 5.5mt, an average of over one metric ton per month, the main bulk of which is foodfish. This sales figure will be greatly reduced due the cancellation of the Air Nauru flights.

Plans are already under way to hive off the project to the National Fishing Company, Te Mautari Ltd. (TML), probably late this year as a result of the much disputed EEC consultancy since it was in conflict the former study prepared by the Kiribati officials.

6. Experimental Fishing

The programme includes the testing of various fishing techniques around the fish aggregating devices (FAD). In October 1987 a Regional SPC FAD Workshop held in Tarawa deployed two FADs: one lasted 12 days the other 6 months. Fisheries Division has deployed 10 FADs in the last 12 months and only 4 are still surviving. Causes of loss were due to currents, design faults, and some unknowns including vessels run down. Under the programme a further 26 FADs will be deployed over a period of 3 years.

The FAD materials received funding from USAID through FFA and the New Zealand Government. The experimental fishing trial is funded by the Canadian Government.

The unit is also involved with the training of the fishermen under the Outer Island Commercial Project operated by the TML. A fleet of ten Kir 4 canoes equipped with trolling booms and five Hartley skiffs are being located on two outer islands, Abemama and Butaritari. The training at the latter island was completed last month while the former island is to start in August. A trolling manual prepared by the unit is also used during the training.

The programme will concentrate on improving the viable fishing techniques which could afford local capabilities.

SUMMARY AND FURTHER DEVELOPMENTS

With the semi- or total privatisation of the various projects, the Fisheries Division will continue to assist particularly the outer island involvements as part of its extension programme.

In seaweed growing the FAs will continue the planting demonstrations and quality control.

In fish farming there is a common interest on all the outer islands to associate the causeway construction with the fish ponds construction mainly to utilise the trenches caused by the digging or the enclosed area between the land and the causeway. The Northern Line Islands are also requesting the similar assistance particularly Washington Island where the ocean fishery is inaccessible for most part of the year. The inner lake requires intensive fish farming.

Generally there is renewed interest on research requirements. The rehabilitation of the locally based USP Atoll Research and Development Unit will play an important role in this on the long term research projects as the Fisheries Division will only deal with the short term developmental research. USAID is forthcoming with support funds while other Universities are earmarked to participate.

Table 1

EXECUTIVE 1988 Also gives current state
SUMMARY OF INCOME TO REVOLVING FUND FROM of income and
ALL ISLANDS TO DATE/FOR THE YEAR expenditure

ISLAND	INCOME BY MONTH		
Makin	\$772.96	JAN	\$3,044.31
Butaritari	\$457.62	FEB	\$1,786.08
Marakei	\$0.00	MAR	\$1,011.53
Abaiang	\$497.65	APR	\$2,528.89
N Tarawa	\$502.17	MAY	\$3,183.51
S Tarawa	\$9,823.67	JUN	\$3,337.24
Maiana	\$271.86	JUL	\$1,339.06
Kuria	\$346.58	AUG	\$0.00
Aranuka	\$408.50	SEP	\$0.00
Apemama	\$0.00	AUG	\$0.00
Nonouti	\$401.46	NOV	\$0.00
Tab N	\$0.00	DEC	\$0.00
Tab S	\$216.18		
Onotoa	\$922.36		
Beru	\$1,291.37		
Nikunau	\$290.74		
Tamana	\$18.50		
Arorae	\$9.00		
Banaba	\$0.00		
Line	\$0.00		
TOTAL INCOME ALL ISLAND	\$16,230.62	TOTAL	\$16,230.62
B/F FROM LAST YEAR			
LAST YEARS END BALANCE	\$2,601.50		
EXPENDITURE THIS YEAR	\$41,764.92		
BALANCE	(\$22,932.80)		

Table 2

ESTIMATED COSTINGS OF CANOES
UNDER PRIVATIZATION

DESIGN	BOAT BUILDERS LABOUR	SAIL RIG	SAIL MAKERS LABOUR	MATERIALS FROM BETIO HARDWARE	TOTAL APPROX COST
KIR 3	\$300.00	7M2 Lateen	\$22.00	\$1,000.00	\$1,322.00
KIR 4	\$500.00	15M2 GUNTER MAINSAIL & JIB	\$68.00	\$2,600.00	\$3,168.00
KIR 4	\$500.00	9M2 AUXILARY GUNTER SPRIT	\$32.00	\$2,300.00	\$2,832.00
KIR 5	\$1,000.00	17M2 GUNTER MAINSAIL & JIB	\$75.00	\$4,000.00	\$5,075.00
KIR 6	\$250.00	5M2 LATEEN	\$18.00	\$700.00	\$968.00
KIR 7	\$160.00	3.5M2 LATEEN	\$15.00	\$500.00	\$665.00
KIR 8	\$500.00	15M2 GUNTER MAINSAIL & JIB	\$68.00	\$2,300.00	\$2,868.00

N:B KIR 3 IS A VEE BOTTOM TWO MAN PADDLING CANOE

RECOMMENDED OUTBOARD ENGINE SIZE

KIR 3. 2HP SHORT SHAFT

KIR 6. 2HP SHORT SHAFT

KIR 7. 2HP SHORT SHAFT

KIR 8. 4 TO 10HP LONG SHAFT

Table 3

SEAWEED MONTHLY PRODUCTION FOR 1988

DATE	BUTARI-	ABAIANG	TARAWA	ABEMAMA	ARANUKA	BERU	TOTAL	
	f	kg	f	kg	f	kg	f	kg
JAN			11453.5	93.4				1546.9
		30	6					36
FEB			11627.0	92.3	922.5			2641.8
		29	2	8				39
MAR	171.1		11451.5	1202.0	989.6			2714.2
	11	36	4	13				54
APR			11425.5	1505.1	11794.7		1151.0	3876.3
		32	11	15		5		63
MAY			913.5		13262.6			
		24		19				
JUN								
JUL								
AUG								
SEP								
OCT								
NOV								
DEC								
TOT	171.1		16871.0	1892.8	16969.4	10.0	1151.0	14955.3
AL	11	1127	123	155	0	15	1192	

f = No. of farmers

Table 1

MONTHLY ACTIVITIES TEMAIKU FISH FARM

INPUT

	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUGUST	SEPT	OCTOBER	NOVEMBER	DECEM	TOTAL
Fingerling (pieces)	55049	72730	31633	13910	21200	2200							196722
Chicken manure(kg)	446.5	1674.6	2086		2565	0							16772.1
Copra cake (kg)		280	104.6	210	190	250							11034.6
lab-lab (kg)						0							
Leaves (kg)		400				0							400
Poison	0.8	1			58.2	0							60
Fish-special (litres)													
Mullet (pieces)	126	300	1186			0							1612
Compositing leaves(kg)			1449										1449

OUTPUT	Jan	Feb	Mar	Apr	May	JUNE	JULY	AUGUST	SEPT	OCTOBER	NOV	DEC	Total
Foodfish(kg)	693.2	619.8	636.0	724.8	1121.2	176.9							3795.0
Tilapia(kg)	5.0	279.8	141.5	220.4	163.5	127							810.2
Bait(kg)	385.0			420.0		210							805.0
Other fish (kg)	11.8	3.5	13.2	44.4	19.8	0							92.7
Morikoi		7.9				0							7.9
Total	11095.0	911.0	790.7	1409.6	1304.5	513.9	0.0	0.0	0.0	0.0	0.0	0.0	15510.8