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**SOUTH PACIFIC COMMISSION**  
**TWENTIETH REGIONAL TECHNICAL MEETING ON FISHERIES**  
**(Noumea, New Caledonia, 1 – 5 August 1988)**

**COUNTRY STATEMENT – SOLOMON ISLANDS**

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ABSTRACT

The paper outlines a number of recent developments in fisheries in the Solomon Islands. These include:

- (i) the commencement of operations of two 500 tonne (t) tuna purse seiners owned by the Government;
- (ii) the construction of a new fisheries headquarters building in Honiara;
- (iii) recent developments in the nation's domestic tuna industry;
- (iv) the commencement of a seaweed farming project;
- (v) a project to survey and develop deep water fish resources; and
- (vi) a project to determine the effect of baitfishing on coral reef fish communities.

## **1. INTRODUCTION**

Solomon Islands comprises some 800 islands with a land area of about 28,000 km<sup>2</sup>, extending over 1,400 km in the equatorial western Pacific Ocean. The islands are located in 2 archipelago's (the Main Group Archipelago and Temoto Archipelago) between latitudes 5° and 13° south and longitudes 155° and 168° east.

With the declaration in 1978 of a 200 nautical mile Exclusive Economic Zone (EEZ), Solomon Islands laid claim to an area of surrounding ocean of 1.3 million km<sup>2</sup>, some 46 times the land area.

The climate is equatorial with minimum and maximum temperatures of 23°C and 32°C respectively. Average annual rainfall is 3,000-5,000mm. Relative humidity is generally in the range 75-95%. East to southeast winds (trades) are usual from May to October, and West to Northwest winds from about January to March.

The population numbers some 285,176 (November 1986 census) most of whom are indigenous to the islands. Two-thirds of the people reside in the main islands of Malaita, Western Province and Guadalcanal. Most live in small scattered villages along the coast. The average population density is 9 persons per km<sup>2</sup> and the current population growth rate is about 3.5% per year. The capital city is Honiara on Guadalcanal with a population of 30,413 (November 1986 census). Each of the other urban centres has less than 2,000 inhabitants. The existing demographic structure acts as a major constraint to the development of an integrated market economy in the country.

The economy is mainly agrarian with more than 80% of the population living in rural areas. Fisheries, forestry and livestock account for 70% of gross domestic production, about one third of formal employment and almost all exports. Subsistence production is also important. Two-thirds of rural households are engaged in coconut production and most of the villages on the coast are engaged in part-time fishing.

## **2. THE FISHERIES SECTOR**

The fisheries sector has grown steadily in importance since early 1971 when commercial tuna fishing operations began to become today the nations largest single employer and earner of foreign exchange. Two distinct sub-sectors exist; the commercial tuna fishery, based on pole and line and purse seine fishing for surface tunas, plus foreign access longlining (and some distant water pole and lining), and the rural or artisanal (reef based) fisheries sub-sector.

### **3. GOVERNMENT POLICY STATEMENT FOR THE DEVELOPMENT OF THE FISHERIES SECTOR**

To develop and manage in cooperation with the provincial governments (where applicable) the exploitation of all fisheries resources found within the fishery limits in such a manner as to secure optimum social and economic benefits for the people of Solomon Islands.

Specific objectives:

1. To achieve and maintain self-sufficiency in the supply of fish to the domestic market by reducing current wastage and spoilage losses and by increasing the levels of both commercial and subsistence production.
2. To improve cash income throughout the fisheries sector.
3. To increase fishing and fisheries-related employment opportunities in the provinces.
4. To maximise participation of Solomon Islands nationals in commercial fishing and associated activities such as shipbuilding, transport and other services.
5. To improve the foreign exchange position of Solomon Islands by import substitution, other savings in foreign expenditure, and increased export earnings from the sale of fish and fish products to overseas markets.

#### **4. STATUS OF CURRENT DEVELOPMENT PROGRAMMES**

##### **4.1 Artisanal sector**

The Solomon Islands Government (SIG) is promoting an integrated approach to the development of rural fisheries through:

- a) The strengthening of existing extension services;
- b) Support to community fishing groups based on these centres;
- c) The construction of efficient fishing boats, trials and demonstration of fishing operations;
- d) The promotion of processing and marketing of reef fish catches in rural areas; and
- e) The development and demonstration of deep bottom fishing operations.

The rural fisheries divisions of the seven Provinces have continued to provide services to rural fishermen - sale of ice, hire of iceboxes, sale of gear, fish marketing and transport. In some cases, however, there is a trend away from direct involvement in buying and selling fish.

The Fisheries Division of the Ministry of Natural Resources, Honiara, is seeking to strengthen its extension and marketing services, and the management and operation of the nine Provincial Fisheries centres and nine sub-base facilities. The devolution of responsibility for small scale fisheries to the seven Provincial Governments has resulted in staffing and communication problems in some cases. Although most Provinces would like to establish additional facilities, the Fisheries Division favours consolidating the functioning of the existing centres.

An example of this approach has been the replacement and repair of refrigeration equipment with Australian aid funding. This programme is nearing completion, having been implemented by the Division's four refrigeration mechanics.

A UNDP project to establish a suitable design of inshore fishing boat has developed a 7.8 metre sailing trimaran. Two small boatbuilding businesses have been established to build these, and programmes are in the pipeline to construct 24 more for fishing groups based on six Provincial Fisheries Centres.

Deep water bottom fish are seen as a resource with considerable development potential. Little of the estimated 500t/yr TAC is presently being harvested. It is proposed that this resource should be exploited by local inshore vessels, and the viability of this approach is being investigated by an OFCF project.

There is an active private sector trade in the miscellaneous marine products, particularly Trochus (434t in 1987 valued at \$2M) and Beche de Mer (146t for \$1M). Exports of miscellaneous marine products for the years 1976 to 1987 are given in Table 1.

#### **4.2 Industrial Fisheries**

Industrial fishing activity is based upon domestic surface fisheries for skipjack and juvenile yellowfin using pole and line and purse seine vessels. The commercial tuna fishing industry is the major single employer and earner of foreign exchange in the country, accounting for over SI\$57 million in 1987. In addition, a night time baitfishery provides suitable baitfish for the pole and line fleet which generated close to SI\$1 million in 1987 for rural 'reef owners' in the form of direct royalty payments for access to fish on near reef areas.

Two commercial companies are currently involved in the industry: Solomon Taiyo Ltd (STL), a joint venture company between SIG and Taiyo Fishing Co. of Japan, and National Fisheries Developments Ltd. (NFD), a 100% Government owned company. This company was originally established in 1978 to build and operate a fleet of pole and line vessels. NFD currently operate ten 88-120t ferro-cement vessels, plus one 78t GRP and one 122t steel pole and liner, the latter two of which were provided under Japanese aid. STL operate 22 vessels, of which 12 are foreign charter vessels from Okinawa. A single 173t pole and liner belonging to Naficot Ltd of Tuvalu also operates under license.

The Government has given high priority to the development of a programme whereby NFD undertake to operate the two new 500t purse seine vessels. A UK funded consultancy to advise on management options and strategies was recently completed. The first vessel, Solomon Premier, commenced operations in April, 1988, and the second, Solomon Chieftain, began fishing in June. Both vessels are now catching fish well beyond expectations.

For a variety of reasons, NFD has found difficulty in achieving financial profitability, and plans are in hand to remedy the company's poor trading position, including mechanical alterations to existing pole and line boats (installation of freezing facilities, more fuel-efficient engines etc.). It is hoped that the addition of the two new purse seiners to NFD's fleet will increase catches and profitability. Management are also considering selling off the older, smaller and least successful pole and line vessels to private investors.

In addition to STL's group seiner operations (which operate mostly around approximately 80 anchored Fish Aggregation Devices) and NFD's two 500t pursers, a 1,000t foreign purser is operated on charter to STL for fishing in the 200 mile zone and there are plans by both companies to operate joint pole and line/purse seine operations (similar to southern bluefin fishery operations) with 300t purse seiners in the near future.

With the entry into force of the Multilateral Fishing Treaty with the United States of America, US superseiners are also permitted to fish in a restricted zone in the north-east corner of the Fishery Limits.

An earlier attempt at a sashimi tuna long line fishing operation by NFD using two Japanese design longline vessels was terminated due to financial non-viability. The vessels were sold to a New Zealand company in 1986.

In early 1988, construction of a new cannery at Noro fishing base in the Western Province began. This cannery, when fully operational, will utilise 20,000t of raw material/year and will produce up to 1.3 million cases of tuna, mostly for the export market.

#### **4.3 Foreign access vessels**

Currently, only Japanese flag longliners and pole and liners operate within the Solomon's EEZ, but are excluded from all Territorial Seas and Archipelagic waters. Japanese longliners catch on average less than 4,000t per year of sashimi grade tunas; pole and liners catch under 1,000t of skipjack and juvenile yellowfin in any one year. A Total Allowable Catch (TAC) of 8,500t is in force for the longline fishery.

The Access Arrangement with Japanese fishing associations is currently under review, and a first round of negotiations to improve the present arrangement were held in June 1988. Discussions have also been held during 1988 with the Korean Deep Sea Fisheries Association with a view to re-newing access for Korean flag vessels, which would longline predominantly for the canned fish market.

The Government has established a guideline TAC of 75,000t for tuna which it has partitioned into an offshore zone (beyond the 12 mile Territorial Seas limit) accessible to foreign fishing vessels and archipelagic zones which are reserved for Solomon flag pole and line fishing vessels.

#### **4.4 Aquaculture**

The International Centre for Living Aquatic Resources Management (ICLARM) has established, in collaboration with SIG and the Guadalcanal Provincial Government, a Coastal Aquaculture Centre to the west of Honiara to undertake research on the cultivation of giant clams as the initial research objective, and forms the Indo-Pacific component of the International Giant Clam Mariculture Project. The Centre is also the new seat of ICLARM's South Pacific office.

It is intended that rural reef owners will become increasingly involved in ocean nursery/grow-out aspects of this work, with a view to ultimately providing income earning opportunities for rural 'clam farmers'. Other activities will be identified as priorities and funding dictate.

During 1987, a proposal was made by an Australian company, Reef Mariculture Ltd., to import and on-grow juvenile tridacnid clams in the country. However, in line with the quarantine recommendation made in RTMF No. 17, which restricts and controls the free movement of tridacnid clams between countries, this proposal was rejected. Solomon Islands possesses substantial stocks of most species of tridacnid clam, and these were considered to be potentially threatened by the proposal to bring clams in from the Great Barrier Reef area, where large scale clam kills have depleted stocks in recent years.

There is a successful small prawn farming venture which is supplying increasing quantities of penaeid prawns mostly to domestic markets; initially set up to culture the freshwater prawn, Macrobrachium rosenbergii, emphasis has shifted to Penaeus monodon.

A British funded project has recently been implemented to promote the development of a small scale Eucheuma seaweed farming industry, based in the Western Province. Recent changes in marketing opportunities are being viewed with concern.

#### **4.5 Research and Management**

A collaborative research programme to determine, amongst other things, the effect of commercial baitfishing activities on coral reef fish communities began in January 1987. This work is being conducted jointly with scientists of the Commonwealth Scientific Industrial Research Organisation (CSIRO) of Australia, with funding from the Australian Centre for International Agricultural Research (ACIAR). Results to date have indicated that the major baitfish species in Solomon Islands are much less important in the diet of reef fishes than is generally supposed. Data on growth rates, spawning periodicity, species composition of the catch and mortality rates are also being compiled. The project will finish at the end of 1989, and will indicate what management measures, if any, are required to ensure the continued healthy state of the baitfishery. A book detailing the major fish of the Solomons is also planned.

As part of this collaboration, Solomon Island nationals are undertaking applied training in laboratory analytical techniques in Australia, and this has been of great benefit in building up national skills in applied fisheries research. The Republic of the Maldives is also partaking in the project, as an important baitfishery for the domestic tuna fleet exists there. It is possible that the Republic of Kiribati will also join this project in the near future.

The Division's fisheries observer programme recently expanded with the 'signing on' of three new observers. An observer manual has been developed by the Division, with assistance provided by Richard Farman of SPC during a course held at Fisheries Headquarters in 1986.

The Division's data processing capability was enhanced in 1987 with the acquisition of a further two HP 150II micro-computers, bringing the total to four, and an HP Vectra, plus peripherals. A further two Vectras are expected this year. The production of purpose written software for the collation and analysis of fisheries data has continued steadily over the past three years. National staff training 'on the job' and on local courses aimed at improving computer literacy continues to be a high priority within the Division. It is hoped that three staff members will attend the SPC/FFA computer training course in Noumea, early in 1989.

#### **4.6 Fisheries infrastructure upgrading**

The Fisheries Division will be moving to new offices around about September this year. The new office complex, situated on the shore at Kukum, east Honiara, has been funded by the Australian International Development Assistance Bureau (AIDAB), and will facilitate a much needed up-grading in the office space available to the Fisheries Division at present. As part of this project, a new sub-station will also be constructed at the fast developing port of Noro in the Western Province. The Division urgently needs a physical presence at Noro in order to check catches, logsheets, carry out extension services/research etc.



#### **4.7 Legislation and Licensing**

A draft of a new Fisheries Act and associated legislation was recently prepared with the assistance of the FAO legal department. The Act would bring the Solomon Islands into line with regional agreements on fisheries, as well as taking account of the Provincial Government system and customary reef ownership. Enactment of this work is awaiting the outcome of a Review of the Provincial Government System and the findings of a recently set up Constitutional Review Committee.

#### **4.8 Fisheries training**

The Fisheries Division is cooperating with the Solomon Islands College of Higher Education in running 19 week multi-disciplinary courses for Fisheries Assistants. The first course ran from July to December of 1986, and has been repeated annually. A limited number of places is available each year to fisheries personnel from other countries in the Region.

Another course initiated this year is the Restricted Fishing License. This nine week course leads to certification necessary for operating small inshore fishing boats. The first course was attended by 6 trainees sponsored by the Fisheries Division and a further 8 self sponsored.

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Table 1

## MARINE EXPORT 1976-1987

PRODUCTS		1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	GRAND TOTAL
Frozen Fish	(Kg)	11,600,955	9,826,000	10,326,811	23,430,059	21,530,910	23,720,720	15,260,784	18,727,398	33,228,994	27,350,457	39,564,849	26,479,839	261,047,776
	(SI\$)	5,965,106	6,375,318	4,978,596	14,587,621	19,756,894	19,047,398	9,886,105	18,076,438	25,126,288	27,661,766	46,889,617	42,972,734	241,323,881
Salted Fish	(Kg)	140,000	106,000	222,800	141,750	187,170	70,275	296,600	209,940	154,589	211,905	225,576	313,500	2,282,105
	(SI\$)	225,252	388,301	721,296	438,134	781,082	344,601	1,246,110	891,685	609,736	726,816	1,231,989	2,493,022	10,098,034
Canned Fish	(Kg)	672,019	653,591	666,055	760,941	771,961	752,400	839,340	839,975	900,600	936,700	930,145	1,200,130	10,023,856
	(SI\$)	1,194,898	1,520,244	1,581,015	1,905,728	2,641,471	2,573,256	2,933,502	2,271,504	3,100,871	3,565,720	4,256,042	7,114,364	34,658,415
Beche-der-mer	(Kg)	29,621	39,161	34,484	9,629	36,538	7,981	17,273	9,259	44,291	13,616	134,184	146,376	522,413
	(SI\$)	46,495	79,517	72,390	22,475	85,402	60,463	112,162	51,755	251,872	74,880	733,793	939,533	2,530,737
Trochus Shell	(Kg)	566,497	400,576	285,979	308,505	369,715	399,785	340,210	392,970	468,700	499,903	662,346	445,216	5,120,402
	(SI\$)	181,519	167,712	136,141	169,521	209,833	309,992	272,829	313,908	533,967	768,232	1,008,911	2,046,169	6,117,634
Green Snail	(Kg)	24,871	10,818	15,177	9,497	9,284	6,660	6,275	22,145	5,090	4,927	7,441	4,476	126,661
	(SI\$)	15,472	8,034	18,826	12,488	12,179	14,850	11,215	49,512	12,336	20,177	27,869	38,528	241,485
Black Lip	(Kg)	11,057	6,466	6,133	12,410	7,043	9,058	21,230	14,456	42,376	14,903	31,157	28,301	204,580
	(SI\$)	4,032	3,416	3,378	9,631	4,001	5,965	13,978	10,167	67,950	26,322	63,479	186,472	398,791
Brown Lip	(Kg)							50	2,270	3,570	2,400	6,520	4,887	19,897
	(SI\$)							50	1,617	3,523	4,032	10,965	13,042	33,229
Gold Lip	(Kg)							5,000	3,523	1,700			5,974	16,197
	(SI\$)							3,300	2,556	11,993			54,714	72,563
Green Lip	(Kg)							600						600
	(SI\$)							396						396
Other Shell	(Kg)	2,934	219	426	10,747	9,930	8,588	5,628	22,151	5,090	4,996	6,875	10,566	88,150
	(SI\$)	1,390	224	1,921	86,118	100,332	72,130	31,655	83,794	63,906	56,803	89,307	142,429	729,999
Turtle Shell	(Kg)	N/A	1,343	745	771	N/A	564	450	878	1,844		1,841	2,432	10,868
	(SI\$)	6,368	10,717	11,802	14,006	13,148	15,767	38,117	22,207	25,164		44,198	168,104	370,598
Scodile Skin	(Ins)	N/A	570	N/A	32	N/A	N/A	3,467	N/A	N/A	N/A	N/A	6,445	10,514
	(SI\$)	5,466	8,480	1,601	2,326	1,869	7,287	20,039	36,602	14,516		10,873	32,093	143,152
Clam Shell	(Kg)	300		25,484		30	N/A	155	10,244			60		36,273
	(SI\$)	300		5,065		140	20	55	68,826			80		74,486
Shark Fin	(Kg)		1,418	121	68								4,456	6,063
	(SI\$)		3,845	523	205								134,842	139,415
Total:	(Kg)	635,280	460,001	348,549	351,627	432,540	432,636	396,871	477,896	572,661	540,745	850,424	652,684	6,151,914
	(SI\$)	261,042	281,945	251,647	316,770	426,904	486,474	504,796	642,834	985,226	950,446	1,989,475	3,754,926	10,852,485