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NINETEENTH REGIONAL TECHNICAL MEETING ON FISHERIES

(Noumea, New Caledonia, 3-7 August 1987)

COUNTRY STATEMENT - GUAM

GUAM'S COUNTRY PAPER
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The fisheries industry contributes less than 1% to Guam's Gross Island Product. The potentials and constraints, along with development programs for fisheries, have been identified in the planning document, "Territory of Guam Fisheries Development and Management Plan".

Fisheries has a long history on Guam. However, it was based on a subsistence fisheries until the early 1970's. Until 1978 there was no centralized mechanism for fishermen to market their catches. This hampered development of fisheries, since there was the uncertainty of a market at the time of catch, thereby necessitating considerable effort on the part of fishermen to market their catch. In 1978 the Guam Fishermen's Cooperative Association was formed to provide this centralized marketing facility and to stabilize the variations between supply and demand. Despite the numerous problems encountered by the Coop in fulfilling its objectives it has provided the needed stabilizing base to channel the fishermen's catch through to the various local and export markets. The Coop has freed fishermen from the double role of fisherman and marketing agent.

The production and value of the total catch by Guam's fishermen is presented in the Table below. This includes the catch of subsistence, recreational and sport fishermen as well as the domestic commercial fishermen. A recent study has shown that 25 - 30% of the catch does not enter commercial markets and is given to relatives and friends or consumed by the fishermen; therefore, a large portion of the catch indicated never reaches a commercial market.

Creel Survey Estimated Islandwide Catch Data
(Calendar Year - Weight In kg)

SPECIES	1983	1984	1985
Mahimahi	67,032	22,006	43,915
Skipjack Tuna	42,290	119,210	58,064
Yellowfin Tuna	28,200	42,319	50,431
Great Barracuda	2,911	3,098	4,135
Wahoo	39,698	31,913	78,426
Blue Marlin	11,658	27,445	27,974
Dogtooth Tuna	671	397	3,800
Assorted Reef Fish (a)	56,383	100,441	126,978
Assorted Bottom Fish	23,161	25,108	41,237
Other (b)	14,337	14,207	20,045
Total Weight	286,341	386,144	455,005
Total Value (\$5/kg)	\$1,431,705	\$1,930,720	\$2,275,025

Source: Division of Aquatic and Wildlife Resources, Department of Agriculture.

- (a) "Assorted reef fish" category contains the combined weights of reef fish species (excluding marine invertebrates) from both the offshore and inshore fisheries on Guam.
- (b) "Other" category includes catch estimates for marine invertebrates and some fish species caught by infrequently used or rare methods.

Guam's fisheries industry can be divided into two categories: 1) the large-scale fisheries consisting mainly of tuna purse-seiner vessels and long-line vessels; and 2) small-scale fisheries, comprised of the domestic commercial fishermen.

The small-scale domestic fishery is functionally limited to the resources within an approximate 50 mile radius of Guam due to limitation in vessel size and equipment. The domestic motorized boating fleet is dominated by vessels of smaller size. This restricts the range and duration of fishing activity per trip. Subsequently the resources within this radius receive greater harvest pressure. The predominate use of gasoline outboard motors as opposed to diesel inboard propulsion raises the operating costs of vessels while increasing speed. The

sacrifice of cost and efficiency for speed and small size is characteristic of a part time commercial fishery where participants have alternate employment and fish only weekends, holidays, and after working hours.

The National Marine Fisheries Service (NMFS) conducted a resource assessment of the bottom fisheries within Guam's and CNMI's waters. The survey indicates that Guam's bottom fish resource has nearly reached its maximum sustainable yield potential. Seamount fishery stocks are very important to the development of local fisheries. Research is being carried out by the Marine Laboratory (UOG) on seamounts in Guam's waters which may lead to the enhancement of the domestic fisheries. In addition, a proposed remote sensing study to locate potentially unidentified seamounts could help expand the domestic fishing grounds. The domestic commercial fisheries faces rather limited further expansion without an increase in fish stocks, identification of new resources or fishing grounds, development of new or improved fishing methods, or enhancement of stocks through habitat improvement or restocking practices.

Development of the charter boat fishery targeted towards serving Guam's large tourism sector is another area that has potential if properly promoted and marketed. Promoting the interest of sport fishing clubs in Japan and tying in with the tour packages from Japan should be explored.

The large-scale tuna purse-seine fleet based in Guam consists of eight ships belonging to Zee Enterprises. Additional purse-seiners off load or reprovision at the Commercial Port. Transshipment of tuna (Table below) through the Commercial Port has fluctuated widely. The decrease in transshipment starting in 1983 is attributed to vessels moving their transshipment operations to Tinian, where tuna

is transshipped to U.S. canneries in American Samoa and Puerto Rico. Shipment from Tinian allows carriers to avoid the requirement of shipping between U.S. ports on U.S. carriers as defined by the Jones Act. The Jones Act does not apply to the CNMI so lower cost foreign carriers can be utilized in transshipments from the CNMI. The main economic impact of the purse-seiners on Guam is that from reprovisioning, fuel, repairs and leave for the crew. This has been estimated to amount to be \$70,875 (U.S. vessels) and \$23,825 (Foreign vessel) per port of call exclusive of fuel costs. Based on port calls presented in Table 8 such reprovisioning and associated expenditures resulted in first round economic impacts of approximately \$16.3 million per annum (1985) on Guam.

Tonnage of Tuna Transshipped at Guam Commercial Port

1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
<u>Tuna Transshipped (metric tons)</u>										
9,494	12,391	14,598	13,420	8,929	11,506	24,926	23,248	14,511	2,216	4,027
<u>Port of Calls by Fishing Vessels</u>										
	189	221	267	313	283	268	333	348	326	215

Source: Guam Port Authority

Guam's geographic location and developed infrastructure has resulted in continued economic benefits from port calls and provisioning despite the world wide slump in the tuna industry. The major deciding factors in the future development of the large scale tuna industry on Guam are outside its sphere of influence. This relatively mobile industry is influenced by world markets, exchange fluctuations, international law and resource abundance in the harvest of a migratory species.

Guam homeports 27 longliner fishing vessels from Miyazaki, a fishing port on Honshu, Japan. Guam Kashyu, Inc., the only firm that operates the longlines out of Guam has expand two-fold since it started operating in August 1986. These vessels are relatively small, with a crew of about six aboard each vessel. The vessels averages from about 19 to 59 tons and operates out of Guam all year around. The Guam-based vessels use longlines that stretches out 35 miles or more, and hauls in 8 to 12 tons of fish (mostly tuna) per vessel. The operation of 27 longliner vessels is manned by approximately 150 fishermen. Out of the daily catch of 8 to 12 tons per vessel, about 5 to 10 tons are flown directly to the Tokyo market where it sells for approximately \$6.00 per pound.

The SPC Tuna and Billfish Assessment Program even though it has not included work in Guam's waters does benefit Guam indirectly through the collection of scientific information that assists Guam in evaluating and formulating its fisheries management programs.