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SOUTH PACIFIC COMMISSION

SIXTH TECHNICAL MEETING ON FISHERIES

Suva, Fiji, 23 - 27 July 1973

CURRENT FISHERIES PROJECTS IN AMERICAN SAMOA

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ABSTRACT

The fisheries program of American Samoa is administered by Office of Marine Resources, Government of American Samoa. Present staff includes 6 biological, 22 technical, and one clerical personnel, plus 11 VISTA volunteers. Facilities consist of office, small laboratory, dock space, 50' survey vessel, 28' training vessel, 24' gear research vessel, 2 skiffs, and 50 acres of culture ponds.

Six current interacting projects include: 1) local fleet development (boatbuilding, gear research and development, fisheries training, marketing services, support services; 2) tuna surveys (population estimates, seasonality, catch methodology; 3) live bait culture (rearing of Poecilia mexicana); 4) statistical analysis of cannery and local fisheries; 5) sport fishery surveys and facilities development; and 6) commercial fisheries training curriculum.

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The fisheries program of American Samoa is administered by Office of Marine Resources, Government of American Samoa. Present staff includes the director, three fisheries biologists, two fisheries biologist trainees, three biological technicians, one master fisherman, eight skilled fishermen, one boatbuilding facility manager, three boatbuilders, three marine mechanics, two fisheries extension agents, one boat operator, one secretary, and eleven VISTA volunteer instructors - a total staff of 40.

Marine Resources projects are primarily designed for two major objectives: 1) development of an indigenous fishing fleet, and 2) increase in production of local tuna canneries. The first objective will satisfy fresh protein requirements and provide employment, the second will ensure continued employment and tax revenues (private sector economy is dependent on canneries).

Six specific projects have been undertaken, all of which interact to some degree. These are listed below.

1. Local commercial fleet development: this is a programmatic approach to development, involving boatbuilding, gear research and development, fisheries training, marketing services, and support services (engine and boat repair, gear stocks). The project is designed to convert untrained subsistence fishermen into skilled commercial fishermen. A relatively low-cost 24' "Samoan dory" is the starting point, but it is anticipated that fishing enterprises will move into larger vessels within several

years. Eighteen boats have been produced in 18 months, with annual landings increasing from 40,000 lbs. in 1971 to an estimated 175,000 lbs. during June 1972 - May 1973. Anticipated landings for calendar year 1973 are 300,000 lbs. Although crews are taught a variety of fishing methods, all boats have concentrated on bottom-handline fishing primarily due to small tuna stocks during the past 12 months. The five year cost (1972-6) is estimated at US\$350,000.

2. Tuna surveys: A preliminary three-year survey indicated that skipjack and yellowfin tuna stocks represent Samoa's most promising fishery potential. Standard track surveys are being continued, but project emphasis has been shifted to fishing methodology and catch evaluation. Primary tool for the program is a 50' live bait pole-and-line survey vessel. Results of the project will benefit both the local fleet and outside fleets supplying local canneries. Six year budget is approximately US\$700,000.
3. Culture of live bait: The most effective method for capturing surface tunas in the tropical Pacific is live bait pole-and-line. Unfortunately, natural live bait stocks in Samoa are not adequate for even a small fishery. A possible solution to this problem is the mass culture of a fresh- or brackish-water fish with proper baitfish characteristics. Current experiments deal with the Mexican mollie (Poecilia mexicana), a euryhalinic live-bearer which reaches maturity (80 mm) in four months. P. mexicana bears 30-180 fry every 28 days without regard to salinity (0-35‰). Mortality of young and adults is less than 10%. Production schedules call for 600,000 baitfish to be used in field trials January - April 1974. If successful, this species could be used as baitfish by small local boats without circulating bait tanks, as well as larger live bait vessels. Three-year project costs are estimated at US\$95,000.
4. Statistical analyses of fisheries: Data are collected and analyzed from three sources: canneries, local fishery, and village subsistence activities. The U.S. National Marine Fisheries Service analyzed data from the 300 vessel longline fleet based in Samoa to determine trends in the South Pacific subsurface tuna stocks. Indigenous fleet data are used as a basis for resource management and local fishery development programs. Five year budget is US\$57,000.
5. Sport fishery surveys and facilities development: This program includes surveys of pelagic and inshore gamefish species and development of shoreside facilities such as boat launching ramps, docks, and fishing piers. Preliminary pelagic surveys indicate

a good sportfishing potential for blue marlin, sailfish, dolphin-fish, and tunas. Diving surveys of inshore reefs will commence in July 1973. Three launching ramps, three small docks, and one marina-fishing pier complex will be completed by the end of 1973. Five year costs will be US\$200,000.

6. Commercial fisheries training: A one-year course in commercial fishing technology will be offered by the Community College of American Samoa, beginning September 1973. Curricula will include: English, mathematics, seamanship, small boat piloting, navigation, gear technology, fish behavior, engine and boat maintenance, boat-building, fish processing, marketing, and business principles. Approximately 50% of training time will be spent aboard survey and fishing vessels. As a corollary to the project, two fisheries biologist trainees and two extension agent trainees will receive overseas education. Five year budget is US\$300,000.
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