

SPC/Fisheries 21/WP.31
9 August 1989

ORIGINAL : ENGLISH

SOUTH PACIFIC COMMISSION
TWENTY-FIRST REGIONAL TECHNICAL MEETING ON FISHERIES
(Noumea, New Caledonia, 7-11 August 1989)

COUNTRY STATEMENT
REPUBLIC OF PALAU

MARINE RESOURCES DIVISION

During the fiscal year 1988 the Marine Resources Division's station were relocated to the South-Western side of the island of Malakal where the Republic Mariculture Center is located. The Office of the Director of Resources and Development is also located in the same building at the Mariculture Center. One of the building formely used as wet laboratory was renovated and put into this use. Repair activities were also undertaken to upgrade living conditions to the center's living quarters and dormitories.

A new conservation 25 ft. cabin cruiser completed with twin 86 HP. outboard engines with remote control and steering gear, receiver/transmittal radio, search light, live saving divices and a trailer were acquired under the Palau Japan Fishing Rights Agreement for goods and services. Hiring process for new conservation officer is completed and has been forwarded to appropriate agencies for approval. Plan is set to reactivate the marine conservation program.

Progress is accounted for seven (7) fisheries projects which were implemented and completed during this reporting period. These projects and source of assistance are:

1. Fisheries Data Collection and Evaluation

Supported by the South Pacific Commission, the project's aim is to review and evaluate the current data collection and to determine whether the program is meeting its objectives. Base on the review plan is developed to establish procedure for the implementation of the project entitled "Palau Subsistence Fish Catch Data Collection."

2. Fish Handling Advisory

A project supported by South Pacific Commission, assistance was requested to assist Palau Federation of Fishing Association in developing a means to improve the quality of fresh and frozen fish product by recommending improved procedures, practices and identifying proper training, equipment and financial assistance.

3. Marine Resources Organization Review

A project supported by Forum Fisheries Agency of the South Pacific Region reviewed current fisheries program and assisted the National agencies in devising plans and guidelines for an integrated and coordinated approach to development and management of Marine Resources.

4. Deepsea Fisheries Development

The project was assisted by South Pacific Commission to locate sea mounts, test fishing grounds and making in order to support the deep water fishery for deep water dwelling species.

5. Baseline Survey of Ngerukewid Reserve

The project was supported by the South Pacific Regional Environmental Program to conduct a quantitative baseline survey and resource inventory of the flora and fauna of the Ngerukewid (70 islands) Reserve. Management plan is being developed to be used as a guideline for management and conservation of the National Reserve.

6. Fishery Information Bibliography

The project is supported and conducted by UNDP/FAP to compile a comprehensive bibliography of references dealing with marine and marine related topics.

7. Deep Water Shrimp Survey and Feasibility Study

A project funded by U.S. Department of Commerce to determine the potential of a deep water shrimp in Palau water. Phase I of the project was undertaken during June, July and August of 1987 the evaluation of depth distribution of the deep water shrimp and examination of different trapping techniques at various sites. Phase II which was also conducted during the month of June, July and August of 1988 was for the use of underwater camera to learn more on their feeding habits, acceptance to different baits and the general behavior of the commercial value species, *Heterocarpus leavigatus* and *Hensifer*.

The division also assisted in the survey of the W.W.II sunken Japanese fleet destroyed by U.S. planes on March 30, 1944. The project sponsored by Palau National Historical Agency and funded by U.S. National Parks Service to number, identify and map these ships for historical preservation and for sport diving purposes. The division also hosted the SPC/Nelson Polytechnic one month practical fishing attachment aimed to demonstrate techniques learned during the previous training at Nelson. The division provided full support and assistance to these two programs.

The division's on-going projects include: (1) Palau Community Fishing Development Project, a Japan Government grant aid assistance to develop four (4) fishing bases in four selected locations on the main island of Babeldaob and one on the island of Angaur. (2) Palau Subsistence Fish Catch Data Collection, funded by U.S. Department of Commerce, a project designed to survey from house to house, to collect information on subsistence fishery production and to establish a system whereby this information is collected on a monthly basis.

Another area of responsibility of the Marine Resources Division is to provide technical assistance to various fishermen, individuals and private ventures on their fishery and fishery-related business efforts.

The previous Japan Government grant aid equipment which include nine (9) fishing vessels, twelve (12) 1 ton flake ice plants and one (1) 5 ton block ice plant began to have problems due to lack of spare-parts and qualified mechanic to maintain the equipments. A proposal has been sent to Japan Government requesting its assistance for spare-parts and qualified mechanic to do the repair of the equipments which are now out of order. A training component is also included in the same proposal to train two Palauans in Japan on refrigeration mechanic for the maintenance of the above flake ice plants which seems to be the most common problem among the grant aid equipments.

During this reporting period Palau Fishing Authority continued to manage the operation of Palau Federation of Fishing Associations under a receivership arrangement. Palau Federation of Fishing Association is a chartered corporation to act as the marketing arm of the Palau seven (7) Fishing Cooperative Associations. Annual fish production for PFFA is provided in the following table.

MARICULTURE CENTER

Scope and Activities

The MMDC's main function is to develop, demonstrate and promote appropriate mariculture technology for the benefit of Micronesian people. MMDC also serves as 1) a local marine science educational facility; 2) a regional Mariculture Training Center; 3) a base for visiting international researcher; and 4) a popular tourist attraction.

Current Programs

The MMDC's six core programs have each been in operation for at least five years. These include:

- giant clam mariculture, seed export and practical training
- hawksbill turtle hatchery (headstarting) and ranching
- marine science education program for local students
- trochus resource assessment and hatchery trials

- visiting scientist program
- tourist exhibits.

Cooperative Programs

Presently MMDC is collaborating with each of the U.S. affiliated Pacific islands, as well as several South Pacific nations, on an experimental giant clam out planting program. The MMDC hosted a segment of the SPC-Nelson Polytechnic Fisheries Training Course in July - August 1988.

Facilities

Two dormitory buildings with a total of 12 air-conditioned rooms are available for visiting scientists. Prospective visitors should contact the MMDC Manager for full information regarding costs, logistics and research permit requirements.

Air-conditioned and ambient laboratory rooms are maintained for visitors. There is an extensive flowing seawater system with live holding tanks available. An air-conditioned equipment room contains compound and dissecting microscopes, balances, centrifuge, refrigerator, 20 cubic foot freezer and MacIntosh computers with software.

Three boats are available for rental from MMDC: a 12 meter Yamaha diesel for US\$150/day with driver, (fuel costs are extra). Local drivers are mandatory on all trips. Scuba equipment are available for rental at local dive shops.

Publications

The MMDC Bulletin is published quarterly and distributed free to an international mailing list of about 300 addresses. A comprehensive bibliography listing articles published on all aspects of mariculture, fisheries and the marine environment in Palau is currently in press, to be published in late 1989 by the UNFAD South Pacific Office.

Educational Programs

The MMDC offers on a continuous basis a practical, 30 day training course entitled "Introduction to Giant Clam Mariculture." The course has been completed to date by about 50

Pacific Islanders. An annual Marine Science Summer Course is offered to 15 college-bound Paluan high school students. Visiting researchers frequently present informal seminars on their projects.

Habitats

The Palau Islands offer an astounding variety of marine habitats, most of which were within a 30-minute boat ride of the MMDC Habitats include sandy beaches and bays, barrier, fringing and patch reefs, mangroves, seagrass beds, marine lakes, underwater caverns and stalls.

MMDC Grant and Production

1. Grants (active - FY 88)

| | |
|--|-----------|
| US Department of the Interior/Sea Grant Operations and Maintenance | \$150,000 |
| ICOD (Canada) Giant Clam Training and Seed Distribution Phase I | 23,000 |

Grants (pending - FY 89)

| | |
|--|---------|
| International Foundation Clam Hatchery Expansion | 40,000 |
| ICOD (Canada) - as above, Phase 2 | 23,000 |
| US Department of the Interior/Sea Grant Operations and Maintenance | 125,000 |

2. Clam Hatchery Production - FY -88

| | |
|--|--------|
| Number of 5-mos. old seed clams produced | 80,432 |
| Number of international seed shipments | 21 |
| Number of students trained in 30-day clam course | 6 |

3. Hawsbill Turtle Hatchery Production FY - 88

| | |
|---------------------------------|-------|
| Number of eggs hatched | 1,180 |
| Number of baby turtles released | 288 |

4. Trochus Hatchery Production - FY 88

(New Project - Larval Production commenced in April 1988) Number of larvae produced (in millions):

| | |
|-------|------|
| April | 11.0 |
| May | 1.3 |

| | |
|--------|------------|
| July | 1.6 |
| August | <u>6.7</u> |
| Total | 20.6M |

FISH PRODUCTION AT PFFA FROM OCTOBER 1987 TO SEPTEMBER 1988

| <u>MONTH</u> | <u>PURCHASE(lbs)</u> | <u>VALUE(\$)</u> | <u>LOCAL SALES(lbs)</u> | <u>VALUE(\$)</u> | <u>EXPORT(lbs)</u> | <u>VALUE(\$)</u> |
|--------------|----------------------|-------------------|-------------------------|-------------------|--------------------|------------------|
| Oct/87 | 50,318 | 33,272.00 | 35,682 | 33,898.00 | 7,289 | 6,858.70 |
| Nov/87 | 63,917 | 94,234.20 | 34,980 | 33,231.58 | 8,456 | 8,033.20 |
| Dec/87 | 50,745 | 34,721.83 | 43,251 | 43,260.95 | 7,920 | 7,297.80 |
| Jan/88 | 35,408 | 20,156.00 | 24,445 | 23,222.76 | 2,286 | 2,104.98 |
| Feb/88 | 25,365 | 19,185.10 | 29,499 | 30,974.47 | 2,218 | 2,328.90 |
| Mar/88 | 53,597 | 47,969.20 | 30,121 | 36,146.74 | 10,778 | 12,850.00 |
| Apr/88 | 69,153 | 45,480.95 | 31,715 | 36,880.00 | 8,016 | 9,394.00 |
| May/88 | 43,476 | 25,849.75 | 20,701 | 21,219.81 | 6,804 | 5,837.55 |
| Jun/88 | 47,133 | 29,238.70 | 25,532 | 24,137.94 | 8,212 | 8,457.30 |
| Jul/88 | 37,447 | 25,913.70 | 17,204 | 18,145.41 | 9,400 | 9,523.00 |
| Aug/88 | 52,436 | 27,090.50 | 25,096 | 26,678.01 | 9,192 | 10,504.70 |
| Sept/88 | 47,509 | <u>40,249.87</u> | <u>27,826</u> | <u>30,535.12</u> | <u>10,635</u> | <u>13,293.75</u> |
| TOTAL | <u>576,504 lbs</u> | <u>443,361.30</u> | <u>346,052 lbs</u> | <u>358,330.12</u> | <u>91,206</u> | <u>96,483.88</u> |