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RAVIRAVI FISHPOND EXPERIMENTAL PROJECT

PROGRESS REPORT

by

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1. Objectives

The project has been initiated in order to experiment and study the feasibility of aquaculture in Fiji and to make recommendations as to ways and methods of fish culture and species to be grown. The final aim is to produce proteins for islanders on economic base and train local personnel in aquaculture.

2. Location

The project is located at Raviravi on the western side of Viti Levu, 16 miles south of Lautoka. The ponds have been built in a reclaimed mangrove marsh.

3. Fish Species

Four groups of fish are considered potentially suitable for aquaculture.

3a. Milk fish (Chanos chanos). A traditionally cultured fish in the Far East. A herbivor that grows well in ponds but is difficult to market in many Pacific Islands. Fry is collected from nature.

3b. Mullet (mugilidae) A group with many species, some of which grow well in ponds. No problems in marketing. Fry is collected from nature.

3c. Rabbit fish (siganidae). Tropical herbivors. Only little is known on their growth in captivity. Some species do grow well in ponds (one species in Raviravi). Excellent palatable fish. Highly favoured by Pacific Islanders and fetches high prices in local markets. Fry not as common in Fiji as expected. Has been successfully bred in captivity on small scale.

3d. Tilapia (Tilapia mossambica). A fresh water fish, recently introduced to Pacific Islands from Africa (via Malaya). It grows well in ponds under controlled densities. Reproduces in fresh and sea water which causes overpopulation and stunting. Therefore is considered a pest in some places. Sells well. No problems with getting fry.

4. Accomplishments

4a. Preliminary fry survey around Raviravi. The survey gave some positive results and should be continued for another year.

4b. Pond construction. Four ½ acre ponds were completed by June 1973. Construction of additional eight ponds totalling 20 acres has been completed recently.

The dirt work has been done by heavy machinery that was on site for the reclamation project. The ponds are completely drainable and are filled and emptied by tidal action through concrete sluices.

All construction work has been done by Fiji Government, Lands Department under the supervision of Mr. R. Livingstone.

4c. Initial experiments with growing Milk fish, Rabbit fish and Tilapia. The experiments have so far been conducted in the four ½ acre ponds.

4d. Training of Local staff. Two Fijians are in the process of training and studying aquaculture. The small number is due to inadequacy of number of staff.

5. Present Situation

While the eight large ponds are under final preparations, fry is being accumulated in the ½ acre ponds. The new ponds should be ready for stocking within 1-3 months.

6. Main problems

6a. Staff shortage. Only 3 fisheries personnel are working in the project instead of 8 which is the minimum adequate number for the size of the project.

6b. Technical problems included difficulties in mass collection of fry and initial acidity in ponds.

7. Near Future Plans

7a. Experimenting with cheap locally available fertilizers.
7b. Producing one commercial crop for demonstration.
7c. Experimenting with control of Tilapia density in ponds.
7d. Continuation of training and fry survey.
7e. Experiment with breeding of Rabbit fish.