

THURSDAY—NOVEMBER 20, 1969

*Chairman—DONALD H. MCKEE, D. H. McKee, Inc., Tampa, Florida*

## Review of the UNDP/FAO Caribbean Fisheries Development Project, Phase 1, 1965-1969

JOHN L. DIBBS  
*Caribbean Fisheries Development Project  
FAO of the United Nations  
Barbados, W.I.*

THE CARIBBEAN FISHERIES DEVELOPMENT PROJECT, sponsored by the Special Fund of the United Nations Development Program (UNDP) with FAO as executing agency, commenced on August 27, 1965, with 16 Caribbean countries participating. The UNDP (Special Fund) contributed US \$1,859,700 while participating governments paid a cash contribution of US \$721,240 with substantial counterpart contributions in kind.

The project's original schedule was designed for a 4-year period. The first year was to be one of planning the three sections of the project—exploratory fishing, marketing and training. During this first year, international staff were recruited, vessels built for exploratory fishing, marketing surveys carried out in participating countries, and the training program formulated for fishermen as well as fisheries administrators.

FAO subcontracted the exploratory fishing activities to the U.S. Bureau of Commercial Fisheries who supplied a chief of exploratory fishing and 18 to 24 man-months of consultant time for specialized fishing operations. The Bureau representative was responsible to the project manager for the planning and supervision of the program.

The remaining 3 years constituted the operational phase for the disciplines. Two 82-foot vessels named *ALCYON* and *CALAMAR* were built in Japan, arrived in the Caribbean area in November 1966, and commenced operations the following month. The *FREGATA*, a 56-foot vessel built in the United Kingdom, arrived in June 1967.

The area of operations extended from the continental shelf of Central America to the eastern border of French Guiana, encompassing the Netherlands Antilles (but not Colombian waters), and the Atlantic waters adjacent to the Leeward and Windward Islands—approximately 1.5 million square miles.

### ***Exploratory fishing***

Project planners had initially recommended that the greatest fishing effort

be directed to the pelagic stocks in the area, principally the tunas, with subsidiary efforts on the demersal resources. The first 8 months of vessel operations, during which the principal fishing method used was the Japanese-type longline, did not indicate that a commercial fishery of this type could be economically established on a year round basis. Effort was therefore reoriented towards other known resources.

Effort by type of fishing during phase I is shown in Table 1.

TABLE 1  
PERCENTAGES OF FISHING EFFORT DURING PROJECT'S PHASE I

	Before October 1967		October 1967 September 1968		September 1968 June 1969		Project Totals	
	No. days	(%)	No. days	(%)	No. days	(%)	No. days	(%)
Longline	124	(33.7)	—	—	—	—	124	(8.6)
Live Bait	146	(39.7)	156	(28.6)	87	(16.3)	389	(26.8)
Snapper & Jacks	35	(9.5)	118	(21.6)	276	(51.5)	429	(29.6)
Trawl	63	(17.1)	172	(31.5)	42	(7.8)	277	(19.2)
Shark	—	—	—	—	75	(14.0)	75	(5.2)
Other	—	—	100	(18.3)	56	(10.5)	156	(10.7)

Twenty cruise reports documenting operations have been published and supporting these cruise reports are six fishing logs. Two reports on completed work have been prepared: (1) Trawlfishing Potential off Northeastern South America by Rathjen, Yesaki and Hsu (published in the Proceedings of the 21st Session of the Gulf & Caribbean Fisheries Institute) and (2) Summary of Caribbean Longline Operations 1966-1967 by Kawaguchi. Five summary reports, of uncompleted work, have also been prepared for participating governments. These are as follows: (1) Bait Fisheries of the Caribbean Sea by M. Yesaki, (2) Distribution of Troll Fishing Catches in the Caribbean Sea by M. Yesaki, (3) Experimental Shark Fishing off the Guianas by Hsu, Kleijn and Rathjen, (4) Results of Pelagic School Fishing off the Guianas by Wagner and (5) Exploratory Fishing for Snappers and Related Species—Caribbean Sea by Staff. A summary report has also been prepared about the co-operation between scientific institutions and the project.

The result of trawl fishing operations off the Guiana coast have led to the publishing of an investment report prepared by an FAO consultant and the project economist. This report is being widely circulated to governments and interested private investors to encourage the commercial exploitation of this fishery for the benefit of Caribbean countries.

Fishing for snapper and jack, which has occupied more than 50% of project vessel time during the last 12 months, has indicated potentially productive grounds in the areas southwest of Jamaica, east of Puerto Rico and the Leeward Islands, and most recently, along the edge of the Guiana shelf. Work on this will continue.

Results of live bait fishing operations have been inconclusive. A number of other experimental fishing operations, such as testing of shark resources, gill netting, pot fishing and various approaches to lobster fishing, have been undertaken.

The sea time achieved by project vessels has been quite exceptional for this type of operation which has entailed frequent changes of gear. Each vessel has achieved an average of better than 200 days at sea per year. This reflects the greatest credit on the captains and crews of the vessels, besides those responsible for planning and administration.

Mechanical breakdown has been kept to a minimum. The vessels have had FAO captains with locally recruited crews but some difficulties have been experienced in obtaining and keeping the services of experienced local men. Although the main objective of the vessel operations has been exploratory fishing, the vessels have carried out simulated commercial production where there have been indications of substantial resources.

### ***Training***

The training program was initiated in 1966/67 with the arrival of the vessels. The original objective was to train 75 men capable of becoming skippers and mates. However, the limited number of bunks available reduced the training period to 6-months sea time and a 2-month shore course for trainees. Without extensive previous experience, this was insufficient time to acquire skills necessary for skippers and mates. In total, 64 fishermen received full-time training and 27 part-time training.

Part-time training consisted of cruises where government-requested (1) specialized training for selected trainees in a method of fishing and (2) attendance at shore courses by experienced fishermen who wished to learn navigation and partake in other theoretical training.

One fishery officers' course was undertaken with 15 participants. It was a 10-week course with major emphasis on development for local, individual country fisheries. The care, handling and marketing of fish was an important part of the training course for both the fishermen and fisheries administrators.

Towards the latter part of phase I, the project was able to exercise more selectivity in recruiting the trainees; this led to a much higher standard being achieved in the course. Quite a number of the trainees have now become skippers of ocean going vessels. In the shrimp industry, reports indicate that a number of these ex-trainees are out-fishing experienced skippers.

### ***Marketing***

The marketing demonstration program was oriented to improve marketing in individual countries by demonstrating the handling, wholesale selling and distribution operations of catches of a greater magnitude than was presently being handled by inshore fisheries. As practically no vessels in the area were conducting deep sea fishing operations for extended periods at sea or landing catches in bulk, the simulated commercial production of the project vessels was used for demonstration purposes. The program was restricted to those countries where facilities existed for the landing, weighing, icing and storage of fish.

Study of local conditions revealed that there was marked prejudice by the local consumer to iced fish. The situation had arisen from hucksters and traders trying to sell fresh uniced fish, and, when compelled to store it overnight, they used insufficient ice. The following morning the fish were of very poor quality.

It was also understood that there would be unfavorable reaction to unfamiliar species. These difficulties were overcome by advance publicity through press, radio and television. Landing of species and their sale prices were also

extensively advertised. This program was successful in countries where it was attempted. An immediate follow up of additional commercial landings might have been achieved if vessels based outside the country had been allowed to land their catches. This situation has now changed with the advent of the Caribbean Free Trade Association (CARIFTA) which permits free interchange of fish and fish products caught by member countries. In the period of operations, 300 tons of fresh iced fish was marketed at prices competitive with the locally produced inshore fish.

Through activities in the marketing field, many governments have been convinced of the importance of improving or providing new infra-structure such as berthing facilities, markets and cold storage. This is likely to attract investment in larger fishing craft that could fish distant and middle-distant fishing grounds and be more productive than the present inshore fisheries. A number of marketing and distribution surveys were undertaken at the request of governments, and the closest liaison and assistance was given to bilateral agencies wishing to assist in the development of local fishing industries.

#### ***Evaluation and follow up***

At the meeting of project liaison officers held in the latter part of 1967, it became apparent that the full program could not be completed within the specified time. Several governments therefore requested an extension of the program from the UNDP.

In mid-1968, a UNDP evaluation mission visited all the countries participating in the project to ascertain governments' views on such a follow up and to evaluate the benefit of the work already carried out. This mission recommended a 2-year phase II project which was strongly supported by the governments. The extension was approved by the governing council of the UNDP in June, 1969. The phase II project commenced September 1, 1969 following on phase I operations.

To be able to devote full vessel time to exploratory fishing operations, two additional vessels are being chartered to carry out commercial production on the most promising resources which have been disclosed by phase I. Marketing and investment will be given considerable added emphasis during phase II, and product development and processing have been added to the program.

Training will continue, but on a reduced scale, accepting only experienced fishermen. Courses will be of the same duration, but the most promising trainees will receive additional sea time as apprentices either aboard project vessels or by arrangement with commercial fishing companies. This will ensure that completion of the training and apprenticeship period should qualify them as competent skippers and mates of the type vessel which is likely to be used for fishing operations in the Caribbean. A further course for senior fisheries administrators will also be undertaken.

The extension of the project has led to a number of changes in expert personnel due to their personal commitments. The U.S. Bureau of Commercial Fisheries is continuing as sub-contractor for the planning and supervision of exploratory fishing, and a new chief of exploratory fishing has been supplied by the Bureau for the extended period.