

# OED Précis



Operations Evaluation Department

October 1994

## Fisheries in the Maldives and Yemen

*Fishing provides the livelihood for many people in the Maldives and in Yemen. OED recently audited three projects that successfully increased fish catches for small-scale fishermen, improved marketing and processing facilities, and strengthened institutions and services for the fishing industry.\* The projects were implemented in different ecological conditions, but they had similar experiences and provide similar lessons.*

### Project profiles

#### Maldives

The *Second Fisheries Project* was the second in a series designed to modernize small-scale fishing for tuna in the northern half of the Maldives Archipelago, and to develop tuna exports. Following a highly successful first project, the project sought to improve fish collection and processing, to modernize repair, fuel storage, and distribution facilities used by the fishing fleet, and to build longer-range fishing boats. It provided technical assistance for training and institutional development, but made no provision for assessing fish resources.

Overall, the project satisfactorily achieved its goals and its benefits are likely to be sustained. Fish production has more than doubled. Institutional achievements are substantial; the project helped to establish an effective implementation agency for development projects within the State Trading Organization. Much more training was

provided than expected at project appraisal.

Changes in design were needed soon after approval; world prices for frozen tuna collapsed, and a Japanese partner withdrew from a joint cannery venture with the government. In response, the government (contrary to Bank recommendations) decided to integrate the modernization of a cannery with the development of the facility for frozen tuna that had been planned under the Bank-supported project.

This decision gave the industry flexibility. The Maldives now has a modern tuna refrigeration and canning complex designed and run to high international standards, producing top quality dolphin-safe products for sale under international brand labels. Production can shift between frozen and canned products in response to demand and prices. The project's marketing strategy, originally centered on frozen tuna, now centers on canned products.

The fishing fleet has been upgraded. After disappointing sea trials for the planned longer-range vessels, the project turned to supporting improvements for inshore fishing boats. These improved boats are popular.

#### Yemen

The two projects in Yemen were begun before the Yemen Arab Re-

public in the north, and the People's Democratic Republic of Yemen in the south, were unified in May 1990.

The *Fisheries Development Project* was the first fisheries project in the former *Yemen Arab Republic*. It sought to increase fish production and consumption by providing infrastructure, including establishing a port for small-scale fishermen at Hodeidah; promoting private fish marketing and distribution; and establishing a strong institutional framework to provide services to about 3,000 small-scale fishermen.

Though it eventually succeeded, the project turned out to be too complex for a country's first project in the fisheries sector, where the institutional base was weak. Implementation took five years longer than expected. A key factor was a difference in goals between the executing agency, the General Corporation for Development of Fish

*\*"Performance Audit Report, Republic of the Maldives: Second Fisheries Project; Republic of Yemen: Fisheries Development Project and Third Fisheries Project", Report No. 13089, June 1994. OED reports are available to Bank executive directors and staff from the Internal Documents Unit and from Regional Information Services Centers.*

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## Credit for small-scale fishermen

In the Maldives, credit applicants were selected by the Ministry of Finance and the State Trading Organization in consultation with atoll and community leadership, and most loans went to proficient fishermen. Loan recovery rates were near 100 percent. Circumstances in the Maldives, which has quite a strict system of island administration, where credit has been limited to tuna fishing boats, and where the number of sales outlets for tuna catches is limited, would probably be difficult to replicate elsewhere.

The fisheries loan program in Yemen may be easier to replicate

This program finances fishing boat construction and repairs, engines, and nets. After initial problems, the program became very successful. Between 1985 and 1990, \$1.8 million of new loans were made, and the recovery rate for the whole portfolio, including pre-1985 "problem" accounts, rose to 83 percent.

Before the program was introduced, would-be borrowers had to make repeated visits to CACB's head office in Hodeidah before their applications could be considered, and subsequent visits to deposit their repayments. Fishermen from more distant places gave up at least a day's work per visit.

These powerful disincentives sent most fishermen to traditional sources of informal credit.

The Cooperative and Agricultural Credit Bank (CACB), which runs the fisheries loan program, accommodates to fishermen's lifestyle. Its staff receive specialist training on fisheries matters, and visit fishing villages at regular intervals to explain their services to prospective borrowers, help borrowers complete documentation, and collect repayment installments. Fishermen have developed an affinity with the staff as people with whom they can discuss their financial problems.

Resources (GCDFR), and the project. GCDFR's mandate, as it understood it, was to develop industrial fisheries, while the project sought to strengthen small-scale fishing and private marketing and distribution. The Bank's supervision missions raised this issue repeatedly but little action was taken.

A new fishing port at Hodeidah was built on time and within budget, and the creation of an auction market at the port stimulated both traders and fishermen. The port is now so popular with fishermen and traders that its use greatly exceeds design capacity, with some loss in fish quality and hygiene. Fish auctions yield considerable revenue for GCDFR, but the management of the port suffers from a shortage of funds for maintenance.

The completion of facilities in other places was uneven, and some completed facilities are underused. Further improvements are needed at other ports, to lessen the pressure at Hodeidah.

The project only partly achieved its institutional goals, and its benefits are not certain to be sus-

tained, because of the inadequate provisions for port maintenance and because firm data are not available on the fish resources being exploited.

In the former PDRY, government support for the fisheries sector concentrated on licensed or joint venture industrial-scale fishing in the Gulf of Aden, and on state-owned fish-processing enterprises. The Bank's involvement in fisheries focused on the needs of the 5,000 small fishermen.

The *Third Fisheries Development Project* was part of a series in which the fourth project is now in progress. It created a specialized training capability for fisheries, improved the productivity of small-scale fishermen, and strengthened the marketing role and onshore facilities of five fisheries cooperatives near Aden. The project's benefits are likely to be sustained.

Achievements in institution building have been substantial. Before unification, fisheries were administered by the Peoples' Corporation for Fish Wealth. Policy dialogue and technical assistance

were instrumental in replacing this centralized administration with a free auction market system managed by service cooperatives. This system gives fishermen incentives to raise their productivity and to seek quality species for which private traders pay a premium.

Producers and traders responded quickly when the market was freed. Helped by the project's credit program, fishermen have been able to buy the boats they were using from the cooperatives, or to buy new boats. Larger and better quality catches have contributed to the economic development of the affected communities.

## Issues and lessons

### *Fish resources*

Experience in all three projects highlights the risk of overfishing and the need for better knowledge and understanding of fish stocks in the project areas. Research and efforts to assess fish resources have been underfunded or otherwise inadequate.

In the Maldives, signs of a decline in the catch per boat per day do not

necessarily indicate a decline in the fish population but should be investigated. Information on fish resources remains inadequate and more effective management of fish resources is urgently needed.

In Yemen, fish catches in recent years may be approaching the annual maximum sustainable yield. While the Gulf of Aden does not seem overfished, there is an urgent need for more thorough assessment of fish stocks there and in the Red Sea, for continued monitoring of these resources, and for safeguards, as necessary, to be established against overfishing. The Marine Science Resources and Research Center in Aden has the staff and mandate to carry out monitoring and resource assessments for all Yemen's fisheries. Because of recent financial problems, the Center is so short of funds that field work is now almost impossible.

- Because many species of fish migrate, assessments of marine fish resources (and some inland fisheries, such as the African Great Lakes) have an international dimension. The study and effective management of such fisheries must be coordinated across national boundaries, and projects should be designed to facilitate such coordination.
- All fisheries projects should help to strengthen countries' capacity to

*monitor fish stocks and fish catches; the Bank's loan supervision should ascertain that this is being done and the results applied.*

*Project administration*

The projects in the Maldives and former PDRY were delayed by procurement and disbursement difficulties, as a result of borrowers' lack of familiarity with Bank procurement procedures.

Many fisheries projects are in small countries with limited experience of these procedures and without Bank resident missions. In such cases, it would be worthwhile to:

- Ensure that appraisal missions check the borrower's regulations and requirements covering recruitment, tenders, and major contracts, so that any incompatibilities with IDA rules can be resolved during negotiations.
- Provide close support to implementation units at the very start of implementation, ensuring that their staff have the information, other administrative briefing, and technical backing needed to minimize the learning period and avoid costly errors.
- Organize the first fisheries project in a country so that it concentrates on building up the institutional capability to design and implement a long-

*term program, including the monitoring of resources.*

*Marketing, credit*

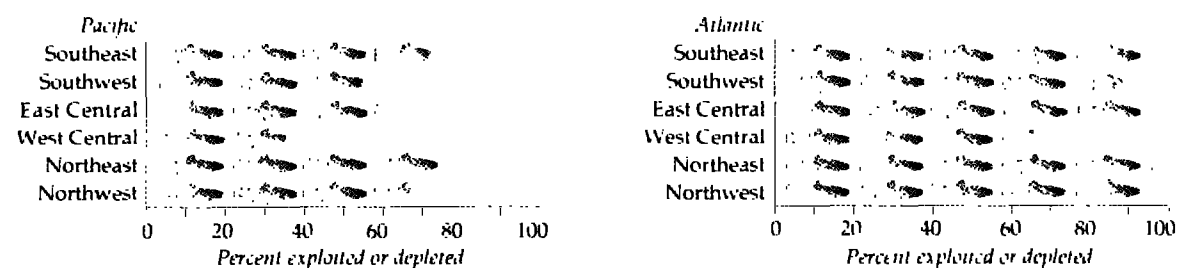
Yemeni fishermen and traders responded effectively when the market was freed. In the Maldives, fishermen responded positively to increased demand, but the pool of private entrepreneurs may be too small to quickly replace the State Trading Organization for fish marketing and provision of ancillary services.

Most credit schemes for small-scale fishermen have performed very poorly, perhaps because they seem to have been designed mainly for the convenience of banks. Though the Maldives and Yemen are dissimilar, credit programs designed to fit fishermen's needs have been very successful in both countries. A decentralized organization, with procedures that make it easy for clients to apply for and repay loans, can quickly succeed if latent demand exists. (See box.)

*Boats*

Project components to introduce new types of fishing boats failed in both countries. Subsequent efforts to adapt traditional design to modern requirements, in cooperation with fishermen, succeeded.

**Estimated exploitation of fish stock in major fishing areas**



Source: World Bank staff and FAO

Project data						
	Approved	Completed	Loan amount (\$ mill.)	Project cost (\$ mill.)	Cofinanciers	ERR on completion
Maldives Second Fisheries	1983	1991	6	15	IFAD OPEC Government of Norway	14.4
Yemen Fisheries Development	1980	1990	15	24	DANIDA	13.0
Third Fisheries Development	1982	1991	6	29	IFAD AF	17.0

In the Maldives, after the long-range boat developed during the first fisheries project was judged unsuitable, the funds were used to build inshore boats of proven popular design. In Yemen, the intended introduction of a new type of inshore trawler was abandoned once it was found that fishermen had adapted existing sambuks for shrimp trawling.

- *Fishermen should be involved in assessing whether technical change is needed and if so, in developing better boats.*
- *Where new boats are agreed to be necessary, and cannot be based on existing local designs, project planners should normally allow for a development period of several years—to allow*

*for consultation with fishermen, design trials, and building and testing of prototypes—eventually yielding a vessel in which fishermen have confidence.*

- *The growing scarcity and cost of timber traditionally used for boat building and repair may call for attempts to use alternative materials, but in careful cooperation with fishermen.*

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