

Introduction

ICLARM recently signed a Memorandum of Agreement with the Kasetsart University Institute of Research and Development, Bangkok, Thailand. The agreement sets forth the intent of both parties to collaborate and to assist each other in the pursuit of research projects related to fisheries and aquaculture development and management. Dr. Kamphol Adulavidhaya, director of the Institute and former head of the Department of Agricultural Economics at Kasetsart University, and Dr. Ziad Shehadeh, ICLARM's director general, signed the agreement in September, 1979, and the first cooperative research project, on catfish culture economics, has begun. This article describes the project.

IN RECENT years, the growing demand for fishery products, coupled with declining yields from capture fisheries, has stimulated inland fish culture. In Thailand the most commonly cultured fish species are tilapia, carps, snakeheadfish and catfish. Among these, the culture of catfish (*Clarias batrachus*) has been quite popular until recently because of its short culture cycle and high rate of return. In a 1973 study, Kloke and Potaros (1975) found 71.4% to be the ratio of net revenue to total operating cost.

With no barriers to entry, the number of farms in Suphan-Buri Province, Thailand's largest catfish culturing area, increased tremendously from 45 farms (54 ponds) with a total pond area of about 16,506 m² in 1967 to 468 farms (1,123 ponds) with pond area of about 495,646 m² in 1973. However, according to the 1976 annual report of the Department of Fisheries, there were only 76 farms (288 ponds) with pond area of 343,988

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AN ECONOMIC STUDY OF CATFISH CULTURE IN THAILAND

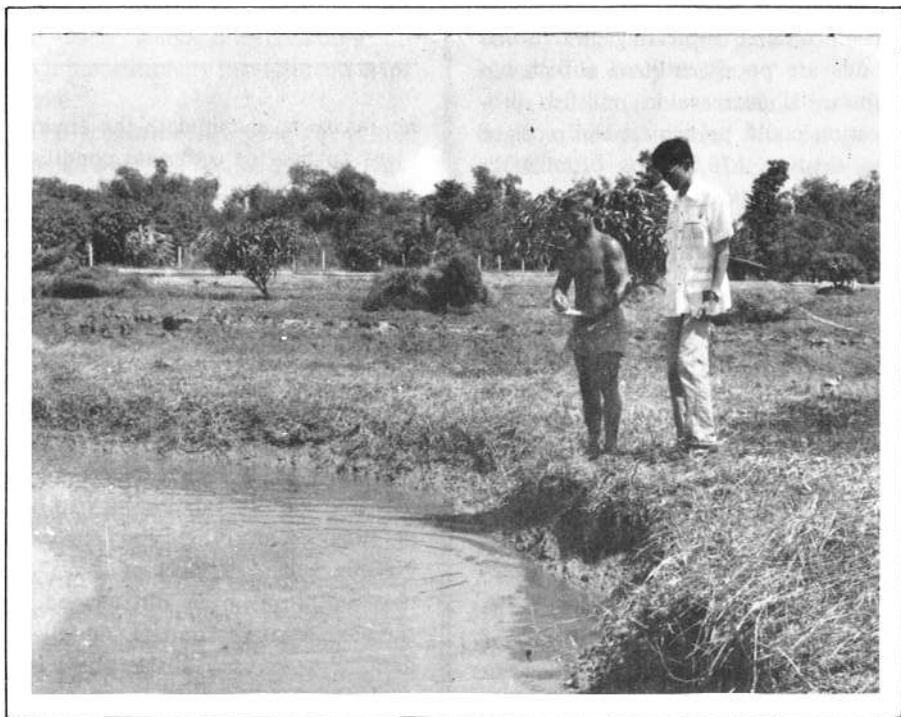
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m². The dramatic fall in the number of farms and pond area was due to the plague of disease affecting catfish and the rising price of inputs, especially trash fish which is commonly used as feed. Rising production costs, as well as high mortality rates, have resulted in losses to catfish farmers. Somkit et al. (1977) found that the catfish farmers incurred an average loss of about 21,695 baht per farm in 1975.² The production of catfish peaked in 1973 with a volume of 40,262 mt and a value of 579.8 million baht but dropped to 19,714 mt valued at 315.4 million baht in 1976 (Department of Fisheries 1976). This decline affected not only the producers but had also a pronounced effect on the consumer as, by 1977, catfish prices began to rise sharply.

Theoretically, the increase in price caused by the excess demand should have induced a rise in production and a corresponding increase in supply. However, the recovery of the catfish farming industry has not been proceeding at the rate one would have expected, given the high and rising

²US\$1.00 = 20 Baht.

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Catfish farms depend upon a trash fish mixture for feed. Above, Mr. Somporn interviews a farm caretaker in Nakhon Nayok Province north of Bangkok.

UK ODA

FISHERIES ACTIVITIES

The Overseas Development Administration (ODA) of the United Kingdom publishes an annual fisheries newsletter which summarizes British-supported overseas fisheries work, giving details of projects and personnel. The 1978 issue illustrates the steady and continuous growth of ODA-sponsored fishery activities. Listed are 56 projects in 37 countries. 1978 saw the first one million pounds Sterling ODA fish program. The following table shows the rate of increase in expenditure, the 78/79 figure being derived from commitments. Future programs

exceeding 10 million pounds Sterling are in the pipeline.

Yr	Pounds Sterling
1970/71	381,264
71/72	389,001
72/73	690,574
74/75	901,811
75/76	965,980
76/77	897,992
77/78	1,064,218
78/79	4,976,749

ODA fisheries advisers make frequent visits to British universities,

research laboratories and institutions, to appraise fisheries research and to try to relate this to needs overseas. The White Fish Authority, the Tropical Products Institute, and a number of commercial consulting firms also play key roles in ODA-supported activities. About 80 fisheries workers are in overseas posts and 12 in the U.K., while the Crown Agents of the U.K. are mounting recruitment exercises independently of ODA for Nigeria, Malawi, Zambia and Papua New Guinea. Separate appointments are also made by the Commonwealth Foundation for Technical Cooperation, development banks and consulting firms, which all add up to considerable support for overseas fisheries development from the U.K. The ODA fisheries newsletter is published from Overseas Development Administration, Eland House, Stag Place, London SW1E 5DH, U.K. ●

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fish prices. Under these circumstances, an economic study of catfish has been undertaken by the Department of Agricultural Economics of Kasetsart University, with the support of ICLARM, to investigate the economics of catfish production in the two main catfish-culturing areas of Suphan-Buri and Nakhon Nayok. A field survey has already been completed and analysis of the gathered information is underway. A number of interesting and useful results are expected to be generated from this study, including the technological traits of catfish production, such as the input coefficients, substitutability among inputs, and economies of scale, as well as related policy implications, such as the proper input mix under alternative behavioral and market assumptions, the optimal size of catfish farm, and the optimal time of harvest.

Already, preliminary findings from the interviews indicate that the num-

ber of catfish farms has been further reduced to below the figures quoted by the Department of Fisheries in its latest report. Many catfish farmers switched to the culture of other species, or to the cultivation of rice and other crops; some even left the area to take other occupations. The main reasons given in the interviews were high fish mortality due to disease and escalating feed (trash fish) prices. Yet some of the farms that stayed in business are expected to make considerable profit, due to superior managerial ability of the owners, access to low cost credit, and diversification of farming to spread risk.

A detailed report of the main findings will be made available upon completion of the economic analysis currently underway (scheduled for April 1980).

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