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PROJECT COMPLETION REPORT

PHILIPPINES

NATIONAL FISHERIES DEVELOPMENT PROJECT
(LOAN 2156-PH)

SEPTEMBER 16, 1991

Agriculture Operations Division
Country Department II
Asia Regional Office

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CURRENCY EQUIVALENTS

US\$ 1 = P 8.10 (Appraisal, 1982)
US\$ 1 = P 11.10 (First Year, 1983)
US\$ 1 = P 21.00 (Final Year, 1989)

FISCAL YEAR OF BORROWER

January 1 - December 31

WEIGHTS AND MEASURES

Metric System

ABBREVIATIONS

BFAR = Bureau of Fisheries and Aquatic Resources
CP = FAO/World Bank Cooperative Program
DA = Department of Agriculture
DENR = Department of Environment and Natural Resources
FIDC = Fishery Industry Development Council
GT = Gross Tonnage
MAF = Ministry of Agriculture and Food (later re-named DA)
MNR = Ministry of Natural Resources (later re-named DENR)
PCR = Project Completion Report
PFDA = Philippine Fishery Development Authority
SAR = Staff Appraisal Report
SEATI = Samar Sea - Ticao Pass Fisheries Development Corporation

THE WORLD BANK
Washington DC 20433
USA

Office of Director-General
Operations Evaluation

September 16, 1991

MEMORANDUM TO THE EXECUTIVE DIRECTORS AND THE PRESIDENT

SUBJECT: Project Completion Report on Philippines
National Fisheries Development Project (Loan 2156-PH)

Attached, for information, is a copy of a report entitled "Project Completion Report on Philippines - National Fisheries Development Project (Loan 2156-PH)" prepared by the Asia Regional Office. No audit of this project has been made by the Operations Evaluation Department at this time.

Attachment

A handwritten signature in dark ink, appearing to be 'L. P. ...', is located in the lower right quadrant of the page.

PROJECT COMPLETION REPORT

PHILIPPINES

NATIONAL FISHERIES DEVELOPMENT PROJECT
(LOAN 2156-PH)Table of Contents

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PROJECT COMPLETION REPORT
PHILIPPINES
NATIONAL FISHERIES DEVELOPMENT PROJECT
(LOAN 2156-PH)

PREFACE

This is the Project Completion Report (PCR) for the National Fisheries Development Project in the Philippines, for which Loan 2156-PH in the amount of US\$22.4 million was approved on May 25, 1982. Effective November 12, 1986, the loan amount was reduced to US\$2.1 million. The last disbursement was made on December 22, 1989 and the loan was closed as planned on December 31, 1989, at which time an undisbursed balance of US\$0.2 million was cancelled.

This PCR was prepared by the Agriculture Operations Division of the Asia Regional Office (Preface, Evaluation Summary, Parts I and III). Copies of an FAO-CP draft report were sent to the Borrower in late 1989, but no comments were received.

The PCR is based on a draft report by an FAO/World Bank Cooperative Program Mission that visited the Philippines in April-May 1989, on the Staff Appraisal Report, the Loan and Project Agreements, supervision reports, correspondence between the Bank and the Borrower, a field visit to the project area, discussions with staff of the Bank and the borrower who have been associated with the project, and internal Bank memoranda.

PROJECT COMPLETION REPORT
PHILIPPINES
NATIONAL FISHERIES DEVELOPMENT PROJECT
(LOAN 2156-PH)

Evaluation Summary

Objectives

1. The principal objectives of the project were to raise the incomes of artisanal fishermen in the adjacent Samar Sea and Ticao Pass areas of the Philippines, and to offer consumers an increased supply of better quality fish, which accounted for about 60 percent of all animal protein consumed in the country. This was to be achieved by implementation of: (a) an area development component, including construction of landing points and support facilities (ice plants, ice and chill storage, and carrier boats), incremental working capital and input supplies for the target group in seven sites in the project area; and (b) an institutional development component, including staff training, equipment, studies and technical assistance to strengthen the operations of the main public sector fisheries agencies. The project was to be implemented over an eight-year period, at a total cost of US\$37 million; the Bank loan in the amount of US\$22.4 million was approved on May 25, 1982.

Implementation Experience

2. Although the Bank loan closed on schedule, only a few of the original project activities were actually carried out. Midway through the project period in November 1986, the entire area development component was dropped after only very limited implementation and expenditures, and the scope of the institutional development component was sharply reduced.

3. Area Development Component. This component was designed on the basis of two major assumptions which proved to be inaccurate: that fish resources in the project area were under-exploited, and that marketing arrangements and infrastructure used by artisanal fishermen were inadequate. The first assumption was not based on proper fish resource surveys, a matter which had been of some concern to the FAO-CP preparation team and the Bank's appraisal mission. However, when this was raised by the Bank's Loan Committee, the staff replied that the project emphasis was on improving marketing rather than increasing catches, and it was therefore decided to proceed. The feasibility of enforcing restrictions on commercial fishing was not seriously questioned, although existing laws and regulations on the subject were not being implemented at the time. In the event, far from being under-exploited, there is now evidence that the project area was already being over-fished at the time the project was conceived, a situation which has only worsened in the interim. On the issue of marketing arrangements, the project assumed that artisanal fishermen were handicapped by inadequate facilities, ice and cold storage; poor insulation of vessels; and heavy dependency on unscrupulous traders, resulting in excessively low prices. However, the completion mission observed that landing places are

not necessary since the traditional fishing vessels are built so that they can easily be hauled up on beaches; fishing trips rarely exceed more than a few hours, so that ice is not needed and poor insulation is irrelevant. The beaches are visited regularly and competition is extremely intense, which suggests that prices are not unreasonably low.

4. The Samar Sea-Ticao Fisheries Development Corporation (SEATI) was established to manage and implement the area development component, as a condition of loan negotiations; it was to be run like a private enterprise, with the Government as majority shareholder. A private consulting firm selected to manage SEATI was to be paid for its management services and was also required to invest equity in the Corporation. The organization and legal personality of SEATI are not described in detail in the SAR, and there appears to have been little discussion of these matters during loan negotiations. In any event, the Government decided to terminate the services of the first consulting firm retained to manage SEATI, when it proposed a major change in the project work plan after studying the project area more carefully. A second firm (RKM) was selected, but it too proposed changes after conducting a preliminary study of the project area and concluding that the resources were being over-fished. Specifically, the firm proposed that the infrastructure for the landing points was no longer needed, but that "brush-parks" and artificial reefs should be established to address the over-fishing problem, that the number of sites for fish landing and collection should be increased, ice carriers purchased and certain improved technologies introduced.

5. The Government and the Bank approved these changes early in 1984, but there was very little implementation during the succeeding two years. The project suffered chronic funding delays, the combined result of the difficult fiscal situation facing the Philippines and possibly internal questioning within the Government as to the relative merits of the project. Also, from the start, the Office of Budget Management determined that project funds should be channelled through one of the fisheries agencies and released to SEATI as and when necessary, which limited the Corporation's ability to function as flexibly as a private enterprise. On November 12, 1986, loan proceeds allocated to the area development component were cancelled; slightly less than US\$0.3 million had been spent (US\$0.2 million for consultant services, US\$0.1 million for equipment, materials and vessels, and nothing for civil works) out of an original allocation of US\$12.1 million.

6. Institutional Development Component. Preparation of this component assumed no major organizational changes for the main fisheries agencies, although for some years there had been rumors that they would be transferred from one ministry to another. Just before appraisal the Bank did become aware that a transfer was indeed likely, but there is no indication in the record that this subject featured prominently in the appraisal discussions or loan negotiations. Implementation was later delayed because of the transfer and re-definition of the support requirements of the agencies; in 1986, when the area development component was terminated (para. 5), the loan amount allocated to institutional strengthening was reduced to US\$1.5 million, from an original US\$7.7 million.

Results

7. The institutional development component eventually had some positive impact. About two-thirds of the respective loan disbursements went toward the procurement of equipment and materials; the facilities provided were urgently needed and are now in full use; consultants were retained to develop what was reported to have been a useful training program for headquarters staff, which served as the basis for expanded training activities; and 459 months of local fellowships were awarded after the Bank agreed that funds earmarked for study abroad could be used instead at local universities. Nonetheless, many of the trainees either left the fishery agencies or were not placed in positions where their training could be used to the best advantage. A resource assessment study of small pelagics in the Philippines provides some useful information about the fisheries resource base.

Sustainability

8. Since the area development component was never really implemented, it had no impact on fisheries activities in the project area during the period before related loan proceeds were cancelled, and its sustainability therefore is not an issue. However, all evidence indicates that if the component had proceeded as planned, it would not, today, be judged sustainable. Substantiating the view that project interventions would have been irrelevant and not likely to be maintained, the completion mission observed that despite the failure to implement this, or any other major government schemes, fishermen in the area use relatively efficient methods and receive a reasonable price for their catch. Over-fishing is still a serious problem, although some out-migration from the area has helped.

Findings and Lessons Learned

9. (a) Fisheries projects generally, and those concerning artisanal fishing in particular, must be designed on the basis of well-founded technical information concerning basic fish resources, marketing practices, technology, etc.
- (b) The institutional framework for a project is as essential to its successful implementation and eventual sustainability as are economic, financial and technical considerations. In all cases, but particularly when new entities are being created, there needs to be a clear consensus among the Bank and all parties involved on the Government side about the nature (public/private orientation), objectives, organization, financing and operating principles of the bodies.
- (c) There is no substitute for devoting adequate resources and time to careful project preparation and appraisal, and the failure to do so carries heavy risks. In this case, the results were not more wasteful only because of the fortuitous cancellation of the main project component before implementation had really begun.

PROJECT COMPLETION REPORT

PHILIPPINES

NATIONAL FISHERIES DEVELOPMENT PROJECT (LOAN 2156-PH)

PART I - PROJECT REVIEW FROM BANK'S PERSPECTIVE

1. Project Identity

Project Name : National Fisheries Development Project
Loan No. : 2156-PH
RVP Unit : Asia Region (AS2AG)
Country : Philippines
Sector : Agriculture
Subsector : Fisheries

2. Background

2.1 When the project was identified in 1979, Philippine annual fish production amounted to about 1.6 million metric tons and was valued at some US\$1.3 billion, or approximately 5% of GNP. Per capita domestic fish consumption was estimated at a relatively high 34 kg, or 60% of all animal protein consumed in the Philippines. About 95% of the domestic catch, mainly low priced fish such as scads, sardines, perch, etc., supplied this internal market. In addition, about 27,000 tons, mostly in the form of canned sardines and mackerel, were imported to help meet the national demand for fish.

2.2 In the late 1970s, there were an estimated 42,000 commercial fishermen operating about 2,100 vessels, and about 500,000 artisanal fishermen with about 250,000 vessels (60% without engines). Artisanal fishermen were defined as subsistence or small-scale producers who operated boats of less than 3 Gross Tons (GT), with or without engines, both in inland waters and within 3 km of the coast, and who produced only for the local market. They contributed 55%-60% of total annual marine fish supplies.

2.3 Through the National Fisheries Development Project, the Government aimed to assist artisanal fishermen, who comprised one of the lowest income groups in the Philippines. Previous World Bank support had been channelled only to commercial fishermen (through Fisheries Projects I and II, Loans 891-PH and 1270-PH, respectively). It was recognized that earlier Government credit and extension programs for artisanal fishermen had been limited in scale and had run

into problems: few loans were repaid, incremental catches were reported to be unmarketable and extension was hampered by lack of trained staff, transport and equipment. Nonetheless, a case was made for further assistance to artisanal fishermen on the grounds that rapid population growth would increase the demand for protein and that there was under-exploitation of fish resources.

2.4 The Government and the Bank considered that artisanal fishermen incurred excessive losses due to poor market access, inadequate marketing facilities and lack of institutional support. The proposed Fisheries Education and Training Project (Loan 1786-PH), under appraisal at the time, was expected to be only partly helpful in addressing institutional problems, with complementary measures needed to establish sound administrative structures for the relevant institutions, provide additional staff training and supply essential transport and equipment. It was therefore reasoned that investment in marketing facilities, in areas where there were still under-exploited fish resources, together with training in marketing operations and other institutional support, would provide the necessary stimuli for development of the artisanal fisheries subsector. The National Fisheries Development Project was to be the first phase of a program of support, following a two-pronged approach: on the one hand, it was to be area specific, in that testing a new marketing strategy would be concentrated in the adjacent Samar Sea and Ticao Pass areas where resources were believed to be adequate and accessible to artisanal fisherman; at the same time, by strengthening fisheries institutions, the project was to have a national impact.

3. Project Objectives and Description

3.1 The principal objectives of the project were to raise the incomes of artisanal fishermen in the Samar Sea and Ticao Pass areas and offer consumers an increased supply of better quality fish, by reducing fish marketing losses and strengthening the operations of the Bureau of Fisheries and Aquatic Resources (BFAR), the Philippine Fisheries Development Authority (PFDA) and the Fishery Industry Development Council (FIDC).

3.2 The project consisted of two components, as follows.

- (a) The area development component included the construction of landing points with supportive facilities (ice plants, ice and chill storage, and carrier boats), incremental working capital and input supplies for the target group in seven sites in the adjacent and depressed areas of Masbate/Ticao and Western Samar.
- (b) The institutional development component included staff training, equipment, studies and technical assistance, to strengthen BFAR, PFDA and FIDC.

The project was to be implemented over an eight-year period, at a total cost of US\$37 million, including a foreign exchange component of US\$16.9 million (46% of total costs); the Bank loan was US\$22.4 million.

4. Project Design and Organization

Project Design

4.1 The project was designed on the basis of two major assumptions which proved to be inaccurate: that fish resources in the project area were under-exploited, and that marketing arrangements and infrastructure used by artisanal fishermen were inadequate.

4.2 Availability of Fisheries Resources. The assumption during project preparation and appraisal that the intensity of fishing could be increased in the Samar Sea and Ticao Pass area was not based on adequate fish resource surveys. The related assumption that commercial fishing could be restrained through regulatory action in order to preserve existing resources for artisanal fishing was also unrealistic. In the course of its field work, the completion mission observed overfishing in relation to sustainable yield, that the dividing line between artisanal and commercial fishing was far from clear, and that commercial activities were still quite prevalent in the project area (see Annex for details). The record indicates that the paucity of resource information was of concern to those designing the project: an FAO-CP Preparation Progress Report mentioned that resource information had been based only on catch data collected during interviews and that more substantial evidence was therefore necessary. The appraisal team also referred to the declining availability of sustainable fish resources in some coastal waters because of overfishing, and growing competition from commercial fishermen operating in those waters. Finally, the Bank's Loan Committee queried the resource issue and whether Board presentation of the project should not be deferred until adequate fish resource surveys were undertaken. The staff replied that the project emphasis was on improving marketing rather than increasing catches, and it was therefore decided to proceed. The feasibility of enforcing restrictions on commercial fishing was not seriously questioned, although existing laws and regulations on the subject were not being implemented at that time. It would appear that once the project concept had gained momentum, both in the Bank and the Government, the pressure to proceed with what appeared superficially to be an attractive poverty alleviation response to the low incomes of small fishermen led to understatement of fundamental issues. In the event, early on during project implementation, both independent consultant firms retained to manage the area development component concluded that the project area was overfished and that the project design needed to be completely revamped. Ultimately, the entire area development component had to be dropped from the project, after virtually no implementation (see Section 5 below).

4.3 Marketing of Catches by Artisanal Fishermen. Marketing of fish landed by artisanal fishermen was considered to be handicapped by inadequate landing facilities, ice and cold storage; poor insulation of vessels; and heavy dependency on unscrupulous traders, resulting in excessively low prices. However, the completion mission observed that landing places are not necessary since the traditional "bancas" used as fishing boats and carrier vessels are built so that they can easily be hauled up on beaches (see Annex). Fishing trips by these "bancas" rarely exceed three to four hours, and therefore ice is not needed and poor insulation is not relevant. The beaches are visited regularly by middlemen, with such intense competition that small carrier boats often purchase fish catches at sea from both artisanal and commercial fishermen before they are landed. In these circumstances, it is not likely that prices are

unreasonably low. In summary, there was probably very little need for most of the equipment and infrastructure that was included in the project to "solve" the marketing problems.

Project Organization

4.4 The Staff Appraisal Report (SAR) is somewhat ambiguous in describing project management and execution machinery, but essentially the two project components, although inter-dependent, were to be administered separately: a public Corporation was established specifically to implement the area development component, and a Project Unit was created to carry out institutional strengthening activities.

4.5 Area Development Component. The Samar Sea-Ticao Fisheries Development (SEATI) Corporation was established as a condition for loan negotiations; it was to be run like a private enterprise, but with the Government (through PFDA) being the majority shareholder. While the intent to operate SEATI on a purely commercial basis was laudable, this was never achieved in practice. From the start, the Office of Budget Management determined that project funds should be channelled through PFDA and released to SEATI as and when PFDA deemed necessary, which limited SEATI's ability to function flexibly as would a private enterprise. The private consulting firm selected to manage the Corporation was paid for its management services and was also required to invest equity in SEATI, but had no seat on the Board of Directors. The Chairman of the Board designated another Board member to serve as President of SEATI, but there was no clear delineation of the functions of the President and Manager, and this created numerous problems in the decision-making office.

4.6 Institutional Development Component. Rumors that the main fisheries agencies in the Philippines would be transferred from the Ministry of Natural Resources to the Ministry of Agriculture (later known as the Department of Agriculture, DA) had been circulating for several years, and therefore were perhaps justifiably ignored during early project preparation. However, just before appraisal the Bank did become aware that such a transfer would indeed take place, but there is no indication in the record that this subject featured prominently in the appraisal discussions or loan negotiations. With the benefit of hindsight, it is evident that some delay would have been advisable, so that the support which the fisheries agencies needed could have been better defined after their transfer.

4.7 In many respects this project was very poorly conceptualized and therefore doomed to fail from the start, whether administered by the Government or private enterprise (paras. 4.1-4.3). Nonetheless, the separation of the two components, the failure to examine thoroughly the organizational and legal features of SEATI and reach suitably detailed agreements beforehand, and the premature decision to proceed with appraisal and loan negotiations before clarifying the details of the planned transfer of the main fisheries agencies, certainly added to the implementation difficulties which the project later experienced.

5. Project Implementation

5.1 Area Development Component. The first major implementation problem occurred very early on when the private consultant selected to manage SEATI proposed a major change in the project work plan, reportedly after studying the project area more carefully. Although SEATI had been established and the Manager selected before loan negotiations, the Manager's consultant firm had not yet made the required equity contribution. When the firm continued to delay payments and ask for different conditions, the Government terminated the contract and selected another firm, with the approval of the Bank. This firm, RKM Fisheries Enterprises, conducted a preliminary study of the project area and also concluded that the resources had been overfished and therefore the project design had to be changed. The firm proposed that the infrastructure at the landing points was no longer needed, but that "brush-parks" and artificial reefs should be established to address the overfishing problem, that the number of sites for fish landing and collection should be increased, ice carriers purchased and certain improved technologies introduced. The Government and the Bank approved these proposals in early 1984.

5.2 The completion mission was unable to locate any feasibility study to support the revised project proposal. Given that the fish resource position was clearly confused, it is not likely that RKM could have produced realistic catch estimates. Moreover, the cost-effectiveness of the proposed brush parks and artificial reefs had not been determined and, even if these structures would eventually have helped to stabilize fish resources, they would have done little at the time to improve the incomes and welfare of the artisanal fishermen who were supposed to be the principal project beneficiaries. Clearly the project should have been cancelled or fully reappraised at this stage, but the Bank and the Government chose instead to proceed. SEATI's operations, including the practice of recruiting local fishermen as workers, became quite controversial. Eventually, the Board asked SEATI for an analysis of catch results to determine whether the initial brush-parks and artificial reefs which SEATI claimed to have installed were proving effective. When this information was not forthcoming, in 1985 the Government ordered a review of SEATI's operations. The completion mission was also unable to find a report of the review, on the basis of which it was recommended that management of the SEATI should shift to the Government, since the Corporation was essentially development-oriented and not a commercial venture. This recommendation was rejected by both the new Government which came to office in 1986 and the Bank, and the balance of the loan allocated to the area development component was finally cancelled on November 12, 1986. Slightly less than US\$0.3 million (US\$0.2 million for consultant services and US\$0.1 million for equipment/materials/vehicles and vessels) had been spent, out of an original allocation of US\$12.1 million; no loan funds had been disbursed for civil works.

5.3 Institutional Development Component. Implementation of this component was delayed because of the transfer of BFAR and PFDA from the Ministry of Natural Resources to the Ministry of Agriculture and Food, the establishment of the FIDC per Executive Order No. 967 in June 30, 1984 and the subsequent transfer of its functions to the Office of the Secretary of Agriculture. In 1986, when the area development component was terminated (para. 5.2), the loan amount allocated to institutional strengthening was reduced to US\$1.5 million, from an original US\$7.7 million. disbursed.

6. Project Results

6.1 Since the area development component was never really implemented, it had no impact on fisheries activities in the project area during the period before related loan proceeds were cancelled. The completion mission observed that despite the failure to implement this project, or any other major government interventions, the fishermen in the area use relatively efficient methods and receive a reasonable price for their catch (see Annex). Over-fishing is still a serious problem, although some out-migration from the area has helped. The institutional development component eventually had some positive impact. About two-thirds of the respective loan disbursements went towards the procurement of equipment and materials; the facilities provided were urgently needed and are now in full use; consultants were retained to develop what was reported to have been a useful training program for headquarters staff, which served as the basis for expanded training activities; and 459 months of local fellowships were awarded (after the Bank agreed that funds earmarked for study abroad could be used instead at local universities). Nonetheless, many of the trainees either left the fishery agencies or were not placed in positions where their training could be used to the best advantage. A resource assessment study of small pelagics in the Philippines, financed partly under this project and partly under the Fisheries Training Project (Ln. 1786-PH), provides some useful information about the resource base and extent of over-fishing.

7. Sustainability

7.1 The institutional development component has provided some assistance, mainly to BFAR, and therefore may indirectly yield some sustainable benefits, to the extent that other efforts are made to further strengthen that agency and to adequately fund its programs. Since the area development component was not implemented, its sustainability is not an issue. However, all evidence indicates that if this component had proceeded as planned, it would not, today, be judged sustainable.

8. Bank Performance

8.1 This project was very poorly prepared and appraised without properly addressing fundamental issues, despite the fact that some of these were actually raised by the FAO-CP and the Bank's appraisal mission and Loan Committee. In particular, knowledge of the fisheries resource base in the project area was wholly inadequate and resulting assumptions that overfishing was not a problem proved to be incorrect. SEATI was established too hastily, without reaching a clear consensus among all parties on the extent to which it should or would function as a private enterprise, or carefully considering the possible inherent contradiction between the objectives of maximizing artisanal fishermen's incomes on the one hand and realizing maximum profits for the Corporation on the other. The institutional development component was appraised and negotiated despite knowledge that the fisheries agencies would be transferred and that this might well change the kind of assistance that each would need. Supervision missions did detect the malfunctioning of the project and signalled the need for quick action, but without analyzing the underlying reasons. On the face of it, SEATI did not function well due to excessive government interference, but actually the basic rationale for the project was weak and at some stages the government was

reacting to an apparent deviation from original objectives, in the sense that the proposals for project revision put forward by the RKM consulting firm would not necessarily have improved the welfare of the artisanal fishermen.

9. Borrower Performance

9.1 The Government agencies involved in project identification and preparation also bear a major part of the responsibility for the development of a conceptually unsound project proposal. In retrospect, the Government's strict supervision of SEATI, although heavily criticized by the Bank missions and not consistent with the objective of permitting the entity to function on private sector principles, did nonetheless prove useful in detecting problems and preventing a greater outlay of expenditures. The decision to cancel the area development component was most certainly a sound one. Concerning the institutional development component, there are indications in the record that at least some part of the Government was aware of the planned transfer of the fisheries agencies; these intentions should either have been made clear to the Bank or the loan negotiations should have been postponed until the matter was clarified. The Office of Management and Budget should have been more closely involved early on during project preparation and appraisal, to avoid subsequent misunderstandings about the project's financial operations. The project suffered chronic funding delays, the combined result of the difficult fiscal situation facing the country, a cumbersome budgetary process, and possibly internal questioning within the Government about the relative merits of project activities.

10. Project Relationships

10.1 The Bank-Borrower relationship was good at all times throughout the project, even during supervision when opinions differed regarding SEATI's operations. The excellent relationships at the higher management levels of the Bank and Government may, however, have put too much pressure on the operational levels of both, leading them to ignore or understate issues of fundamental importance to the justification and design of the project.

11. Consulting Services

11.1 The consultants contracted to prepare the training program under the institutional development component performed their services in a timely and satisfactory manner. The consultant study, Assessment of Pelagic Fish Stocks, was competent. The performance of the consultants retained to manage SEATI was unsatisfactory, but both firms labored under the burden of a poorly conceived and designed project.

12. Project Documentation and Data

12.1 All documentation on this project which is available at FAO-CP and Bank headquarters and in Government offices was made available to the completion mission. However, several important items could not be located, including a feasibility study apparently prepared by the Government with FAO-CP assistance

as part of project preparation; some of the studies which were reportedly carried out by the RKM consulting firm, including the study or analyses which led RKM, to propose a major revision of the project strategy and content; and certified financial accounts of the operations of SEATI.

13. Lessons Learned

- (a) Fisheries projects generally, and those concerning artisanal fishing in particular, must be designed on the basis of well-founded technical information concerning basic fish resources, marketing practices, technology, etc.
- (b) The institutional framework for a project is as essential to its successful implementation and eventual sustainability as are economic, financial and technical considerations. In all cases, but particularly when new entities are being created, there needs to be a clear consensus among the Bank and all parties involved on the Government side about the nature (public/private orientation), objectives, organization, financing and operating principles of the bodies.
- (c) There is no substitute for devoting adequate resources and time to careful project preparation and appraisal, and the failure to do so carries heavy risks. In this case, the results were not more wasteful only because of the fortuitous cancellation of the main project component before implementation had really begun.

PART II - PROJECT REVIEW FROM BORROWER'S PERSPECTIVE

(Borrower's Report not Available)

PART III - STATISTICAL INFORMATION

1. Related Bank Loans

Loan Title	Purpose and Loan Amount	Year of Approval	Status	Comments
1. Fisheries I (Loan 891-PH)	Improve national fish production through improvement of capture and culture fisheries (US\$11.6 M)	FY 1973	Completed	PCR issued 07/22/80.
2. Fisheries II (Loan 1270-PH)	Same as Fisheries I above. (US\$12.0 M)	FY 1976	Completed	PCR issued 10/12/82.
3. Fisheries Training (Loan 1786-PH)	Strengthen the development of technology and human resources.	FY 1979	Completed	PCR issued 03/19/90.
4. Third Livestock and Fisheries Credit (1894-PH)	Same as in Project Loans 891-PH and 1270-PH, and increase in meat production.	FY 1981	Completed	PCR issued 09/26/88.

2. PROJECT TIMETABLE

ITEM	DATE PLANNED	DATE ACTUAL	DATE T-O-R
Identification (WB/FAO)		July 1979	06/22/79
Identification (FAO)		Oct. 1979	09/14/79
Identification/ Preparation (FAO)		Jan. 1980	11/08/79
Project Brief (FAO)		Nov. 21, 1979	--
Preappraisal		June 1980	05/29/80
Appraisal		Sept. 1980	09/23/80
Post-Appraisal		May 1981	05/22/81
Loan Negotiations	Oct. 1981 Mar. 1982 *	Apr. 5, 1982	--
Board Approval		May 25, 1982	--
Loan Signature	--	Sept. 18, 1982	--
Loan Effectiveness	Dec. 12, 1982	March 16, 1983	--
Partial Loan Cancellation	--	Nov. 12, 1986	--
Loan Closing	Dec. 31, 1989	Dec. 31, 1989	--
Project Completion	Dec. 31, 1988	Dec. 31, 1989	--

* Deferred repeatedly during this period.

Comments. The following issues were raised at the different stages of project cycle:

A. Identification

- Organization and management of marketing facilities. The success of the proposed marketing facilities would be dependent on the quality of the management and the organization within which they would operate. Government wished to include the private sector to the extent possible, and envisaged some form of purchase/leasing/management contract/joint venture basis, involving the PFDA only to the extent necessary. Agreement on the ownership and commercial operation of the facilities was cited as a prerequisite for further project preparation.

B. Preparation Assistance

- Allocation of resources to artisanal fishermen. Unless Government excluded large commercial vessels from fishing grounds reserved for artisanal fishermen, it was felt that project support would be unsuccessful. Enforcement would be difficult and would need to involve local groups.

- Economic rate of return. The increased output from artisanal fishing resulting from the project would be possible because of regulations limiting commercial fisheries intrusion. This increase, coupled with reduced marketing losses, would provide a satisfactory ERR if compared with current levels of artisanal output, but a poor return assuming that without the project commercial fishing would increase to fully utilize the resources. The social rate of return would, however, be satisfactory if factors such as income distribution and employment generation were weighted adequately, because of the poverty of the beneficiaries.

- Institutional problems. The fisheries groups within MNR had an unsatisfactory record of achievement, and would be ill-equipped to handle expanded functions without the support, including new equipment and facilities, recurrent cost financing, and changes in organization and staffing procedures.

C. Appraisal. No new issues were raised.

3. LOAN DISBURSEMENTS

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A. Cumulative Estimated and Actual Disbursements (US\$ Millions)

	FY83	FY84	FY85	FY86	FY87 12/31	FY87 06/30	FY88	FY89	FY90 09/30	FY90 12/31	FY90 01/90
	====	====	====	====	====	====	====	====	====	====	====
Appraisal Estimate	1.10	3.50	7.80	13.00	15.00	16.90	20.60	22.30	22.40	-	
Revised Estimate	-	-	-	-	1.00	2.10	2.10	2.10	2.10	2.10	
Actual	0.33*	0.37	0.57	1.00	1.10	1.10	1.31	1.82	1.83	1.89	
Actual as % of APR/ Revised Estimate	30	11	7	8	110	52	62	87	87	90	
Amount Cancelled					(20.30)*						(0.21)**
Date of Final Disbursement:	December 22, 1989										

B. DISBURSEMENTS BY AGENCY AND FISCAL YEAR (IN US DOLLARS)

AGENCY	TOTAL	FY83	FY84	FY85	FY86	FY87	FY88	FY89	FY90 12/31/89	FY90 01/02/90
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
BFAR	366154.36		21707.54	87604.63	15048.59	8265.48	175911.80	57616.32	0	
DOA	581002.67		0	0	100185.08	6745.63	25645.92	431440.25	16985.79	
FIDC	9204.72		7807.21	1397.51	0	0	0	0	0	
MNR	6283.47		6335.39	0	-51.92	0	0	0	0	
PFDA	228086.84		4840.91	7337.15	98881.74	87255.24	9179.18	20592.62	0	
SEATI	371857.84		0	106307.82	211680.60	0	0	0	53869.42	
F-E Fee:	331034.00	331034.00								
TOTAL:	1893623.90	331034.00	40691.05	202647.11	425744.09	102266.35	210736.90	509649.19	70855.21	
	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
Amount Cancelled:					20,300,000*					206,376.16**

* US\$ 20,300,000 was cancelled effective November 12, 1986.
 ** US\$ 106,376.16 was cancelled effective January 2, 1990.

C. LOAN ALLOCATION AND DISBURSEMENTS BY CATEGORY

CATEGORY	ORIGINAL LOAN ALLOCATION	REVISED ^{1/} LOAN ALLOCATION	TOTAL ACTUAL DISBURSEMENT
1) AREA DEVELOPMENT	12,100,000	274,507.06	274,507.06
(a) Civil works	6,500,000		0.00
(b) Equipment/materials/vehicles/vessels	4,600,000	89,331.07	89,331.07
(c) Consultants' services	1,000,000	185,175.99	185,175.99
2) INSTITUTIONAL STRENGTHENING	7,700,000	1,494,458.94	1,288,082.78
(a) Equipment/materials/vehicles/vessels	5,200,000	214,544.33	852,404.74
(b) Consultants' services and studies	1,500,000	1,002,070.82	149,952.00
(c) Training	1,000,000	277,843.79	285,726.04
3) FRONT-END FEE	331,034	331,034.00	331,034.00
4) UNALLOCATED	2,268,966		
	TOTAL:	22,400,000	2,100,000.00
		=====	=====
CANCELLED		20,300,000.00	206,376.16
ORIGINAL TOTAL:		22,400,000.00	1,893,623.84
		=====	=====

^{1/} Revision at time that area development component was dropped and institutional strengthening activities substantially reduced.

4. PROJECT IMPLEMENTATION 1/

Item	Unit	Appraisal Estimate	Revised Estimate	Actual	% of Revised Estimate
<u>Institutional Strengthening Component</u>					
<u>PFDA</u>					
Overseas Training	US\$'000	355	165	165	100
Local Training	US\$'000	200	42	44	105
Consultancy	US\$'000	628	--	--	--
Equipment, Materials, Vehicles and Vessels	US\$'000	814	892	759	85
<u>BFAR</u>					
Overseas Training	Man-Month	168	40	40	100
Local Training	Man-Month	0	501	370	74
Equipment, Materials, Vehicles and Vessels	US\$'000	5,197	302	276	92
<u>FIDC/MNR/DA</u>					
Overseas Training	US\$'000	42	--	--	--
Local Training	US\$'000	20	8	1	12
Consultancy	US\$'000	1,204	148	146	99
Equipment, Materials, Vehicles and Vessels	US\$'000	234	59	54	92

1/ Excludes the area development component, which was dropped from project without any substantial implementation.

5. PROJECT COSTS AND FINANCINGA. Project Costs
(US\$ million)

	<u>Appraisal Estimate</u>	<u>Revised Estimate</u>	<u>Actual</u>
A. <u>Area Development</u>			
Site Preparation, Buildings, Machinery, Vessels, etc.	10.3	N.A.	N.A.
Administration, Work. Capital and Fisheries Supplies	<u>2.7</u>	<u>N.A.</u>	<u>N.A.</u>
Base Cost Estimate	13.0	1.0	1.1
B. <u>Institutional Strengthening</u>			
PFDA	1.9	1.1	1.0
BFAR	5.4	0.5	0.4
FIDC/MNR/DA	<u>1.5</u>	<u>0.3</u>	<u>0.2</u>
Base Cost Estimate	8.8	1.9	1.6
C. <u>Total Project</u>			
Base Cost Estimate	21.8	2.9	2.7
Physical Cont.	1.4	-	-
Expected Price Increases	<u>13.4</u>	-	<u>N.A.</u>
<u>Total Project Costs</u>	36.6	2.9	2.7
D. <u>Front-End Fee</u>			
	<u>0.4</u>	<u>0.3</u>	<u>0.3</u>
Total Financing	37.0	3.2	3.0

B. Project Financing
(US\$ '000)

<u>Source</u>	<u>Appraisal</u>	<u>(...%)</u>	<u>Final</u>	<u>(...%)</u>
IBRD	22,400	(60.5)	1,894	(63.2)
Domestic	<u>14,600</u> ^{1/}	(39.5)	<u>1,102</u>	(36.8)
TOTAL	37,000		2,996	

^{1/} The SAR shows that this was to be financed US\$14.3 million by Government, US\$0.2 million by private investment and US\$0.1 million by fishermen.

6. PROJECT RESULTS 1/

Studies

<u>Purpose Defined by Appraisal</u>	<u>Status</u>	<u>Impact of Study</u>
Assessment of Pelagic Fish Stocks.	Completed	The study concludes that the small pelagics are overfished in the Philippines. The completion mission was unable to identify specific management measures taken by GOP as a direct result of this study.

Comments

The pelagic assessment study was financed 50% by the World Bank's Fishery Training Project (Loan 1786-PH).

1/ Since the area development component was cancelled before anything significant had been achieved, there were no benefits or impact.

7. STATUS OF COVENANTS

<u>Loan Agreement</u>	<u>Subject</u>	<u>Deadline</u>	<u>Status</u>
3.06 (a)	Development of monitoring and evaluation program.	03/31/83	Done, but did not meet deadline.
3.07 (a)	Submission of organizational changes in fisheries agencies.	06/30/85	Done, but overdue extended deadline. Original deadline was 09/30/82.
3.07 (b)	Begin implementing organizational changes.	08/31/85	Done with extended deadline, but had to be reinitiated due to transfer of fisheries agencies from MNR to DA. Original deadline was 12/31/82.
3.07 (c)	Complete organizational changes.	12/31/85	Done but overdue extended deadline. Original deadline was 12/31/84.

Project Agreement

Covenants of the Project Agreement concerned the operation of the area development component; when this component was dropped from the project, the covenants became irrelevant.

8. USE OF BANK RESOURCES

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A. STAFF INPUTS (STAFFWEEKS)

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STAGE OF PROJECT CYCLE	PLANNED*	TOTAL ACTUAL
Through Appraisal		114.8
Appraisal through Board Approval		80.7
Supervision		57.9
Completion		10.7
TOTAL STAFF INPUTS:		264.1

	TOTAL	FY79	FY80	FY81	FY82	FY83	FY84	FY85	FY86	FY87	FY88	FY89	FY90	FY91
Ident./Preparation	114.8	0.2	107.0	7.6										
Appraisal	75.9			71.4	4.5									
Negotiations/Board	4.8				4.8									
Supervision	57.9				0.8	17.4	8.5	14.6	9.3	3.0	1.8	1.7	0.8	
Completion	10.7									1.2		6.7	0.8	2.0
TOTAL:	264.1	0.2	107.0	79.0	10.1	17.4	8.5	14.6	9.3	4.2	1.8	8.4	1.6	2.0

* Planned data not available.

B. MISSIONS

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STAGE OF PROJECT CYCLE	T-O-R DATE	MO/YR	NUMBER	DAYS	SPECIALTY	PERFORMANCE	
			OF PERSONS	IN FIELD		RATING STATUS	TYPE OF PROBLEMS
Through Appraisal							
1) Ident./Preparation	06/22/79	07/79	1	10	(FAO/CP)		
2) Ident./Preparation	09/14/79	10/79	1	21	(FAO/CP)		
3) Preparation	11/08/79	01/80	3	80	(FAO/CP)		
4) Preappraisal	05/29/80	06/80	1	7	A		
Appraisal	09/23/80	10/80	4	100	A/B/C/D		
Post-Appraisal	05/22/81	05/81	1	7	E		
Supervision 1	10/13/82	10/82	3	30	B/E	2	M
Supervision 2	05/13/83	05/83	1	6	B	2	F/M
Supervision 3	--	09/83	1	5	E	n.a.	n.a.
Supervision 4	11/08/83	11/83	1	5	A	2	M/F
Supervision 5	02/02/84	03/84	2	10	A/E	3	M/F
Supervision 6	--	06/84	2	6	A/E	3	M/F
Supervision 7	--	11/84	2	6	A/E	3	M/F
Supervision 8	06/11/84	07/84	1	15	C	n.a.	n.a.
Supervision 9	02/08/85	03/85	1	7	E	3	M
Supervision 10	04/16/85	04/85	1	10	A	3	F/M
Supervision 11	10/23/85	11/85	1	10	E	4	F/M
Supervision 12	02/20/86	03/86	1	7	E	n.a.	n.a.
Supervision 13	06/13/86	07/86	1	5	E	4	F/M
Supervision 14	05/16/88	06/88	1	7	E	n.a.	n.a.
Completion	03/28/89	04/89	2	50	(FAO/CP)		

SPECIALTY: A = Agricultural Economist B = Economist C = Fisheries Specialist

D = Institutional Management Specialist E = Financial Analyst

PROBLEMS: M = Managerial/Institutional F = Financial

REPORT ON PROJECT COMPLETION MISSION FIELD VISIT

1. This report is based on a field visit by the FAO-CP completion mission to the four locations where the Samar Sea-Ticao Fisheries Development Corporation (SEATI) attempted to launch its activities: Magallanes and San Jacinto (Ticao Island) on both sides of the Ticao Pass, and Santo Nino Island and Tarangan in the Samar Sea. At all four sites, the mission interviewed local authorities, fishermen, boat-builders, fish traders, shopkeepers and other entrepreneurs.
2. General View of the Area. The main activities in the area are fishing and farming. The latter is predominantly small-scale farming based on rice, vegetables, small livestock and coconut. Fishing is artisanal, but has progressively shifted from a subsistence to a market orientation, with most operators now selling their catch to traders who supply the urban and export markets. In recent years some small and medium-scale fish and prawn farming enterprises have also been established. The development potential of the area relative to its basic natural resource endowment (land, water, fish stock, etc.) appears to be fully, or nearly fully, exploited. New activities such as tourism or labor-intensive industries do not seem viable. Emigration therefore seems to be the only solution to decreasing resource availability and worsening poverty. In fact, emigration is already taking place, with a growing proportion of young people leaving for other parts of the Philippines or to become foreign workers, repatriating part of their revenues back to the area.
3. Fishing Techniques. There are an estimated 35,000 fishermen in the area. Their fishing techniques are artisanal, but denote a profound knowledge of the behaviour and vulnerabilities of the fish. In that sense, they are highly efficient and probably optimal from a technical standpoint. Unlike many hunting-catching activities in the world, most fishing operations in the area rely on more subtle techniques for attracting, concentrating and stabilizing the fish prior to the catching operations. Fish attraction and aggregation are obtained through many devices operating at the surface (payaos), or in mid-water and on the seafloor (arongs), through lights at night (lamparos), chumming, live bait, etc. Catches are made through set nets (fish traps), purse-seines, lift nets, ring nets, encircling gill nets, drag nets, etc. Even explosives, which are certainly detrimental to the environment, are skillfully used not only for killing fish, but also for guiding schools outside the arongs structures, and thus making them accessible to purse-seines or other nets.
4. The traditional boats (bancas, pump boats and basnigs) are the optimum type of vessel for the area. They require little power for propulsion, have great stability, a good carrying capacity and an extremely shallow draught, allowing the crafts to be beached in any sandy place and making landing infrastructure unnecessary. Most of the boats have no insulated fish storage capacity since they make only short trips, turning their production over to traders within two to four hours after capture. These boats cost little and are well adapted to any sea-going activity in the area.

5. Fish Resources. There is no precise fish stock assessment and no reliable statistics on efforts and catches of the area. However, several symptoms support the view that fish resources are exploited in excess of their maximum sustainable yield:

- (a) fishermen, traders and entrepreneurs report that catches per unit of effort have been constantly decreasing in recent years;
- (b) boat-builders confirm that the demand for fishing boats is stagnating;
- (c) small bancas (one or two people) can be observed outside the coastal waters at distances of 10 to 15 km from the shore, in fact in the middle of the channels and passes, in areas formerly exploited only by larger boats;
- (d) fishing by the larger bancas, mostly purse-seiners, has been decreasing outside the good mackerel season (from about May to November); and
- (e) smaller size fish, particularly the benthic and demersal species, are being commercialized.

Artificial structures such as sunken reefs, arongs or payaos, are efficient at concentrating fish for catch purposes and eventually stabilizing resources, if effectively managed, but they will not substantially increase resources because the quantity of basic nutrient (primary production) in the waters does not change.

6. Fish Marketing. Fish marketing in the area is competitive. Sea-going fish traders operate in every landing place and in the open sea. About a dozen fish carrying bancas were observed in Magallanes. The same number were seen in San Jacinto and in Calbayog. Three were noted in Santo Nino and four in Taragnan. All were similar to those of the fishermen, although generally bigger and equipped with insulated ice boxes. They seem to be cost-effective and able to beach at any place where the fishermen have based their operations. Fish carriers are posted at every beach landing site, and the landings are stored in ice as soon as they are brought in by the fishermen. This system is so efficient that fish are actually a scarce commodity in local markets, and fish consumers often resort to canned sardine and mackerel since the fishermen obtain better prices for their catch from urban traders. Therefore, fishermen do not complain about the price they receive for their catch, except on rare occasions during the peak of the mackerel season when average producer prices decrease by 30 to 50%. Rather, their main complaint is that the total annual catch is too small to generate a satisfactory income.

7. The larger and more powerful fishing bancas and pump boats belonging to small local entrepreneurs also have low capital intensity and are of traditional design, with no full deck, no insulated fish hold and no deck mechanization. There is no clear cut distinction in the area between commercial and artisanal fishing. From the big banca operating a purse-seine, down to the small unit powered by paddles and sails and equipped with hand lines and/or gill

nets, there is a complex variety of intermediary combinations making it difficult to classify any of these into one or the other category. For example, many non-motorized small bancas well under 3 GT are equipped with huge gill nets, which give them a relatively great catching power. Also, many small units, often non-motorized, are operating at mid-channel (para. 5) and sell a large proportion of their catch (para. 2).

8. Local Views on SEATI's Performance. Local authorities and operators interviewed by the mission viewed SEATI as an unrealistic experiment, doomed from the very beginning. The most common criticisms made were the following. SEATI's permanent staff were not from the area, and local people felt they would never integrate on a long-term basis. SEATI did not take into account local traditions and professional skills, and ignored the opinions and advice of the local people. SEATI's staff had little knowledge of commercial activities, and even less so of fishing. SEATI's management exercised insufficient control over operations and expenses; staff were therefore lackadaisical and their presence at the fish landing sites was irregular. SEATI's brush parks, although apparently efficient in attracting fish, were too weak and were expensive to maintain.

9. Conclusions on Project Concept. Based on its interviews and observations, the mission concluded that little had changed in the area since appraisal (1980). At that time, the natural sea and land resources were already in a state of full exploitation and emigration was occurring. Fishing techniques were, as today, highly efficient. Fish marketing was probably less efficient, but improvements which have taken place should have been foreseen given the active traditional fish marketing network in the area and the strong increase in demand for fish in both the local and export markets.

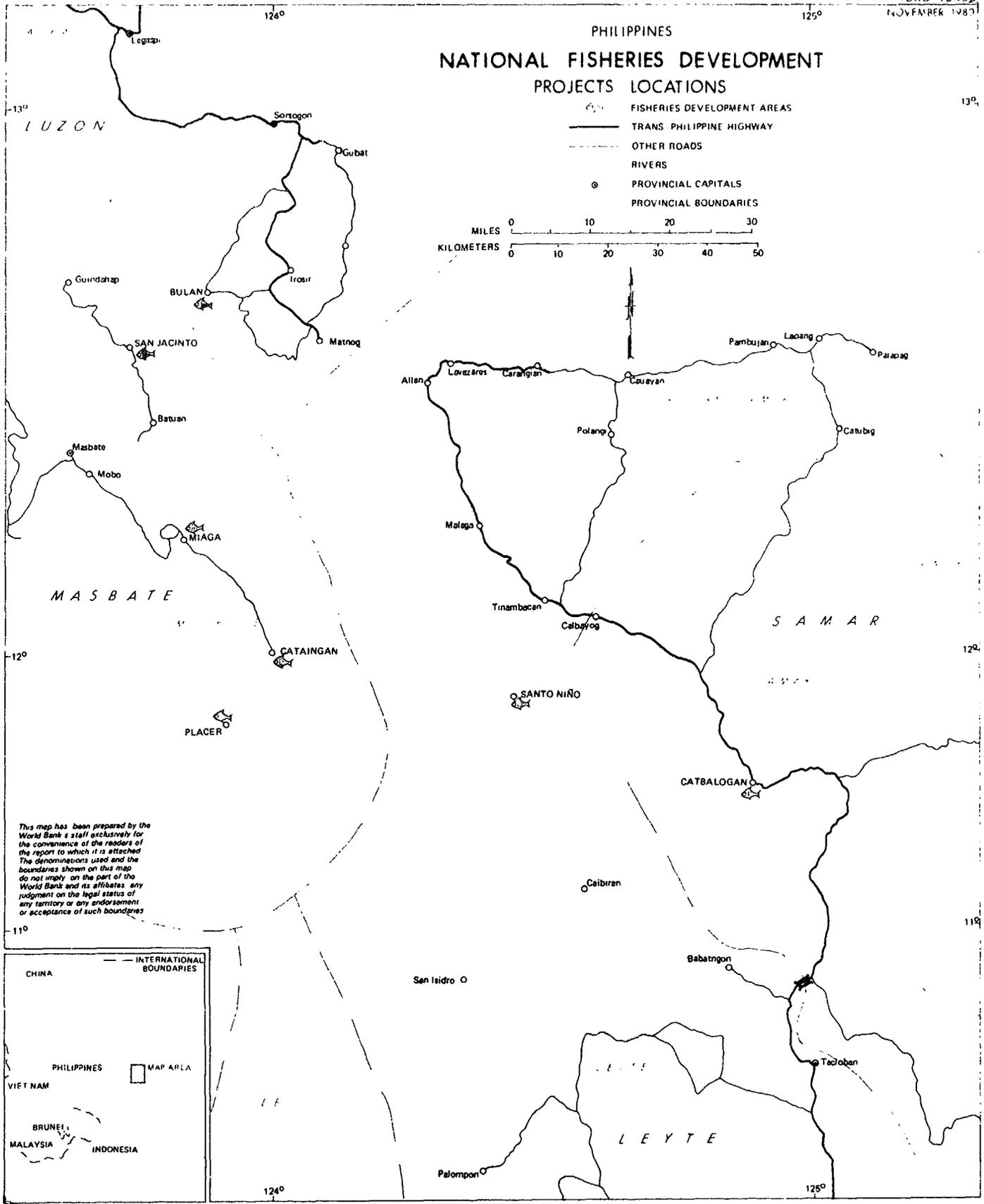
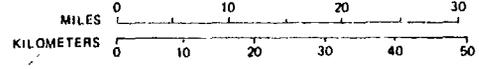
10. Perhaps the main error in project identification and design, which is common to many artisanal fisheries projects, was that low catches of the artisanal fishermen were attributed to their traditional fishing methods, their reluctance to exploit distant waters and to the competition with commercial fishermen. In fact, traditional fishing methods were highly efficient, and could actually be introduced in many tropical countries. Small bancas under 3 GT, often non-motorized, are operated in mid-channel, and this efficiency (combined with a growing local population) has led to over-fishing and presently low catches. The shallow draught of the vessels enables the fishermen to land almost anywhere on the sandy beaches, which means that they can follow the spatial movement of the fish (ie, because they are not dependent on a port for unloading). Fish traders, who operate from carrier bancas, can also follow the fishing effort in all its movement. For this reason, investments in fishing ports should never have been proposed. Fortunately, this point was discovered by SEATI and the facilities were not actually built. The wisdom of this decision is obvious, considering that present marketing arrangements are quite able to absorb total production efficiently. The port component had been justified because of the planned procurement of carrier boats, ice plants, ice stores, chill rooms, etc. This was a serious misjudgement of the traditional marketing system. Moreover, a corporation managing industrial marketing activities and staffed with outsiders would never have competed with many small sea-going fish traders living continuously in close contact with the small fishermen. This point was missed during project preparation and appraisal, because the traditional fish traders were seen as rapacious intermediaries responsible for the low incomes of the fishermen, who therefore had to be "liberated" from their

hold. This may be true in cases where there are only a few middlemen, but it did not apply in this area.

11. In the event, SEATI did not attempt to compete with the traditional fish traders as suggested in the SAR. Instead it tried to establish production-oriented fisheries through fish culture and brush parks. The former was a long-term exercise which was not at all viable in the short period during which the Corporation existed. Brush parks are underwater structures implanted in great density in near-shore waters with the aim of increasing the stock of fish and therefore ensuring better catches and incomes to the artisanal fishermen. Also, since these structures would hinder larger vessels from entering in shallow waters, they were supposed to protect small fisherman from their more commercial colleagues. From August 1984 to March 1985, SEATI claimed to have installed more than 10,000 underwater structures in the four locations where it was operating. However, no catch records were available, although SEATI's Board Minutes show that the Board had persistently asked for this information. In similar tropical waters and when natural conditions are favourable, such devices generally attract commercial concentrations of adult fish after 3-4 months at the very most. The fact that no increased catches were recorded could imply either that these devices were not properly controlled or that the area was over-fished to such an extent that fish attracting devices did not help. In addition, the local people incriminated their structural weaknesses and SEATI's lack of commercial know-how, management skills, understanding of local society and culture, etc., as important main reasons.

PHILIPPINES NATIONAL FISHERIES DEVELOPMENT PROJECTS LOCATIONS

- FISHERIES DEVELOPMENT AREAS
- TRANS PHILIPPINE HIGHWAY
- OTHER ROADS
- RIVERS
- PROVINCIAL CAPITALS
- PROVINCIAL BOUNDARIES



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