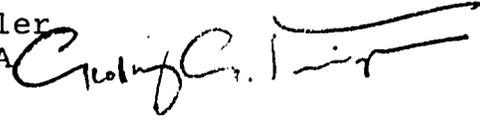


Memorandum

TO : Mr. Anthony M. Schwarzwalder, Director DATE: December 29, 1980
USAID/Philippines

THRU : Mr. Leon E. Vaughn, Controller

FROM : Geoffrey G. Fritzler, AAG/EA 

SUBJECT: Memorandum Audit Report No. 2-492-81-6
Disaster Rehabilitation-Philippines, Project 492-0316

BACKGROUND

In May 1976, typhoon "Didang" struck Luzon Island bringing unusually heavy and prolonged monsoon rains; causing severe flooding throughout Central Luzon and moderate flooding to adjacent provinces. The Agno and Pampanga Rivers rose to record heights, exceeding those which occurred during the disastrous 1972 floods.

Flooding during and after the passing of "Didang" caused extensive damage to flood control structures, irrigation systems, roads, bridges, residential and commercial building, and agriculture. Total damages were estimated to be \$85 million.

The purpose of Project Agreement (ProAg) 76-19, dated September 30, 1976 in the amount of \$5 million, was to assist the Government of the Philippines (GOP) to rehabilitate about 30 of the most severely damaged flood control and irrigation structures or systems on Luzon Island, as rapidly as possible, to enable those facilities to function properly and withstand future flooding.

In particular, it was planned to: (1) repair and improve about 14 flood control structures damaged or threatened by "Didang", work consisting of rebuilding and extending revetments, repairing and raising earth dikes and constructing rock spur dikes to prevent further erosion in critical areas; (2) repair and rehabilitate about 16 irrigation systems damaged by this typhoon through repair or replacement of small concrete structures damaged or washed out; and (3) provide technical assistance, special hydrologic studies and commodities (U.S. excess construction equipment).

The GOP estimated that with the support of the USAID, the infrastructure projects could be rehabilitated by July 31, 1977, to be fully functional in time for the next normal rainy season. As a contingency against early rains, the GOP planned to accelerate the rehabilitation of the most critical projects.

The \$5 million provided by ProAg 76-19, of which \$4.6 million was extended to reimburse a major portion of the total construction cost, was via the Fixed Amount Reimbursement (FAR) method. Under the FAR method, reimbursement of costs takes place, on a predetermined percentage basis, after physical completion of the work, and certified acceptance by AID. The remaining \$0.4 million was for Project Manager and monitoring personnel costs, hydrologic studies, excess property and other technical assistance as required.

The costs delineated by the ProAg, subsequent revision and the final costs were as follows:

<u>Cost Category</u> <u>Cost Category</u>	<u>Original</u> <u>(000)</u>	<u>Amendment</u> <u>No. 4</u> <u>(000)</u>	<u>Final Actual</u> <u>Obligations/</u> <u>Expenditures</u> <u>(000)</u>
U.S. Personnel	50	61	48
Local Personnel	150	11	10
Commodities ^{1/}	200	306	286 ^{1/}
Other Costs (FAR)	<u>4,600</u>	<u>4,622</u>	<u>4,619</u> ^{2/}
Total	<u>5,000</u>	<u>5,000</u>	<u>4,963</u>

^{1/} Excess Property (No deficiencies noted)

^{2/} \$4,603,400 for the Flood Control & Irrigation subprojects.

The ProAg was with the GOP's National Economic & Development Authority (NEDA), however, the Bureau of Public Works (BPW) and National Irrigation Administration (NIA) were primarily responsible for the actual rehabilitation effort.

The draft report has been discussed with Mission officials prior to publication.

PURPOSE AND SCOPE

The project was physically completed in 1978, with fiscal closure occurring in 1980. Final reimbursements to the GOP for the Flood Control and Irrigation repair and rehabilitation were made in June 1978.

Our review was to determine: (1) that the purpose and provisions of the project agreement had been adequately implemented, and (2) that the reimbursement under the FAR system were properly computed and certified.

The audit, considered final, was limited to a thorough review of the project files, from inception to completion, which were taken from storage. The project manager who was most conversant with the entire project had transferred to another

post prior to our review.

FINDINGS AND CONCLUSION

The Mission deserves special recognition for the exceptionally well maintained project files, which, in all respects provide well documented evidence of what had been planned and accomplished, and how crucial decisions were made.

The project was funded for \$5 million, and total expenditures amounted to \$4,963,000. The \$37,000 balance was deobligated.

The ProAg estimate of 14 flood control and 16 irrigation sub-projects was almost realized by a final actual count of 16 flood control and 12 irrigation subprojects.

The individual subproject files disclosed that in every instance there existed very detailed GOP cost estimates of the work to be done. Original estimates were revised as the work progressed, with costs moving in both directions, up and down. We interpreted this as evidence that responsible officials were in command.

Periodic status and trip reports were in each file, and they disclosed adequate monitoring and evaluations.

A review of the files leads to only one conclusion: Both the Mission and the GOP were acting as responsible managers. For instance, where it was found that certain aspects of a sub-project were too costly, or would not work, another less costly method was devised. From all indications, the planned work, as stated in the ProAg was accomplished, on a relatively timely basis.

The ProAg noted that the GOP estimated that the rehabilitation could be completed by July 31, 1977.

Progressive reports revealed the following degrees of success:

<u>% Completion</u>	<u>Flood Control Projects</u>			<u>Irrigation Projects</u>	
	<u>7-31-77</u>	<u>1-31-78</u>	<u>5-31-78</u>	<u>7-31-77</u>	<u>3-31-78</u>
100	8	14	16	9	12
90+				2	
70+	3				
65				1	
58		1			
25 to 40	3				
0	2	1			
	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Totals	<u>16</u>	<u>16</u>	<u>16</u>	<u>12</u>	<u>12</u>

The COP, estimated July 31, 1977 target date proved to be fairly realistic. Only 10 months later the entire project was completed evidencing dedication by all concerned to get the job done. Considering the tremendous work involved, coupled to the fact that another rainy season had to be coped with, the job, in our opinion, deserves a "well done," verdict.

We have concluded that the two aspects of the audit purpose have been satisfied.

REPORT RECIPIENTS

USAID/Philippines

Director 5

AID/W

Deputy Administrator 1

Bureau for Asia:

Assistant Administrator 1

Deputy Assistant Administrator (Audit
Liaison Officer) 1

Office of the Philippines and Thailand Affairs 1

Bureau of Development Support:

Office of Development Information and
Utilization (DS/DIU) 4

Bureau for Program and Management Services:

Office of Contract Management (SER/CM) 3

Office of the Auditor General:

Auditor General (AG) 1

Executive Management Staff (AG/EMS) 12

Plans, Policy & Programs (AG/PPP) 1

Area Auditor General:

AAG/W 1

AAG/Africa (East) 1

AAG/Egypt 1

AAG/Near East 1

AAG/Latin America 1

AAO/La Paz 1

AAO/New Delhi 1

Office of Legislative Affairs (LEG) 1

Office of Financial Management (FM) 1

Office of the General Counsel (GC) 1

Office of Legislative & Public Affairs (IDCA) 1

OTHER

Auditor General, Inspections and Investigations
Staff (AG/ILS/Manila) 1

Draft **EF**

EFG

ISN 821

PD-AAI-515

Evaluates project to rehabilitate typhoon-damaged flood control and irrigation systems and structures in Luzon, the Philippines. Audit report covers the period 9/76-6/78 and is based on document review.

With \$4,936,000 of the \$5 million loan expended (the \$37,000 balance was deobligated), 16 versus a targeted 14 flood control systems and 12 of 16 planned irrigation systems were repaired. Rehabilitating flood control structures entailed rebuilding and extending revetments, repairing and raising earth dikes, and constructing rock spur dikes to prevent further critical erosion. Irrigation system work involved repairing or replacing small concrete structures. To implement these tasks, excess U.S. construction equipment was provided and special hydrologic studies were prepared.

The project implementors--the Philippine Government's (PG's) National Economic and Development Authority, Bureau for Public Works, and National Irrigation Administration--prepared detailed cost estimates which were revised as work progressed. They also wrote periodic status and trip reports, indicative of adequate project monitoring and evaluation. Both USAID/P and the PG acted as responsible managers, devising less costly methods when planned work proved too costly or impractical. Finally, the project was completed within a reasonably short time (10 months) after the targeted date of 7/31/77.