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MID-TERM EVALUATION

PADDY PROCESSING AND STORAGE

SRI LANKA
383-T-017

EVALUATION TEAM

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EVALUATION REPORT

Paddy Processing and Storage Sri Lanka - March, 1980

I. INTRODUCTION

A. Preeminence of Rice

Rice is the most important food crop with far ranging implications in both the social and economic life of Sri Lanka. Per capita consumption is about 230 pounds annually and it accounts for 35% of individual consumption. Together with wheat flour these two foods account for 63% of calories and about 71% of protein consumed nationally.

Rice cultivation is also the most important agricultural activity in the country. About 800,000 persons on 1.5 million acres (88% cultivate farms of 5 acres or less) are engaged in its production.

Sri Lanka's rice production has steadily increased over the years. However, it is a net importer of rice, but at decreasing rates annually. Production almost doubled between 1966 and 1978. The country's current expansion program, which includes the development of the vast Mahaweli Basin under which an additional 750,000 acres of irrigated rice land will be brought into production when completed, will increase its production by almost one third to one half.

B. The Project

The importance of rice in the peoples' diet, particularly those in the growing urban area, makes it necessary to give special attention to rice procurement, storage and processing. When the USAID-financed

Paddy Storage and Processing Project was authorized in 1976 the country was rapidly approaching self sufficiency. However, several poor growing seasons reversed this trend. Nevertheless, the Government decided to delay final approval of the project at that time. Finally a new Government reconsidered the project in 1977 and in February 1978 a project agreement was signed for a 5.4 million dollar loan.

The purpose of the project is to increase the efficiency of paddy procurement, storage and processing and increase the capacity for paddy storage and processing in Sri Lanka.

The proceeds of the loan were programmed to finance the foreign exchange costs of importing complete units or components for about 3,500 paddy cleaners, 900 paddy dryers, 3,100 moisture meters, 10 two-ton per/hr. rice mills and 40,000 tons of bulk storage, 7 one-ton per/hr. mills for the private sector and 77 man-months of technical assistance and training.

C. Methodology

The evaluation methodology was rather simple in view of the brief period allotted for the evaluation. An Evaluation Team was fielded February 18 in Sri Lanka. Five members accompanied by GSL officials visited new mill sites, regional Paddy Marketing Board (PMB) stores and private milling facilities for four days. The team leader joined the team on February 26 and remained through March 1st to complete the report.

Individual members contributed specific elements to the report and

a group consensus was obtained on conclusions and recommendations of the study. The private sector miller on the team provided a good perspective of the private millers problems. He was kind enough to provide a letter on the subject which is included as Appendix A.

The original design was assessed for continued validity and appropriateness. In several important cases progress indicators identified earlier were found to be irrelevant while in others new indicators were added to the design. The lack of sound economic studies and analyses was a handicap in identifying relevant progress indicators and collecting information. The design is also faulted for its complete lack of input and output indicators for the technical assistance element of the project and the lack of a reasonable implementation plan.

Mr. Clark Billings, USAID/Sri Lanka Program Officer, chaired the debriefing on February 29, 1980 for Mission management and a representative from the GSL's External Resources Division, Ministry of Finance and Planning. The debriefing group included Tom Wilson, USAID/Sri Lanka - Ag. Development Officer; D.M.B. Marapone, Chairman - PMB; and William S. Lefes, Team Leader from USAID/Kenya.

II. SUMMARY/EVALUATION RESULTS

Five members of the Evaluation Team were conducted on a field tour for four days to inspect mill sites, PMB regional stores, procurement centers and private milling facilities. The field trip provided members of the team an opportunity to observe, inspect and review project activities and workings of PMB. The PMB installations and sites visited

included: the four silo complexes, various storages and storage/milling complexes, quota mills, multi-purpose coops and other buying and selling outlets and stations, the Rice Processing Development Center (RPDC) at Anuradhapura and the Milling Training Center which includes a small one-ton per hour Sahtaki Mill with a parboiling unit and a dormitory facility, all near Peradeniya, and the seven project storage/milling sites.

The trip was well planned and orchestrated nearly without flaw. The storage/milling and training complexes and other sites were humming with activity in expectation of the team's arrival. However, it did give opportunity for many good conversational exchanges. Significant paddy loss and damages due to poor management and worn-out maladjusted milling equipment was observed at several locations. Evidence of significant under utilization of training facilities was noted at both RPDC and the Kandy/Peradeniya Training Center. There was no evidence presented to substantiate the feasibility of project site selections or design layouts (e.g. paddy, sully, roads, water, electricity environmental controls, wind direction, water tables, flooding, site geology, housing, community services and environmental impact). The availability of studies of feasibility site selection is a matter that the LSU Engineer will have to ascertain in the next 6 to 8 weeks.

The team consensus is that the project has gained a directed momentum with construction contracts awarded for six of the seven sites. Construction has started at three of the seven sites. All of the prefab storage buildings have been delivered to each site and the milling/par-

boiling equipment is mostly stored in side dock warehouses in Colombo in readiness for dispatching to the sites.

The team leader arrived in Sri Lanka February 24 and met the team at Kurunegala on the 26th where the team discussed procurement and storage procedures with the PMB Regional Manager, visited a small operating mill in the region and observed traditional harvesting of paddy. The team returned to Colombo and began deliberations on February 27 to consider progress to date, conclusions and recommendations. On March 1 the team leader provided USAID Management with a draft report.

This project evaluation report does not necessarily constitute total agreement by the team on all points. It is a consensus of a number of persons with diverse interests. Hopefully the report is a candid appraisal of project progress to date and key issues and includes recommendations that will lead to a reasonably sound action program. The project implementation is about 14 months behind schedule, a matter which has necessitated a doubling of GSL's contribution to the activity. The GSL's share of the cost has increased from 50% to 66%.

The evaluation also served as an important vehicle in bringing together key officials and participants from the Ministry of Agriculture, PMB, the private milling sector, USAID, LSU, Ministry of Plan Implementation and Government field staff. The face-to-face encounter was healthy, though tension-ladened at times, non-adversary and instructive. In the final debriefing with USAID management, the Chairman of PMB expressed his gratitude for the opportunity of reviewing the project within a framework of candidness and objectivity.

We found the original goal statement unrealistic. We have, therefore, taken the liberty to realign the goal to coincide with Sri Lanka's development aspirations and in keeping within the bounds of reality of the project purpose.

We discuss our rationale for the change in Part III of the report. The project purpose is still valid and it is an integral part of Sri Lanka's Development Strategy. The end of project indicators were, for the most part, irrelevant and outputs and inputs ignored the TA element of the project. In short, the project design was poorly conceived, improperly justified and difficult to verify achievement.

Project Implementation has gone poorly for a number of reasons, including USAID's poor monitoring performance. Appendix B provides a summary of some of the problems. In the interim local construction costs have increased precipitously causing the PMB's share of project cost to increase from 50% to almost 66%. GSL has thus far provided the necessary increments of funding as the requirements have come due.

We have concluded that PMB is making progress in improving efficiency in paddy procurement, storage and processing. During the course of our deliberations we found a difference of opinion on engineering design between LSU consultants and PMB engineering staff. There are indications that LSU engineering personnel have not been fully utilized during the past year. We also found that other donors are beginning to inundate PMB with assistance offers indicating a need for a need for RPDC to be turned into a practical staff training facility. Throughout the evaluation

session the Chairman of PMB reiterated his belief that the services of the contractor are needed for the near-term and he expressed his desire that this will be possible.

Our recommendations include the following: 1) that LSU and PMB modify their approach to problem solving in an effort to fully utilize the LSU engineer and project director, the absence of which would jeopardize continuation of the project; 2) that the project implementation committees within the Ministry of Agriculture and PMB should be fully utilized to monitor and facilitate implementation of this project; 3) that donor coordination efforts by PMB be supported; 4) that the contractor assist PMB establish training courses for its staff; and finally, 5) that if the project continues it should be restructured to take into account certain defacto design changes and to adjust funding for additional TA and training requirements.

III. THE PROJECT DESIGN

The Project includes four major elements: a) grain storage, handling and milling facilities for seven sites; b) cleaners, dryers and moisture meters for PMB procurement centers; c) rice mills for 10 sites; and d) consultancy services and training.

The milling equipment for 10 sites is primarily for demonstration purposes to commercial rice processors. It was planned that local manufacturers of milling equipment would benefit by replicating certain elements of U.S. advanced designs for use in locally designed mills. The role of moisture meters were envisaged as necessary tools to permit PMB to switch

to procurement procedures that depended on weight and moisture standards. Both of these elements were thought to be innovative and appropriate changes in the Sri Lanka rice industry, albeit risky ventures in a tradition bound sector of the economy.

The underlying assumption of the project design, that demonstration mills are sufficient and necessary to increase efficiency in procurement, storage and processing, now appears questionable. A number of other factors are probably more important in bringing about the kind of transformation contemplated in the original design. The Evaluation Team identifies some of these factors in its conclusions to this report.

In our methodological approach to the evaluation we have adhered to the original design and have attempted to verify the relevance of indicators of progress as well as to assess progress to date. In some cases we are recommending deletion of certain indicators (e.g. rice out-turn and moisture content) as they are not and, in some cases, have never been relevant in measuring progress. In other cases we have identified new indicators of progress in order that future evaluators from the GSL may find a basis for assessing the achievements of this activity.

We have also identified key issues that we believe are pertinent to decision makers in the U.S. Mission, LSU and PMB.

We conclude with recommendations for future courses of action designed to successfully conclude the project as expeditiously as possible.

A. Goal

To establish processed rice quality equivalent to exportable standard. The basic assumption underlying the goal is founded in the fact that the relatively sophisticated consumer in Sri Lanka is increasingly demanding a higher grade of processed rice as the country achieves self sufficiency and rice becomes more available. Additionally, the prospects for becoming a net exporter of rice in the near-term are realistic. Therefore, the GSL is not unmindful of the requirements of the international market place. However, increasing rice standards is a long-term and complex phenomena which needs considerable lead time and the integration of a number of policy considerations and physical inputs in order to transform paddy harvesting and marketing practices and procurement, storage and processing technologies in the rice industry.

The original goal, to attain self sufficiency in food production, appears to be overreaching the parameters of reality and the potential impact this project was designed to achieve. Other than prevention of wastage in milling and storage, increased rice production is dependent on a series of events most of which are unrelated to this project. Therefore, the evaluation team decided to realign the goal of the project to reflect a more realistic Sri Lanka development aspiration whose achievement is reasonable subjected to the influence of the project at hand.

To the extent that project purpose is achieved, its chance of influencing achievement of the goal is a reasonable proposition. The proximity of the PMB, through its marketing organizations throughout the country to the farmer provides it an extraordinary opportunity to influence

harvesting and marketing practices. As the PMB attains increased confidence and staff capability, its pricing policies, economic cost analysis capability, technical expertise, commercial sector focus and managerial acumen, should provide an appropriate basis for change in rice procurement, processing and storage.

Progress in achieving the goal of the project cannot be realistically measured at this time. However, PMB is pursuing a strategy that should ultimately improve rice quality in Sri Lanka.

B. Project Purpose

The purpose of the project is to increase efficiency of paddy procurement, storage and processing.

The project is essentially an institutional development activity in which some physical facilities are provided to PMB to enhance its storage and milling capacity. PMB is the country's most important institution in a position to direct the modernizations of the paddy post harvest industry. It is responsible for procurement of paddy and for providing the Food Commission with rice for the food stamp program.

Government policy at the time of design mandated PMB to increase its share of rice purchases and milling, a requirement that launched it on a crash program to increase its physical capacity to purchase, store and mill rice. This policy no longer has the priority that it once had. Therefore, renewed emphasis needs to be given to PMB's emerging role in stabilizing rice prices and ensuring adequate stock availabilities to the food stamp program.

In executing its responsibilities in this area PMB is also attempting to increase the quality of rice as it has a direct bearing on the efficiency with which it is handled as well as its market price. To this end, this project was designed to achieve increased PMB capability.

1. Indicators of Progress in achieving the Project Purpose

	1976	Expected 1980	Actual 1980	Comment
a) Transfer price/100 lbs				
Parboiled	Unknown		Rs.93.48	See App. C
Raw rice	Unknown		Rs.93.48	
b) Milling costs/100 lbs.	Rs.110.00		Rs.100.61	See App. C
c) Guaranteed prices to farmers	Rs.33 / lb.		Rs.40/lb.	See para below - PMB's price for paddy.
d) Paddy Moisture Content at point of procurement <u>1/</u>	18%	14%	15%	See comment below on paddy procurement.
e) Physical losses due to:				
Storage	2.1%	0.5%	1.73%	See Apps.D,E & F for 1978 figures.
Consumer reprocessing <u>2/</u>	12%	0%	0%	—
f) Cost of processing: PMB outturn for raw rice and parboiled <u>Quota Miller's</u> outturn for raw rice and parboiled.				This indicator is not relevant as outturn is a function of pricing policy for cost of milling rather than a standard of efficiency. See para below on <u>Rice Outturn</u> .
g) PMB operation cost for a ton of rice	Rs.2,445	Rs.2,579	Rs.3,284	This is in current prices.
h) PMB's organization and management capability				See para below <u>PMB's Institutional Capacity</u> .

1/ This is a matter of PMB procurement policy. It will not usually accept rice above 15% moisture content as it lacks facilities for drying paddy.

2/ Rice processing in the past several years virtually eliminates necessity for consumer reprocessing; therefore, indicator is no longer relevant.

2. PMB's Price for Paddy

During the course of our inquiries a number of relatively recent but specific and important changes in the environment in which PMB operates have come to our attention. It was pointed out for example that while PMB's buying prices have not risen in proportion to farm costs, growers have been helped with other economic incentives. Among others: 1) fertilizer is said to be subsidized to growers at 80% of cost, and 2) imported rice can be sold at prices reflecting world markets while PMB selling prices must be held to one that reflects the buying price and costs as measured at some previous point in time. A result is that PMB must now operate in a more market oriented economy than previously, but with a game plan designed for a more planned economy.

We have no reason to argue with those who are responsible for the programs that led to these changes. In fact we generally applaud them believing as we do that the more market oriented economy created by these phenomena is a more efficient and equitable system for guiding production and consumption. We would, however, argue that PMB needs a more flexible pricing policy to better align itself with the new environment. Economic studies designed to explore pricing arrangements that would make better utilization of PMB facilities and at the same time retain the best elements of the market oriented economy, therefore, seem needed. Such studies should examine probable impacts of: 1) premiums in buying prices for quality paddy and in selling prices of quality milled rice, 2) locational differentials in buying prices to reflect difference in costs, 3) differentials in buying prices to encourage storage before acquisition by PMB, 4) what role PMB might play in a paddy reserve program and 5) the extent

to which PMB owned mills and perhaps part of its planned storage facilities are appropriate to the new environment.

It is recognized that a leading goal of PMB is to help ensure an adequate rice supply at fair prices in Sri Lanka. Some flexibility in these prices however is likely to improve the efficiency with which this could be done and also create a more orderly market and quality product for both producers and consumers.

3. Paddy Procurement

The lack of drying facilities generally make it impossible for PMB to accept paddy with inordinately high moisture. It is generally conceded that some paddy is purchased with high moisture content which is then set out to dry in the sun. However, the policy is that paddy is not accepted if its moisture content exceeds 15%. Furthermore, there is no price differential for lower moisture content which takes into account the farmers cost and inconvenience for drying paddy. Therefore, this indicator is irrelevant at this time in measuring post harvest efficiency.

4. Rice Out-turn

Among the important assumptions when the project was designed was the matter of out-turn of PMB mills for parboiled rice which was estimated at 67% and white rice at 65%. The report of the Paddy Marketing Board of 15/12/80 shows rice out-turn for parboiled and raw rice annually from 1972 to 1979. This table, however, cannot be used as a measure of performance or progress. It reports the official level of out-turn required of quota private millers per unit of paddy delivered to them by the Paddy

Marketing Board. It has been changed from year to year depending on the relative level of milling (from a 40% polish level to a 100% polish level), depending on relative supplies in relation to demand, consumer pressures, and the like.

In the absence of a specific continuing research program to monitor and measure changes in out-turn, certain subjective observations can be made. In 1973 practically all of the market supplies released by the PMB was of very low quality, dark-colored, smelly, about 50% broken grains, 10% or more of mixed varieties, and a high content of foreign materials including stones, unmilled paddy, weed seeds, and indications of bird and rat contamination as well as weevil infestation. In 1978, only about 50% of PMB released supplies were of this type with the remainder of low quality by international standards, but reasonably representative of Asiatic domestic rice quality. In 1979, this ratio had changed to about 40% of the unacceptable quality type. In 1980, this ratio has been reduced to about 25% very low quality and 75% reasonably good. This evaluation, although subjective and one which needs to be checked by careful market research, indicates that some progress has been made in recent years, especially in 1978 and 1979, in the out-turn of higher quality rice by PMB mills. Generally, improvements in quantity follow improvements in quality.

5. PMB's Institutional Capacity

PMB implements its field operations through 13 Regional Managers with certain Directors being responsible for some of the regions. Its

headquarters functions, however, are located in Colombo. Currently 12 Divisional Heads and 12 Regional Managers report directly to the Chairman through the General Manager. A synopsis of management requirements follows for each of the 12 divisions: there is a need to expedite procurement; storage complexes are in disrepair; proper costing systems and adequate bagging procedures are needed; its marketing function is becoming increasingly important and there is a need for forward planning, data collection and analysis; closer coordination is needed in the engineering department; planning and development functions need revitalizing financial control in purchasing paddy and a management information system are needed; PMB needs a regular audit program; an effective inventory of stocks is required, statistical data should be produced on regular basis for PMB management; new administrative arrangements and training of staff are needed; and span of control for the Chairman needs to be reduced to 7 or 8 Division Chiefs to enable him to delegate responsibility to fewer managers. (Report by National Institute of Business Management (NIBM) May 1979, Performance Study of PMB.)

With the dynamic role Paddy Marketing Board is expected to play at present, it has become necessary to make institutional changes to make it more effective. It is envisaged that these changes will bring about the following improvements to the organization.

(A) The present system of 10 divisional heads and 13 regional managers reporting directly to the Chairman/General Manager is far too excessive for efficient co-ordination and direction by any management standards. The proposed organizational structure envisages the creation

of an intermediary level of Deputy General Manager who are expected to settle routine problems of the divisions and save substantial time for Chairman/General Manager.

(B) Creation of a fewer number of divisional heads may lead to clear demarcation of responsibilities and settle some inter-division relational problems.

(C) The divisional heads under the leadership and guidance of Chairman/General Manager will function as an effective forum for discussing evaluation of various strategies and policy planning.

(D) The proposed organizational changes take into consideration of current demands of the PMB such as more emphasis on planning and development, training needs and financial control and management and market intelligence. With some additional training it is expected the Managers will turn out to be specialists in their own fields, with more initiative and confidence to shoulder new responsibilities.

(E) Delegation of power and better coordinated functioning of Departments will facilitate decision making processes thereby enabling the PMB to adapt to changing market conditions.

The PMB Chairman is reviewing the NIBM report with the thought of recommending certain changes in the near future. However, he realizes that it will be difficult to do so without additional training for staff and particularly senior and middle level managers. The reorganization, however, is to be encouraged.

C. Outputs

Detailed status of outputs are provided in Appendix G. A summary of progress to date follows :

1. Paddy Purchase Program

a) Moisture Meters: Design and specifications planned March 1979, actual June 1979. Installation planned October 1979. Thus far the purchase of 3,000 moisture meters has not been completed. They are out on tender at this time. The critical nature of these instruments necessitates training for procurement center personnel.

b) Cleaners & Dryers: The lack of an adequate power supply and the constraint of the budget has forced a major reduction in the installation of cleaners and dryers in the PMB stores. PMB now plans for dryers at 30 store locations. Five cleaners will be imported with the remaining twenty-five to be manufactured locally. Dryers will be both batch type and continuous flow type. It is anticipated that two size batch type dryers will be imported with the remaining number locally manufactured. Continuous flow type dryers will be manufactured locally. Revised expenditure planned for cleaners and dryers is approximately Rs.476,000; foreign cost is approximately US \$300,000. Designs and specifications were planned for March 1979 and operations for April 1980. No action has been taken on this equipment as yet.

2. Storage and Milling

a) Seven Complexes: No changes are contemplated in the time span necessary for construction of the complexes. Spare part requisitions,

in spite of approaching deadline for holding prices, have not been developed or issued. Procurement of boilers is not yet finalized. Water treatment essential for efficient boiler operation has not yet been considered. Of equal significance is the immediate need for the Paddy Marketing Board to develop plans and specifications for emission-dust control systems at each of the seven (7) complexes. Design and specifications planned April 1978, actual May 1979. Operations planned October 1979. No action as yet. Seven locations have been selected by PMB in consultation with local authorities. PMB's consulting engineers, DG-5, has completed site inspections and site tests. It has certified to the suitability of these sites for mill locations.

b) Improvement to existing facilities: Funds for improvement to existing PMB facilities have been allocated. However, considerable improvement needs to be made in four (4) silo complexes. PMB has tentative plans to import water proofing compounds or use Ferral Cement for water-proofing these silo complexes, and to install temperature monitoring equipment.

3. Private Mill Development

The full implementation program for private rice mill development is pending upon policy decisions on disposition of the mills. Currently PMB is interviewing 72 applicants for the 10 mills. Its terms for selling the mills have been set at 20% down payment and 7 yrs. to pay off the mill at 4% interest charges.

4. Technical Assistance

The technical assistance contract for PMB is for a three-year period beginning July, 1978. As the project is 14 months behind schedule as of September 1, 1979, PMB requests that a one-year extension be approved for technical assistance and training. The approximate cost is estimated to be US \$170,000 in foreign exchange and the equivalent of US \$47,000 in rupees as local support subject to negotiation with the contractor.

The Louisiana State University has provided the technical assistance and training component of this project, basically, in the initial period August through December 1978 -- assisting PMB Tender Board, Peoples' Bank and USAID in the innumerable problems associated with issuance of Letters of Credit, extension of credit and verification of shipments.

Technical assistance has been extended in the area of checking cargo at the port, assisting PMB with preparations for storing equipment furnished by foreign suppliers and checking cargo manifests against commodities to determine compliance with specification in the Invitations for Bids.

Throughout the period under review there has been a continuous flow of written memoranda to the Chairman of PMB and to other Division Heads. Among the memoranda are a series "for Chairman's notebook" on such subjects as policy consideration, statistical and management information, implementation of multiple donor PMB program, parboiling, private rice mills, a whole series on moisture meters, paddy purchase program and cost of imported one-ton rice mills in the private sector.

Simultaneously with the Technical Assistance Program has been a training program for the Mechanical and Civil Engineering Divisions in PMB.

This included an out-of-country visitation to all major suppliers who won contracts for the storage processing project.

A second observation tour was for top level management in the Ministry of Agricultural Development and Research and Paddy Marketing Board to the Malaysian Paddy/Rice Marketing Board, the Marketing Organization for Farmers in Thailand, and the National Grain Authority in the Philippines. A successful private rice mill observation tour was conducted in February 1979.

6. Site Selection

Following is a summary of the status of selection and construction for the seven sites for rice processing complexes. All land has been acquired and all engineering surveys completed.

CURRENT STATUS OF RICE MILL SITES

<u>Site</u>	<u>Status of Tender for Complexes</u>	<u>Quarters</u>	<u>Comments</u>
1. Kekirawa	Contract signed work commenced.	Contract signed work commenced.	Two Contractors have been awarded construction work.
2. Galnewa	Tender awarded contract to be signed.	Tender awarded contract to be signed.	Works awarded to one Contractor.
3. Horawapathana	Tender awarded contract to be signed.	Tender awarded contract to be signed.	Works awarded to one Contractor.
4. Weeramunai	Contract signed work in progress.	Contract signed work in progress.	Foundations are under construction.
5. Oluwil	Contract signed work commenced.	Contract signed work commenced.	Original site had to be shifted to adjacent land.
6. Hingurakgoda	Negotiations are underway with the tenderer.	Fresh tenders have been called	-
7. Sittandi	Contract signed work commenced.	Contract signed work commenced.	Contractor is seeking permission to assign the work to a company, decision pending.

D. Inputs

As of September 1979 a total of \$3,077,015.75 in equipment has been received and warehoused. Below is a summary of suppliers, dollar costs and duties paid by PMB.

1. Equipment Inputs:

PROJECT EQUIPMENT IMPORTED BY PMB

<u>Supplier</u>	<u>Amount US \$</u>	<u>Duty Rs.</u>
1. Behn Meyer & Co. Malaysia	90,790.00	715,042.00
2. G.G. Dandekar Machine Works Ltd. India	275,745.10	1,079,523.00
3. Binny Ltd. India	206,880.00	490,537.00
4. Douglas International Corp. USA	80,861.99	160,181.90
5. Southern Construction & Mill Supply Co. USA	57,708.00	100,006.00
6. Rol Conveyors Pte., Ltd. Singapore	194,158.95	383,299.00
7. Burrows Equipment Co. Ltd. USA	129,910.00	268,479.00
8. Ferrol Ross USA	15,197.91	12,061.00
9. General Resources Corp. USA	69,959.00	55,222.00
10. York Shipley Inc. USA	13,986.00	14,222.00
11. Aeroglide Corp. USA	760,935.65	1,123,199.00
Agency Commission	4,764.15	
12. Arcon (Singapore) Pte. Ltd.	1,170,239.00	
Agency Commission	<u>5,880.00</u>	<u>5,349,969.00</u>
SUB TOTAL:	3,077,015.75	9,751,740.90
13. LSU (Contractor)	<u>163,000.00</u>	<u>45,000.00*</u>
TOTAL:	<u>3,240,015.75</u>	<u>9,796,740.90</u>

* Local Currency contribution to Contractor costs.

2. Project Budget Performance (Summary)

Local rupee expenditure in support of the Project as of September 1979 was equivalent to US \$846,000. Foreign Exchange cost was US \$3,255,000.

The unexpended balance of local rupees is equivalent to US \$3,592,000 and the foreign exchange balance of US \$2,145 gives a total budget, as of September 1979, of US \$5,737,000.

The Technical Assistance Training budget is obligated for 3 years under contract. Thus, from the unexpended foreign exchange budget, US \$517,000 has been committed, leaving an actual uncommitted foreign exchange balance of US \$1,428,000.

3. LSU Contract Amendment No.1

The original host country contract signed June 27, 1978 by Louisiana State University after being signed by representatives of the GSL on June 13, 1978, provided for a project coordinator on a full-time basis for the 3-year life of the project, and 24 man-months of short-term technical assistance including: a) a rice mill operations specialist, b) a field operations specialist, c) a private rice miller development specialist, d) a rice mill equipment operations specialist, and 6 months of additional specialists to be identified by the Project Coordinator and the Project Manager.

After the project coordinator arrived in September, 1978, the Project Manager requested the services of a full-time resident engineer to help with the many problems involved in obtaining, handling and installing the purchased equipment (commodities) that made up the major part of the project.

With the concurrence of USAID/Sri Lanka and AID/Washington, the contract was amended and signed on November 3, 1978, to provide for a full-time engineer for 18 months and to eliminate 18 months of short-term services, specifically items 2 - a, b, c and d, of the original contract. An additional US \$13,700 plus 279,000 Rupees was added to the contract at that time to pay the extra costs of 18 months for a permanent employee.

At that time it was the thinking of all parties concerned with the project that within the framework of the funds available for technical assistance, the project could be better served by full-time engineering skills than the various management skills required in the original project.

The resident engineer was obtained for an agreed-upon 18-month term. This term expires at the end of July, 1980. If the engineer is maintained beyond this period, the contract will need to be amended.

IV. KEY ISSUES

The evaluation team has identified a number of key issues on which USAID management and PMB need to focus attention. Although these are not the only issues, they appear to be major elements that adversely affect the program in achieving the stated objective of the project. A discussion of these issues follow:

A. PMB's Institutional Capacity

PMB's institutional arrangements are currently inadequate to enable it to meet its responsibilities over the near-term. Although the original project design envisaged technical assistance to PMB to refine its

operational procedure, to train its personnel and to increase its management and technical capability, the technical assistance contract reduced the number of man-months of services it provided for special consultancies. The reason for the change was necessary at the time. However, we believe that the basis for the original requirement is still valid. The Chairman for PMB expressed his need for assistance. He plans to increase the analysis capability of PMB staff to enable it to project rice production, farmer's cost and to develop pricing policies. PMB also needs to increase its capability with regards to data collection and analysis, and providing information to field staff, other GSL Ministries and to the public. It also needs management training to enable analyses or recurrent needs for facilities and equipment. PMB has recently been given a mandate to increase its scope of responsibilities in the area of coarse grains. This will place renewed pressure on PMB staff to increase its workload for which it will require training both on the job as well as abroad.

An appropriate U.S. intervention in the near-term is increased assistance to develop PMB's capability. A feasibility study of PMB's needs at the headquarters as well as in the field should precede a program in this area. The recent study by the National Institute of Business Management appears to be a good point of departure for such a perspective.

Training is one of the most important components of the Project. So far available training funds have been used for short periods of study by major technical people in studying rice milling and rice equipment manufacturing in selected countries in Asia and in the United States.

Approximately \$50,000 remains in the contract for additional training.

The best use of these funds appears to be as follows:

1. Selecting 10 middle management, young PMB staff, for a 1 month training program at experienced institutions in the Philippines in July or August, 1980.

2. Designate an experienced Ph.D trained faculty member in the Department of Vocational Education at Louisiana State University, have him attend the training program in the Philippines to become acquainted with the PMB staff attending, evaluate the program and develop plans for a similar program in Sri Lanka. He would then spend a month in Sri Lanka to work with the Sri Lankan participants of the Philippines program in developing a training program in Sri Lanka. During this month, this individual would make a brief study of the functions and operations of PMB, identify individual responsibilities and the amounts and types of training needed for the persons in various divisions, and make recommendations as to how this can best be accomplished.

3. If funds are available, consideration should be given to employing a short-term consultant familiar with rice milling, drying, storage, and transport and place him at RPDC to work with its staff in developing the facility as an active training center. PMB should provide back-up assistance in this effort to convert RPDC from a collection of isolated equipment to an active coordinated operation.

B. Disposition of 10 mills for the private sector

Three mills for use in manufacture demonstration and prototype were offered to the industry, without any takers. However, at the commercial sector's request, PMB will now erect and operate these so the manufacturers can observe and study their performance over time, and replicate the improved technology.

Seven mills for the private milling sector have been advertised and seventy two applications received. The offer requires 20% to be paid when the selected applicant signs a purchase contract, The remaining 80% is to be repaid over seven years with the balance drawing interest at 4% per annum. PMB plans to interview applicants and to award these in the near future to those having proven milling experience and repayment creditability.

There will be a problem with AID statutory requirements regarding the refinancing of these mills for the private sector. On the one hand there is a generous concessional element in the 4% interest rate. However, this may offset the high cost of the mills. On the other hand, if the outstanding loan is open for the next seven years, it may be a source of problem as USAID will have a need to know about the status of reflows and their disposition.

There are other options that need to be considered. One is the requirement for full payment, another is to discount the loan papers to private millers to commercial houses, and a third option is to ask private millers to obtain financing for the remaining 80% of the loan from commercial sources.

C. Ministry of Agricultural Development and Research - Organizational Structure

The Ministry of Agricultural Development and Research is charged with the responsibility of formulating policies and evolving programs to give meaning to such policies for the development of the agricultural sector. Policies and projects in the Ministry are implemented by the following Departments and Statutory Bodies:

Departments:

- a) Department of Agriculture
- b) Department of Agrarian Services
- c) Department of Minor Export Crops

Statutory Bodies/Public Corporations:

- a) Agricultural Development Authority
- b) Paddy Marketing Board
- c) Sri Lanka Sugar Corporation
- d) Fertilizer Corporation
- e) Agricultural Insurance Board
- f) National Agricultural Diversification and Settlement Authority
- g) Freedom From Hunger Campaign
- h) Agrarian Research and Training Institute

The Ministry consists of the following three Divisions:

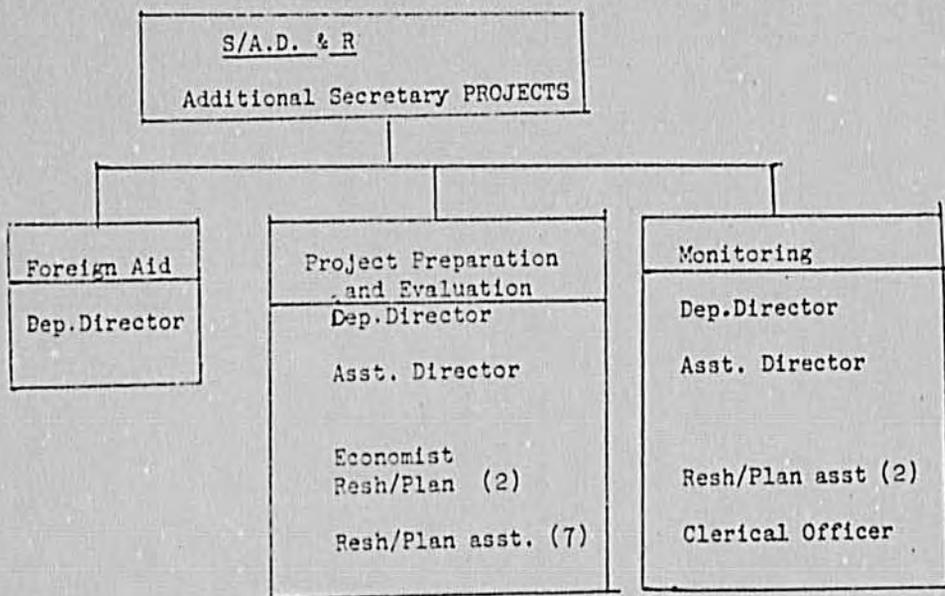
Development Division,
Administration Division, and
Projects Division.

The Development Division is responsible for ongoing programs while the Project Division is responsible for the identification, preparation, monitoring and evaluation of projects in the agricultural sector operated through local and foreign funding.

The Monitoring Unit of the Projects Division follows up on progress of implementation of all foreign aided projects within the Ministry which are implemented by the various Departments and Corporations. Besides obtaining progress reports, the officials in this Division visit the sites of projects and ascertain progress on site as part of the monitoring activity. As part of this monitoring system the activities connected with the various projects are being identified and implementation programmed quarterly with targets of achievements against these targets and reviewed. The Projects Division also submits quarterly reports on the progress of project to the Secretary, Ministry of Plan Implementation, which is the national agency for ensuring speedy implementation of all development projects.

ORGANIZATION CHART (TENTATIVE)

PROJECTS DIVISION



D. The Seven Rice Mills for PMB

Construction and operation of 7 PMB mills will present problems and the contractor's engineer expressed serious reservations about certain design features of the mills and about the suitability of the sites. The most serious problem is in regard to possible water seepage into the pit belt conveyor assemblies designed as part of the mills. Several of the sites inspected on the field trip appeared excessively wet. Design Group 5, PMB's engineering consultants, inspected the sites, determined their suitability for construction of the mills and have recommended them for mill construction. The Chairman of PMB outlined the history of site selection and criteria used. The process of selection was well on its way prior to the time of arrival of the contractor. PMB selected the sites taking into consideration the availability of paddy in the area, the need for milling facilities and the availability of services. This was done in consultation with local leaders. It appeared clear that reversal of these decisions at this time would be difficult. There is a possibility, however, that design modifications at this juncture could ameliorate site constraints. It was agreed that the LSU engineer should review the mill designs and site surveys and determine the cost of such modifications as soon as possible. Assuming the construction of the plants moves ahead, the LSU engineer should assist in supervising construction and start-up operations.

E. Donor Coordination

In order to operate the project in an orderly manner and with minimum duplication of effort, it appears desirable to inventory all

bilateral and multilateral donor assistance to Sri Lanka. This includes assistance from various agencies of the U.S. Government as well as other donors. Once the inventory is complete, it would be desirable for PMB to establish a committee to review this summary of assistance. It would then develop an assistance strategy with all of the donors and it should maintain a periodic dialogue among the donors.

At the ministerial level, it would be desirable to discuss this summary of assistance with all donors in an effort to avoid duplication and excess demand for government resources that would serve to jeopardize other assistance. In the rice mill construction program, for example, as additional milling capacity becomes marginal, donors need to be asked to shift their priority to other areas.

V. CONCLUSIONS

1. PMB is making some progress towards its goal of improving efficiency in paddy procurement, storage and processing. The overall quality of milled rice from PMB stores has improved in the last two years due to PMB improvements in management, storage and milling.

2. Although the technical assistance component of the project has not been used as initially planned, it has been useful in servicing the indicated improvements such as improved mill performance, management advice at the project director's level, improved maintenance, training and planning for additional training and similar activities.

3. The major indicated problem is in the construction of the buildings, the selection of sites, and the moving and establishment of the 7 two-ton per hour mills to be operated by PMB. Improved construction supervision is imperative. One or more sites require design modifications, as there appears to be water problems and potential flooding. Several others, because of high water problems, potential flooding, availability of paddy and similar reasons, are questionable. Design modifications, however, may compensate for site deficiencies. This will be determined when the LSU engineer, together with PMB engineers, complete their review of the designs and contracts for engineering works.

4. The 7 mills are of a type not existant in Sri Lanka. Therefore, their operation will present PMB with new problems. We believe that PMB will require the assistance of the LSU contractor to modify the mills, supervise the construction at site and oversee operations for an initial period, at least.

5. The LSU group expressed strong concern that one plant should be erected and placed in working order, under a competent experienced rice mill engineer, and all the problems resolved before completing installation of the other 6 units. PMB engineers should be trained on the first plant. This should enable them to supervize construction of the other 6 plants with minimal supervision of an experienced engineer who is familiar with these units.

6. For the one-ton mills, every effort should be made to move them into the private sector. If the present efforts fail, they should

be placed on auction and sold to the highest bidder. Buyers should be provided assistance in the construction and operation of mills they buy.

7. For both mill complexes, the parboil component is a necessary evil and must be maintained. Parboiling serves to renovate poor-quality paddy and provides consumers with a quality that many prefer.

8. The RPDC has an excellent collection of equipment, but it is not in operating condition. It should be renovated and made operational as soon as possible and developed as a training facility for PMB. Until this is done, the rice mill at Gannoruwa, near Kandy, should be used as a training facility; it is an excellent mill, is operating efficiently, and in some respects is better than the RPDC mill for practical training.

9. A number of donors are now providing or will provide assistance to PMB. The substantial increase in its capital budget will tax PMB's capability to engineer and implement projects. An effort to coordinate donor activity is needed as soon as possible.

10. The Chairman of PMB reiterated his perception of the need for the services of the contractor to assist both with engineering, management and organization. While some questions were raised about PMB's ability to utilize this assistance, there appears little doubt that the present PMB environment is conducive to implementing development projects.

VI. RECOMMENDATIONS

1. That the contract continue to its planned completion date. However, within the next three months USAID management should determine

the effectiveness with which the services of the contractor is being utilized.¹ Under agreement obtained with the evaluation team, the Chairman of PMB provided assurances that the contract engineer's services are needed by PMB now that the construction phase of the project will be getting underway. Therefore, it was agreed that the contract engineer for LSU will begin immediately to review all PMB design and engineering contracts for construction of the 17 mills. The engineer is expected to recommend specific design and engineering changes as may be appropriate, determine the cost of such design changes at this stage of implementation and to submit his findings to the Chairman, PMB, PMB's Chief Engineer and USAID. He will work closely with PMB engineering staff and with the Chairman of PMB in carrying out this assignment. On the basis of this report and the engineer's performance the need for future engineering services will be determined by USAID, LSU and PMB.

2. That the PMB and Ministry of Agriculture Project Implementation Committees should be used to ensure the timely implementation of the project. Both the Chairman of PMB and the Deputy Director of the Ministry of Agriculture's Projects Division are agreeable to periodic review meetings. The USAID project officer should take advantage of the occasion of these meetings to monitor the project.

3. That every effort be made by USAID and LSU to encourage PMB and the Ministry of Agriculture Development and Research efforts at donor coordination.

1. It should be noted that Chancellor Efferson reserved the right to discontinue the project during this same period if the LSU team did not observe substantial improvement in the organization and management of the project on the side of AID and PMB.

4. That the contractor schedule a senior level training officer to join a PMB study tour in the Philippines. The officer would return to Sri Lanka with the view to developing and organizing training courses for PMB in management, marketing, storage, processing accountability.

5. That in the event of a determination to continue with engineering services and a project coordinator beyond July 1, 1980, USAID, LSU and PMB management may wish to consider providing the services of certain short-term experts in data collection and analyses, organization and management, analyses of recurrent needs for facilities, inventory and stock control and cost/benefit analyses for investment decisions and funding for participant training. It will be necessary to make design changes to the original project paper to reflect the current situation in this project. Some of the changes will require additional funding which can be obtained with careful modifications of current procurement schedules in the project. To the extent this assistance cannot all be provided under the extant project, a new initiative by USAID in the future may consider the needs for institutional development of PMB and its vast field operations. The recent study by the National Institute of Business Management on the Performance of PMB is an appropriate reference point. The Chairman of PMB is currently seeking to implement some of the recommendations of the study, but needs additional assistance.

APPENDICIES

- A. Private miller's perspective of Rice Policy
- B. Summary of Implementation Constraints
- C. Cost of rice milling and handling
- D. Historical data on storage losses of Paddy
- E. Quality specifications for Paddy
- F. Specifications for Paddy
- G. Status of project outputs
- H. Letter from LSU Chancellor Efferson
- I. Evaluation Team and Resources persons
- J. Evaluation team schedule

APPENDIX A

The Chairman, PMB
Paddy Procession and Storage
(U.S.A.I.D.)

Implications of Paddy Marketing Board Policy on
Private Rice Milling Industry of Sri Lanka

Dear Sir:

Most important and vital policies of the Paddy Marketing Board towards the private milling industry is embodied in the introductory passage of the Paddy Marketing Board Act No. 14 of 1971.

If these policies were or are vigorously enforced certainly these policies would have very serious ill effects on the private rice milling industry of Sri Lanka. Actually if the policy, as contemplated in the Act of restricting the purchase of paddy has been vested in the PMB alone then private rice milling industry would have been limited to only those rice millers who were hired by the FMB to undertake milling on their behalf on agreed terms. If so the private rice milling industry in Sri Lanka would have had serious set back and as the Chairman of PMB pointed out in the course of discussion the FMB Act needs immediate revision although those regulations are not at all enforced.

Since there were no restrictions enforced as contemplated by the Act there was a free hand for the private rice milling industry as a whole to develop without any interference from any source. This is more so after this Government came to power. Actually paddy production and paddy processing into rice is the most important and I categorize it as the No. 1 industry in Sri Lanka but it is not the FMB. that is a hindrance but the state who have neglected this industry while favouring other export industry to the maximum. I maintain that any foreign exchange saved is equal to that quantum of foreign exchange earned. Hence first preference must be for paddy and its allied industries, not only because it is the most widespread but also over 4 million peasants of this country owe their very existence to the prosperity of this crop.

Policies of the FMB and its activities in the context of the private rice milling industry is more of a complimentary than of a competitive nature. It will be difficult, nay impossible for the FMB to exist unless of course drastic changes towards commercialization are taken, if forces of free enterprises are allowed to operate with no safeguards or regard to producer and consumer in the context of a situation where production falls far short of demand.

Rice is the staple diet of 14 million people in this country. We have to wait for another five years or more to achieve self-sufficiency. Even after gaining self-sufficiency there has to have some agency of the Government to ensure a floor price not only to the paddy producer but also to the rice producer (the miller). The absence of a floor price for

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rice is a serious impediment to the rice mill owners in Sri Lanka and hence apathy on the part of the mill owners to effect mass improvements to their mills.

Today's annual production capacity is estimated at 90 million bushels. FMB has never been able to purchase more than 35% of this quantity. Therefore, it is presumed that 50% of the balance is retained by the producers for consumption and the rest was purchased by the "Free Open Market". Hence millers have a free hand to operate without any impediment except that there is no floor price for rice when millers must go from pillar to post looking for buyers during the height of the cropping season. The writer himself has the privilege to operate in the free market while enjoying the FMB quota system.

Yours faithfully

/signed/

D. W. Nanayakkara

28.2.80

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APPENDIX B

Summary of Implementation constraints

At this time the PMB has committed itself to the largest investment development program in its history. Approximately U.S.\$20 million has been made available by donor nations such as the U.K., Norway, Australia, Freedom for Hunger Campaign and the World Food Program in addition to USAID.

The magnitude of this sudden development program has simply overpowered the administration, supervision and engineering functions of the PMB. As a result, the project is faced with the possibility of a 14 month lag for final completion. A number of reasons or constraints have been identified for this lag, among them are:

1. The initial constraint was occasioned by setting target dates that were based on immediate administrative changes in PMB.
2. PMB has had two administrative changes in its chairmanship prior to March 1979.
3. The new administrator appointed in March 1979 took a minimum amount of time to acquaint himself with all of PMB's administrative and development programs.
4. In the last 12 months construction costs in Sri Lanka have almost doubled and PMB had to present to the Cabinet through the Ministry of Agricultural Development and Research an emergency request for an additional Rs. 69 million in support of construction costs of the 7 complexes. There is a possibility that PMB will have to ask for additional funds in the future, due to increasing costs of construction.
5. PMB has a small well trained staff. However, this staff is not sufficient to stay abreast of its obligations, particularly in the vit A area of engineering. PMB has not been able to provide the timely expert services contracted for in its overall development program. Seven (7) mechanical engineers have been selected for complexes now being constructed.

The summary of the local rupee investment cost for the storage and processing plants is as follows:

	Rs.	US\$
1. Land development, buildings and civil works	6.5 million	419,355
2. Mechanical and Electrical construction	2.7 million	174,194
3. Import of boilers and installation	1.0 million	64,516
4. Contingencies and supervision	0.75 million	48,387
Each unit	10.95 million	706,435
Seven units	76.65 million	4,945,164

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Cost Estimate for Design Group Five (DG-5)
(FMB's consulting engineers)

Supervision (2%) local cost	Rs. 1,533,000
Design	300,000
Tender Documents	75,000
Analysis of bids	45,000
Other Extra Payments	166,850
	<u>Rs. 2,119,850</u>

US\$ 1 * Rs. 15.5 = U.S.\$ 138,700

Additional Cost to PMB investment:

- (1) Custom Duties estimated and Transport Rs. 20 mn=\$1,290,322
- (2) Cost increase over original budget Rs. 69 mn=\$3,161,000
(71 mn Rs.) now Rs. 140 mn.

6. Training for selected FMB staff members in the area of management and organization is highly desirable as a necessary compliment to FMB's implementation and development programs. The selection of individuals, the scope of training, the time and place of training is now under review by the Ministry of Agriculture, Research and Development. Present plans call for a training group of approximately 10 individuals to attend a 5 week training seminar in the Philippines. The date has not yet been finalized.

7. PMB Act: No. 14 of 1971 is a constraint for further development of the private paddy/rice processing industry. Appropriate amendments to the Act are now under consideration.

8. The Chairman of PMB fully recognizes the need for restructuring administration to execute more efficiently PMB's overall development programs. The magnitude of the present development programs urgently require the organization of a Development/Implementation Division, with authority and responsibility to execute all development programs under the direct supervision of the Chairman.

9. The lack of three phase power supply at the majority of PMB stores is a constraint in the installation of the cleaners and dryers.

APPENDIX C

COST OF RICE MILLING
AND HANDLING
Effective February 1979

Transfer price of Rice to Food Commission Rs. cost/100 lbs

Variable costs

1. G.P.S. price	87.00
2. Transport charges	.60
3. Handling	.2963
4. Commission	1.60
5. Interest	<u>.8926</u>

Fixed Costs

6. Salaries to stores personnel	.6543
7. Repairs to stores	.1371
8. Running expenses of stores	.0780
9. Depreciation: Gunnies	.8696
Weighing machines	.0467
Furniture/fitings	.1204
10. H/O, R.O. RFDC expenses	1.0555
11. Salary increases	<u>.1341</u>

Total 93.4846

Milling costs

	<u>Parboiled</u>	<u>Raw</u>
Outturn	68%	66%
1. Transfer price 100 lbs Paddy	93.4846	93.4846
2. Milling hire	6.00	4.50
3. Transport-Paddy	.6696	.6696
Rice	<u>.4554</u>	<u>.4420</u>
Total	100.6096	<u>99.0962</u>

Cost per lb	1.4795	1.5015
Profit margin	<u>.01</u>	<u>.01</u>

Transfer price per lb	1.4895	1.5115
Transfer price per meassurs	2.9790	3.0230

Transfer price per metric ton	3283.75	3332.25
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APPENDIX D

Historical Data on Storage Losses-Paddy
Paddy Marketing Board

<u>Year</u>	<u>Procurement</u> <u>(millions bu)</u>	<u>Losses as a</u> <u>percent/proc</u>	<u>Value of losses</u> <u>in Rupees</u>
1972	26.4	0.07%	273,203
1973	22.9	0.27%	1,039,593
1974	20.9	0.42%	2,761,869
1975	11.6	1.12%	4,640,681
1976	12.9	0.78%	3,374,080
1977	24.5	0.87%	7,192,602
1978	32.3	1.73%	23,329,403

Note: i Above data is based on stock verification

ii Higher percentage of losses in 1978 is mainly due to damage of stocks as a result of the cyclone in November 1978.

iii Losses are a function of a number of factors including weather conditions, storage security, cyclones. There appears to be no direct relationship between proportion of losses and amount of paddy purchased in any single year.

FMB Colombo
February 1980

APPENDIX E

QUALITY SPECIFICATIONS FOR RICEYEAR - 1978

	<u>Raw Rice</u>	<u>Parboiled Rice</u>
a) Moisture Content	15 %	15 %
b) Degree of Polish	40 %	75 %
c) Broken	30 %	12 %
d) Paddy Grains	50 per lb.	50 per lb.
e) All Rice (Raw & Parboiled) should be free from any offensive smell, paddy husk, foreign matter, grit, sand, dust etc.		

YEAR - 1979

	<u>Raw Rice</u>	<u>Parboiled Rice</u>
a) Moisture Content	15 %	15 %
b) Degree of Polish	100 %	90 %
c) Broken	35 %	12 %
d) Discoloured Grain	10 %	10 %
e) Under milled Grain	10 %	10 %
f) Paddy Grain	50 per lb.	50 per lb.
g) Impurities	01 %	01 %
h) All rice (Raw & Parboiled) should be free from any offensive smell, paddy husk, foreign matter, grit, sand, dust etc.		

PMB/Sri Lanka
February 1980

APPENDIX F

SPECIFICATIONS FOR PADDY

1. Unmixed Ordinary Paddy

- a) Moisture content less than 15 per cent.
- b) Extraneous matter less than 1 per cent by weight.
- c) Refraction less than 9 per cent by volume.
- d) Mixture of other varieties of paddy less than 10 per cent.
- e) Grain to be free of insects, insect damaged grains, and madi grains.

2. Mixed Paddy

- a) Moisture content less than 15 per cent.
- b) Extraneous matter less than 1 per cent by weight.
- c) Mixture of other varieties of paddy more than 10 per cent.
- d) Refraction less than 9 per cent by volume.
- e) Grain to be free of insects, insect damaged grains and madi grains.

Varieties of Unmixed Paddy

Unmixed Ordinary Paddy of the specifications given above will be grouped according to the length of the paddy grains and colour of the rice kernel as follows :

Short white
Short red
Long white
Long red

SPECIFICATIONS FOR RICE

The rice should conform to the following specifications:

	<u>Raw Rice</u>	<u>Parboiled Rice</u>
Degree of Polish	100 %	90 %
Broken	Maximum 35 %	Maximum 12 %
Moisture Content	15 % or less	15 % or less
Discoloured Grains	Maximum 10 %	Maximum 10 %
Under-milled Grains	Maximum 10 %	Maximum 10 %
Impurities	1 %	1 %
Paddy Grains	Maximum of 50 grains per pound	Maximum of 50 grains per pound

- NOTE:
1. Broken grains of 75 % and over will be treated as full grains.
 2. Rice should be free of sand, stone and offensive smell.

STATUS OF PROJECT OUTPUTS
FEBRUARY 1980

A. Paddy Purchase Program

1. Moisture Meters

Invitation for bids (IFBs) have been prepared for the purchase of 3000 moisture testers that will be calibrated for varieties and temperatures prevalent in paddy producing areas in Sri Lanka. International bids were obtained, processed and evaluated but the tender could not be awarded as the moisture meter samples did not conform to the specifications. Therefore a new specification committee was appointed, specifications developed and a fresh tender is to be offered. The moisture meters will be issued to the Co-operatives and others on behalf of the Paddy Marketing Board. Two slide projectors have been ordered to facilitate the training program.

Structuring and planning a training program in the proper use, upkeep and adjustments of moisture meters for some 6000 individuals is a challenge confronting the technical and field operating staff of PMB. Plans have been developed to prepare 3000 training manuals, 24 slide colour sets, and demonstration manuals for use in this training program. The intended audience in addition to the 6000 users, will be Policy personnel from the Ministry of Agricultural Development and Research, District elected officials, and leading farmers. Initial program will be to train a "training team" from each of PMB's 13 regions. These Regional Teams will have the responsibility of training other PMB and MPCS personnel.

Preliminary specifications have been prepared for driers and cleaners and investigations of site selections for these driers resulted in evidence that showed lack of 3 phase current at all locations. As a result PMB initiated a survey to identify locations where 3 phase electricity is available. This survey shows that 30 PMB facilities have phased electrical service and 5 other locations have been promised service by April 1980.

PMB plans to install cleaners and driers in combination with each other. Plans have been formulated to stagger installation from December 1979 through September 1980. Investigations will be conducted in how best to service store locations without adequate power supplies. The current price of fuel for drying is of concern to the PMB, and will force PMB to investigate the potential of Solar and Husk as an energy source and the problems of husk distribution to store locations.

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B. PMB Storage and Milling

The PMB storage and milling portion of the development program constitutes the largest expense within the Project. It is designed to increase PMB storage by 21,700 metric tons and its parboiled milling capacity by 37,500 tons annually. To support the construction program, PMB has requested from GSL a 97% increase in its original budget. Completion to date for 7 storage milling complexes is scheduled for August 1980. However, construction delays are likely to delay commissioning.

1. Storage and Milling Complexes:

- * PMB engineers have completed designs and specifications for the complexes.
- * IFBs have been prepared and international tenders have been floated.
- * Tenders have been evaluated, letters of commitment issued.
- * A consultant firm of architects and engineers has been hired for construction of the complexes.
- * Imported equipment for the complexes, prefab buildings, conveying equipment, and rice mills have been received, inventorized and warehoused.
- * 14 PMB prefab material buildings have been transported to complex sites.
- * PMB has approved all specifications for civil works at all 7 complexes and have floated tenders for construction. An additional 69 million rupees have been requested to support construction of the complexes. As of October 1, 1979, 140 million rupees has been appropriated by the Cabinet for local construction of complexes (approximately US \$3,141,000).
- * Plans have been made to hire 7 additional engineers, one for each complex during the construction program, who will then become Managing Engineer of that complex after completion.
- * Plans have been developed for training 7 new engineers at RPDC.
- * Discussed plan of action for installing equipment at the 7 complexes.
- * Discussed plan of action for staffing and training for the new complexes.

2. Equipment for Improvement:

- * Prepared the specifications, IFBs, and have received 4, 24-ton per hour scalper cleaners with cyclone for the 4 silo complex storage installations.
- * Have prepared specifications and have received 8 - 2 ton per hour automatic scales for silo complexes.
- * Plans are underway to develop a budget for water proofing and updating silo complex at Inginiyagala.
- * After silos have been repaired, plans are to install a new scalper cleaners and scales now in storage.

C. Private Rice Mill Development

PMB prepared specifications, issued tenders, evaluated bids and issued Letter of Credit in August 1978, for 10 ton mills for raw milling. Seven were assigned to private miller industry and 3 for prototype use for the manufacturing sector. PMB has advertised in the local press the availability of these mills to the private industry. This was followed by individual letters to selected millers and to the two rice millers associations. Following these activities, PMB scheduled meetings with the private miller sectors and with manufacturers to discuss equipment availability, terms and conditions.

The manufacturing group recommended to PMB that a demonstration mill be installed to prove the advantages of the modern mill. PMB agreed to make this installation. Seven one ton mills have been offered to private millers at Rs.674,000/- each, with 25% initial payment, with the balance to be worked on an instalment plan. This option was dropped for lack of sufficient interest. Seventy two applicants have indicated interest under another option that require 20% initial payment, 7 years for the balance at 4%.

Contacts have been made with private manufacturers on local manufacture of cleaners and driers using imported machines as prototype, components not locally available will be imported.

D. Technical Assistance

PMB's technical assistance contractor - Louisiana State University, has provided their services based upon the general purpose of increasing efficiency and capacity in paddy storage and processing, in PNB. This service has been extended in the facility and equipment area, as well as to strengthen the management system with supplemental training programs. LSU has maintained two full time representatives, a Project Co-ordinator and Project Engineer for carrying out the objectives of the development program. The contractor has provided, with concurrence from the Paddy Marketing Board, a short term consultant on rice milling.

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From February 8th through February 21st, the two Private National Rice Millers' Associations of Sri Lanka invited an outstanding private rice mill owner/operator from the U.S. to visit the counsel with them on rice mill operations. On February 14, a field trip to the Anuradhapura district was made and a general meeting of some 58 Sri Lankan private rice millers discussed their milling and procurement problems for over two hours. The eagerness of the Sri Lankan private rice millers to improve their operations was quite evident in this meeting. On February 10th, a similar field trip to Polonnaruwa was made and 39 rice millers met and discussed their immediate problems in rice milling.

On February 19th, a nationwide rice millers meeting was held at BMICH, Colombo, and over 224 individuals attended. This meeting was chaired by the Chairman of PMB, with principal addresses by the Secretary of Agriculture, Presidents of the (2) Rice Millers' Associations, the President of LSU, Chancellor of Agriculture LSU and the Rice Mill Consultant. In addition, LSU has maintained on-campus assistance to the Sri Lanka contractor through its International Programs Office. The contractor has provided on a short term basis, the Director of its international programs, to evaluate its service to the PMB.

E. Training

1. PMB Suppliers Visit:

The IFBs issued on August 30, 1978 for storage processing private mill development program were by necessity so broadly written in terms of plans and specifications that it was a mutual consensus of the absolute necessity for the Chief Mechanical Engineer, the Chief Civil Engineer of PMB and the Project Co-ordinator to personally visit each major supplier in an effort to remove as far as possible any doubts as to the expectations of PMB. These service visits were indeed technically valuable, not only to the suppliers but equally so to PMB.

2. Training Completed:

At the request of the (2) two Sri Lanka Private Rice Mill Associations, one outstanding private rice mill owner/operator from the U.S. was given a 14 day assignment in Sri Lanka to work with private rice mill owners and operators. This has proven to be an excellent training investment. 1/

The Chairman of PMB, Deputy Director, Ministry of Agricultural Development and Research and the Project Co-ordinator made a 21 day study tour of three (3) national paddy/rice price supporting authorities which included Thailand, the Philippines and Malaysia.

1/ Also reported under Technical Assistance

3. Training Planned:

Specific training programs scheduled for the second year are:

- a) Moisture meter training which will involve some 6000 individuals who have never had the opportunity to use this piece of equipment.
- b) Rice mill operations scheduled for some 60 PMB members and hopefully an equal number of private rice mill operators.
- c) Management training for some 324 PMB storage (storage house) Managers.
- d) The time period for each of the training projects will depend largely on:
 - i. moisture meters arrival in Sri Lanka
 - ii. "rice mill operations" after the first mill has been erected and put into operation.
 - iii. "Management Training" after policy decision determining scope of type of training - where, by whom and when.
- e) Arrangements are also being made to afford an opportunity for the Paddy Marketing Board middle management officers to follow a course of training in Philippines on Paddy Processing, Storage, Procurement and Management.

THE LOUISIANA STATE UNIVERSITY
AND AGRICULTURAL AND MECHANICAL COLLEGE SYSTEM

BATON ROUGE • LOUISIANA • 70803

Center for Agricultural Sciences
And Rural Development

COLLEGE OF AGRICULTURE • AGRICULTURAL EXPERIMENT STATION • COOPERATIVE EXTENSION SERVICE

OFFICE OF THE CHANCELLOR

April 23, 1980

POST OFFICE BOX 19150-A
UNIVERSITY STATION 70893

Mr. Clark H. Billings
Program Officer
USAID/Sri Lanka
Agency for International Development
c/o American Embassy
Colombo, Sri Lanka

Dear Mr. Billings:

This is to respond to your letter of March 27 with the draft report on the Paddy Processing and Storage Project. I am unhappy with the report for the following reasons:

1) The timetable prepared by your office makes it impossible to incorporate the comments of the contractor, a major element in the project, into the final report. The draft report arrived in my office on Monday afternoon, April 14, 18 days after it was apparently processed and mailed to me from your office. Your letter, however, specifically states that "only those comments received by April 18 can be incorporated into the final report." Thus, it will be impossible to include the LSU reactions into the report. As a major participant in the review, I consider this grossly unfair.

2) The situation is even more serious in that LSU was not given the opportunity to be heard or to participate in the debriefing session held on February 29. The timing for the review was established by mutual agreement to the satisfaction of all parties months before the review and was scheduled for February 18 through February 28. I developed my schedule accordingly and participated in every day of this scheduled time. Most of the team did likewise. Although the report does not show it, the review team, with the exception of the Chairman you assigned to the project, Mr. Lefes, spent the entire week of February 18 to 22 reviewing reports related to the project in the Colombo area. Then we left on the four-day field tour. Mr. Lefes joined the team on the afternoon of the last day of the tour--nine days late. However, because of his late arrival and apparently for other reasons, the debriefing session was delayed until after the LSU participants had completed their agreed-to assignment and had departed to fill other engagements. To say the least, this was not fair to the contractor. Debriefing could have been held on February 27 or February 28.

Mr. Clark H. Billings
April 23, 1980
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3) Because your designated chairman, Mr. Lefes, really did not participate in the review, he did not gain an understanding of the project and the report shows this in several respects. With this lack of background and understanding, he apparently substituted hearsay conclusions for astute observations he would have obtained if he had participated in the review. On the second day after his arrival, he commented to the LSU group that "the project appeared so bad that it looked as if AID would have to cancel the LSU contract and bring in Kansas State to finish it up." I called his hand on this matter and he backed off, but it illustrates the point: a chairman assigned the responsibility of writing a comprehensive report of this type without a knowledge of the subject is a poor excuse, but this is what AID permitted to happen.

4) The report does not express the strong positions taken by both Mr. Dore and myself that unless major changes are made in administration and management, the project will be an even more serious catastrophe than the now infamous four-unit silo storage and milling complexes. As currently organized and operated, the seven large two-ton mill complexes now under construction will end up additional "white elephants" to add to the graveyard of the four silo plants. As we both stated, LSU and AID will be blamed for these fiascos just as United States personnel are now being blamed for the silo units. I recognize that AID personnel usually work in a country for only two to three years and then move on, but the reputation of Louisiana State University is one that exists for years and years, and I prefer not to have the name tainted by being associated with a major fiasco which will be known around the world. This is inevitable unless major changes are made beyond the recommendations in the report. If I had been given the opportunity to participate in the debriefing session, I would again have spelled out this situation, just as Mr. Dore did before his departure and just as I did to Mr. Lefes and to Mr. Marapone before my departure.

5) The recommendations of the report, page 34, item 1, and page 35, item 5, indicate that AID would review and determine within the next three months whether the effectiveness of the contractor is being utilized, with the implication that if not, the project would be discontinued as of July 1, 1980. This is not the understanding I had with Mr. Lefes and Mr. Marapone. My understanding was to the effect that while LSU had no objections to discontinuing the project immediately if AID or PMB were not happy with our performance, we also reserved the right to discontinue the project if in the next three months we did not observe substantial improvement in the organization and management of the project on the side of AID and PMB so that the inevitable failure of the project we now anticipate would not occur. This three-month review was to be a two-way street, not a one-sided affair, and the report should so state this fact.

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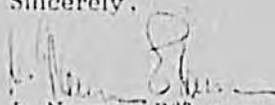
Mr. Clark H. Billings
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6) Conclusions no. 3 and 4 on page 32 indicate the major problems that now exist but there are no strong recommendations on how to solve these problems. The design of the mills is not bad, although admittedly some improvements could be made, but they are not likely to be operated efficiently if at all because of faulty construction of the buildings and faulty installation of the equipment, along with faulty operation practices. Based on past observations in Sri Lanka, faulty under-specification materials are likely to be used, lower-cost substitutes in terms of cement, sand, bricks, metal, and wood are distinct possibilities, shoddy workmanship is likely to be common, and vital parts of the design are likely to be omitted or poorly installed. This is what happened with the silo complexes and unless much better supervision by qualified engineers is provided the same thing will happen to the seven mill complexes. The report needs to spell out strongly the requirement for improved supervision in the construction process. The report implies that the LSU engineer will provide the overall advice on these matters. This is impossible; it will take at least ten qualified, dedicated, sincere, objective, experienced ones to make these projects effective. Unless this is done, the less the LSU engineer has to do with the project, the better off he is, as he will be blamed for something over which he had no control.

These are my major reactions to the report. If you stick to your announced timetable, this is to request that this letter be included in the appendix of the report. If you revise the report to cover my items 4, 5, and 6, this will not be necessary.

Louisiana State University continues to have a sincere interest in the project and we think its success is vital to the maximum development of Sri Lanka. We signed a specific contract and we plan to complete the agreed-to assignment. In the execution of the contract, we hope that we will be considered as full partners with AID and the Paddy Marketing Board and be given an opportunity to participate fully in all discussions and analyses.

Sincerely,



J. Norman Efferson
Chancellor

JNE/gb

cc: Dr. H. Rouse Caffey
Mr. Joe Smilie, LSU-Sri Lanka Project
Miss Sarah Jane Littlefield, AID, Sri Lanka
Mr. Thomas Wilson, AID, Sri Lanka
Mr. Lefes, AID, Nairobi
Mr. Marupone, Paddy Marketing Board, Sri Lanka

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EVALUATION TEAM AND RESOURCE PERSONS

FEBRUARY 18 - MARCH 1, 1980.

PROJECT: Paddy Processing and Storage No.383-T-017

Team Members:

- Mr. William S. Lefes - Team Leader, Asst. Director for Program USAID/Nairobi.
Mr.D.M.B. Marapone, Chairman, PMB.
Dr. Norman Efferson, Chancellor, Louisiana State University.
Mr.D.W. Nanayakkara, General Secretary, All Ceylon Rice Millers Association.
Mr. Thomas L. Wilson, Agriculture Development Officer/USAID.
Mr. Srilal de Silva, Planning Officer, Food & Nutrition Policy Planning
Division, Ministry of Plan Implementation.
Mr.A.S. Sivananthan, Deputy Director (Projects Division),
Ministry of Agriculture Development and Research.

Resource Personnel:

- Dr. Reid Grigsby, Project Coordinator, LSU.
Mr. Joe Smilie, Consulting Engineer, LSU.
Mr. Basil Perera, Coordinating Officer, PMB.
Mr. Gordon Dore, Chairman, Board of Supervisors, LSU.
The Supreme Rice Mill, Inc.
Dr. H. Traylor, Professor Ag. Economics, LSU.
Mr. Tissa de Soysa, Agriculture Marketing Specialist/USAID.

PMB Local Contractors:

- Mr. Daya de Silva, Managing Director, Design Group 5.
Mr. J. Piyadasa, Managing Director, Imperial Transport Company.
Mr. S. Elagupillai, Reifa Construction Company.
Walker & Sons Limited, Colombo.

PMB Regional Managers:

Mr. Veeranagaran, PMB, Batticaloa.

Mr. Ariyaratne, PMB, Polonnaruwa.

Mr. Gurusinghe, PMB, Anuradhapura.

Mr. Dharmadasa, PMB, Kurunegala.

Mr. Galapatha, PMB, Amparai.

Mr. Wijesinghe, PMB, Kandy.

Others:

Mr.L.D. Abeywickrema, Mechanical Engineer, PMB.

Mr.P.K. Perera, Commercial Manager, PMB.

Mr. Richard Kriegel, USAID/Agriculture and Rural Development Officer.

Mr. Join Devron, Consultant, PMB.

Mr. Clark Billings, Program Officer, USAID.

Dr. Kunasingham, Additional Secretary, Ministry of Agriculture.

Manager, Hasalaka Paddy Silo, PMB.

Manager, Inginiyagala Paddy Silo, PMB.

Manager, Polonnaruwa Paddy Silo, PMB.

Wholesale Rice Distribution Company, Colombo.

Manager, PMB Rice Wholesale and Retail points.

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EVALUATION TEAM SCHEDULE

FEBRUARY 18 - MARCH 1, 1980

- 2/18 - 09:00 hrs. Team assembles USAID Conference Room
10:00-17:00 hrs. Review Documentation
- 2/19 - 09:00 hrs. Visit Construction Contractor Office, Walker Sons.
11:00 hrs. Visit PMB warehouse and equipment storage site
at Meethotamulla (project equipment storage)
14:30 hrs. Visit Contractors Office, Imperial Transport Company
- 2/20 - A.M. Review Documentation
P.M. Visit two PMB retail outlets (Colombo)
- 2/21 - A.M. Visit PMB Office and interview LSU Team
Review PMB project files and accounting procedure
- 15:00 Meet PMB Directors
- Brief on Evaluation
- Interview
- 2/22 - Outline Report and Review Documentation
Team Discussions
- 2/23 - 06:30 Vehicles (1), (2) & (3) will leave Colombo and
proceed to Kandy
- 08:45 Meet vehicle No.(4) at Queen's Hotel, Kandy and
leave for Hasalaka
- 10:45 Reach Hasalaka PMB Storage & Milling Complex
Tea - Hasalaka PMB Circuit Bungalow
- 11:45 Leave Hasalaka
- 13:45 Reach Ampara
Lunch at Konduwatawana Irrigation Dept. Circuit Bungalow
- 14:45-15:30 Meet PMB Staff at Ampara
- 15:50 Reach Veeramunai USAID Mill site - Inspection
- 16:30 Leave Veeramunai for Oluvil
- 17:00 Reach Oluvil USAID Mill site - Inspection
Visits to a Private Mill and MPCPS Paddy Purchasing Points
- 19:00 Return to Circuit Bungalow at Hingurana for Dinner.
- 20:30 Party staying at Konduwatawana Irrigation Dept. Circuit
Bungalow will leave for the night while the others will
stay the night at Hingurana Circuit Bungalow.

2/24 - 08:15 Leave for Sittandi) On the way, visits
09:30 Reach Sittandi: USAID Mill Complex) to Private Mills
10:30 Leave Sittandi) and MPCS Paddy Purchasing
12:00 Polonnaruwa) Points

Lunch at Milk Board Circuit Bungalow, Polonnaruwa

14:30-18:00 Inspection of Plonnaruwa PMB Storage
& Milling Complex.
Inspection of Hingurakgoda site - USAID Mill site
Visits to PMB Stores, Paddy Purchasing Centres &
Multi Purpose Societies.

24th night at Milk Board Circuit Bungalow, Polonnaruwa - (7 persons)
The rest of the party will stay at Irrigation Dept. Circuit
Bungalow, Giritale.

2/25 08:00 Main party leaves Polonnaruwa and the others will join at
Giritale Circuit Bungalow.
09:45 Reach Kekirawa - USAID Mill site
10:00 Leave Kekirawa
11:30 Reach Galnewa - USAID Mill site
12:00 Leave Galnewa
13:30 Reach Anuradhapura
Lunch
If accommodation is not available at Nuwara Wewa Rest House,
the main party will stay at Miridiya Hotel, Anuradhapura.
Chairman PMB will stay at RPDC.

14:30 Visit RPDC
15:30 Leave RPDC for Horowapatana
16:30 Reach Horowapatana
17:30 Leave Horowapatana
18:30 Return to Anuradhapura
Main party will stay at Miridiya Hotel. Others (05)
will stay at RPDC (including Chairman, PMB)

2/26 - 08:30 Leave Anuradhapura
10:00 Reach Kurunegala PMB Regional Manager's Office
11:00 Meet G.A. Kurunegala at Kachcheri

Lunch at Kurunegala

14:30 Leave Kurunegala for Gannoruwa
15:30 Reach Gannoruwa PMB Mill
16:30 Leave for Colombo
18:45 Reach Colombo

2/27 - 3/1 Team works on report

3/1 - Team Leader completes report

DATA SOURCES:

- A. PMB functions (enabling act)
- B. Project Paper (logical framework, beginning/ending status statement, implementation plan)
- C. Loan Agreement
- D. Implementation Letters
- E. Project Reports
 - 1. annual evaluation (USAID/PMB/LSU)
 - 2. quarterly report (USAID/PMB)
 - 3. bi-monthly reports (LSU)
 - 4. bi-annual reports (LSU)
- F. Copy construction contract
- G. PMB personnel chart (present/future)
- H. PMB facility chart (Present/future)