BEST AVAILABLE COPY

ENTIRE DOCUMENT

RD AAR 234

Eval. No. 76/9

Prg. 142

RETURN TO AFGHAN DESK

SUPPORT & RECOMMENDATIONS

on

USAID RURAL DISTRICT SCHOOLS PROJECT

in

AFGHANISTAN

Submitted to

Dr. Anthony R. Lanzi
Chief, Education Division
USAID, AFGHANISTAN

by

Francis C. Darby
School Planning Consultant

Contract # AID/[illegible]
Afghanistan

July 1, [illegible]

Report and Recommendations

USAID Rural Primary Schools Project in

Afghanistan

TABLE OF CONTENTS

Title	Page
Table of Contents	
Preface	1
Abstract of Report	4
Introduction	7
Purpose of Project	9
Narrative of RPSP Experience 1975 – July 1976	10
Scope of MOE/CD schedule for Fiscal Year 1355 and for Seven Year Plan	19
Organization of MOE/CD	31
Personnel Qualifications of MOE/CD	33
The needs of MOE/CD	37
Recommendations for MOE/CD	40
General	
Organization	42
Staffing Patterns & Qualifications	64

Title	Page
Project Management and Supervision	45
Teaching Program	45
Recommendations for Utilizing	48
Managerial	48
Specific recommendations	54
Managerial Staff	54
Technical Staff	54
Technical Assistance	54
Conclusions	56
Some suggested procedures for Phase II	56 a
Physical Education Facilities	57
School Sites	63
Utilizing Christian Architectural Services	61
Female Students in Rural Schools	62

Preface

This report is the end result of a four month contract for consultant services regarding the USAID Rural Primary Schools Project. The study made during the contract period (March 10, 1976 - July 9, 1976) is referred to on page 8 of the May 13, 1976 Telegram regarding the extension of Phase I of the RPSP. "MOE Construction Department has agreed that it needs to increase its management, engineering and technical staff capabilities by addition of number of qualified personnel and by increasing attention to on-the-job-training activities which have already been initiated to limited degree. A USAID consultant study is presently being conducted which will identify specific staff and training deficiencies existing in MOE Construction Department in order to provide basis for correction of deficiencies in preparation for expanded phase II project."

The contractors specific duties include:

(1) an in-depth investigation of the Ministry of Education (MOE) Construction Department operations in order to recommend methods of improving construction capabilities, staffing patterns, financial techniques, contractual alternatives for improving construction capabilities necessary in implementing the Seven (7) year MOE construction plan and the phased project. This will include: (a) studying the MOE Construction Department's Seven (7) Year Plan to determine magnitude of the construction effort in relation to

the MOE Construction Department's present capabilities and total commitments to carry out the Seven (7) Year Plan's demands; (b) studying the MOE Construction Department's staffing pattern and individual personnel qualifications; and (c) studying the actual implementation experience of the current Project.

(2) The above investigation and study should produce: (a) recommendations for improvement of the MOE Construction Department organization, staffing patterns, staff qualifications, financial facilities, contractual methods and construction supervision; (b) recommendations for a staff training program (short and long term) for supporting the GOA, the USAID and/or other donors; and (c) recommendations for improved methods of carrying out the Phase II construction program.

(3) Using the information gained from (1) and (2) above, the Contractor shall assist the USAID in preparing for the evaluation of Phase I of the Project.

(4) The Contractor shall perform a supportive role in assisting the USAID in the preparation of the required documentation, including the Phase II Logical Framework, PPT, and other portions of the Project Paper as appropriate. Specifically, this will require (a) recommendations for the MOE Construction Department staffing requirements for Phase II and presentation to the MOE for their approval; (b) recommendations for the USAID managerial and technical

requirements for Phase II; (c) recommendations for participant training and (d) recommendations for the Phase II financial schedule and for improved financial techniques for the GOA and the USAID.

Abstract

Findings: MOE/CD has made progress in solving the construction problems involved in USAID Rural School Project Phase II. MOE/CD has made many staff and procedural adjustments to meet stringent USAID requirements and 30 schools are under construction.

Progress has not met original expectations because:

1. Construction began too late for the Northern area and and winter delayed work and damaged partially built buildings.

2. Lack of adequate supervisory staff in MOE/CD.

3. Change in original roof design to beat weather conditions.

4. MOE/CD lack of design capability for new model for southern area.

5. U.S.A.I.D. insistence on perfect (sometimes minute) adherance to plans and specifications.

MOE/CD has added staff for construction supervision, but has been unable to provide sufficient training. USAID was late in providing an Inspectors Manual for the first 30 schools so the instrument has not yet been used effectively, but holds promise for the next

schools. Design of a new model has been completed by an outside firm and will be used first in Helmand Province.

Planning for phase 3 has been minimal.

Conclusions. Neither MOE/CD nor USAID is staffed to do adequate planning for the proposed Phase II. MOE/CD has the capacity to construct the number of schools scheduled by simply using the GOA funds budgeted for buildings almost exclusively for the RPSP. There will be no increase in the MOE/CD capacity to plan and build schools unless staff members receive training and assistance.

No planned program for achieving the primary purpose of the project has yet been implemented.

Recommendations

I. MOE/CD staff training in U.S.:

1- School Planner

1- Architect

1- Engineer (Project Systems)

1- Engineer (Structural)

1- Administrator (Management Systems)

1. Technical assistance to MOE/CD by USAID in

- School Planning
- Architecture
- Engineering
- Management
- Maintenance and Operation

B. USAID to provide a project staff capable of giving the technical assistance listed under 2 above.

C. USAID to better coordinate the efforts of all departments in achieving the primary purpose of the project.

Introduction

Any analysis of an organization by an outside agency or individual is partially dependent on the willingness of the organization to share information. Heavy reliance may be taken in supplying theoretical charts, written policies and statements describing how procedures should function. I feel that I have been privileged to observe the actual operations of both the MOE/CD and the USAID in their administration of the Rural Primary Schools Project.

A desk was provided for my use in the office of the President of the Construction Department and I was invited to visit any unit or individual in the office and ask questions without limit.

Fortunately the two vice presidents, the six directors, the architect and several of the engineers speak English well enough so that it was possible to work with them without an interpreter. All of these people were open in answering questions and had no hesitancy in calling attention to problems and seeking help in solving them. When suggestions were made they were given careful consideration and when possible were implemented promptly. There is a strong desire on the part of the leadership of the MOE/CD to operate an efficient and successful school building program. One of the stated goals of the MOE/CD is to become self-sufficient in meeting the school building needs of the country.

A desk was also provided for my use in the [illegible] office of the Project Advisor and I was invited to attend staff meetings concerned with the project. Arrangements were made so that it was possible to visit almost all the sites where construction was in progress in Parwan Province, the proposed sites in Kolmand Province and the place schools in Nundahar. This gave an opportunity to observe the operational procedures and problems of the project and at times brought actual involvement in the project. This, too, has provided insight necessary for this report.

Purpose

The project purposes are [illegible] the [illegible] Agreement and in the [illegible] [illegible]:

A. To [illegible] and [illegible] by [illegible] [illegible] [illegible] to construct and make operational rural primary schools in conformance with Republic of Afghanistan goals.

B. To accelerate the pace with which rural families are provided education opportunities at the primary level.

The purpose of the project is plainly stated above and the [illegible] is mine to emphasize the fact that the creation of [illegible] [illegible] [illegible] the primary purpose and the financing of the building of schools is one of the means of achieving that purpose. This should be the major point to [illegible] during examination of the narrative of [illegible] experience [illegible] the [illegible] of MOE/CD and USAID.

RPSE implementation experience 1975 - July 1976

The Project Agreement was approved by both USAID and GOA on May 31, 1975 and $450,000 was obligated at that time.

The first action was the selection of school sites in the Parwan Province. Sites were proposed by the provincial office of education and engineers from MOE/CO and USAID/CDE inspected the sites for engineering suitability and gave approval. No demographic, educational or master planning data was involved in these selections. It was determined there was a need for a school building in an area because there were students and teachers there without proper quarters. Some classes were held outdoors under trees or along walls; others were in old buildings totally unfit for school purposes. The locations of such "schools" were largely dependent on the availability of a structure. New sites tended to be chosen in the same immediate area. No educational analysis of site utilization was made by any agency.

The first (LOU) Letter of Understanding was signed on September 3, 1975. When the Project Manager arrived on post on September 7, 1975 he found that 18 schools were already under construction. One general contract was let for 30 schools and the general contractor made 30 sub-contracts. A

barrier site was made and it was recognized that winter weather would be a problem for construction. By the 22nd of November 1975 all construction was halted by weather conditions.

The plans and specifications for the buildings were contained in a booklet that was furnished to each sub-contractor. The plans were modifications of a joint UNESCO and MOE/CD model that had been built at Wardak and Nangarhar by the MOE/CD and did not represent USAID design or planning capacity.

One MOE/CD engineer was assigned to supervise the 30 construction sites and was given 5 AIT graduates to serve as inspectors. The engineer had the task of marking out the locations of the foundations for the school, teachers' hostel and latrine on each site and contractors began work as soon as he had finished. Each of the inspectors had six sites to supervise and just reaching them every few days was a task. When USAID engineers and their MOE/CD counterparts inspected the work it was found that plans and specifications were not being carefully followed. There were several reasons for this: a. the plans were not specific in many instances, b. each contractor had his own methods of construction, c. some of the labor was not sufficiently skilled d. some materials (such as bricks) were of inferior quality and e. some contractors were cutting corners to make more profit.

The Inspector could be at each site only about 10% of the time so it was difficult to hold him responsible for construction done during his absence.

The Project Advisor, Consultant and AID/CDE Engineer recommended that the President of MOE/CD place an Inspector full time at each construction site, and that each engineer have no more than 10 inspectors to supervise. The Project Advisor outlined an Inspector's Manual and the AID/CDE Engineer completed it in details to match the first model being constructed. This was duplicated in both English and Farsi and provided to the MOE/CD engineers and inspectors for use as a guide to construction process and standards and as a device for reporting both progress and problems. The Manual was not in the hands of all inspectors until the first of June.

The MOE/CD responded promptly to the recommendation on inspection and hired, briefly trained (entirely too briefly) and assigned 25 additional inspectors to the sites in Parwan on April 10th. Engineers were reassigned so that each engineer supervised 10 inspectors. The Provincial Director of Education, working through village school headmasters, arranged for living quarters for all inspectors in the immediate neighborhood of each construction site.

The MOE/CD had a transportation problem in getting the engineers and the supervising engineer to the various sites and USAID offered help by

transferring 4 old surplus AID vehicles to the MOE. This did not solve the problem as one vehicle could not be licensed due to a serial number change, and two immediately needed parts that were unavailable on the local market. Transportation is still a serious problem.

Many of the partially built buildings had suffered winter weather damage and needed repairs or replacement of various sections before continuing with construction. The few roofs that were constructed had leaked badly. Bricks exposed to rain and snow had disintegrated and some of the last concrete mortar used had frozen and crumbled before it had set. It was therefore, May before any real forward progress was made in the Parwan area. A full five months had been lost to the winter weather conditions.

Two decisions were made as a result of these construction problems: 1. The MOE/CD decided to re-design the roof. 2. Both the MOE/CD and AID agreed that no construction should be commended after July in any of the provinces with severe winter conditions. It is hoped that careful scheduling and keeping on schedule will make it possible to utilize construction capability in cold provinces during the summer and warm provinces during the winter so that the building of schools can be continuous all year.

Between March 6 and 12 MOE/CO and AID/CDE approved 18 school sites in the Helmand Province. Again, the sites were not selected on the basis of a master plan for the area. The Provincial Director of Education indicated the area to be served because an unhoused school existed, a local determination of the land considered available was made and AID and MOE approved as long as no engineering problems were present.

Present progress and schedules indicate completion of most of the first 30 schools in Parwan during June and July. New sites have been approved for Parwan and 10 schools will begin construction as part of an extended construction contract during June or beginning of July. Six of these ten new schools will be used in a Socio-economic Baseline Study. It is planned that one pilot model in Helmand will begin construction not later than August first, and another 20 units begin by September first.

The MOE/CO and USAID agreed that the schools to be built in the Kandahar and Helmand and other southern provinces should be of a different design because of climatic conditions, available materials, and skilled labor available. It was noted that very little wood was used in the area because it was scarce and because termite damage was severe. Also it was noted that the artisans of the area were skilled in building the vault type roofs that have served well in that climate for many generations.

The MOE/CD did not feel able to handle this new design and so other assignments and contact was made through USAID with CECSAR, Kabul University Center offering architectural and engineering services. This Center was given the assignment of making the new design and USAID agreed to pay the fees charged and a contract was made between CECSAR and USAID.

The completed plans, corrected as requested by AID/CDE were delivered to the MOE/CD for cost estimation on April 28. (The AID/CDE had already finished making a cost estimate).

At a meeting on May 12 the AID Project Director and MOE/CD President and staff met to examine the cost data. The cost for the complete unit - 4 class units, office, library, teachers hostel and latrine - was almost exactly 2 million Afs. There was great concern expressed by all members of the meeting as this cost was 2 times the cost of the complete units being built in Parwan Province.

An analysis of the reasons for the higher cost these items were identified:

1. The sites of the class areas had been increased.

2. Larger storage areas were provided.

3. An area for a library was provided.

The roof vault was massive.

5. The horizontal beams to support the roof contained a large amount of steel reinforcing.

6. The lintel above the windows contained reinforcing steel and concrete, just 2 courses below a similar cement and steel ring which did not need to be duplicated.

7. Glass doors were large and expensive.

8. Hardware specified was expensive.

9. Foundations for the building were very large, even under non-bearing walls used as partitions.

10. Partitions between classrooms were very thick.

During the time CECSAR was designing the school, suggestions were made by the President of MOE/CD regarding methods of building the vault roof, the size of the foundations, the sizing of the glass, and the specifications of the hardware. None of these suggestions were followed and it was indicated that the entire design must be accepted if the CECSAR name was to appear on the plans.

There seems to be an acceptance, as a cultural matter, that the work of anyone in a profession such as architecture or engineering should not be questioned. This restraint may have been more strongly supported in this case where work was done by or under the direction of members of the faculty of the University of Kabul. In addition, because the contract was negotiated

by AID and with payment coming from AID, the MOE/CD was not properly

recognized as the customer to be served. The Center did not use the

services of architectural services rendered in consultation with the user

and with an effort to satisfy the needs of the user.

Late in May the MOE/CD, with the concurrence of the AID Project

Manager, decided that modifications of the plans needed to be made in

order to reduce costs. AID again offered to pay for the additional architectural

fees necessary and the MOE/CD requested its desires through the Chief of

Party of the Nebraska Team to CECSAR. The Consultant was concerned

that this arrangement would result in the same kind of communications

problems encountered with the original contract and arranged an early meeting

at the CECSAR offices for the President of the MOE/CD and his staff architect.

There was a helpful discussion of problems, the needs of MOE/CD, and

agreements on what CECSAR was to produce and when. The MOE/CD agreed

to spend a day examining the revised plan and meet with CECSAR the next day

to work out next steps. The important development here was the establishment

of direct communications between CECSAR and MOE/CD as service unit and

customer.

When CECSAR had made the basic plan changes requested, another

meeting was held with MOE/CD, CECSAR and AID. Again, after discussion

there was agreement on next steps for each unit concerned. The purpose of this meeting was to demonstrate that time could be saved by direct communication between the concerned organizations. Further procedures had plans [illegible] CECDAP → [illegible]/CD → CECDAP → MOE/CD → [illegible] → MOE/CD → CECDAP → MOE/CD → [illegible] → MOE/CD → [illegible] → MOE/CD → [illegible] → MOE/CD → [illegible] → [illegible] → [illegible] that such procedures where each unit wants the last word can be [illegible] wasters.)

Unless there could be an agreement, in writing, on the [illegible] responsibilities and operational procedures to be followed by the [illegible] and the MOE/CD, it is doubtful that contracting for design work [illegible] architects can be successful at this time. However, if private firms are used it will be necessary for the MOE/CD to have a staff member [illegible] and competent to function as a supervising Architect.

Scope of Construction Department Schedule for Fiscal Year 1355 and for the Seven Year Plan.

1. The MOE has given the Construction Department (CD) the responsibility for the design, construction contracting, supervision of construction inspection and certification of satisfactory completion for all elementary schools being constructed with foreign aid. For those schools such as special agriculture schools, vocational schools, and teacher training schools which are MOE institutions, the MOE/CD contracts for the design and construction and supervises the construction.

The MOE/CD prepares plans and working drawings for schools built by provincial Public Works under the approval of the Provincial Director of Education.

Under the Seven-Year Plan the MOE/CD will be responsible during the current (1355) budget year for building 256 elementary schools and teacher hostels with a total of 2,688 class units; 29 secondary schools with 480 class units; 7 new agricultural schools with dormitories; and expansion of teacher training schools including dormitory facilities.

The MOE/CD has responsibility for the maintenance, repair and operation of the MOE building and all school buildings in Kabul City.

The MOE/CD has contracted with the Kabul Construction Co and Hewad Construction Co for the maintenance, repair and operation of schools in Kabul. For major repairs the MOE/CD examines the building and draws up necessary engineering plans.

There is a clearly defined MOE/CD responsibility for school repairs in Provinces. Generally MOE/CD will respond to a request for assistance by studying the problem and then advising and/or providing working drawings for repairs. Sometimes, in emergencies, funds are provided. Flood and earthquake damage in Northern provinces placed heavy demands on engineering capacity and funds this past year.

The approved MOE/CD budget for 1355 includes 219,118,000 Afs for new buildings and equipment.

During the Seven Year Plan the activities of the MOE/CD will more than double if responsibilities remain the same. Projections of the volume of work to be accomplished by the MOE/CD are difficult for many reasons. With an anticipated population growth of over two million and a school age growth of 280,000, there will still be 2,065,100 school age children not in school. Even elementary school enrollments will be meeting only 37% of the needs so the numbers of students to be housed is almost unlimited and the amount of construction is really dependent on the funds made available and the MOE/CD capabilities.

The number of Afghanis budgeted in the Seven Year Plan for school construction per year is doubled and that may well be a valid projection of the Construction Department work load. However, there are projects in the Seven Year Plan that are not in the budget but are tied with the objective of obtaining foreign aid. This could result in a major increase in MOE/CD responsibility. There also is a possibility that the MOE/CD will be made directly responsible for school building projects in the Provinces that are currently being handled by the Provincial Director of Education through the Provincial Public Works Director.

The MOE/CD budget has increased from 75,500,000 Afs in 1352 to 101,586,000 Afs in 1353 to 120,224,852 Afs in 1354 and to 218,116,000 Afs in 1355.

The magnitude of the tasks facing the CD of the MOE may be better understood by noting that the construction for the year 1355 will provide school buildings for approximately 125,000 students on a single session basis. There are probably no operational units in the U.S.A. that have school building projects for that number of students. Certainly there are no similar units that have such a geographically widespread area to service. Neither do they have the transportation problems and greatly different

climatic conditions with which to contend. By U.S. standards it would not be possible for such a small organization as the MOE/CD to build so many schools in a single year. Although numbers do not give a complete picture, it could be concluded that the MOE/CD is "working over its head." This is true, but it is also true that many things are not being done; the quality in many cases is low, and completion dates are not often met.

The excellent leadership of the President of the MOE/CD and his two vice presidents has contributed much to the success of the current programs. They are dedicated and hard working, but it often seems they are working "bare handed" because there are lacks of operating skills at the intermediate and lower levels. For example, there were few qualified persons available to serve as on-site inspectors of construction. For the AID project's 20 sites in Parwan, one engineer was assigned to supervise six AIT graduates. There was much on-the-job learning, but time did not permit any systematic in-service training. The engineer was required to lay out all the sites and by the time the last one was ready for the contractor, many of the sites were well under way and the inspectors were going from one site to another in a post-audit situation. This situation has been greatly improved by the assignment of four engineers who now have one inspector for each of the 20 construction sites.

Educational suitability of the buildings has had very little consideration. Structurally the engineers are hopeful that the buildings will have a life of 50 years. How long will they serve the educational program? There has been no master planning on an area basis when selecting school sites. Again engineering considerations for terrain and physical hazards constitute 'selection' from land made available. Site utilization studies, provision for expansion or for physical education facilities, have been minimal. Buildings do not include electricity, water or heating equipment. Design considerations have also been minimal as very few models have been constructed.

In "Western" eyes the school buildings of the AID project represent basic shelter only, but in the rural Afghan villages where they are being built, these schools are often the best buildings ever constructed in the area and great community pride has been expressed in many instances. It should also be noted that the standards being met by the AID project buildings far exceed those usual for Afghan, Public Works, Provincial or other MOE/CD construction. The MOE/CD contractors, engineers, inspectors, artisans and laborers of the village are gaining valuable experience through the AID project on how to build better buildings.

Other projects being administered by the MOE/CD have less technical help and quite different systems of operation. The World Food Program

contributes approximately 30% to 35% to the cost of school buildings built under WFP sponsorship by partially paying local labor with food. The administration of the food distribution providing skilled labors and providing the materials are added responsibilities for the MOE/CD. In this program, the MOE/CD furnishes building plans; approves the school building projects to be built; approves sites; lays out the sites; assigns skilled labor (masons); provides materials to sites; trains head teachers to be responsible for the construction; and supervises the construction. This is a much looser operation than the AID project, as for example, in Ghazni Province there are 70 construction sites and one non-graduate engineer in charge with two AID graduates and four qualified masons with two motor bikes for transport attempting to do periodical inspection of the construction and one skilled mason for each construction site as a resident inspector. There are also two graduate engineers with two Russian Jeeps in the MOE/CD to do periodical supervision and preparing reports. While the same basic building plan is utilized, 18 of these schools are built of stone, 5 of red brick, and 47 of mud bricks.

The AID project has produced a manual to be used in training the inspectors and for their use in observing and reporting. This instrument should be of service in other projects and in building the capability and capacity of the MOE/CD.

From the brief summary it can be observed that the AID project is the only one that is now adequately staffed and, it is serving as a pilot project for the MOE/CD and can materially assist in the development of the MOE/CD as an efficient implementing agency.

1/ See attached budget for 1955

2/ See attached 7 year plan 1955 Construction Program

HOE/CD Construction Budget for 1355

Breakdown of Developmental Budget of the New Projects of the Ministry of Education in 1355 in 000 afs and 000 dollars

Dollar Rate of exchange in the Gov't Budget:
$1 = 57 Afghanis
Rate of exchange for Foreign aid (dollars):
$1 = 45.30 Afghanis

No.	Name of Project	Appropriations in afs for 1355	Total after conversion currency	Source of Currency Financing
A.	Continuing Projects			
	USAID	18,100		18,100
	WFP	42,100		42,100
	Primary House Building	4,000		4,000
	Public Works	5,400		5,400
	Loans and debts of elementary projects	1,000		1,000
	Total, elementary	70,600		70,600
	House Building	9,500		9,500
	Public Works Secondary	9,100		9,100
	Loans and debts of secondary	2,000		2,000
	Total, Secondary	20,600		20,600
	House Building	10,500		10,500
	Vocational Public Works	4,400		4,400
	Loans and debts of Vocations	1,000		1,000
	Total, Vocational Education	15,900		15,900
	Total Educational Continuing Projects	107,100		107,100

Breakdown of Developmental Budget of the New Projects of the Ministry of Education in 1955 in 000 afs and 000 dollars

Dollar rate of exchange in the Gov't Budget
$1 = 57 Afghanis
Rate of exchange for Foreign aid
$1 = 45.30 Afghanis

No.	Name of Project	Appropriations in afs for 1955	Total after conversion currency	Source of Currency Financing
B.	Construction of New Projects			
	Primary USAID	4,600		46,000
	WFP	33,100		33,100
	Title 500 House Building	6,200		6,200
	Total	86,100		86,100
				$1,565,454.50
	Number of Schools			
	House Building	5,500		5,500
	Secondary Title 500 Public Works	2,900		2,900
	Total	8,400		8,400
	Agricultural Schools Vocational	4,000		4,000
	Title 500			
	Total new construction	98,500		98,500
	Equipment for new projects Primary: Instructional equipments 32	4,500		4,500
	Title 400 elementary school			

Secondary Equipment			
For 24 secondary schools	800		1,800
Title 400			
Expanding the equipments of Kohat Mechanical School	1,400		1,400
Equipment purchase of vocational courses	1,000		1,000
Equipping the newly established agricultural school	3,818		18,390,332
Title 400			
Total New equipments	2,510	334	27,601
Total equipments for the new buildings	11,016	332	1,026,101
Total continuing and new (Projects)	218,116	333	268,201
			$4,240,024

MOE/SD Construction Program for 1955

A. Elementary Schools

Program	Teacher Houses	Schools	Classroom Units	No. of Provinces
World Food Program under construction	150	95	750	5
(annexes)		40	160	6
New	151	131	1045	9
Total	291	256	1965	
USAID under construction	30	30	240	1
New	80	60	480	8
Total	90	90	720	
Provincial-Public Works under construction		21	168	10
Total		21	168	
ACUK contract under construction		2	32	1
New		4	64	1
Total		6	96	
Total-All Elementary	571	383	2952	
MOE/SD Total	371	358	2538	

G. Secondary School Construction

	Schools	Class Units	Provinces
Public Works Construction (Provinces)			
To be finished	23	268	5
New	2	32	2
Total	25	400	11
Afghan Construction Unit Kabul			
To be finished	2	20	1
New	2	10	1
Total	4	30	2
G. Vocational Schools			
Public Works Construction (Provinces)			
To be finished	2	60	2
MOE Construction Department			
Agriculture Schools			
New	4	unknown	4
Extensions	3	4	3
Afghan Construction Unit Kabul			
To be finished	2	80	1
New Stadium/Gymnasium	1		1

Organization of MOE/CD

Although this assignment indicates that recommendations for improved organization should follow a study of the MOE/CD, it has been encouraging to find that questions raised during analysis have prompted the MOE/CD to examine its own problems and to make some needed changes immediately.

A new organizational pattern was put into practice with the fiscal budget which began on March 21st and as assignments and work flow was discussed many questions were raised. At the end of two months of operation the President of MOE/CD felt that many communications problems developed and that the organizational pattern did not meet the criteria of having organization follow function. A complete change was made and put into operation the first of June with the objective of having each function in one organizational unit. As a result of this change many of the recommendations that were discussed and that would have been made at the time of this report are now after the fact. The net result, however, is to have increased capacity and efficiency in MOE/CD at an earlier date and to have positive evidence of the capability and willingness of MOE/CD to not only utilize the help of consultants, but to find logical solutions and act on them promptly.

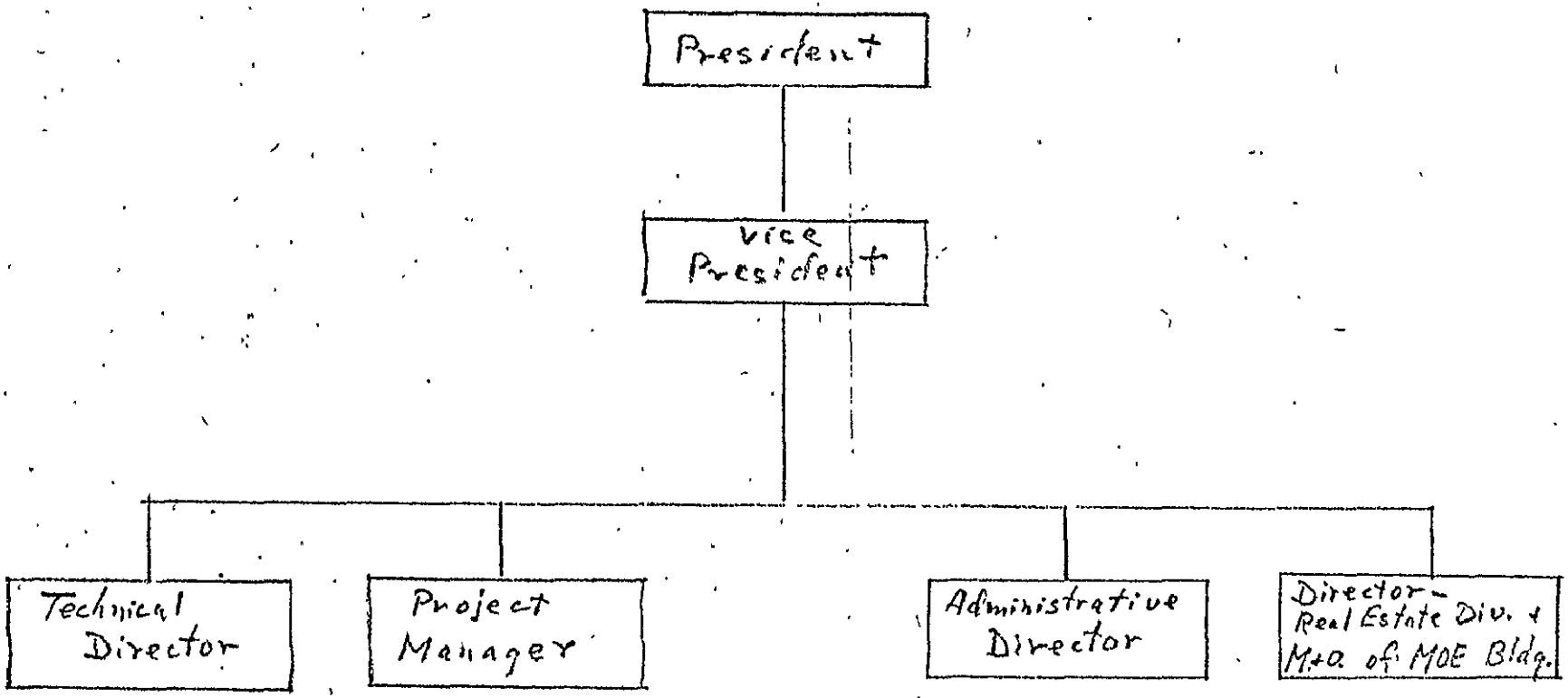
In the plan adopted in March all of the Technical services of Design, Engineering, Field Supervision and Maintenance were under one Vice President.

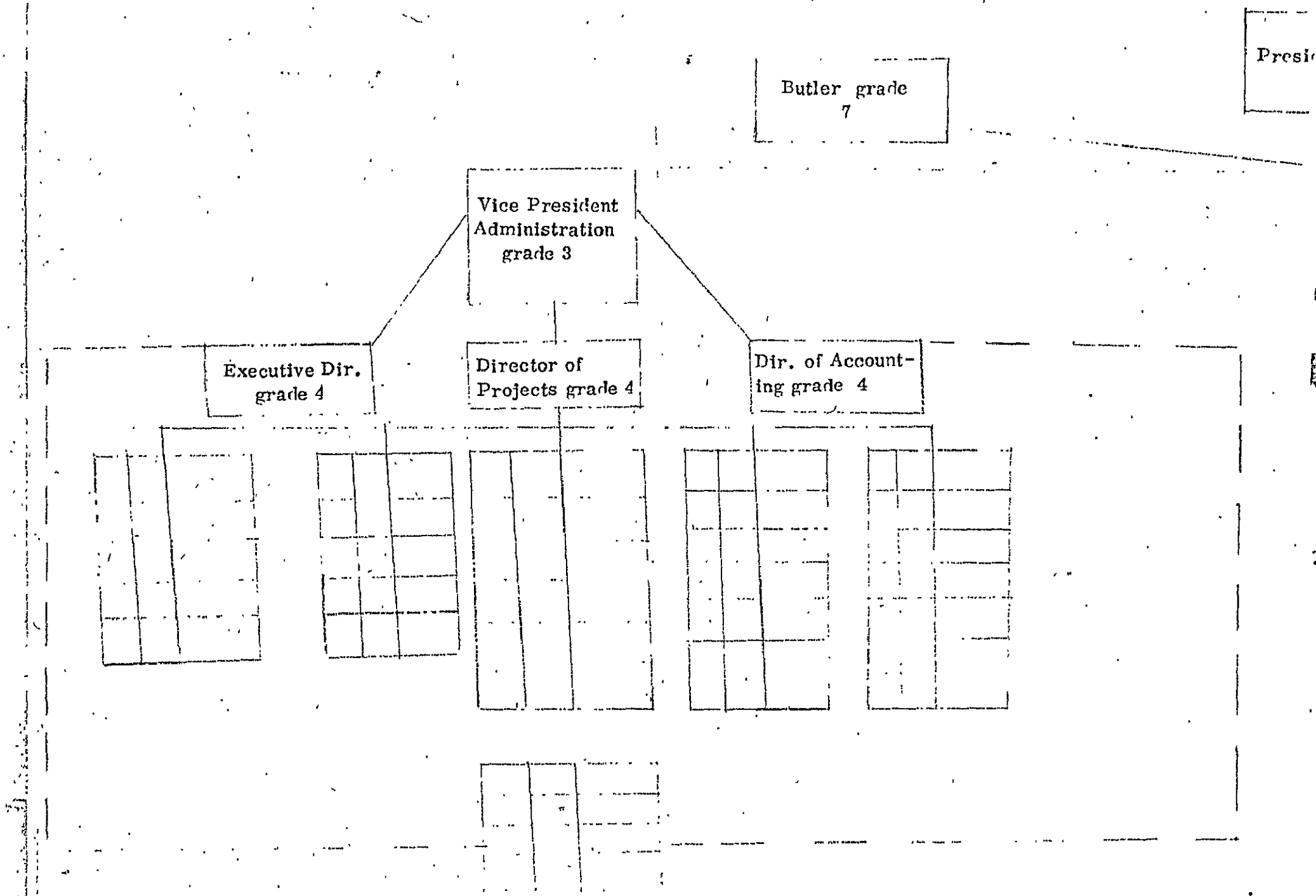
and all Administrative Services were under the other Vice President. There is a good deal of logic in this organization, but some key factors were out of adjustment. First, the loads between the two major units were unequal with 41 staff members in Administrative Services and 157 in the Technical Services. Secondly, all the planning and decision making was done in Administrative Services and priorities were set without Technical Services participation. One immediate result could be foreseen - plans made that could not be carried out. Coordination between capability and planning was needed.

The revised organization plan equalized staff loads (112 - 106), placed maintenance in one division and new construction in the other. Planning and Coordination of new projects became a function of the division with new construction. The heavy administrative scheduling for maintenance and property and purchasing was kept in one division. As inconsistencies are discovered in practice further adjustments may be made.

Telephone, visitors, mail and staff communications are haphazard and chaotic at times. Large numbers of visitors come directly into the President's office, frequently interrupting his conversations with others. It is not unusual to have six or eight people waiting and conversing in the office and then have phone call interruptions. The President is fully conscious of this problem and has already followed a suggestion to keep a log of visitors and their business and determine how their business could be handled in some alternative manner

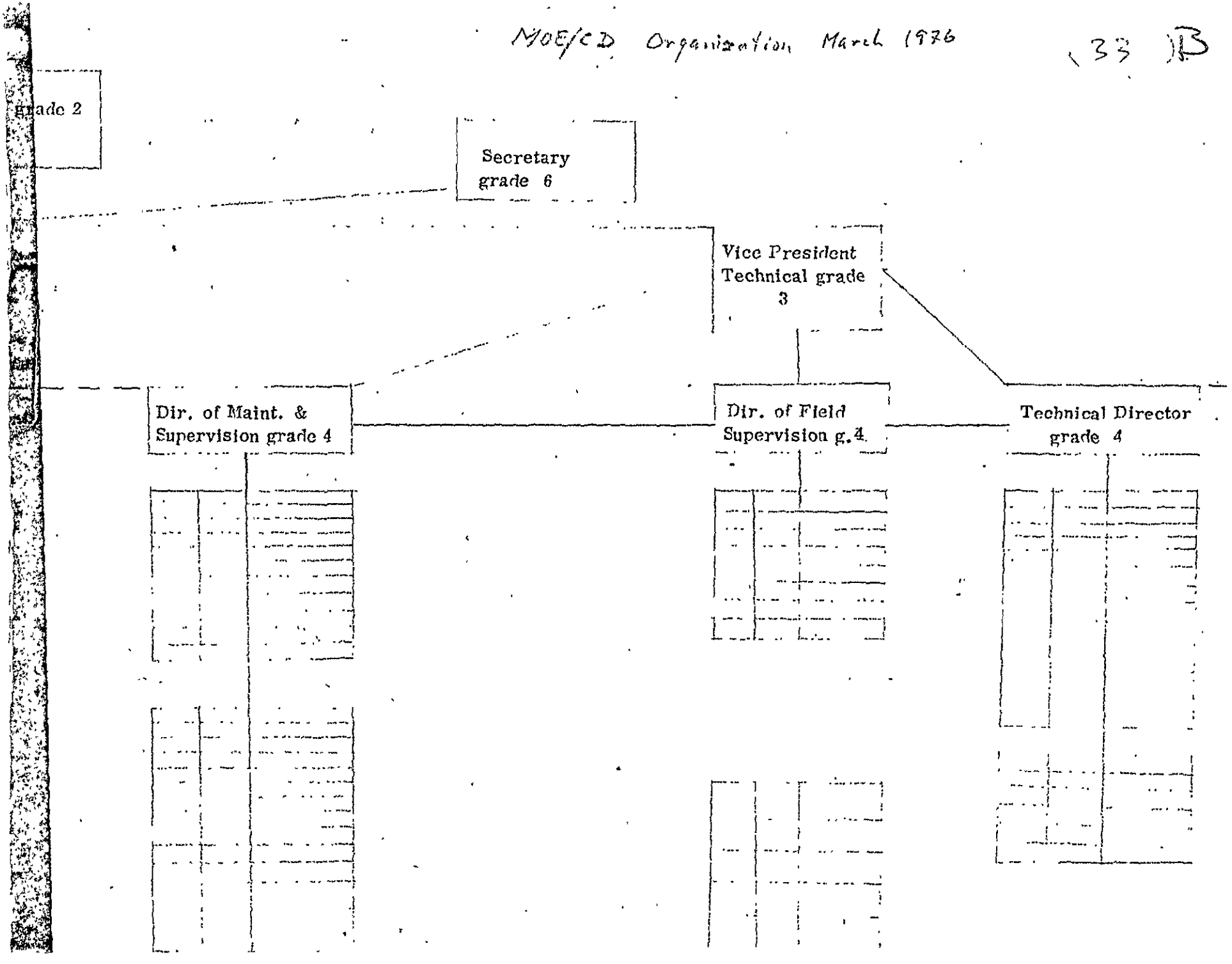
Organization chart MOE/CD 1966 — Mar. 1976 (141 Positions)




Presi
Butler grade 7
Vice President Administration grade 3
Executive Dir. grade 4
Director of Projects grade 4
Dir. of Accounting grade 4

MOE/CD Organization March 1976

33 B



President of G

Vice President
grade 3

Dir. of Clearing
grade 4

#	Grade
2	5
1	8

Dir. of Accounting
grade 4

#	G
1	5
2	6
1	7
1	8
1	5

#	G
1	5
1	6
1	7
1	8
4	5

Executive Directorate
grade 4

#	G
1	5
1	6
2	7
1	9

#	G
1	5
1	6
1	7
1	9

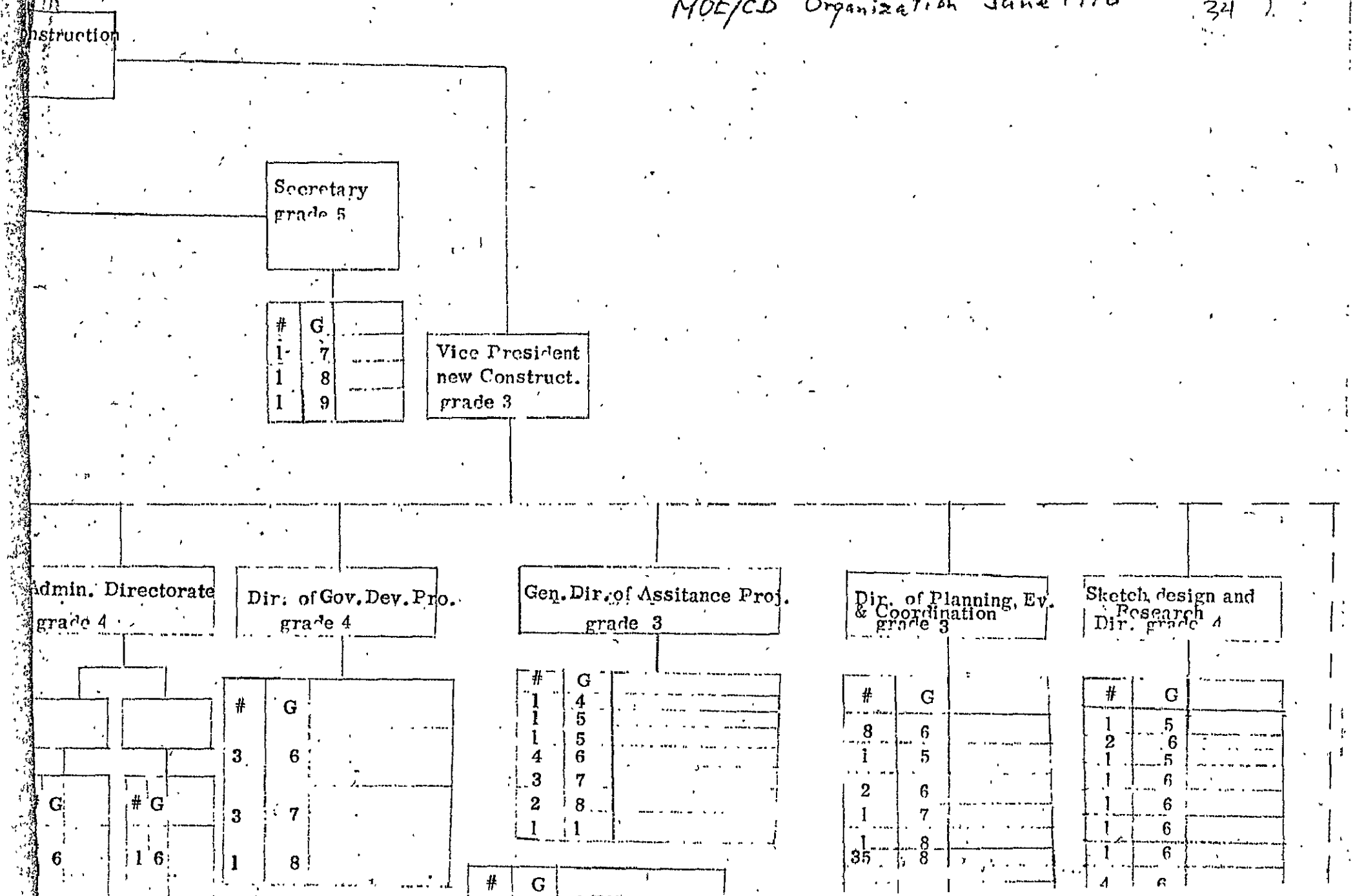
#	G
3	6
8	11

Dir. of Maintenance
grade 4

#	G
1	5
1	5
3	5
1	5
1	5
1	5
3	5
4	5
2	5
2	5
7	5
19	5
20	5
1	5
1	5
4	6
4	6
1	6

MOE/CD Organization June 1976

34



b.

2. Present Personnel Qualifications of MOE/CD

The President of MOE/CD is a graduate engineer and holds a M.Sc. degree from the University of Manitoba, Canada. He has had 3 years of experience in Canada and 7 months in the U.S., and has served the MOE/CD a total of [illegible] years as Engineer, Head of Engineering Department, Technical Director, Vice President and President. He is competent and a strong and personable leader dedicated to improving the services of his department, but carrying an entirely too heavy work load.

The Vice President for New Construction is an engineering graduate of Yakul University (1951 or 1974) and has served MOE/CD as Engineer, Technical Director and as of May 1976 as Vice President.

The Vice President for Maintenance has a M.Sc. degree from the U.S. in Science and [illegible] years of experience in education. In addition to teaching his experience includes 7 years as Science Department Head, 5 years as Assistant Director of A.I.T., and 4 1/2 years as Director of A.I.T. His experience is in education and administration and does not include any technical background.

The two Architects are graduates of Yakul University and one has had 2 years experience in the MOE/CD Design section and one has had 2 months experience in the MOE/CD Maintenance Section.

[illegible] have a B.Sc. degree and two have an [illegible] from Scotia.

The four [illegible] are graduates of A.I.T. One has two years experience, one has one year and one has 6 months, all with the NOR/CD.

It was not possible to determine the incidental qualifications of the clerks, admin. buttons, etc., but observations of the records being kept, filing systems, accounting procedures, and the flow of traffic to the Vice Presidents and the President for direction and approvals, indicated [illegible] qualifications. The validity of this observation was verified by the President and the Vice President.

Except for the top leadership the experience level for NOR/CD employees is very limited. Many [illegible] have come to their [illegible] directly from school, even the engineers and architects. Both training and practical experience is urgently needed to meet the requirements of the NOR/CD (seven year plan.)

The mode of MOE/CD to successfully Administer the Seven Year Plan, including the Ultimate Rural School Project Phase II.

The MOE/CD general objectives are:

a. To plan and construct all educational buildings built under the authority of the MOE.

b. To coordinate and expedite the administration of foreign aid projects for school construction.

c. To administer a program of maintenance for all MOE schools.

In order to meet these general objectives the MOE/CD needs competence and capacity in planning as all other phases of activity depend upon successful educational and management planning.

a. Educational planning functions:

- Survey of existing facilities
- Demographic data on Population
- Demographic data on Students
- Educational plans
- Area Planning plans
- Educational Specifications for School Buildings
- School facility planning and evaluation

-Financial [illegible] facilities

-Training of staff

b. Financial and Resource Balancing

-Yearly and long term budgeting

-Adequate staffing

-Scheduling of staff & resources

-Training of staff

c. Architectural Design and Engineering

-Design to meet Educational Specifications

-Design to meet engineering specifications

-Design to meet cost specifications

-Research of materials and construction methods

-Cost Estimation

-Production of [illegible] and specifications

-Site engineering

d. Construction Administration

-Capability to contract for construction [illegible]

approval and/or

-Capability to [illegible]

order and delivery of [illegible], and [illegible]

[illegible]

-Develop [illegible] of [illegible]

e. Maintenance

-Examine all maintenance requests, determine action to be taken, provide needed engineering plans, estimate costs, schedule repairs, provide technical aid, make contracts, etc.

-Train NOD/OD staff and maintenance personnel in each province.

f. Office Organization and Operations

-An office organization that follows function

-Well-defined policies and procedures

-Adequate job descriptions

-Clear work flow channels

-Delegation of duties and responsibilities to appropriate levels.

-Selection of qualified personnel and/or in-service training program.

[illegible]

The [illegible] additions given below are made to achieve the purpose of the project as stated in the Project Agreement. The major emphasis [illegible] has been on the construction of buildings. Very little has been [illegible] the [illegible] development of the capacities needed to "construct and [illegible] operational rural primary schools in conformance with Republic of [illegible] goals." (The underlining is mine.) To meet such a goal adequately implies the ability (and capacity) for comprehensive school planning [illegible] as the construction of buildings. This includes

- assembly of demographic data, maps showing school and student locations, projected educational goals, educational specifications for school buildings, evaluation of existing schools, area master plans, site utilization plans, school design, [illegible] etc.

The attached [illegible] on school [illegible] are given [illegible] capability needed.

There has been no systematic, planned effort to assist the [illegible] development although 3 staff members [illegible] to the [illegible] Bangkok for 4 weeks and 6 have been sent to the [illegible] for a month of study and observation, and individual [illegible] been given. In fact, there have been some expressed [illegible]

[illegible] that the building of schools in the [illegible] is not important. [illegible] and then by [illegible] treating the subject.

[illegible]

[illegible] to [illegible] functions. Progress has been made beyond this objective, but technical assistance is urgently needed as only the President of [illegible] is knowledgeable in this field.

It is recommended that a first step in developing the organization be taken in control of office to this patterns.

1. There should be a information desk in the main building with an obvious sign "Construction Department".

2. This desk should be served by a clerk who has a chart of the officers, their functions, and the names of officials, and be able to direct visitors to the proper officers.

3. The President should make use of the services of a secretary who would:

   - Answer all phone calls. Determine whether or not the call needed to reach the President or some other staff member. Hold calls or messages for call back at time convenient to the President. Give answers to routine questions.

   - Grant all visitors to the President's office, deliver [illegible] staff members would serve them, have them [illegible], make [illegible].

4. Internal office traffic should be directed by written policies, procedures, and job descriptions and the development of work flow charts and specified delegation of responsibility. (This will require assistance as well as training).

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

(Also includes President, Vice President, Directors, and Section Heads or Supervisors).

- All technical positions to be filled by fully qualified personnel. (Architects, Engineers, Estimators, Draftsmen, etc.)

- Whenever it is not possible to meet the "fully qualified" criteria in filling a position, an in-service training program should be arranged.

Project Management & Supervision

There is need for a program of continuous training to improve the systems used in construction and the supervision of construction. Very few of the sub-contractors are skilled in either management or construction systems and the present inspectors have had minimal training and virtually no experience.

If a corps of inspectors could have a good program of in-service training while gaining practical experience it is possible that those exhibiting talent and responsibility could serve as construction managers (like the sub-contractors) and save the [illegible] on the cost of each building [illegible].

It is recommended that:

- A continuous in-service training program be established [illegible] staff.

- There be pre-construction meetings held with contractors and sub-contractors [illegible] under the direction of [illegible] engineers.

-That a complete set of plans be provided at each building site.

-That construction manuals be provided to both MOE/CD inspectors and the sub-contractor at each site.

-That MOE/CD set up a system for receiving and reviewing weekly reports from inspectors and engineers.

-That MOE/CD provide engineering services to aid contractors in solving building problems.

-That MOE/CD provide adequate transportation for field engineers.

-That MOE/CD, by policy, release inspectors who have not shown the capability to supervise the building construction.

Equipment

The MOE/CD has a need for modern time saving equipment such as blue print machines, surveying instruments, drafting tools, calculators, etc.

Training Program

A training program for MOE/CD should have the highest priority. The capacity of the office to meet its objectives is dependent on the competence more than the quantity of the staff. To raise this competence [illegible] two types of training, academic and earthquake or [illegible]. These are [illegible] areas where training is essential.

1 School Planning

2 Architecture

3. Engineering

4. Management

5. Maintenance & Operation

Specifically it is recommended that a year of training in the U.S. be provided for:

1- School Planner

1- Architect

1- Engineer (Project Engineer)

1- Engineer (Structural)

1- Administrator (Management & Systems)

In order to have maximum impact on Phase II of the USAID Rural Schools Project, the School Planner and Administrative Officer should be sent to the U.S. as soon as possible. If sent in September 1976 they could return to the MOE/GD in October 1977 at the beginning of Phase II.

The Architect and Engineers may not be released by the MOE/GD until January 1977, but their added capacity will be needed especially as the building process increases in the seven year plan.

[illegible]

[illegible]

re-rested. The recently submitted Proag for extension of the Rural Primary Schools Project, because it was an extension, had no substantive changes from the original except the amounts of money and the location of schools. This very simple document was kept in the air and circulating for almost a month – and produced nothing new, but great if much confusion. The role of each participating unit must be clear to all – which ones advise, the scope of decision (if any) of each unit, and which unit has final action responsibility.

There are many intangibles that affect the operations of a project, including the attitudes of the people involved and the interpretations that are given to their roles. These people are most interested in improving their own status, and building mini-empires of bureaucracy they have limited time for constructive efforts. Internal rivalries for control, status, credit, etc. have a tendency to develop in organizations that have lost forward motion, that are being reduced in size of staff, or in other ways have diminished the security of the staff. The protective actions taken in such situations often create a great volume of inter-day [illegible] to avoid risk.

Project Managers responsible for the actual operations of a project or project deserve the cooperation and support of all the service and backup

[illegible] not prepared to [illegible] and [illegible] of [illegible] value to a foreign [illegible] program. The percentage of [illegible] in the Afghan projects [illegible] greatly exceed that committed to administration, re-examination, audit, etc. These [illegible] operational [illegible] lose sight of the basic purpose of [illegible] to help develop the talents, abilities and capabilities of Afghans and [illegible] their living standards.

A recent article in "Front Lines" by [illegible] made this point rather well, stating "Efforts to achieve 'development' must be real and practical, not tied to theory that sounds good in the abstract but doesn't apply in real life. [illegible] Katering are [illegible] to a developing country [illegible] needs, not prejudging a [illegible] predetermined set of criteria or to meet a formal, time consuming program approval process.

"Finally, those of us involved in AID's development assistance work must be aware of the fact that overcomplication of the development process through [illegible] economic theory, [illegible] evaluations and analyses, or a complex and [illegible] approval process [illegible] only to those who are supported to administer or receive aid. [illegible] to those who are called

[illegible] legislative and financial support for AID's development assistance activities.

The AID, this translates into broader discretion and authority for our field managers with less [illegible] and control by those far removed from the people to be assisted.

"For when all is said and done, development hulls down to personalities - people working with and helping other people."

These generalized background comments are given because USAID in advising the COA has an obligation to provide a good example.

The effective operation of a project requires adequate personnel with well-defined positions, authority and channels of communication. First, someone must be responsible in charge of the operation (whether titled Project Manager or Project Advisor, etc.) and he should have a designated higher authority to whom he reports and to whom he is responsible. Likewise the AID personnel assigned to the project should have well defined duties and responsibilities and work under the direction of the Project Manager. All personnel serving a project should be carefully selected for proven competence in their specific assignments, and shall be working with developing country personnel. Also essential is a spirit of cooperation among the supporting elements of the AID organization so that [illegible] competent staff members can be implemented properly.

[illegible] and [illegible] questions and [illegible] some of the [illegible] problems. AID [illegible] of the project [illegible].

On this project there has [illegible] problem concerning support between AID personnel and [illegible] personnel [illegible] MOE/CD [illegible] of the [illegible] AID [illegible]. Communications [illegible] and [illegible]. If the AID objective is to assist in the development of the [illegible] it is necessary to begin [illegible] to respond [illegible] in their present state of development, and to encourage their growth through advice and training.

The operation of a school building program of $2 million a year requires an AID [illegible] for:

First and [illegible] with the MOE/CD, [illegible] for both [illegible] planning purposes, [illegible] in the development of educational [illegible] and [illegible] records [illegible] of construction, [illegible] approval of [illegible], provide [illegible] as required, assist in the development of the MOE/CD [illegible] necessary training and technical assistance, provide [illegible] AID [illegible], certify the eligibility of [illegible] payment, and [illegible] the MOE/CD and AID efforts on the project.

[illegible]

Consultant Requirements

Managerial Staff

The managerial staff of the [illegible] should include:

a. 1- Project Director with overall responsibility for the administration of the project and direction of the technical staff and technical assistance staff in a coordinated effort to meet the goals of the project.

b. 1- (Local Hire) Clerk-Stenographer to serve as secretary for the project and to keep project records for each school construction site.

Technical Staff

The technical staff should include:

a. 1- Structural Engineer to work full-time under the direction of the Project Director in [illegible] [illegible] with technical construction problems and providing in-service training. (This could be a consultant under Technical Assistance.)

Technical Assistance

The following consultants be employed to provide technical assistance to aid [illegible] in developing greater school planning and construction capacity.

a 1- Consultant - School Planning (1 to 2 years)

b 1- Consultant - School Architect (1 to 2 years)

c 1- Consultant - Management (3 months - 1 year)

d 1- School NGO (3 months - 1 year)

Consultants could be hired individually by SDMD, however it is recommended that an institution or organization be contracted to furnish the consultancy expertise needed. This would [illegible] and provide flexibility and support in meeting the [illegible] of the SDMD, CD during a developmental process.

Conclusion

This is an excellent project that results in important need identified by the GOA and planned for by the GOA before their use Seven Year Plan of development.

The project is also on target to meeting the Congressional and AID goals of providing aid to the rural poor and special aid to females of the rural areas.

To be fully effective the project must assist the GOA in achieving the capacity to continue the development of educational opportunities for the rural areas beyond the time of USAID participation. That capacity will depend on the competence developed by the personnel of the MOE during the operation of the Rural Primary School Project

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

School Sites

Selection of school sites has been largely left to the local community and/or the provincial educational representative of the MOE. Some area a provincial governor has been involved in site decisions. These local groups have generally made decisions on the basis of land availability. If government land is available it is usually chosen. If someone will donate land it is accepted even when the other villagers pay the donor for their share.

There are no maps that I have been able to discover which show in detail the area to be served by a school, the location of the school, the numbers and locations of the students, and the locations of adjoining schools. The site location reports contain such very incomplete information and data that they raise many questions. For example, one site report may indicate 10 villages served, total population 4000, estimated school enrollment 300. The next report indicates 11 villages served, total population 30,000, and estimated school enrollment 500. Obviously there are many missing pieces of information in such data.

To accomplish an adequate school planning survey prior to site selection it is necessary to know detailed information regarding a carefully defined area of school service including:

a. Total population

b. Number of [illegible]

c. Number of [illegible] (6-11) [illegible] finally by % of total population.

d. % of [illegible] children in school.

e. Locations of [illegible]

f. Number of students properly [illegible]

g. Number of students to be housed [illegible] year

h. Number of students to be housed [illegible] year.

i. Existing [illegible] by other agencies

With the [illegible] the following [illegible]

a. Determine the number and general locations of [illegible] needed to serve the horizon year student population.

b. From the above locations [illegible] utilized

c. Make a study of the first [illegible] site to meet the [illegible]

-Control to students [illegible]

-Adjacent to [illegible]

-Access to and from students [illegible]

-[illegible]

[illegible]

-[illegible]

[illegible]

-[illegible]

When a site has been selected a study of the [illegible] building site should [illegible]

a. Foundation soil

b. Water drainage

c. Prevailing winds

d. Areas for building expansion

e. Areas for physical education and recreation

f. Traffic patterns for students

g. Orientation for class lighting and heat

[illegible] should be [illegible] school [illegible]. This assignment is usually [illegible] "School Plant" [illegible] planning can begin to function.

[illegible]

[illegible]

[illegible] has the obligation of providing [illegible] information to the [illegible] regarding

- [illegible]
  such as physical education,
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]

The Architect has the obligation to study the data provided by MOE and to do research on all phases of the project. Study sketches should be presented for discussion with MOE and preliminary plans submitted for approval and authorization to proceed with the preparation of final plans. If another agency, such as World Food Program, World Bank, or USAID, is required to give approval to plans it should be involved in joint planning sessions. Final plans should be discussed with MOE and explained in detail before MOE is asked to give approval.

Both MOE and the Architect should designate a person to serve as representative on a particular project. Each of these representatives may use other staff members as consultants, advisors, and technicians, but official action should always be through designated representatives.

Female Participation in Rural Schools

One of the stated goals of the USAID Rural School Building Project was to increase the opportunities for school attendance for rural females and a target of 10% female attendance was set. An examination of present conditions and customs indicates that progress can certainly be made toward the basic goal, but the target of 18% female attendance is unrealistic for schools in rural areas today.

The 1979 Demographic Study of Afghanistan "National Demographic and Family Guidance Survey of the Settled Population of Afghanistan" shows that 17.6% of the total school attendance is female, and this may have been instrumental in setting the 18% target. However, the literacy and school attendance data show that the ratio of rural females either literate or attending school is between 25% to 30% of the country-wide figures. Rural attendance of females is actually between 4.5% and 5.5% of rural attendance as compared with the Project Target of 18%. Culture in all rural areas indicates very limited interest by parents in having females attend school. Only 8.6% of all rural females are literate as compared with 31.5% of urban females. In certain provinces customs are more restrictive on female attendance than is shown by the averages. Kandahar and Helmand Provinces are in this category and consequently make the stated target of 18% less realistic.

In order to further implement the goal of increasing rural female school attendance consideration should be given to solving some of the basic problems inherent in the existing attendance patterns as well as simply providing more rural elementary school buildings. Parents in the conservative rural areas are very reluctant to send their girls to school unless there is a female teacher. Plans I included the building of teacher hostels at each of the schools constructed with the purpose of making the role of rural teacher more attractive. At this time it is not possible to determine whether or not female teachers will be attracted to these rural areas. MOE personnel think qualified married couples might represent a break through in getting a few female teachers employed in the rural areas. * Approximately 62% of all female teachers work in Kabul and three other large cities and almost all the others are in the larger villages. This distribution is logical when consideration is given to the fact that almost all secondary schools for females are located in the cities and all teacher training institutions are in nothing smaller than a provincial capital. The city raised and educated female teachers can find employment in the cities and have few if any inducements to teach in a rural area.

---

*P. 159 Dupree

Until there are dormitory facilities for female students at teacher training institutions so that rural females can attend and become teachers a supply of such teachers can not be expected. Even with dormitories and the opportunity for the development of a channel for training the growth of a supply of rural female teachers is apt to be slow. The establishment of such facilities is a necessary first beginning to be made in increasing rural female school attendance.

It is recommended that the construction of dormitory facilities for rural female students be included in Phase II of the Rural School Construction Project in order to help achieve the goal of more rural female school attendance

att: to Eval. No 76/9

142

RETURN TO AFGHAN DESK

file

Observations on Rural Primary Schools Project (as of May 5, 1976)

F. C. Darby, Consultant

BEST AVAILABLE

1. Construction experience:

   a. 30 (8 unit) Elementary schools under construction Teacher hostels and Latrines for each.

   b. Work began in September 1975 and halted on November 22, 1975 for winter.

   c. Work recommenced April 10, 1976.

   d. Some units will be completed in June 1976.

2. Construction Problems:

   a. Winter damage to partially built schools

      - Roof leakage
      - bricks wet and frozen at top of walls
      - water damage to bricks
      - Mortar frozen before set.

   b. Use of improper mortar mixes.

3. Supervision of construction:

   a. One engineer and 5 inspectors for first 30 sites - not sufficient.

   b. April 10, 3 engineers and 30 inspectors for 30 sites and 5 vehicles (old USAID) for transportation assigned by MOE/CD.

BEST AVAILABLE

c. Manual for inspectors produced and in use.

4. Design:

a. New roof design to eliminate problems found in first 5 roofs.

b. Extended 6 room plan to 8 rooms.

c. Vault Type roof designed for Southern area.

5. Personnel:

a. MOE/CD met all agreements with AID.

b. MOE/CD responded quickly to AID suggestions for Inspectors and hired, briefly trained, and assigned 23 in April.

c. MOE/CD added 3 engineers to AID project.

d. MOE/CD adopted new organization plan in April 1976. (This still needs study).

e. The MOE/CD leadership is intelligent, well trained, well organized and ambitious to make the building program a success.

6. Finance:

a. The MOE/CD budget for 1955 contains:-

- 18,100,000 Afs. for AID project schools already under construction.

- 46,000,000 Afs. for new AID project schools.

- (Total of $1,165,465)

BEST AVAILABLE

b. The above budget is sufficient to:-

- build 38 schools in PARWAN Province as scheduled at $11,000 each.

- build 37 schools in HELMAND and KANDAHAR Provinces at $20,000 each.

Schedule of Proposed Construction

a.	a. 30 Schools in PARWAN	- complete in June	- 1976
AID Phase I	b. 8 Schools in PARWAN	- July, Aug., Sept., Oct. Nov.	- 1976
	c. 21 Schools in HELMAND	- Aug., Sept., Oct., Nov., Dec.	- 1976
	d. 6 Schools in KANDAHAR	- Jan., Feb., Mar., April, May	- 1977
	(65)		
Phase I	e. 24 Schools in KANDAHAR	- Jan., Feb., Mar., April, May	- 1977
Extension	(N)		
($1,000,000)	f. 13 Schools in HERAT or KUNDUZ	- June, July, Aug., Sep.	- 1977
	(102)		
Phase II	g. 47 Schools in (South)	(97) - Oct., Nov., Dec., Jan., Feb.	- 1978
($3,000,000)	h. 85 Schools in (N)	- April, May, June, July, Aug.	- 1978
	(234)		
($2,000,000)	i. 85 Schools in (S)	- Oct. Nov. Dec. Jan. Feb.	- 1979
	(319)		
($2,000,000)	j. 85 Schools in (N)	- April, May, June, July, Aug., Oct. (79)	- 1979
	(404)		

BEST AVAILABLE

All the estimates of numbers of schools to be constructed are conservative. The following factors were considered:

1. Funds for training of MOE/CD staff and for commodities were subtracted from the donor funds.
2. All schools are for 8 class units plus teacher hostels and latrines.
3. The donor cost per school was calculated at $20,000, which is the USAID estimation for the new design to be used in the south.

Factors that may change the numbers of schools:

1. Schools built in the North may continue to cost under $12,000 per unit.
2. Commodity and training costs may be reduced.

The attached operations chart reflects the conservative estimates shown above and the numbers in the shaded areas correspond to the numbers of schools in the "Schedule of Proposed Construction."

The MOE/CD is already staffed and in operation at the level needed for Phase I and the proposed Phase I Extension of $1,000,000.

By the time a proposed Phase II becomes operational both the field and administrative staffs will have had 2 full years of experience including

BEST AVAILABLE

the construction of the revised plan for Northern schools and the new model designed for the South.

The proposed training program should add further capability and be completed in time to materially assist with the envisioned acceleration under Phase II. (A) The training of the School Planner and the Business Administrator should begin in September 1976. (B) The Engineer - Administrator and the Architect should begin in January 1977. The MOE/CD will have two engineers returning from advanced training in England in September and the President of the CD wishes to have them integrated into the department before releasing two technical staff members for training.

extension will permit completion of essential training before moving to accelerated Phase II.

also permit time for ~~testing~~ completing & testing & costing revised N & S designs ~~before expanded~~ phase II.

8. Minimum Training Needs of MOE/CD in order to Meet Requirements of Proposed Schedule.

a. One School Planner

A selected educator to have one year of advanced degree specialized training in techniques of School Planning. (September 1976-October 1977 - U.S.)

This staff member should be ready to direct the planning of schools, and master planning for the areas where schools will be built under Phase II.

will enable completion of the staff upgrading program & will

BEST AVAILABLE

b. One Engineer - Administrator

A selected engineer to have advanced degree training with specialization in administration and management of engineering projects. (September 1976 - October 1977 - U.S.) This staff member should be ready to help organize and direct the logistical and management operations of Phase II.

c. One Architect

A qualified architect to have one year of advanced degree training with emphasis and experience in school design. (September 1976 - October 1977 - U.S.) This staff member should have the capacity to serve as head of the school design section and as a Supervising Architect.

d. One Business Administrator

A selected administrator to have one year of advanced degree training in the techniques of departmental management. Training should include Office Management, Personnel Administration, In - Service Training of Staff, Fiscal and Budget Management, and Business Systems. This staff member should have the capacity to directly assist the President of the Construction Department of the

BEST AVAILABLE

MOE in the organization and operation of an expanding department. (September 1976 - October 1977 - U.S.)

e. Consultant Services for In-Service Training to Construction Department Staff.

- Maintenance and Operation of Buildings (To train M.O. supervisors and technical personnel in MOE building. Develop workshops for Provinces).