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UNITED STATES OF AMERICA
AGENCY FOR INTERNATIONAL DEVELOPMENT
Dhaka, Bangladesh

June 25, 1991

MEMORANDUM

TO : Mary C. Kilgour
USAID Mission Director

FROM : Jose H. Cosio, Team Leader, PDE *(Cosio)*

THRU : James Francis *(JF)* Lewicz, Chief Engineer, PDE

Ref: Personal Services Contract No. 388-0061-S-00-0025-00, dated May 6, 1990 Yearly Report.

In accordance with clause I.B.18 of above referenced contract, attached herewith is a report corresponding to my first twelve (12) months of professional services as Team Leader cum Engineering Advisor of the IFW Bridges and Culverts Program in Bangladesh.

I take this opportunity to thank USAID for allowing me to work on this vital development program in Bangladesh.

cc: Malcom J. Purvis, Deputy Mission Director
Zachary M. Hahn, Office Director, PDE
Julie DeFler, Office Deputy Director, PDE
George E. Jenkins, Mission Controller.
Philip Buschler, Executive Officer
Frank Young, Sup. Program Officer
Alvera Sweet, Contract Officer
~~Bureau PDC/OPS/IS, Washington, DC~~

(i)

**USAID BRIDGES AND CULVERTS PROGRAM
BANGLADESH
REPORT COVERING JUNE 1, 1990 TO MAY 31, 1991**

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ANNEXES

GLOSSARY OF ACRONYMS:

ADB	-	Asian Development Bank
A/E	-	Architect/Engineer Consultant
BDG	-	Bangladesh Government
CARE	-	Cooperative for American Relief Everywhere
CUO	-	Currency Use Offset
DG	-	Director General, DRR
DRR	-	Directorate of Relief & Rehabilitation
FSN	-	Foreign Service National
IFFW	-	Integrated Food For Work
LGEB	-	Local Government Engineering Bureau
MOP	-	Ministry of Finance
MOR	-	Ministry (or Minister) of Relief
PDE	-	AID Project Development & Engineering
PIL	-	Project Implementation Letter
PSC	-	Personal Service Contract(or)
SIFAD	-	Strengthening the Institutions for Food Assisted Development
UC	-	Upazila Chairman
UZ	-	Upazila
WFP	-	World Food Program
XEN	-	Executive Engineer, DRR

**IFFW BRIDGES AND CULVERTS PROGRAM
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I. INTRODUCTION:

The duties and responsibilities assigned under this contract are defined in Section I.B of the contract, attached as Annex 1 to this report. I believe I have fulfilled all these duties and responsibilities to the best of my ability even though some extraordinary circumstances occurred in the Country during the year which resulted in limitations to performance of program activities.

The undersigned arrived in Dhaka on May 29, 1990 and started official duties on the following day meeting USAID personnel and getting acquainted with the programs, their goals and degree of implementation. Appropriate visits were also arranged to meet the DRR Director General, Directorate of Relief and Rehabilitation personnel and CARE personnel related to the execution of the programs. The Directorate of Relief and Rehabilitation (DRR) is the executive agency carrying out the large structures program (above 40ft long structures) while CARE, in conjunction with the DRR and the benefitted Upazilas, carries out the small structures program (up to 40ft long structures). Both of these programs are financed with PL-480 Title III funds. USAID directly monitors the large structures program with a team of three (3) experienced Bangladeshi engineers presently supervised by the undersigned.

To properly distinguish the programs, the large structures programs (which also includes small structures needed in the same roads with the large structures), jointly managed by the DRR and USAID, hereafter will be called DRR/AID program. The earthen roads construction and small structures jointly managed by CARE, the DRR and the Upazilas will be called CARE program.

II. MAIN PROGRAM ACTIVITIES:

A. Status of Program to May 30, 1990

a. Ongoing DRR/AID Program: At the time of my arrival, projects in the DRR/AID Program were ongoing from as far back as 1983. Within the program, 23 small structures and 89 large

structures were under implementation. A number of these structures were only in their pre-construction stage and some in the process of being retendered. The program was going fairly well but required a full review and some management modifications.

b. New 1990-93 DRR/AID Program: Also, at the time of my arrival a new DRR/AID program was under discussion. Preparation of this program has been initiated in 1989. It had reached the stage of a list of Upazilas submitted by the MOR to AID to be considered for selection under this new program. The program was moving at a slow pace and the dry season, ideal to visit the proposed Upazilas and possible project sites, was over.

Under normal procedures this operation would have been deferred to the next dry season, that would have been December/90 - May/91.

c. CARE Program: The CARE ongoing 1989-90 program was behind schedule due to several factors beyond CARE's control. The new 1990-91 CARE program was in its initial stages.

d. Financial Position of the Program: Early in 1990 an impasse emerged between the DRR and the AID Mission in respect to the accounting systems carried out by the DRR for the PL-480 Title III funds. This impasse is delaying the recognition of expenditures in the DRR/AID and CARE structures programs as qualifying for "currency use offset" (CUO). The amount involved is in the order of US\$ 40.20 million.

B. Initial Actions Taken

a. Ongoing DRR/AID Program: In order to expedite the execution of this program, the following measures were taken:

i) Set up separate monthly meetings with the local consulting firms supervising the construction of the projects to review the progress of the works, problems affecting their implementation and possible solutions to them, payments to contractors, analysis of completion dates, extensions to be granted, penalties to be imposed, even cancellation of contracts by default of contractors, etc.

- ii) Setting up a schedule for the completion of all the ongoing programs not later than 1991.
- iii) Increase the frequency of meetings of DRR and AID representatives to review the status of the programs and solve problems that may hinder their implementation. Review long standing claims of contractors and/or consultants, etc.
- iv) Setting up formal meetings with contractors whose projects were facing serious implementation problems to ascertain the causes and find solutions. This procedure was seldom used in the past, outside of meeting the contractors or their representatives during the field inspection of the projects.
- b) New 1990-93 DRR/AID Program: Upon review of the status of this program, a decision was made not to delay the visits to the possible Upazilas and projects. A schedule of implementation for this new program was prepared (Annex 2) with an immediate take off of visits to possible Upazilas and projects for priority selection of them. This program originally was denominated 1989-91, then due to delays in its approval it was change to 1990-92 program. Upon preparation of the program's scheduling, I suggested be called the "1990-93 program" based on a realistic implementation period. This is the current project title.
- c) CARE Programs: In the month of July 1991, we initiated meetings with CARE representatives to review the status of the ongoing 1989-90 structures program and the scheduling and implementation of a typical program. It appears that the realistic period for total implementation of a normal CARE program is two years; it may be even longer due to technical personnel constraints in the dry season of January to May when CARE has to accomplish the monitoring of the ongoing program and the presurveys for the following program. Another subject discussed with CARE was the current practice of constructing earthen road embankments without compaction.
- d) Financial Position of the Program: To solve the impasse described in Section II, A.(d) it was decided that the DRR will hire accountants to modify their accounting system.

C. Accomplishments During the Reporting Period

a. Ongoing DRR/AID Program: As stated before, in June 1990 under the ongoing projects there were some started as far back as 1983 that have been left incomplete due to contractors default. Upon my arrival a thorough review was made of the status of the projects. Plans and schedules were established to try to complete all the ongoing projects in 1991.

Consultants and contractors were notified of the schedule and each project was followed up by the consultants and with continuous field trips. Projects which were under design review were expedited. The Team Leader made a number of field trips to specific projects with serious problems to ascertain their magnitude and make decisions to expedite the implementation of the projects.

At the monthly meetings with the DRR and the consultants, special emphasis was placed on projects falling behind schedule and extensions to the contractual completion dates. In the cases of the 1988-90 and the 12 structures programs, consideration was given to the fact that for a large number of these projects the order to proceed was given between March and June 1990 and in that year the monsoon season started in mid April/May. Therefore, a number of projects could not be started before November/December 1990. When granting time extensions and deciding penalties for delays in the completion of the projects we take into consideration the difficult conditions under which contractors work: weather, access to sites, availability of materials, site conditions, socio-economic conditions in the country, etc. For these reasons rarely are DRR/AID strictly applying the penalty clauses of contracts but instead more compassionate rules.

Cases that require special mention through out the year of activities are the following:

1) In the program 1987-89, Rajshahi Division, the original consultants contract for the supervision of construction was not extended at the time of its expiration; at that time only three (3) out of thirteen (13) projects had been completed. This action was taken due to poor consultant's performance. A new consulting firm was hired in May 1990 to take over the construction supervision of the uncompleted projects. The poor performance of the original consulting firm and the change of consultants were contributing factors delaying the implementation of the 1987-89 program in the Rajshahi Division. At present only one (1) very difficult project remains for completion.

ii) In the 1988-90 Dhaka Division program, one structure already under construction required substantial modification to allow navigation clearance which had been overlooked in the original design. The project is now completed.

iii) In the same program and division, an existing bridge to be lengthened has shown (at time of low water in the last dry season) that its old piers, founded on brick caissons, will require considerable underpinning and rehabilitation. At the time of these findings, it was too late to proceed with this unanticipated work. It has been deferred until the next dry season.

vi) In the (1988-90) 12 Structure Program, twelve (12) uncompleted projects from previous programs (as far back as 1983) were grouped. Three (3) of these projects had not even started construction activities. Presently, this subprogram is the most problematic, due mainly to poor performance by the contractors.

Summarizing, in part due to the efforts made in the past twelve months, out of the 23 small structures and 89 large structures (a number of them in pre-construction or retendering stage) under implementation when I arrived, all except approximately (4) will be completed by July 1991.

A recurrent problem in this period, when so many projects are being completed, is land availability for the construction of the approaches to the structures. Although at the time the projects are selected the Upazila authorities provide assurance that the land will be available for the approaches, in many instances, when it is time to build the approaches, this is not the case. The land owners resist turning over their land. This is justifiable because they are not compensated for it.

During the reporting year, I pressed the DRR and successfully settled all long standing claims with consultants and contractors. We settled a Tk.600,000 claim with a consulting firm of the 1986-88 program; the firm withdraw its claim. Also, we settled a dispute with the original consulting firm of the 1987-89 program, Rajshahi Division. Several other contractor claims were settled. At present there are no long standing claims.

The socio - political situation of the country prior to the change of administration in December 1990, the general elections in February 1991 and the Gulf War (January-March 1991) had noticeable impacts in the program. In November/December 1990

work was affected due to constant political strikes. After the change of administration, contractors went back to normal operations, but prices of construction materials started an upward trend and some materials became scarce. From November 1990 to March 1991 the AID Project Monitoring Unit travel was restricted, due to security problems. Thus, we can summarize that from October 1990 to March 1991 the program had restrictions which made it hard to comply with set schedules.

The April 29, 1991 cyclone affected many areas where structures have been built or were being built under this program, but does not appear to have caused structural damages to any of our structures. Damages have been limited to embankment protection works such as turfing and rip-rap.

To conclude on the ongoing programs, it can be said that, with few exceptions, both contractors and consultants are endeavoring to do good work. The major deficiencies are the earth compaction in the construction of the approach embankments and the cleaning-up of the sites once the projects are completed.

b. New 1990-93 Program: This program is the largest since the inception of the DRR/AID bridges and culverts program. It will cover 52 Upasilas (against 37 in any previous one) and about 140 projects. As in the past, local consulting firms will carry out the topographical surveys, soil investigations, design, and construction supervision of the projects. The schedule of implementation of this program and its present status are as follows.

	<u>Scheduled</u>	<u>Actual</u>
- submission of list of upasilas by MOR		May 20, 90
- field visits and selection of Upasilas and projects	June 15, 90- Oct. 15, 90	June 15, 90- Oct. 25, 90
- preliminary cost estimate and funding approval by MOR	Oct. 15, 90- Nov. 30, 90	Oct. 22, 90- Dec. 13, 90 ¹ / ₁
- prequalification of A/E firms	July 1, 90- Nov. 15, 90	Aug. 1, 90- Nov. 3, 90
- request for proposals and contracting of A/E firms	Nov. 1, 90- May 15, 91	Dec. 20, 90- Jun. 16, 91

¹ Provisional approval.

- design of projects and cost estimates by A/E firms	May 1, 91- Aug. 30, 91	Mar. 21, 91
- tendering and awarding of construction contracts	Sept. 1, 91- Nov. 30, 91	
- Execution of works	Dec. 1, 91 - May 31, 93	
- Overflow (contingencies)	June 1, 93 - Nov. 30, 93	

Following is a brief description of the progress of this program to date.

In May 1990 the DRR received from the MOR a list of 67 Upazilas to be considered for the program. AID previously had stated a limit of 52.

From mid June to beginning of October 1991, (that is within the monsoon season), combined teams of DRR and AID engineers, overcoming serious travel difficulties, visited the Upazilas and hundreds of projects submitted by them. In this program, more than ever before, in each attended UZ the most important(s) road(s) with large gap(s) have been chosen; all gaps in the road(s), regardless of size (some of them less than 40 ft), are being provided with structures. This treatment will make the road totally traversable. By the end of October 1991, a joint DRR/AID review was made of all the UZs and projects visited. 52 UZs were recommended for selection with 140 projects. An impasse over several sites occurred with the DRR during selection but finally, in December 1990, the MOR gave its approval to the selection of Upazilas and projects.

In the meantime, the DRR proceeded with prequalification of consulting firms; 34 firms submitted prequalification documents and 16 were prequalified. In December 1990, these firms were invited to submit technical and financial proposals for the design and construction supervision of the 140 projects grouped in six (6) zonal packages. In January 1991, 69 proposals were received from the 16 prequalified firms. They were jointly analyzed by a Review Committee of DRR/AID/LGEB representatives. Six (6) firms were selected and cost negotiations completed with them by the end of February 1991. Following is a list of the selected firms, their financial proposal and the negotiated lump sum contract.

<u>ZONE</u>	<u>FIRM</u>	<u>PROPOSED AMOUNT</u> (expressed in takas)	<u>NEGOTIATED AMOUNT</u>
I	The Designers Collaborative Limited	14,339,250	12,985,833
II	Prokalpa Upodeshta Ltd	11,035,100	10,572,800
III	Development Design Consultants Ltd.	17,089,350	10,274,000
IV	Engineering Science Ltd.	16,127,100	8,898,500
V	Bangladesh Consultants Ltd.	10,626,430	9,346,762
VI	SARM Associates Ltd.	<u>12,342,000</u>	<u>8,858,800</u>
Totals:		81,559,230	60,936,695

At the beginning of March 1991, the draft contracts were sent to the MOR for approval. Due to recent personnel changes in this Ministry, this approval, which normally takes about 45 days, took in this instance more than three (3) months. Finally the contracts were signed on the week of June 9, 1991. When the negotiations were completed the Team Leader called for meetings with all the senior consultants staff to provide uniform guidelines to carry out the field work in the topographical surveys and soil investigations. Also, he provided the consultants with written guidelines to furnish an environmental statement for all the major structures of the 1990-93 program. From March on, the consultants on a risk basis, since they did not have signed contracts as yet, proceeded with the topographical surveys and soil investigations, to gain time against the impending monsoon season. At present the surveys are practically completed and the soils investigations well advanced.

In April, May and part of June 1991, joint teams of DRR/AID engineers, including the Team Leader, dedicated most of their time to visit (with the consultants) the sites of the 1990-93 program where the structures will require special attention due to their length, location or difficult construction conditions, as well as visits to the UZs authorities where problems of land availability for the construction of the approaches are envisioned. To date practically all the large structures, have agreed upon alignments, lengths, type of structure and design loads.

The prequalification of contractors, a task in which the consultants assist the DRR, should be completed by the end of August 1991. Also, by that time the design and tender documents for all projects should be completed. Between September and November 1991 all projects are expected to be tendered and awarded. By December 1, 1991 (beginning of next dry season) the work orders are scheduled to have been issued and construction started.

To date, the program is on schedule and every effort is being made to keep it on schedule.

c. CARE Program : The 1989-90 Program (behind schedule) is in its final stages of implementation. The physical construction of the structures is completed but some administrative procedures to close the program are outstanding. The 1990-91 program, is also at present behind schedule mainly because for a period of about three months (Nov/90 - Mar./91) the DRR did not have funds to transfer to the Upazilas to implement the projects. When the problem was solved, the construction of the structures started. Additionally, early rains in the country are affecting the program.

Since my arrival, efforts have been made to improve the coordination between CARE programs and AID. We have reviewed the status of ongoing programs and the realistic scheduling of the CARE structures program as well as other problems such as compaction of road embankments. However, it must be stated that efforts to work more closely with CARE have been not successful due to multiple circumstances: change of the CARE Coordinator, of the Deputy CARE Coordinator (twice within the year), CARE relief operations after the April 29, 1991 cyclone, etc. I will continue coordination efforts in the second year of my stay in Bangladesh.

To verify the progress of both the 1989-90 and 1990-91 programs we have visited structures in several CARE regional districts and found them quite satisfactory. The earthworks continue to be done without compaction, except for a few pilot projects.

d. Financial Position of the Program : The ongoing DRR/AID and CARE programs up to 1990 had no financial problems. However, in the latter part of 1990, when studies for the allocation of PL-480, Title III for 1991 were started, a serious impasse developed between the Government (MOR/DRR) and AID. It

was due to the fact that the DRR had been unable to set up proper accounting procedures and AID was not disposed to release additional funds for these programs. In February 1991, under Project Implementation Letter (PIL) No. 19, AID released only the equivalent of US\$ 20,000 to allow the DRR to hire a team of accountants to straighten the PL-480, Title III Directorate accounts. By that time the CARE 1990-91 program was almost totally paralyzed because the DRR had no funds to transfer to the Upazilas for the construction of the CARE structures. In the meantime, the MOR/DRR had requested the MOF to provide additional funds to carry out the ongoing CARE and DRR/AID programs as well as the new DRR/AID 1990-93 program. In March/91, the MOF approved this request for a total of Tk.463.30 million for the current year (1991) assuring the continuity of these programs. Annex 3 provide the funding requirements for these programs for 1991.

To comply with the USAID request to hire a team of accountants, the DRR advertised for the positions in February/91; from more than 150 applications, 50 candidates were interviewed by a Selection Committee with AID participants as observers. In April/91 one chartered accountant and two assistant accountants were selected, hired, and started working. They are setting proper accounting procedures for ongoing accounts and reconstructing past accounts. We are hopeful that by the end of the current year the matter of the DRR accountings will be corrected.

e. Limited Scope Grant Agreement: The DRR monitors the DRR/AID program with a team of four engineers under the Executive Engineer of that Directorate. The four mentioned engineers as well as the purchase of two (2) vehicles for the DRR and some equipment are funded by AID under a Limited Scope Grant Agreement. After a fiscal revision of this Grant Agreement, our Mission Controllers made in December 1990 six (6) observations/recommendations about the fiscal management of these funds. To this date the DRR has already complied with five (5) of these recommendations.

f. Other Performed Activities: In addition to the activities described above the following deserve mention.

In September 1990 I made a presentation of the program to our new Ambassador to Bangladesh. In October this presentation was repeated for the new Mission Director.

Soon after my arrival I promoted coordination meetings with the Local Government Engineering Bureau (LGEB), Asian Development Bank (ADB) and World Food Program (WFP); all agencies that carry out similar programs to CARE and DRR/AID programs. As a result, some constructive actions have taken place such as provision in the design of some of our structures for future widening, avoidance of duplication of projects, etc.

I have observed that this program, of vital importance for the Country, has little recognition even in our Mission. To overcome this situation, I have promoted the writing of articles about the program. I also have a promise from USIS to publish one of my articles in one of their publications.

On the same basis, I have encouraged Mission personnel and the front office to visit projects to observe the implementation of this program.

For the hiring of consultants and contractors for the new 1990-93 program I have reviewed, and in several instances totally, reformulated previous documents related to:

- i) Request for Technical and Financial Proposals from Consulting Firms.
- ii) Standard Contract Form with Consulting Firms.
- iii) Request for Prequalification of Contractors.

Some of these documents have been circulated in the Mission and are being used as a basis for other projects.

Presently I am reviewing the tender documents for the construction of the structures. All these documents are now uniform and of high professional standards.

From time to time, I have prepared instructions or circulars to the DRR, with copies to the consultants, about the program, measures to be taken for a timely completion, deficiencies noted in my field visits, etc. Equally, I have promoted meetings with the Director General, DRR, and Secretaries of the MOR to discuss problems which have developed and to request prompt attention to them. In this latter endeavor, I have always received full support from the Chief Engineer and the PDE Director.

Since my arrival, I noticed a loose historical and legal background of the new 1990-93 program (originally started as

1989-91 program). To eliminate confusion, in February 1991, I issued and circulated in the Mission a well documented paper titled "History of Large Bridges and Culverts 1990-93 Program".

III. DEVELOPMENT IMPACT OF THE PROGRAM

As stated before, the CARE and DRR/AID bridges and culverts programs are vital to Bangladesh. They incorporate vast rural areas into the mainstream of the country. These areas without closing gaps in their roads remain isolated both physically and economically. Their population do not get proper use of health and educational facilities and their agro products do not reach the main markets or growth centers. Absence of roads and other infrastructure (bridges and culverts) has been identified as a key constrain to achieve increased private sector investment in agricultural production, processing and marketing.

As described in the following paragraphs, the programs have a considerable impact on the overall socio-economic development of the country. It is an important source of employment generation and is highly beneficial to the private sector.

The selection criteria adopted for the structures in the DRR/AID program includes consideration of factors designed to insure faster road connections between upasila and growth centers and better access to main roads, markets, agricultural areas, health facilities, educational centers, etc.

Government participation in both programs is varied and extensive as follows:

i) In the CARE program, the Upazilas, monitored by CARE technical personnel, fully participate in the selection of the projects, their design, tendering and construction supervision. This participation allows them to growth in technical and administrative experience both.

ii) In the DRR/AID program, the Government participation is extended from the Upasila, whose officials propose sites and participate in the selection of the projects, to the MOR through its DRE which is the Executor of the program and manages the planning and implementation of the program.

The program's employment potential is considerable because a large number of projects are located in areas of difficult access and all work (except concrete mixing) is done manually. This is truly a labor intensive program that generates employment mainly in the dry season when agricultural activities are substantially reduced. We estimate that in those months an average of 18,000 laborers per month are hired.

In the private sector the program increases revenues and expertise in the consulting and contracting industry. In the manufacturing industry the extensive use of bricks (in the CARE program), cement and reinforcing steel is a source of substantial revenue for the local industries.

The DRR/AID Program utilizes Bangladeshi consulting firms to perform the topographical surveys, soil investigations, structure design and detailed construction supervision. The consulting firms are selected and contracted under a rigorous process of prequalification and proposal submission. Participating consulting firms are acquiring extensive expertise in the design and construction supervision of bridges and culverts under high quality control and performance standards. Consultants are hired to manage an average portfolio of fifteen major projects. At present we have nine consulting firms working in the program. Each firm throughout the life of a program employs an average of 60 professionals and technicians.

While the CARE program utilizes small contractors from the local area, the DRR/AID program requires the contracting of a large number of small and medium sized bridge contractors at national level. Each major structure is tendered separately among prequalified contractors. To date over 250 contractors have been employed to build about 800 structures included in the DRR/AID program. Construction contractors are responsible for timely execution of the works, achievement of high quality standards and good finishing, all under strict supervision by the consultants personnel assigned permanently to each construction site, the DRR and USAID.

The cost of the DRR/AID program since 1982 up to date, excluding the new 1990-93 program, is equivalent to about US\$23.5 million. Since the total number of completed structures are 796, the average cost per structure (including its earthen approaches) is about US\$29,500, a reasonable figure for structures with an average length of 140 ft. The final cost of the projects, as shown in Annex 4, normally is slightly less than their estimated cost; this means cost overruns are not frequent.

IV. CLOSING COMMENTS AND OBSERVATIONS

1. In my opinion, the CARE structures program and the DRR/AID program are among the most beneficial programs that AID has in Bangladesh. The programs affect to the low income population in the country, promotes social and economic integration, generates substantial employment and professional/industrial development.

2. One recurrent problem that causes concern is the matter of land availability for the construction of the structure approaches. In the new 1990-93 program we are departing with increasing frequency from present stream crossings (boating, temporary structures, old structures) to have the new structures at proper locations. This requires new alignments for the approaches to these structures, which in some cases extend over 300 ft. The land on which these approaches are constructed is procured without compensation. This creates serious problem with the normally very small land owners adjacent to the projects. In many instances serious social upheavals take place or contractors are taken to court. In the past, in rare occasions contractors have been authorized to deal directly with the land owners and pay a small compensation. We are giving this problem serious consideration. Land compensation, besides being a lengthy procedure will increase substantially the cost of the projects. On the other hand, as a matter of fairness, some compensation should be granted to poor farmers who lose what little land they have. Some lending agencies as the World Bank, Asian Development Bank, etc. include provisions for purchase of rights-of-way.

3. As stated before, the DRR manages the program with a team of four engineers directed by the DRR Executive Engineer. Recently this team has been augmented by the addition of three accountants. The work done by the DRR engineers is remarkable. The four young engineers, attend to their duties enthusiastically and are gaining substantial experience. The DRR Executive Engineer is a professional man, experienced and quite fair in dealing with consultants and contractors. The decision made to the BDG, under a SIFAD recommendation, to transfer the FFW programs from the Ministry of Relief to the Ministry of Local Government would not have detrimental effects if the present DRR team was transferred to the MOR and kept as a unit to continue the management of the DRR/AID program.

4. We are hopeful that with the recent DRR hiring of the accounting team, which seems to be highly qualified, the

accounting impasse between our Controllers and DRR will be solved by the end of the current year.

5. The Project Monitoring Unit set in our AID Mission made up of three Bangladeshi engineers under a Team Leader is quite appropriate. The Bangladeshi engineers are very experienced in this program; two of them have been working since 1983 and one since 1985. They are highly qualified engineers and duly respected for their professional skills by the DRR, consultants and contractors. I am delighted for their cooperation to the work and the sharing of responsibilities.

6. Our Project Monitoring Unit travels extensively. Recent changes in the mission about the per diem regulations have made them fairer to the traveller. However, the Rangpur and Cox's Bazar rates do not allow proper accommodations to the travellers. We submitted in 1990 to our Administration a duly documented memorandum requesting review of this matter; to this date we have not received an answer.

7. Upon my arrival, without prior warning from our Contracting Office, I was informed that in the customs clearance of my personal effects and the procurement of my "passbook", the Mission would not help me. This was a shocking experience. For about two months I had to dedicate precious time to these tasks without success; I even hired "expeditors". Finally, in desperation, I approached Mr. Malcolm Purvis (acting Mission Director), who in turn approached Mr. Kenneth Parent, who immediately gave orders to GSO to help me. All problems were solved in a matter of days. On the basis of this experience, at the time I had to secure my car license plates, I contacted Mr. Parent directly who immediately requested GSO to help me. My advice is that the Mission, as a routine matter, should take care of these problems for their PSCs as it does for their direct hire personnel. It is a waste to have highly paid professional personnel acting as customs expeditors.

8. My terms of reference indicate that I should expend about 50% of my time in the field. However, due to office work demands and security regulations during the critical October 1990 - March 1991 period I have not been able to comply with this requirement. All efforts are made to go to the field as much as possible

9. During the year, I have endeavored to transmit professional experience to my team of engineers in the Mission as well as the

professional staff in the DRR by making them full participants of all my activities and decisions. I have emphasized fair treatment, both to consultants and contractors, without sacrificing quality and compliance with contractual conditions.

10. Finally, a word of thanks to our PDE Director, our Chief Engineer and Mission personnel for the cooperation received from them in discharging my duties for the past year.



Jose H. Cosio
Team Leader/Engineer Advisor
Project Development & Engineering

Draft: PDE/JCosio:joyce:WP(A:report)

ARTICLE - I STATEMENT OF DUTIESScope of Work**A. Background**

Since 1976 the PL-480 Title II Food For Work (FFW) Program in Bangladesh has concentrated on the construction or reconstruction of embankments, roads, tanks and canals. ~~Bridges and culverts~~ were added more recently. Each discrete undertaking is called a subproject. ~~Approximately 15,571 road segments have been undertaken during 14 years of project activity.~~

~~FFW-supported road and small structure construction is undertaken by CARE,~~ the cooperating sponsor for the PL 480 Title II Program in Bangladesh, working with the Director General of Relief and Rehabilitation (DGRR) of the Ministry of Relief. CARE implements the IPFW program in 315 upazilas. In collaboration with the DGRR, CARE directly allocates wheat for roads and Title III local currency for small structures. CARE also trains Upazila Technical Staff (UZ/TS) in design methodology and construction management (including proper supervision techniques). CARE's field staff works closely with the UZ/TS during all planning and implementation activities to monitor road and small structure construction activities.

The FFW Program also undertakes construction of structures over 40 feet through its "A&E" component. Under this component the DGRR employs local A&E firms to design and provide construction supervision to a selected number of UZ's ~~(at present 100 upazilas are covered)~~ throughout the country. The primary purpose of the A&E component is to design and supervise the construction of: 1) bridges and culverts with lengths over 40 feet and 2) structures for those areas with difficult conditions requiring special foundation considerations. The A&E firms work directly with the DGRR's technical staff during the design and tendering phases. They also perform construction supervision on behalf of the DGRR.

* Small structures are those 40 feet and less than 40 feet; large are those over 40 feet.

B. Duties and Responsibilities

The Contractor will be responsible for the monitoring of the IPFW program's large structure design, supervision and construction, and also will be responsible for supplemental monitoring of small structure design and construction augmenting CARE's monitoring efforts. This supplemental monitoring entails supporting CARE supervision of small structure design and construction and spot checking of CARE small structure-related activities. The contractor will also act as the liaison between the DGRK, USAID, and CARE to insure smooth implementation.

The contract is for twelve months, with an option to extend yearly for up to two years for a total of three (3) years, contingent upon satisfactory contractor performance and availability of funds. The contractor will report directly to the USAID Chief Engineer.

In order to accomplish the above, the Contractor will perform the following tasks:

1. ~~Assist the Director General (DGRK) during the planning stages of each year's program~~, including but not limited to:
 - (a) Preparation of the schedule of events and drafting of circulars related to large and small structure planning and implementation.
 - (b) Providing design and supervision services; assuring regularity of the A&E prequalification process; and, taking appropriate remedial action.
 - (c) Finalizing and assuring regularity in the process of A&E selection including but not limited to: technical proposal evaluation, firm selection, and contract negotiations. The contractor will take or cause to have taken appropriate remedial action where necessary.
 - (d) Overseeing and assuring regularity of the entire tendering process conducted by A&E firms to procure construction contractor services, including at a minimum: 1) perform prequalification of contractors; 2) development of the tender package (designs, specifications, and contracts); 3) advertisement and bid analysis; and, 4) the final process of contract award. The Contractor records all difficulties encountered in the tendering process and the solutions applied to overcoming these problems.
 - (e) Through application of standard USAID technical service procurement procedures, engaging local engineering services through personal services contracts, if required.

2. ~~At all subproject stages, scrutinize carefully relationships among A&E firms, UZ officials, and Ministry of Water (MOK) personnel~~ to assure regularity of procedures and high quality work and, with the DGRR, take remedial action as necessary.
3. ~~Review procedures employed by the various A&E firms in~~ collecting required data in such areas as soil conditions, high water level, drainage or watershed area, other factors relating to environmental soundness, and roadway data for appropriate site adaptation during the design phase. Implement remedial action as necessary.
4. ~~Approve (jointly with DG staff) all structure design and cost estimates~~ submitted by A&E firms as a precondition to those designs being implemented.
5. ~~Review progress reports submitted by A&E firms~~ during the planning and construction phase for structures over 40 feet and for structures with more-difficult-than-usual conditions.
6. ~~Regarding implementation of subproject~~
 - ~~review the status and quality of the construction~~ through regular site visits which at a minimum investigate quality of A&E and construction work and the rigor of A&E supervision;
 - review the contract files maintained by A&E firms in the field;
 - monitor the progress of the project through discussions with the DRR engineers, UZ/TS and other concerned UZ officials;
 - oversee methods used by the A&E firms in solving problems of a technical and administrative nature;
 - effect remedial action as necessary; and,
 - ~~attend all MOK project implementation meetings when in Dhaka~~
7. ~~Perform site visits after the completion of construction~~ in order to verify the completion of work, and to ascertain the quality of the structures and their compliance with design specifications.
8. ~~Approve (jointly with DG staff) all construction contracts, final payments~~ and release of security deposit.

9. Assure high professional standards, quality of technical performance, and financial accountability of A&E firms. ~~Approve (jointly with DG staff) all A&E firm payments.~~
10. ~~For small structures built by Upazilas under the FFW program without CARE help,~~ conduct site inspections and review Upazila records regarding these structures.
11. Review with DG staff, unsatisfactory or nonperformance of both construction contractors and A&E firms and apply corrective actions such as: withholding payments; assess liquidated damages; and/or identify and carry out other necessary corrective action including suspending and cancelling schemes and/or contracts if appropriate.
12. ~~Assist implementation of the CARE-monitored component through~~
 - (a) (In collaboration with CARE staff) visiting the various CARE Sub Offices and implementation sites of CARE-monitored subprojects, reviewing all CARE monitoring and status reports, and consulting with CARE/Dhaka personnel to assess implementation progress, and to identify major trends and problems relevant for future planning. The contractor will maintain a continuous dialogue with CARE related to coordination of large structure construction, on the one hand, with earthwork and associated small structure construction, on the other. This dialogue will give special emphasis to management systems and controls. The contractor will support CARE and make available his or her expertise in designing and carrying out corrective action. ~~With the assistance of CARE personnel, the contractor will review the files maintained at the suboffice.~~
 - (b) In coordination with PDE PL-480 Title II Program Specialists and Engineers, working with CARE staff to insure that CARE IFPW-supported training addresses the needs of the UI staff. ~~With the assistance of CARE personnel, the contractor will review the files maintained at the suboffice.~~ ~~and the contractor will attend some of the courses and judge their effectiveness in meeting training objectives, and work with CARE to design and implement appropriate, feasible improvements.~~
13. Assist the DG and CARE during the planning stages of future years' programs. Specifically, the contractor will contribute his or her technical knowledge and field experience to the design of Food for Work IV (FFW IV) and of any related infrastructure or local institution support activity.
14. Under FFW III coordinate with CARE, the Ministry of Relief, Upazila, and Union officials to assure that structure construction is undertaken pursuant to FFW III directives.

15. ~~Supervise the USAID contract monitoring staff comprised of three Bangladeshi PSC engineers and oversee four project-funded engineers assigned to the Director General of REPT. The contractor will schedule field trips for this staff (making all necessary arrangements), monitor field work, and review their field trip reports. The contractor will spend on the average about 50% of his or her time in the field to gain first-hand knowledge of the field activities.~~
16. Regarding studies and evaluations of structures on USAID supported Food For Work alignments,:
- (a) monitor field activities;
 - (b) monitor consultant and evaluator performance; and,
 - (c) review and prepare Mission comments on scopes of work and draft and final reports.
17. ~~Submit 10 copies of monthly reports to the USAID/Bangladesh Project Development and Engineering Division (PDE). These reports must include the results of the information gathered from the field visits during the monthly reporting period. At a minimum the following topics are to be included in the monthly reports: (i) progress of work from technical, administrative, and financial standpoints as measured against predetermined benchmarks; (ii) problems encountered; (iii) problem resolution mechanisms used by the Bangladesh Government, CARE, the A&E firms, and local governments; (iv) specific comment as to personnel working exceptionally well, personnel who need training to perform better (or even satisfactorily), and personnel performing unsatisfactorily; (v) any irregular practices occurring in the program, with substantiation if possible; and, (vi) suggestions and recommendations on how the program might be improved.~~
18. ~~In the thirteenth contract month,~~ submit to the PDE office ten copies of an end-of-year report which, inter alia, gives the contractor's opinion about the cumulative development impact of the subprojects monitored.
19. Finally, the contractor is not authorized to:
- (i) Negotiate on behalf of the United States with foreign governments and public international organizations.
- Note: Negotiating on behalf of the United States with private individuals and entities is permitted.
- (ii) Enter into any agreement (e.g., loan, grant, contract) on behalf of the United States.
 - (iii) Make decisions involving governmental functions such as planning, budget, programming and personnel selection. Services will be limited to making recommendations with final decision-making authority reserved for authorized AID direct-hire employees.
 - (iv) Supervise AID direct-hire U.S. citizen employees.

1990-93 LARGE BRIDGES AND CULVERTS PROGRAM

Activities	1990							1991							1992							1993																
	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May		
• Baseline Selection	•••••	•••••	•••••	•••••	•••••	•••••	•••••																															
• Est. of Cost Schedule					•••••																																	
• Funding Approval						•••••	•••••																															
• PREQUAL. A/E FIRMS																																						
• Prep. of Documents		•••••																																				
• Publication		•••••																																				
• Submission		•••••																																				
• Review Proposal			•••••	•••••	•••••	•••••	•••••																															
• Finalization with BDM						•••••	•••••																															
• Notification to Firms							•••••																															
• IFB																																						
• Prep. of Documents						•••••	•••••																															
• Issue of Inv. to Prop. Firms						•••••	•••••																															
• Submission							•••••																															
• Evaluation & Selection							•••••																															
• Negotiation							•••••																															
• Agreement Documents							•••••																															
• Approval by RDB							•••••																															
• Signing of Agreements							•••••																															
• DESIGN PERIOD																																						
• Design																																						
• Tendering																																						
• Prep. of Contractors																																						
• Review of Documents																																						
• Notification																																						
• Submission																																						
• Evaluation & award.																																						
• Notice of award.																																						
• Contracting																																						
• Notice to prev. contr.																																						
• Tender submission																																						
• Evaluation by A/E																																						
• Appr. of Contr. by B&A/D																																						
• Signing of Contracts																																						
• EXECUTION OF WORKS																																						
• Mobilization																																						
• Construction																																						
• Piling																																						
• Foundations																																						
• Substructure																																						
• Superstructure																																						
• Approaches																																						
• Contingencies																																						

LEGEND: • Scheduled
 ○ Actual

16 November 1993

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Best Available Document

May 31, 1991

FUNDING REQUIREMENTS FOR 1991 FOR ONGOING AND 1990-93
STRUCTURES PROGRAMS (CARE AND A/E FIRMS)

(TO 31 MARCH 1991)

TAKA

1. Fund for the program (PIL 4 + PIL 13)		
Equiv. \$63.223 million		2,001,593,000
\$61,026 million		
due to Taka devaluation		
2. Fund release from MOF to DRR Account		1,275,845,000
Equiv. \$40.183 million		
3. Unreleased funds from MOF under PILs 4 and 13		725,748,000
Equiv. \$20.843 million		
4. Funds released by MOF on Feb/91		463,300,000
5. Interest received by DRR from bank account		29,539,813
6. Total fund received by DRR (2 + 4 + 5)		1,768,684,813
7. Fund expended as of 31/03/91		1,215,038,181
8. Balance in DRR Account (6-7)		553,646,632
9. Fund requirement to complete ongoing large structures program		170,970,000
10. Funding required for new programs		
a) CARE 90 - 91 Program	270,000,000	
b) A/E 90 - 93 (Progress payments)	120,000,000	
	-----	390,000,000
11. Total requirement of funds for 1991 (9 + 10)		560,970,000
12. Deficit		7,323,368

ESTIMATED AND FINAL COSTS

1988-90 PROGRAM

Division	Project	Estimated cost in Taka	Final cost in Taka	Remarks
Khulna	KUS/KUS/BR/100	3,205,502.97	Pending/DRR	
	KUS/KUS/BR/90	3,237,510.00	3,072,769.35	
	KUS/KUS/BR/80	2,635,959.00	Pending/AE	
	SAR/JES/BR/80-1	3,057,227.90	2,974,820.40	
	SAR/JES/BR/80-2	4,247,501.55	Pending/DRR	
	SAR/JES/CU/60	1,599,227.50	1,532,320.81	
	SAR/JES/CU/30	684,037.53	Pending/DRR	
	KDT/JHE/BR/110	3,065,142.35	3,046,670.35	
	KDT/JHE/CU/48	1,384,257.00	1,361,670.68	
	KDT/JHE/CU/20-1	706,305.95	793,222.18	
	KDT/JHE/CU/20-2	692,380.43	717,737.00	
	KDT/JHE/CU/20-3	489,986.43	Pending/DRR	
	SHA/PTZ/BR/200	8,348,360.37	Not completed	
	SHA/NAG/BR/200	7,738,134.00	7,605,602.42	
	JHE/JHE/BR/120-1	3,921,234.00	Pending/AE	
	JHE/JHE/BR/120-2	3,598,431.00	Pending/DRR/claim	
	JHE/JHE/BR/120-3	3,351,350.72	Pending/DRR/claim	
	DAS/DAS/BR/140	5,489,697.70	5,443,743.30	
	DAS/DAS/BR/120	3,143,629.00	Not completed	
	DAS/DAS/CU/30	860,346.60	Pending/AE	
	BNH/JHE/BR/150	3,581,539.20	3,548,785.58	
	BUR/KDU/BR/165	6,177,745.00	Pending/AE	
	SAT/SAT/BR/100	4,024,778.00	3,886,608.34	
SAT/SAT/BR/130	4,632,481.90	Pending/DRR		

Ra,shah:	: BAL /THA/BR/100 :	:	:
	: 2,968,494.42 :	:	: 2,386,121.30 :
	: BAL /THA /CU/20 :	:	:
	: BAL /THA/BR/70 :	:	: 2,143,871.99 :
	:	:	: 2,056,396.70 :
	: ATG/PAB/BR/200 :	:	: 5,005,733.45 :
	:	:	: Pending/AE :
	: PAB/PAB/CU/10 :	:	: 243,787.28 :
	:	:	:
	: PAB/PAB/CU/4 :	:	: 133,788.66 :
	:	:	:
	: GHD/DIN/CU/45 :	:	: 1,569,418.50 :
	:	:	: 1,519,549.20 :
	: GHD/DIN/BR/195 :	:	: 4,738,836.35 :
	:	:	: Pending/DRR :
	: BIR/DIN/BR/140 :	:	: 2,764,348.00 :
	:	:	: Pending/DRR :
	: BIR/DIN/CU/60 :	:	: 1,479,603.26 :
	:	:	: 1,379,274.54 :
	: HAK/DIN/BR/140 :	:	: 3,016,010.40 :
	:	:	: Pending/AE :
	: HAK/DIN/CU/20 :	:	: 728,529.00 :
	:	:	: 733,854.20 :
	: GAB/BOG/BR/135-1 :	:	: 3,096,723.01 :
	:	:	: Pending/DRR :
	: GAB/BOG/BR/135-2 :	:	: 2,755,051.33 :
	:	:	: Pending/AE:Cont. : Work not accepted :
	: BOR/NAT/CU/60-1 :	:	: 1,758,913.40 :
	:	:	: 1,717,509.93 :
	: BOR/NAT/CU/60-2 :	:	: 2,223,335.00 :
	:	:	: 2,290,172.80 :
	: BOR/NAT/BR/125 :	:	: 3,221,954.68 :
	:	:	: 3,030,048.01 :
	: SHA/SER/BR/120 :	:	: 2,756,169.30 :
	:	:	: Not completed:
	: SHA/SER/CU/20-1 :	:	: 1,424,835.00 :
	:	:	:
	: SHA/SER/CU/60 :	:	: 2,398,224.16 :
	:	:	: 2,310,306.69 :
	: SHA/SER/CU/20-1 :	:	: 1,180,534.00 :
	:	:	: Pending/Uz :
	: SON/BOG/BR/135 :	:	: 4,716,127.86 :
	:	:	: 4,404,070.78 :
	: SON/BOG/BR/60 :	:	: 2,379,030.60 :
	:	:	: 2,236,178.72 :

Chittagong	:BOK/COM/BR/50	: 1,363,846.85	: 1,254,081.10	:
	:BOP/COM/CU/33	: 942,438.46	: 913,611.83	:
	:BOR/COM/BR/55	: 1,494,718.00	: Pending/AE:Cont.	: Work not accepted
	:BOR/COM/CU/65	: 1,904,545.65	: 1,905,059.53	:
	:AKH/BRA/CU/76	: 2,008,573.05	: Pending/AE:Cont.	:
	:AKH/BRA/CU/14	: 1,168,431.38	: 891,025.03	:
	:AKH/BRA/CU/23	: 1,429,121.95	: 1,248,408.05	:
	:KDS/BRA/BR/165	: 3,346,883.50	: Not completed:	:
	:HAB/HAB/CU/22	: 1,022,031.68	: 986,616.91	:
	:HAB/HAB/BR/35	: 2,015,396.10	: 1,930,134.90	:
	:HAB/HAB/BR/65	: 2,329,556.46	: 2,108,246.22	:
	:HAB/HAB/CU/34	: 1,246,679.15	: 1,165,139.51	:
	:HAB/HAB/BR/50	: 3,025,596.60	: 2,716,833.44	:
	:SNI/CHI/BR/55	: 1,955,430.51	: 1,643,631.99	:
	:SNI/CHI/CU/49	: 1,316,355.64	: Pending/AE:claim	:
	:SHA/CHI/BR/120	: 2,064,903.94	: 2,049,023.15	:
	:SNA/CHI/BR/100	: 2,614,422.65	: 2,520,361.32	:
	:SNA/CHI/CU/49	: 1,472,921.87	: 1,537,966.13	:
	:DEG/NOA/BR/85	: 2,455,656.81	: Not completed:	:
	:DEG/NOA/BR/45	: 1,718,080.74	: 1,504,122.88	:

:LAK/LAK/BR/110	: 2,518,854.50	: Not completed:	:
:LAK/LAK/BR/150	: 4,935,211.03	: Pending/AE	:
:KAC/CHA/BR/30	: 2,269,574.49	: Pending/AE:Cont.	: Work not accepted
:KAC/CHA/CU/40	: 1,328,969.60	: Pending/AE	:
:KAC/CHA/CU/14	: 781,351.30	: 588,184.38	:
:KAC/CHA/CU/34	: 1,280,623.35	: 1,145,060.77	:
:ZAK/SYL/BR/120	: 2,125,204.74	: Not completed:	:
:ZAK/SYL/BR/70	: 2,062,388.09	: 1,666,086.38	:
:ZAK/SYL/CU/30	: 1,009,443.36	: Pending/DRR	:

Dhaka

:BHA/MYM/BR/160	: 2,999,559.10	: 2,997,741.62	:
:BHA/MYM/BR/105	: 2,728,580.10	: 2,672,490.46	:
:KUL/KIS/BR/100	: 1,489,996.74	: Pending/AE	:
:KUL/KIS/BR/110	: 2,097,591.83	: Pending/AE	:
:KAL/TAN/CU/68	: 1,903,892.75	: 1,716,968.80	:
:KAL/TAN/BR/150	: 4,148,125.22	: 4,021,389.34	:
:FAR/FAR/BR/200	: 5,988,725.24	: 6,352,019.94	:
:ALF/FAR/BR/170	: 2,903,439.47	: 2,799,712.07	:
:ALF/FAR/CU/10	: 603,426.69	: 606,154.10	:
:JAN/JAN/BR/65	: 2,457,627.30	: Pending/DRR:claim	:
:JAN/JAN/BR/120	: 2,770,269.10	: 2,760,883.01	:
:NAL/SHE/BR/120	: 1,774,028.00	: Pending/AE	:
:NAL/NAL/CU/60	: 1,298,741.30	: 1,285,891.09	:
:KER/DHA/BR/144	: 3,861,844.00	: Pending/AE	:
:KER/DHA/CU/60	: 2,011,224.50	: 1,968,867.10	:
:KER/DHA/CU/30	: 2,267,961.10	: Pending/AE:Dropped:	:
:ATP/NET/BR/220	: 4,908,809.00	: 5,260,250.31	:
:ATP/NET/BR/EXT	: 3,123,201.00	: Not completed:	:

12 Stages	:BHA/TAN/BR/100	: 2,577,061.00	: Not completed:
	:KEN/NET/BR/100	: 1,874,709.00	: Not completed:
	:AND/CHI/BR/45	: 1,334,417.00	: 1,345,398.69
	:AND/CHI/BR/100	: 2,435,881.50	: Not completed:
	:KIS/WIL/BR/74		
		: 3,493,064.20	: Pending/AE
	:KIS/WIL/BR/125		
	:BHU/KUR/BR/80	: 1,984,095.09	: 1,906,764.29
	:BHU/KUR/BR/104	: 1,509,408.82	: 1,445,546.95
	:DOU/KUS/BR/122	: 3,990,731.20	: Pending/AE
	:KUM/KUM/BR/70	: 3,657,309.24	: Not completed:
	:LAL/IND/BR/120	: 4,417,493.70	: Pending/AE
	:NOH/MAS/CU/48	: 1,830,487.74	: 1,768,233.54

DRAFT/ALAN: COST
July 01, 1991