

UNCLASSIFIED
CLASSIFICATION (S/N): 24931
PROJECT EVALUATION SUMMARY (PES) - PART

Report Symbol U-447

1. PROJECT TITLE TRAIL SUSPENSION BRIDGES <i>LDHAP 297</i>			2. PROJECT NUMBER 367-0119	3. MISSION/AID/W OFFICE AID/Nepal
4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY): fy 82-3			<input checked="" type="checkbox"/> REGULAR EVALUATION <input type="checkbox"/> SPECIAL EVALUATION	
5. KEY PROJECT IMPLEMENTATION DATES			6. ESTIMATED PROJECT FUNDING	
A. First PRO-AG or Equivalent FY 79	B. Final Obligation Expected FY 79	C. Final Inout Delivery FY 82	A. Total \$ 4,799,000	7. PERIOD COVERED BY EVALUATION
			B. U.S. \$ 3,000,000	From (month/yr.) Sept. 1, 1979
				To (month/yr.) July 10, 1981
				Date of Evaluation Review July 10, 1981

8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., sirgram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
1. In order to facilitate the timely submission of required financial reports and "Statements of Expenditure" to AID/Nepal, the SBD will request the MLD to assign additional accounting staff to the Project.	Mr. Lacoul SBD/MLD	2/15/82
2. In order to provide Project funds to the field in a timely manner, the following actions will be undertaken: a. SBD will work with the MOF in order to ensure that funds released to the MOF as Project advances are not delayed in the MOF prior to transmission to the Project's account. b. As soon as such Project advances are transmitted to the Project's account, the SBD will disburse the required funds to the appropriate field personnel assigned to the construction sites of approved AID/Nepal funded bridges.	Mr. Lacoul SBD/MLD and MOF	2/15/82
3. The MLD and AID have agreed to utilize the simplified procedures for approval of designs and the release of funds for the construction of local bridges designed by PCVs.	Mr. Pradhanang MLD and Mr. Freundlich AID/Nepal	2/15/82
4. In order to facilitate the transportation of bridge components etc. to construction sites in remote and inaccessible areas, the SBD has agreed to contact the appropriate authorities and if possible arrange the provision of necessary airplane and/or helicopter time.	Mr. Lacoul SBD/MLD	2/15/82

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS			10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT	
<input type="checkbox"/> Project Paper	<input checked="" type="checkbox"/> Implementation Plan, e.g., CPI Network	<input type="checkbox"/> Other (Specify)	A. <input type="checkbox"/> Continue Project Without Change	
<input type="checkbox"/> Financial Plan	<input type="checkbox"/> PIO/T		B. <input type="checkbox"/> Change Project Design and/or	
<input type="checkbox"/> Logical Framework	<input type="checkbox"/> PIO/C	<input type="checkbox"/> Other (Specify)	<input checked="" type="checkbox"/> Change Implementation Plan	
<input type="checkbox"/> Grant Agreement	<input type="checkbox"/> PIO/P		C. <input type="checkbox"/> Discontinue Project	

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)		12. Mission/AID/W Office Director Approval	
S. Lacoul, Project Manager, SBD, Min. of Local Development, GON		Signature: <i>Thomas L. Rose</i>	
W. B. Nance, Evaluation Officer, AID/Nepal		Typed Name: Thomas L. Rose	
S. J. Freundlich, Project Development Officer, AID/Nepal		Acting Director	
D. H. Lockhart, Acting Controller		AID/Nepal	
		Date	

5. The SBD has agreed that where required the engineer in-charge will be delegated sufficient authority to adjust fixed departmental transportation rates so that the GON will be able to pay rates which are competitive with the locally prevailing rates for such transportation.

Mr. Lacoul 2 /15/82
SBD/MLD
6. In order to reexamine the progress made in the achievement of the above recommendations and determine if an extension of the PACD of one year is required, it is recommended that a joint review of the Project be held six months from the date of this Project Evaluation.

Mr. Lacoul 2/15/82
SBD/MLD
and
Mr. Freundlich
AID/Nepal

13. Summary:

The Trail Suspension Bridges is a three year Project (August 31, 1979-June 30, 1982) designed: 1) To provide the institutional development to confirm GON capacity to continue such a bridge building and maintenance program in the future and 2) to assist the GON in financing the procurement, fabrication and transportation of materials to construct between 24 and 36 bridges throughout Nepal. The Project is carried out in coordination with the Swiss Association for Technical Assistance and the American Peace Corps and relies on both these organizations for engineering inputs.

Prior to the initiation of this Project, AID Nepal assisted the GON in the construction of some 22 suspension bridges in Nepal from FY 1958-1974. (A total of 22 bridges were constructed in different rural areas of Nepal under these programs.) In FY 1979 AID/Nepal and the GON signed this (Trail Suspension Bridges) Project to provide U.S. \$3.0 million of grant funds for institutional developmental assistance to the GON and for actual construction of bridges in selected rural areas of Nepal. The present evaluation deals only with this Trail Suspension Bridges Project.

At the time of the Evaluation, the Project had achieved the following:

A) Bridges:

The Project had approved funding for the construction 18 bridges and most of these funds had been distributed to the individuals incharge of bridge construction sites. The bridges at Madi Khola (# 705) and Beni Ghat (# 713) had been completed. The bridges at Leguwa Ghat (# 717), Nibua Banchara (# 718), Kokaha Khola (# 806), Kalphu Khola (# 812), Deuli Ghat (# 813), Hugdi Khola (# 815) and Ramghat (# 824) were to be completed by mid-August 1981. *(As of January 1, 1982 a total of 9 bridges funded under the Project had been completed. Nine other AID funded bridges were at different stages of construction.)

B) The Suspension Bridge Division:

The Suspension Bridges Division (SBD) had recently been transferred from the Ministry of Works and Transport to the Ministry of Local Development and its responsibilities concerning the design, construction, and maintenance of bridges in Nepal had been expanded. This is a consolidation of responsibility with which AID/Nepal fully agrees.

C) Local Bridges:

Procedures had been worked out to provide funding for local bridges designed by PCVs in cooperation with MLD personnel. These are normally bridges which measure up to 60 meter in length and are designed and constructed with the assistance of American PCVs. Funding for these bridges could not as yet be provided because the list of such bridges was submitted to AID at the end of the fiscal year.

D) Disbursement System:

During the initial year of Project implementation an attempt was made to utilize a standard system of reimbursement to disburse grants funds to the Project. The slow rate of disbursement during this period led to a revision of these procedures. During the second year of Project implementation a system utilizing quarterly projections of annual funding

*Post evaluation comment.

and timely Statement of Expenditure, has been utilized to disburse grant funds to the Project.

At the time of this evaluation the Project had not completed one full year of utilizing the revised system for disbursement of funds.

Therefore, the members of the evaluation panel agreed that additional time for testing and adjustment would be required, before final determination could be made concerning the utility and appropriateness of the institutional developments which have been initiated as a result of the utilization of the revised disbursement system.

E) Site Survey Procedures:

A field manual for conducting socio-economic site surveys of potential bridge sites has been completed and tested, under an AID funded contract. However, the procedures developed by the Contractor have yet never been fully tested by GON personnel. This is due to the time phasing of such surveys. Normally a site is surveyed at least two years prior to the start of construction. Thus given the time required to develop and test such a manual, it was impossible to utilize the manual procedures during the initial years of project implementation and funding. Upon review of these factors, the evaluation panel agreed that the SBD will require additional time to utilize, adopt and evaluate the procedures developed in the manual. The SBD Project Manager, Mr. Lacoul, agreed to utilize the manual procedures during this fiscal year to survey some of the 900 series bridges which are being proposed for AID financing. A determination will subsequently be made by the GON concerning the adoption of the manual as part of the standard procedures for SBD site surveys.

F) Maintenance:

The SBD has developed a satisfactory program of maintenance. The Project Manager reported that a physical inventory of existing bridges throughout the country has been completed and that Rs. 18 lakhs (\$ 137,404.58) and Rs. 40 lakhs (\$ 305,343.51) have been set aside for maintenance in the SBD annual budgets for FY 81 and FY 82.

G) Steel Cable:

The procurement of 227 metric tons of steel cables (estimated to cost U.S. \$ 213,700) to replace the in-country stock used for the 700, 800 and 900 series bridges is in process.

H) Tradesman Study:

The Displaced Tradesman Study is being carried out and the report should be completed shortly.

- Following this evaluation a determination was made that the Contractor has clearly demonstrated an inability to complete the subject study and P.I.L. # 23 was issued to allow the Contract to terminate, as per the original completion date of the Contract. If the P.A.C.D. is extended during the upcoming Project Review meeting, a determination will be made concerning the need to complete the subject study under a Contract with some other research institution.

I) Participants:

A total of twelve participants (three in the U.S., eight in India and one in Bangkok) have received training financed under the Project. One additional participant is presently enrolled in a two year masters degree program in AIT Bangkok.

At present the Project appears to be progressing as planned in all major respects. A number of unresolved problems still remain, however. Each has been addressed during this evaluation and where necessary remedial actions or alternative procedures have been developed. These problems include the following:

1. The delays in getting funds from AID/Nepal through the MOF to the Project account and then to the construction sites,
2. The shortage of accounting staff to provide timely financial reports and Statement of Expenditures.
3. The delays in utilizing the site survey manual procedures developed by the Project.
4. The unavailability of aircraft to transport bridge components to inaccessible construction sites.
5. The lack of sufficient authority for field staff to adjust fixed departmental transport rates to the prevailing local rates.

In order adequately to test these remedial actions and alternative procedures, as well as achieve the institutional developmental goals which the Project designers envisioned, the Evaluation Panel has agreed to consider a possible one year extension of the Project. The final determination as to the appropriateness of such an extension will be made during a Project Review meeting which is tentatively scheduled to take place six months after this evaluation.

14. Evaluation Methodology:

The Project Paper calls for a continual evaluation of the Project to take place on both an informal and a formal basis. The purpose of such a continuous process of evaluation is to measure progress in achieving Project goals as well as to identify potential problems as early as possible so that any detrimental effects can be minimized.

The first Project Evaluation was held on August 13, 1980, however no PES was prepared. The next Project evaluation was held on July 10, 1981. The purpose of the evaluation was to assess implementation progress and identify problems. The following persons attended:

Ministry of Local Development, GON

Mr. S. B. Rai, Joint Secretary

Mr. S. Lacoul, Project Manager, SBD

Mr. C. B. Pradhanang, Superintending Engineer, Technical Division

Mr. Hemant Kharel, Under Secretary, Remote Area Development Project

SATA

Mr. Rene Guyer, Project Leader SBD
Mr. Luciano Lauizzari, Deputy Director
Mr. Alfred Grob, Regional Engineer, SBD

AID/Nepal

Dr. Gerold Van der Vlugt, Acting Assistant Director
Dr. David E. Mutchler, Acting Chief, (PDIS)
Mr. Paul D. Morris, Acting Program Officer (PRM)
Mr. D. N. Suwal, Program Specialist (PDIS)
Mr. Ram Chandra Shrestha, Assistant Evaluation Officer (PRM)

This Project evaluation summary is based on:

- a. The Project evaluation held on July 10, 1981 and participated in by the above named persons.
- b. Discussions with related Project officials prior to the initiation of the evaluation.
- c. A review of all pertinent documents including the Project Paper, Project Grant Agreement and the Project File.
- d. An Issues Paper which was prepared prior to the evaluation and circulated to all concerned parties in the GON and AID/Nepal. (See Attachment A).

15. External Factors:

During the initial stages of implementation, a decision was made to delete the Map and Trail Classification Component of the Project. This decision was made subsequent to a two week technical consultation by a Cartographer from the U.S. Forestry Service. The Cartographer investigated the conditions which prevail in both Kathmandu and in the rural areas of Nepal and estimated that completion of the proposed map and Trail Classification Component would cost between \$ 600,000 and \$ 1,000,000. Thus the costs for this component would consume approximately 1/3 of Project funds. A Project Implementation Letter has been issued making the \$ 243,280 remaining in the budget for this component available for other project costs. Following this decision SATA has agreed to provide the necessary funding to develop a new topographical map to help in trail classification. Such trail classification will assist the SBD in determining the best locations for bridges throughout Nepal.

Another change which has taken place during project implementation is that the SBD has been taken out of the Ministry of Works and Transportation and placed in the Ministry of Local Development. This reorganization has placed all responsibility for construction and maintenance of bridges in one Ministry. In addition, it ensures that there will be close cooperation between the SBD and the Technical Division of the MLD which is charged with design and construction of "local bridges". Three Peace Corps Volunteers have now been assigned to design and construct such local bridges. Upon approval of these designs the Project will release grant funds to finance these activities. An attempt will be made to simplify the approval and release procedures for such P.C. designed bridges.

Using the approved budget of the SBD as an indicator, it appears that the GON has reemphasized its program to construct bridges throughout Nepal. Therefore it appears that the major assumptions made in the Project Paper remain valid and implementation should proceed as planned.

16. Inputs:

The Project continues to face a problem related to the transportation of bridge components etc. to construction sites in remote and inaccessible areas of the country. In the past the Project Manager's attempts to schedule flights of airplanes or helicopters for such transportation have been only partially successful. The resulting delays in delivery have meant a reduction in the Project's capacity to construct bridges in difficult to reach areas. The Project Manager must continue his effort to secure required aircraft for such transport in the future.

Another problem which continues to affect the Project in an adverse manner, is the delay involved in getting Project funds from AID to the MOF and then to the Project account for final release to the SBD field staff. Once these releases have been made the SBD, as a result of the limited number of accounting staff assigned to the Project, has great difficulty in providing AID with required Statements of Expenditure. The receipt and approval of these Statements is the trigger which allows AID to release additional Project funds. Thus unless the Project release, disbursement and reporting procedures are streamlined and additional accounting staff are assigned to the Project, construction may be delayed and targetted outputs may not be achieved by the present PACD.

A final outstanding problem is related to the training component of the Project. Due to the delay in selecting and nominating a second participant for long-term training in Geological Engineering at AIT in Bangkok, the participant only began his two year course of study in September 1981. The second year of his training program will come only after the Project Activity Completion Date (PACD) which is June 1982. Therefore even though sufficient funds remain in the Project budget to cover the costs of the required course and the participant's academic record warrants the continuation of the course of study, the participant and the GON may not be able to take full advantage of the planned training program. Therefore, the continuation of this training program will be one of the factors to be considered in the proposed review and possible extension of the PACD.

17. Outputs:

A comparison of actual progress against projected output targets noted in the PP is given below :

PP Magnitude of Outputs

1. Construction of a minimum of 25 bridges and a maximum of 36 bridges for the life of the Project.

Actual Progress

- * 9 bridges have been completed.
9 bridges are partially completed
13 bridges have been proposed for funding and construction during the coming fiscal year and 3 PCV designed local bridges have been proposed for approval and funding in the coming fiscal year.

*(Post evaluation comment.)

2. Consturction/Survey Capacity

Standard Selection Criteria established by 1979

Criteria and survey procedures were developed by November 1980. They will be used in the site survey of some of the 900 series bridges during FY 1982.

6 SBD Survey teams assigned and in the field by 1980

18 Survey Teams were assigned and working by FY 1980/1981

25 completed site surveys using USAID development system by 1980

38 site surveys were completed without using the AID selection criteria because these criteria were not ready until Nov. 1981.

75 completed site surveys using USAID development system by 1982.

Not done, but during FY 1982 a number of surveys will be done utilizing the system developed by the Project.

3. Trail Classification & Study

This component was dropped due to the excess cost requirements of completing the study.

4. Displaced Tradesmen Study

Study in process and report due to be completed shortly.

5. Maintenance

Regional inventory of bridges throughout Nepal by EOP

Physical inventory of bridges in Nepal completed.

Increased maintenance budget for SBD and EOP

By 1982 SBD maintenance budget increased by 22 percent as compared to FY 1981.

Regularized schedule of regional maintenance inspections and work

SBD is planning to establish a routine inspection and maintenance program which will be funded from the increased maintenance budget for the division.

6. Training

5 engineers trained

3 engineers trained in U.S. in a specially designed short-term course for geological engineering,

- (P.I.L. # 23 was issued on December 17, 1981 allowing the subject contract and study to terminate, due to the contractor's inability to complete the subject study. If the P.A.C.D. is extended during the upcoming Project Review meeting, a determination will be made concerning the need to complete the subject study under a Contract with some other research institution.)

PP Magtitude of Outputs

Actual Progress

8 engineers in India in geological engineering techniques, 1 engineer enrolled in a 2 year M.A. degree program in Bangkok and 1 more engineer will go to Bangkok for a two year M.A. program in September 1981.

Changes:

A joint GON/AID review of the Project should be scheduled six months after the date of this evaluation in order to determine whether an extension of the P.A.C.D. is required to : 1) allow the GON to complete the institutional developmental aspects of the Project which requires the full field testing and subsequent adaptation of the "Site Survey and Selection Criteria" developed under the auspices of the Project, and 2) allow the Project sponsored participant to complete the planned two year program of study in Geological Engineering.

18. Purpose:

The purpose of the Project as specified in the PP is to upgrade the GON's institutional capacity to rationally improve the national bridges and trail network.

The End of Project Status as outlined in the PP for this Project is as follows "Based on the use of USAID criteria the selection and construction of a minimum of 8 bridges and a maximum of 12 bridges each year for a total minimum of 25 bridges and a maximum target of 36 bridges for the life of the Project."

The EOPS conditions established in the PP are still valid measures of what will be achieved at the end of the Project. However, as noted above an extension of the present PACD by one year may be necessary if the GON's institutional capacity to survey sites and construct bridges is to be fully tested and in place by the PACD.

19. Goal/Sub-Goal

The Program or Sector Goal of the Project as stated in the PP is to enhance the quality of life in the rural agricultural sector of the population of Nepal by increasing the flow of goods/services to and from the rural areas.

The Project has as yet completed only two bridges and it is too early to assess the impact of these bridges on rural conditions. However, it may be safely assumed that the procedures and systems developed and tested by this Project will ensure that bridges will be constructed in strategically important locations, in the future and that this will facilitate the regular and increased flow of goods/services in the rural areas (Post evaluation comment:

as of January 1, 1981 a total of nine bridges financed under the Project have been completed)

20. Beneficiaries:

The direct beneficiaries of the Project will be: 1) the participants who are trained under the Project, the people who are employed in the fabrication and transportation of the bridge parts and in the construction of the bridge; and 2) the people of the villages where the bridges are located as well as the rural people who utilize these bridges during their continual travels to and from their homes. Women will receive benefits from the construction of bridges because they provide quicker access to areas across rivers which in many cases are the sites for collecting firewood and fodder.

21. Unplanned Effects::

One unplanned effect of the Project has been the consolidation of the GON bridge building program within one Ministry. Another unplanned effect has been the SBD adoption of a quarterly projection of required funding.

22. Lessons Learned:

- Experience with Project implementation indicates that a Project with many remote construction locations needs to be longer than three years. Such a Project should have at least five or six years for implementation.
- Another lesson which has been learned is that a reimbursement system of payment cannot be utilized in such a construction oriented Project, due to the GON's lack of initial capital to finance donor funded construction activities. Rather, such Projects must incorporate an advanced payment system if funds for construction are to be made available in a timely manner.
- In addition, it should be noted that such Projects should take greater account of the remoteness or virtual inaccessibility of the construction site while establishing a time table for the receipt of Statements of Expenditure. Such time tables should be as flexible as possible given the inevitable delays involved in receiving such reports.
- It should be noted that if a new system such as the Site Selection Criteria is to be developed and adapted for use in a Project, sufficient time should be allocated so as to insure proper testing and publication of the necessary procedures, prior to requiring their utilization by the Project.
- Finally, it should be noted that the continual shifting of GON Project Managers (four to date for this Project) slows implementation of the Project.

23. Special Comments or Remarks:

The orderly completion of the Project requires that early action be taken by the concerned project authorities on the following two problems:

- a)) the provisions of a regular cash flow to the Project, and
- b) arrangement for making airplanes/helicopters available to the Project in order to transport bridge parts to the remote Project sites.