

ANNUAL REVIEW AND EVALUATION

USAID/Peru  
May 1977  
A.I.D. Loan N° 527-L-028  
Tarapoto - Rio Nieva Road  
Period Covered: April 1976 thru  
March 1977

I. BASIC DATA

- |  |   |   |
|--|---|---|
| 1. Borrower  | : | Government of Peru (GOP)                            |
| 2. Executing Agency                                      | : | Ministry of Transportation and Communications (MTC) |
| 3. Monitoring Responsibility                             | : | USAID/Peru/Engineering                              |
| 4. Construction of Road                                  | : | MTC's Construction Division by Force Account        |
| 5. Loan Amount   | : | \$12,100,000  |
| 6. Date Authorized                                       | : | March 3, 1964                                       |
| 7. Date of Loan Agreement                                | : | May 19, 1964  |
| Amendment N° 1   | : | January 10, 1975                                    |
| 8. Monitoring Plan Approved                              | : | January 21, 1975                                    |
| Amendment N° 1   | : | September 24, 1975                                  |
| Addendum to provide Army construction unit at Venceremos | : | January 14, 1976                                    |
| 9. Terminal Commitment Date                              | : | September 30, 1977                                  |
| 10. Terminal Disbursement Date                           | : | December 31, 1977                                   |

II. BRIEF PROJECT DESCRIPTION

Construction of 238 kms. of a Peruvian Class II highway between Tarapoto and Rio Nieva.

From the date of authorization (March 3, 1964) through 1968 a total of \$ 2,610,000 from AID Loan funds were expended by the then construction

contractor, Morrison Knudsen (EMKAY), and the engineering firm, Brown and Root. Due to project-related problems and the uncertain political environment created by the change of Government in October 1968, all loan disbursements were stopped in early 1969. From then through 1974 the GOP, through the Ministry of Transportation and Communications (MTC), continued construction work on a small budget. The amount of work accomplished during this period was limited, but of satisfactory quality. The Loan was reactivated in late 1974 and the authorizing amendment was signed January 10, 1975. The MTC is now building the road by force account with A.I.D. Loan-financing. The \$9,490,000 remaining under the Loan as of amendment signature presently is allocated as follows:

\$8,100,000 - direct construction costs;  
1,110,000 - procurement of spare parts;  
280,000 - monitoring

The Office of Engineering of USAID/Peru is responsible for monitoring the project. The monitoring staff contracted by the Mission to assist in this regard is composed of two civil engineers, one controller of work, one accountant, one secretary and two drivers.

### III. SUMMARY AND RECOMMENDATIONS

#### A. Conclusions

In late April 1977 a thorough review of physical and disbursement progress was undertaken to assess the prospects and time-frame necessary for attaining the Project's purpose, i.e. the construction to design standards of 238 kilometers of road. A similar review previously had been undertaken in developing the Project's PPT, which was submitted with the August 1976 Monthly Loan Report. The PPT indicated that by the TDD of December 31, 1977 the road was expected to be fully serviceable for limited loading, although the improvement of previously constructed road sections and placing of wearing courses was not expected to be completed until March 1978 and two permanent bridges were expected to be delayed until April 1978, although temporary by-pass bridges at these two sites would serve traffic.

The Engineering conclusions, based on the latest review, are that the sector of the road planned for completion of construction at the time of Loan reactivation in January 1975 (basically the Rio Nieva to Rioja section) will be completed according to plans and specifications by the end of December 1977. This is the section which has received priority attention during the past 18 months in order to open the road

for traffic. It now appears likely that all of the permanent bridges will be in place by December 31, 1977, rather than April 1978, and the complete road will be fully serviceable for limited loading by the TDD.

However, the section of the road which was previously constructed in the late 1960's and early 1970's (largely the sector between Tarapoto and Rioja) will not be fully resurfaced by the end of 1977. The review in 1974 to reactivate the loan contemplated the rehabilitation of the sub-base and the placing of selected gravel material for this section where necessary. Given the deplorable condition to which this section deteriorated due to i) poor road maintenance; ii) the extremely heavy rainy season of late 1976 and early 1977; iii) the delays in rehabilitating project equipment; and iv) delays in receiving EXIM Bank financed equipment, there will probably be a major portion of this resurfacing yet to be accomplished in the first half of 1978. Clearly more resurfacing will be necessary than previously assumed.

The financial review concluded that the Loan should be fully disbursed by the TDD. A portion of the existing revolving fund probably, however, will not be fully liquidated by December 31, 1977. Finally, there will be a need for the GOP to provide additional funding for the Project in 1978 to complete the resurfacing and major maintenance of the road.

#### B. Recommendations

N° 1 The TDD of December 31, 1977 should not be extended. In late September 1977 a new review of the disbursement rate and projections should be made. Based on this a new determination should be made of the projected Loan funds which might remain undisbursed at the end of December 1977.

N° 2 USAID's final disbursement to replenish the revolving fund should permit liquidation for a three month period (consistent with A.I.D. policy on advances) into 1978. In early October 1977 a determination should be made of the probability of the GOP/MTC effectively liquidating the revolving fund during the first three months of 1978. If more money remains in the loan at the end of December 1977 than can reasonably be expected to be liquidated by the MTC during these three months, then the difference between the two amounts should be deobligated at the end of 1977.

N° 3 A meeting should be held with MTC's Director General of Land Transportation and a follow-up letter sent to GOP representatives to explain the need for: (i) investing as much as possible

of the existing funds available in their 1977 budget on rehabilitating the Tarapoto to Rioja section as soon as possible, and (ii) parallel with this, the GOP and MTC should be advised of the necessity of including within the 1978 budget the funds necessary to complete the resurfacing of the Tarapoto to Rioja road section.

N° 4 The Disbursing Authorities for the projected unexpended balances in the special funds for purchasing spare parts and for monitoring should be revised so that the unexpended amounts are reallocated for construction.

#### IV. DISBURSEMENT PROGRESS

By Implementation Letter N° 16, a Revolving Fund of S/.40,000,000 (\$922,084.00) was established early in 1975 for financing local currency costs. This Revolving Fund was increased by S/.20,000,000. (\$307,682.31) in August 1976 and in September 1976 was decreased by S/.12,930,613.89 (\$298,077.78). As of today the revolving fund equals \$931,698.43. Table I indicates loan disbursements through March 31, 1977.

#### V. PROJECTIONS AND PERFORMANCE

With \$2,694,708 undisbursed (see Table I) plus the revolving fund of \$931,698 a total of \$3,626,406 is available for project expenditures. The following conservative projection in Table II is made for disbursements through 1977.<sup>1/</sup>

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<sup>1/</sup> Assumes average exchange rate S/. 82 = US\$1.00 for balance of 1977.

TABLE I

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Disbursements to Date: (in U.S. Dollars)

Loan amount			\$12,100,000.
<u>A. Allocated for construction:</u>	\$10,720,000.		
<u>Disbursements:</u>			
1. Thru 1969		\$2,610,031.	
2. Revolving Fund		931,698.	
3. Reimbursements:			
(Vouchers 1 through 30 for expenditures through February 20, 1977)		5,385,822.	
Sub-Total:			\$8,927,551.
<u>B. Allocated for purchase of spare parts and equipment repairs services:</u>	1,110,000.		
Disbursements as of March 31, 1977		413,529.	
Sub-Total:			413,529.
<u>C. Allocated for AID Monitoring Office:</u>	270,000.		
Direct expenditures as of March 31, 1977		64,212.	
Sub-Total:			64,212.
TOTAL DISBURSEMENTS			\$ 9,405,292.
FUNDS AVAILABLE AS OF APRIL 1, 1977			\$ 2,694,708.

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TABLE II - Projected Disbursements 1977

<u>Month</u>	<u>\$</u>	<u>Notes</u>
March	230,000.	Construction and Monitoring
April	240,000.	Construction and Monitoring
May	260,000.	Construction and Monitoring
	300,000.	Spare parts
	90,000.	Equipment repair - local contracts
June	280,000.	Construction and Monitoring
July	310,000.	Construction and Monitoring
August	320,000.	Construction and Monitoring
September	310,000.	Construction and Monitoring
October	280,000.	Construction and Monitoring
November	240,000.	Construction and Monitoring
December	220,000.	Construction and Monitoring
	<u>180,000.</u>	Late construction billings
	3,260,000.	
	<u>366,400.</u>	Balance of Revolving Fund to be liquidated
	\$ 3,626,400.	

Based on the above, the loan should be fully disbursed by the TDD of 12/31/77. However, the revolving fund will contain roughly \$366,400 in unliquidated expenditures.

There are two major factors why we anticipate having this unexpended balance on the order of \$370,000.

First, spare parts and new equipment (EXIM) procurements have encountered unreasonable bureaucratic delays within the central offices of the GOP. The MTC's decision not to utilize a U.S. based agent to expedite procurements and despatching was unfortunate.

The MTC lost much time in getting the documents necessary for procurement through the GOP bureaucracy, and procurement has occurred well over a year behind schedule. The field construction work has been forced to manage with old equipment supported by rented equipment. Spare parts have only been arriving since the beginning of this year, 1977, and only now are we seeing overhauled equipment on the Project. The new EXIM-financed equipment still is not here.

Secondly, the devaluations in Peruvian currency from April 1975 to date have made more soles available to the Project than were ever anticipated. While accompanying inflation has resulted in substantial construction cost increases, these increases have lagged behind the extra soles being generated from the increasing exchange rates for loan dollars. During these 11 months the exchange rate increased 73% but construction costs increased on the average by 30% broken down as follows:

- materials and supplies      43.4% (representing 46% of total)
- equipment rentals            15.5% (representing 14% of total)
- labor costs                    20.0% (representing 40% of total)

In spite of the problems with not having spares and equipment, the construction work by the MTC has continued to be of good quality and at a pretty good rate although not as rapid as originally contemplated. Still, construction expenditure rates have improved for each semester worked since January 1975.

<u>Period</u>	<u>Average monthly disbursement</u>
January - June,      1975	\$ 94,400.
July      - December, 1975	198,900.
January - June,      1976	202,200.
July      - December, 1976	399,100.
First 3 months 1977 (very heavy rainy season)	157,100.

To have a finished road the full 238 km from Tarapoto to Rio Nieva, the 135 km section between Tarapoto and Rioja must be improved by rehabilitating the sub-base and placing a new wearing course where needed.

The devastating rainy season of 1976 - 1977 coupled with little maintenance by the MTC (for lack of funds) has left these 135 kilometers in worse condition than anticipated in May 1974. Providing the MTC effects reasonable maintenance between April and December of 1977, it is estimated that it will cost approximately S/.800,000 per kilometer to improve this section to be in accordance with the approved plans and specifications. A total estimate for the work remaining would be S/.80 million. Assuming a projected average exchange rate for late 1977 and early 1978 of 90 soles to the dollar, close to \$900,000 will be needed for this improvement and resurfacing in 1978.

With the \$366,000 revolving fund balance expected to be applied for resurfacing through March 1978, an additional counterpart input of some \$550,000 will be required to complete the project in 1978. The GOP has the obligation to provide these funds, and should be reminded to take the steps necessary to assure their availability.

Table III indicates actual construction progress to date and the projected time-frame necessary to fully attain the Project's purpose.

If one assumes that the MTC's contemplated two 10-hour shifts per day are effectively organized by June 1977 for the major works remaining, then average monthly disbursements might approach the average for the last half of 1976, i.e., near \$400,000 per month for June to October. If this is accomplished, the loan would be fully disbursed and liquidated by the end of the year and a greater portion of the necessary resurfacing from Tarapoto to Rioja will have been accomplished than presently contemplated in Table III.

TABLE III

WORK REMAINING TO BE DONE AT SPECIFIC MONTHS

	Actual		Projected		
	Oct. 1974	<u>1/</u> March 1977	Dec. 1977	March 1978	June 1978
Final survey of centerline and design of road	5 km	completed	-	-	-
Clearing trees and bush from construction area	20 km	complete	-	-	-
Blasting, excavating and shaping embankments for a track on centerline over which service vehicles can readily travel	30 km	1/2 km	completed	-	-
Final shaping of road-bed to design dimensions	72 km	28 km	completed	-	-
Placing culverts and constructing headwalls (diameters between 24" and 60", plus multiplates of 120" and 126")	154 units	87 units	completed	-	-
Placing sub-base and wearing course, Rioja to Rio Nieva (103 km)	103 km	50 km	completed	-	-
Resurfacing and improvements, Tarapoto to Rioja (135 km)	78 km	135 km	100 km	80 km	completed
Bridges	13	7 (2 nearly finished)	completed	-	-
<u>1/</u> Time of study to reactivate loan					

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