

PO-AAW-571
5-7-87

PPC/POIE

CLASSIFICATION
PROJECT EVALUATION SUMMARY (PES) - PART I

Report Symbol U-447

1. PROJECT TITLE TRANSPORT AND STORAGE DEVELOPMENT ZIMBABWE, MAKUTI-CHIRUNDU ROAD			2. PROJECT NUMBER 690-0209.10	3. MISSION/AID/W OFFICE USAID/ZIMBABWE
5. KEY PROJECT IMPLEMENTATION DATES			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)	
A. First PRO. AG or Equipment FY <u>82</u>	B. Final Obligation Expected FY _____	C. Final Input Delivery FY <u>84</u>	<input type="checkbox"/> REGULAR EVALUATION <input checked="" type="checkbox"/> SPECIAL EVALUATION	
6. ESTIMATED PROJECT FUNDING			7. PERIOD COVERED BY EVALUATION	
A. Total \$ <u>5,408,800</u>			From (month/yr.) <u>July, 1982</u>	
B. U.S. \$ <u>4,200,000</u>			To (month/yr.) <u>July, 1984</u>	
			Date of Evaluation Review _____	

B. 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., telegram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
<p>The project was completed in June, 1984 with the final disbursement of funds made on September 30, 1984 followed by the deobligation of project residual funds in the amount of US\$51,000 on July 29, 1985. The project has been closed out since that time. This PES completes all project action. Distribution of the PES report will be completed by SARP, USAID/Zimbabwe</p>	<p>Gene Morris PDO/SARP/ USAID/Zimbabwe</p>	<p>October, 1987</p>

<p>8. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS</p> <table> <tr> <td><input type="checkbox"/> Project Paper</td> <td><input type="checkbox"/> Implementation Plan e.g., CPI Network</td> <td><input type="checkbox"/> Other (Specify) _____</td> </tr> <tr> <td><input type="checkbox"/> Financial Plan</td> <td><input type="checkbox"/> PIO/T</td> <td>_____</td> </tr> <tr> <td><input type="checkbox"/> Logical Framework</td> <td><input type="checkbox"/> PIO/C</td> <td><input type="checkbox"/> Other (Specify) _____</td> </tr> <tr> <td><input type="checkbox"/> Project Agreement</td> <td><input type="checkbox"/> PIO/A</td> <td>_____</td> </tr> </table>	<input type="checkbox"/> Project Paper	<input type="checkbox"/> Implementation Plan e.g., CPI Network	<input type="checkbox"/> Other (Specify) _____	<input type="checkbox"/> Financial Plan	<input type="checkbox"/> PIO/T	_____	<input type="checkbox"/> Logical Framework	<input type="checkbox"/> PIO/C	<input type="checkbox"/> Other (Specify) _____	<input type="checkbox"/> Project Agreement	<input type="checkbox"/> PIO/A	_____	<p>10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT</p> <p>A. <input type="checkbox"/> Continue Project Without Change</p> <p>B. <input type="checkbox"/> Change Project Design and/or <input type="checkbox"/> Change Implementation Plan</p> <p>C. <input checked="" type="checkbox"/> INDICATE Project Completed June, 1984</p>
<input type="checkbox"/> Project Paper	<input type="checkbox"/> Implementation Plan e.g., CPI Network	<input type="checkbox"/> Other (Specify) _____											
<input type="checkbox"/> Financial Plan	<input type="checkbox"/> PIO/T	_____											
<input type="checkbox"/> Logical Framework	<input type="checkbox"/> PIO/C	<input type="checkbox"/> Other (Specify) _____											
<input type="checkbox"/> Project Agreement	<input type="checkbox"/> PIO/A	_____											
<p>11. PROJECT OFFICERS AND HOST COUNTRY OR OTHER BANKING PARTICIPANTS AS APPROPRIATE (Names and Titles):</p> <ol style="list-style-type: none"> David Gephart, REC(A), July-October, 1987 SARP, USAID/Zimbabwe Mr. Benjamin Mutiti, Transport Economist SARP, USAID/Zimbabwe Mr. W.C. Kwaza, Chief Engineer, Road Maintenance Ministry of Transport Zimbabwe 	<p>12. Mission/AID/W Office Director Approval</p> <p>Signature: <i>Pamela B. Hussey</i></p> <p>Typed Name: Pamela B. Hussey D(A)</p> <p>Date: 10/7/87</p>												

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PROJECT EVALUATION SUMMARY
TRANSPORT AND STORAGE DEVELOPMENT ZIMBABWE
MAKUTI-CHIRUNDU ROAD PROJECT
(690-0209.10)

13. SUMMARY

The project, titled Regional Transport and Storage, Makuti-Chirundu Road, was designed as an element of USAID/Zimbabwe's Southern Africa Regional Transport Program the overall goal of which is to improve transport linkages among the majority-ruled nations of Southern Africa. This project of 62 kms length between Makuti and Chirundu in Zimbabwe, further identified as the Zimbabwean part of the Zim-Zam road project, was funded under a loan agreement signed between AID and the Government of Zimbabwe on July 28, 1982 in the amount of US\$4.2 million. (Loan Agreement No: 613-K-001). Work on this project was to be done concurrently with work on an 80km section of road in Zambia from Chirundu (Zimbabwe-Zambia border) to the town of Kafue.

The project was designed and funded on the basis of reconstructing 12kms of roadway and resealing and reshouldering 28kms of roadway for a total improvement of 40kms of the 62kms length. The total estimated cost of the improvement was US\$5.45 million of which the AID loan would contribute US\$4.2 million (77%) and the GOZ the equivalent of US\$1.25 million (23%). It was agreed between AID and the GOZ that the Fixed Amount Reimbursement Procedure (FAR) would be used for funding the road improvements with the work being contracted to the local Zimbabwean contractors by the GOZ Ministry of Roads and Road Traffic.

Although this was the first use by the GOZ of the AID FAR procedure, it was agreed by both the GOZ and AID that sufficient price data existed within the Ministry of Roads to provide reliable cost estimates for the FAR application. The contract was awarded for the construction work on March 29, 1983 to W.J. and R.L. Gullivier (Pvt) Ltd. Co., in the amount of Zimbabwe dollars 1,792,836. The engineering cost estimate for this work had been Z\$2,760,000. The FAR amount had been established based upon the engineering cost estimates. It was felt at that time the Ministry Roads had received a "windfall" due to the large difference between the actual bid prices and the FAR agreed payments. This was further exacerbated by the devaluation of the Zimbabwean dollar during the life of the construction contract as the FAR payments in U.S. dollars were based upon a rate of exchange of U.S.\$1.40 = Z\$1.00. Contract payments were in Z\$ and the FAR payments to the GOZ were in U.S. dollars. Therefore, the GOZ did realize an appreciation in Zimbabwean dollar amounts due to the devaluation of the Zimbabwe dollar.

The windfall was totally off-set by the GOZ increasing the scope of work of the contract in July 1983, by change order, increasing the contract cost from Z\$ 1,792,836 to Z\$ 2,760,000. This resulted in further improvement to the initial 40km road section.

The work was completed on schedule in May, 1984 with the final AID inspection made in June, 1984. A ribbon cutting ceremony, attended by the U.S. Ambassador took place on July 9, 1984 and a final deobligation of project funds in the amount of U.S.\$ 51,028.84 took place on July 29, 1985. Inspection of the 40kms of improved roadway on August 27, 1987 as part of this evaluation, showed a well maintained and excellently built section of roadway with no discernable pavement failures or cracking on subsidence of any type.

14. Evaluation Methodolgy

In order to officially close out this project by completing a Project Evaluation Summary Report (CPES), the project evaluation methodology was adjusted to fit the conditions of the project having been successfully completed in mid-1984. The project was closed out and residual funds deobligated in July 1985. The Department of Roads personnel associated with the project (expatriates) had long terminated services with the GOZ, the USAID personnel had transferred elsewhere and the USAID Project Engineering Officer retired in 1985.

The normal file review was undertaken, with incomplete files evident, as the project was monitored from USAID/ Zambia on a periodic basis. Based upon the available file review, discussions with two officers of the GOZ Department of Roads - neither of whom were associated with the actual project work - and two site inspections, this evaluation was carried out.

15. External Factors

The one major external factor impacting on the project was the devaluation of the Zimbabwe dollar during the life of the project which contributed to the approximately Z\$1.0 million additional payments to the GOZ. As the construction contract was paid in Z\$ the devaluation represented a "windfall" to the GOZ under the FAR payment procedure. However, the additional funds were used by the GOZ to extend the contract services with the net result of providing a benefit to both USAID and the GOZ.

16. Inputs and Outputs

The project inputs consisted of an AID concessional loan in the amount of US\$4.2 million, representing 77% of the total estimated project cost with the GOZ providing local currency in the equivalent amount of US\$1.25m, representing 23% of the total estimated project costs. Inputs were made as scheduled.

The project outputs, which were exceeded in actual construction and engineering services, were the reconstruction of 12kms of road and 28kms of shoulder improvement between Makuti and Chirundu in Zimbabwe. Actual construction outputs completed 39kms of reconstructed road and paved shoulders and 12 additional kms of shoulder reconstruction plus road drainage improvements.

18. Purpose

The project purpose to facilitate trade and communication between Zimbabwe and Zambia through rehabilitation of the Makuti-Chirundu portion of the Harare-Lusaka (Zim-Zam) Road was completely realized. Since completion of construction in June, 1984 the road has been maintained to as built standards further realizing and fulfilling the project purpose.

19. Goal

The project goal was to assist in the economic development and general welfare of the people of both Zimbabwe and Zambia and complements AID's strategy of improving transportation links between southern African countries. Traffic counts have been available from the Ministry of Transport as provided by the count station at the start point of the project road (313,5km peg) and the Customs Border Post at Chirundu. This goal is being achieved as indicated by the following data:

Traffic Counts (Average Daily Traffic)

	313,5km peg		Chirundu*
	<u>1984</u>	<u>1985</u>	<u>1986</u>
Passenger Cars	33	66	
Light Goods Vehicles	25	47	
Buses	2	2	
Heavy Goods Vehicles (Commercial):			
2 axles	5	8	
3 axles	3	4	
4 axles	1	-	
5 axles	8	7	
6 axles	18	29	
7 axles	3	12	
8 axles	3	8	
	<u>101</u>	<u>183</u>	<u>85</u>

* No counts available, and total represents commercial vehicles only.

Between 1984 and 1986, there has been an almost two-fold increase of heavy vehicle traffic (commercial) using the road. What is evident is a greater number of heavy vehicles with an axle configuration of more than 5 per vehicle. There has been a substantial increase of passenger cars and light goods vehicles. In the project paper, an assumed 8% annual increase on the basis of 1981 traffic counts was assumed for calculating benefits and it would appear that up to the time of evaluation, traffic increase had surpassed the forecast level.

The road is gradually assuming the status of a regional corridor. About 20% of Zambia's copper exports (approximately 6000 tons per month) is carried by road to Harare and then by rail to Beira. Normally the road handles about 7% of Zambia's imports (in weight terms) made up mainly of consumer products from Zimbabwe.

20. Beneficiaries

The road passes through an officially designated hunting area and hence has no significant socio-economic impact on the immediate zone of influence. However, the road has increased social contacts between the culturally related two populations as evidenced by increased passenger car trips.

The most significant benefit has been stimulated trade between the two countries. In 1984 and 1985 no Zambian exports moved via this route although out of an import

tonnage of 594,197 tons, 20,000 tons came via this route. The route was opened by the Zambia Consolidated Copper Mines Limited in August 1986 following suspension of all copper despatches to East London, and is now solely responsible for the movement of all Beira despatches which are currently planned to be 6000 tonnes per month.

Futhermore, increased usage of the project road has come about as a result of ever expanding trade between the two countries necessitating a need to achieve quicker turn-round times (time savings) and reduced vehicle operating costs.

21. Unplanned effects

The major unplanned effect was the "windfall" of Zimbabwean dollars received by the GOZ under the FAR payment procedure due to the strength of the U.S. dollar and the devaluation of the Zimbabwe dollar during the period 1982-1984. This unplanned effect resulted in the GOZ amending the Contractor's contract to expand the rehabilitation work within the 28km section of improvement without requiring additional AID funding.

22. Lessons Learned

1. Provide for application of the FAR payment amount to be based upon award of contract bid prices. This procedure is now being applied to current AID projects in Southern Africa.
2. Provide for the FAR payment amounts to be adjusted for both devaluation or revaluation of host country currency as tied to the contract designated currency payment.

EVALUATION TEAM AND CONTACTS

I. Evaluation Team

1. David Gephart, Regional Engineer (Acting) SARP/USAID/
Zimbabwe
2. Benjamin Mutiti, Transport Economist, SARP/USAID/
Zimbabwe

II. Persons Contacted

A. USAID/Zimbabwe

1. Denis Light, REO, SARP

- B.
1. Dr. M.E. Dhliwayo, Management Engineer
Development, Ministry of Transport
 2. Mr. W.C. Kuwaza, Chief Road Maintenance Engineer,
Ministry of Transport
 3. Mr. A. Ditima, Deputy Statistical Officer,
Ministry of Transport.

Road Inspection

Inspection of the road was made on August 18, 1987 by Mr. Mutiti, SARP and Mr. Kuwaza, Department of Roads. A second inspection was made on August 27, 1987 by D. Gephart, REO(A), SARP and Mr. Mutiti, SARP.

The report for the August 18 inspection showed:

The road was generally in a good condition. Sections that were resealed had been sprayed with a dilute emulsion application (DEA) or fog spary to arrest stone loss. Sections that had been reconstructed were not treated this way as they were in a satisfactory condition.

Herewith a summary of visual observation during this inspection.

<u>Section (Kilometers)</u>	<u>Comments</u>
313.0-314.0	New construction. Satisfactory
314.0-320.7	DEA done 1986/87
320.7-321.8	New construction. Satisfactory
321.8-323.4	DEA done 1986/87
323.4-324.1	New construction. Satisfactory
324.1-325.7	DEA done 1986/87
325.7-326.3	New Construction. Satisfactory
326.3-327.0	DEA done 1986/87
327.0-331.4	New construction. Satisfactory
331.4-332.4	DEA done 1986/87
332.4-334.1	New construction. Satisfactory
334.1-338.3	DEA done 1986/87
338.3-352	New construction. Some bleeding noted in the first 5 or so km of this section but not a serious problem

The August 27th inspection verified the above report and road condition.