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PD-**AA6-087**

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CLASSIFICATION
PROJECT EVALUATION SUMMARY (PES) - PART I

Report Symbol U-447

1. PROJECT TITLE Transcameroon Railroad Phase III	2. PROJECT NUMBER 631-0011	3. MISSION/AID/W OFFICE AID/CAMEROON
	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) N/A	
<input type="checkbox"/> REGULAR EVALUATION <input checked="" type="checkbox"/> SPECIAL EVALUATION		

5. KEY PROJECT IMPLEMENTATION DATES			16. ESTIMATED PROJECT FUNDING		7. PERIOD COVERED BY EVALUATION	
A. First PRO-AG or Equipment FY <u>78</u>	B. Final Obligation Expected FY <u>81</u>	C. Final Input Delivered FY <u>81</u>	A. Total \$ <u>66,200,000</u>	B. U.S. \$ <u>7,500,000</u>	From month-yr. <u>4/78</u>	To month-yr. <u>1/80</u>

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., Airgram, SPAR, PIO, which will present detailed request.	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED

The enclosed assessment has demonstrated that the project, as conceived in the PP, is generally ahead of schedule in meeting its objectives. No major modifications to PP implementation planning is anticipated.

If an upcoming socio-economic feasibility study of the Edea-Maloume project can demonstrate that the project is consistent with the Congressional Mandate and AID development concerns in Cameroon, that AID consider making a final contribution to this long-term development effort.

Raymond Rifenburg November
December 15

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 checked="" type="checkbox"/> Continue Project Without Change		
<input type="checkbox"/> Financial Plan	<input type="checkbox"/> PIO/A		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 type="checkbox"/> Change Implementation Plan		
<input type="checkbox"/> Project Agreement	<input type="checkbox"/> PIO/P		C. <input type="checkbox"/> Discontinue Project		

11. PROJECT OFFICER AND MOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles):		12. Mission/AID/W Office Director Approve:	
- James A. Hradsky, REDSO/WA	<i>[Signature]</i>	Signature	<i>[Signature]</i>
- Claude Fortunato, AID/Cameroon	<i>[Signature]</i>	Typed Name	J. Williams, Director.
- Raymond F. Rifenburg, AID/Cameroon	<i>[Signature]</i>	Date	4-16-80

13. Summary and Recommendations

<u>ITEM</u>	<u>OBSERVATIONS</u>	<u>RECOMMENDATIONS</u>
1. Inputs	After some initial foreign donor delays, project inputs are now being provided in a timely manner and are being correctly coordinated by OCFT, the GURC parastatal supervisory body.	No special action required.
2. Outputs	Quality of construction generally high; contractor six months ahead of schedule.	No special action required.
3. Goal/Purpose	Attainment of goal/purpose can only be measured after completion of construction. However, recent data would appear to confirm the validity of the basic assumptions upon which initial estimates of goal achievement were based.	Any assessment of goal/purpose attainment should be put off until the regularly scheduled project evaluation in April, 1984.
4. Code 941 drawdown	The construction contractor has drawn down his Code 941 procurement well in advance of the schedule established in the PP. Monitoring of the 941 procurement has been accurate and duly registered by OCFT.	The disbursement system utilized in this project should be recommended by the Agency as an appropriate mechanism for USG participation in multi-donor projects undertaken by a construction contractor.
5. Future USG involvement in Transcam	The USG has successfully participated in three separate sections of Transcam; the completion of the final Edea-Maloume section is necessary if full benefit from past investments are to be realized.	If an upcoming socio-economic feasibility study of the Edea-Maloume project can demonstrate that the project is consistent with the Congressional Mandate and AID development concerns in Cameroon, that AID consider making a final contribution to this long-term development effort.

14. Evaluation Methodology: As established by the Project Paper, disbursement of AID funds is monitored by the Office du Chemin de Fer Transcamerounais (OCFT), the parastatal organization established by the GURC for the technical and financial management of construction of the overall Transcam line. Late in 1979 it became apparent to USAID/Yaounde that expenditures of AID funds through this mechanism were well ahead of the disbursement projections calculated by the PP team. A decision was therefore made to call for a general midstream project evaluation to monitor and document, inter alia, the success with which the OCFT was undertaking its delegated project responsibilities.

An overview of project documents, especially the Project Paper and Logframe (see Annex A) indicates that only the status of project inputs and outputs can be clearly measured at this time. The extent to which the project has attained its predetermined purpose and goals can only be assessed after completion of construction of the Douala-Edea section (see PP Evaluation Plan). Nevertheless, brief commentary is provided herein on the evolution since 1978 of the basic assumptions upon which purpose/goal predictions were based.

In summary, therefore, the basic objectives formulated for the midstream evaluation report include:

- determination of the acceptability with which OCFT and COGEFAR have monitored and drawn down AID funds to date.
- determination that the construction financed by the project is advancing normally and is of acceptable quality.
- to the extent possible, double-check the validity of the basic assumptions made in the PP and comment on the probability of attaining its hypothesized objectives.

To comment on appropriateness of depth and scope of the evaluation, a Mission evaluation panel was set up, composed of the following members:

- Mr. Frederick Gilbert, Assistant Director, AID/Yaounde
- Mr. Raymond Rifenburg, Project Officer, AID/Yaounde
- Ms. Kathleen LeBlanc, Financial Analyst, AID/Yaounde
- Mr. John Woods, Program Officer, AID/Yaounde

- Mr. Claudio Fortunato, Engineer, AID/Yaounde
- Mr. James Hradsky, Project Officer/Economist, REDSO/WA

The last two members undertook the bulk of field work, review and presentation responsibilities. Evidence for the conclusions and recommendations presented in this report was drawn from a field trip to the project site (Jan. 16-18, 1980), numerous interviews and an overview of OCFT financial and technical records and updated REGIFERCAM statistics. All persons and documents consulted are noted in Annex E.

15. External factors: A number of changes pertinent to the project, yet outside its immediate context, have developed since the writing of the Project Paper and are noted below.
 - a) Douala-Yaounde Road: The PP hypothesizes the construction of a 15-ton, two-lane paved road from Douala to Yaounde, roughly parallel with the railroad, in its calculation of modal distribution of traffic between road and rail. Availability of funds for the realization of that proposal is currently insufficient. It now appears that construction of the road will not commence before early 1981 and will, in the first instance, only complete the Douala-Edea section. This modification to original planning will probably result in initially higher traffic flows over the railroad between Douala and Yaounde than had been projected in the PP estimates - hence a higher project rate of return.
 - b) Political disturbances in Chad and CAR: One aspect of the project which has particular significance for AID is the basic supporting role that Transcam plays for large areas of Northern Cameroon, Chad and CAR. The easiest measure of the railroad's impact in this geographical zone is the size of total yearly traffic transiting through the Ngnoundere station. Since the opening of the station in 1973, total tonnage flow grew at very high rates (+11% per year for the period 1973/74 to 1976/77). Since the writing of the Project Paper, however, tonnage flows have slowed considerably (to +13%/year for the period 1976/77 to 1977/78 and actually declining -3%/year for the period 1977/78 to 1978/79).

<u>TONNAGE FLOWS: NGAOUNDERE STATION</u>						
		<u>1973/74</u>	<u>1975/76</u>	<u>1976/77</u>	<u>1977/78</u>	<u>1978/79</u>
Tonnage		77,249	140,648	214,638	242,477	236,228
% of REGIFERCAM Total Tonnage		6.9%	12.3%	15.6%	19.6%	18.7%

The causality behind this change can be essentially linked to recent internal political problems in CAR and especially Chad. It can be anticipated that the earlier trend of continued traffic growth through the Ngaoundere station will pick up as political and economic stability is progressively re-established in those two countries.

- c) Currency fluctuations: Substantial exchange rate fluctuations have been registered since the writing of the PP. Fluctuations which have had an effect on project financing include those of the dollar (originally calculated at \$1 = 230 CFA, currently pegged at \$1 = 201 CFA) and the German Deutchemark (which has appreciated considerably against the CFA). According to OCEP estimates the net result of these fluctuations will be a short-fall of dollars (which will be compensated by the increased DM level) and a projected final excess of 100 MCFM in DM at the completion of the project.
 - d) CELLUCAM: Since the drafting of the Project Paper the Cameroonian Cellulose Company (CELLUCAM) has decided to utilize the railroad instead of the route for transport of its outgoing finished production. This decision will add some 100,000 additional tons of traffic to PP calculations on the Douala-Edea section, starting in 1981.
 - e) New Petroleum Resources: A significant change in the national economy since drafting of the Project Paper has been the development of an important petroleum industry. Initial production in 1978 was 625,000 tons and is expected to quadruple by 1985. It can be anticipated that this important source of new revenue will have important overall development repercussions on the general economy, including larger traffic flows for the railroad than had been previously expected.
16. Inputs: The input to be financed by the AID loan is a \$7,500,000 undivided share of the general construction contract. An overview of all inputs would include, however, the general construction contract, procurement of wooden crossties, and procurement of rails, culverts and legbolts.

*Million CFA.

a) General Construction Contract: In requesting reimbursement for services rendered, the principal contractor COGEFAR-HOCHTIEF (a joint Italian-German venture) submits monthly invoices to OCFT for payment by the GURC and the foreign donor consortium in the following proportions.

GURC	6.87%
Germany	51.57%
E.D.F. (EEC)	21.74%
F.A.C. (France)	3.82%
C.C.C.E. (France)	3.82%
USAID	12.18%

The final percentage of each donor's actual contribution to the construction contract will be at variance with the above formula, however, due to the previously mentioned exchange rate fluctuations, leading notably to a shortfall of U.S. dollars and a surplus of German Deutchemarks. Foreign donor contributions to the project have been well coordinated by OCFT, and, as of December 31, 1979, their records show disbursements of 8,585,316,912 CFA paid to the Contractor (out of a total contract value of 10,310,181,175 CFA).

As noted at the outset, one of the principal reasons for the current evaluation was to determine the accuracy with which OCFT was monitoring the use of U.S. dollar funds. The implementation plan established between USAID and the GURC called for a delegation of the following documentation responsibilities to OCFT:

- For the attribution of the initial 40% advance of funds:
Documentation confirming that firmly placed orders have been placed by the Contractor for Code 941 reimbursement of an amount at least equal to the sum of advance requested.
- For progress payment numbers onward: Documentation confirming that total cumulative remuneration requests at least equal the sum total of Code 941 procurement to that date, as evidenced by paid invoices.

The evaluation team has carefully examined all documentation gathered by OCFT through December 31, 1979, and has concluded that their accounting of Code 941 drawdown has been accurate and duly registered by their accounting staff. A recapitulation of Code 941 disbursements, by category of purchase, is noted in the following table. It should be noted that total Code 941

procurement to 12/31/79 represents \$8,120,000 and is well in advance of the predictions noted in the Project Paper (see p. 13 of the PP). It is also worthy of note that the COGEFAR Director for Transcam operations, Mr. Olivini, is currently estimating that final Code 941 purchases for the project will total approximately \$11,000,000, of which almost \$9,000,000 should be U.S. source/origin.

FINANCIAL REPORT AS OF DECEMBER 1979

(ALL AMOUNTS ARE CUMULATIVE IN 1000 US\$)

YR	Date	Contractor's Reported Expenditures for:			OCFT's Approved Invoices	Draw-Down from Letter of Credit
		Code 941 Procurement	Code 942	Total		
	Jan	25		25		
	Feb	82		82		
1	Mar	116		116		
	Apr	168		168		
9	May	274		274		
	Jun	338		338		
	Jul	406		406		
7	Aug	438		438		
	Sep	467		467		
8	Oct	485	38	523		
	Nov	2,123	82	2,205		
	Dec	3,203	170	3,373	434	
	Jan	3,325	306	3,631	649	
	Feb	3,464	399	3,863	970	
1	Mar	3,672	473	4,145	1,223	
	Apr	3,808	476	4,284	3,983	
9	May	4,041	612	4,653	4,307	
	Jun	4,110	743	4,853	4,454	
	Jul	4,927	842	5,769	4,710	4,200
7	Aug	5,856	893	6,749	4,940	4,200
	Sep	6,842	924	7,766	5,032	4,717
	Oct	7,986	1,017	9,003	5,139	4,717
9	Nov	8,070	1,163	9,233	5,233	4,988
	Dec	8,120	1,308	9,428	5,305	5,334

b) Procurement of Wooden Crossties: No major obstacle has been encountered to date in the local procurement of treated wooden crossties. Of the total 140,000 ties necessary, 131,253 have been delivered by the SOCITRACAM to the REGIFERCAM treatment plant. A total of 42,000 treated ties have been delivered to the work site as of 12/31/79.

c) Procurement of Rails, Culverts and Legbolts: The Canadian Government contribution to the project is represented by approximately CAN \$5,000,000 of Canadian manufactured rails, culverts and legbolts. Procurement responsibilities were entirely assumed by the Canadian Government and all items were to be delivered to OCFT in Douala. Although some initial delays were encountered, all Canadian material has now arrived in Cameroon. This aspect of the project has not performed to the satisfaction of the OCFT, however, for two reasons:

- Although all rails have now been delivered to OCFT, a significant number have been discovered to be defective. A complete and systematic examination of the Canadian rails has not yet been completed but current estimates indicate that possibly 50% of all rails delivered are inferior to AREA (American Railway Engineers Association) standards. Defects encountered included both trans-versal and longitudinal distortions, rendering the assemblage of track and especially the welding of rails in situ more difficult. This will necessarily lead to yet undetermined additional claims on the part of the Contractor.
- As of 12/31/79, OCFT had received 500,000 Canadian legbolts (63% of the total). The 300,000 remaining bolts were shipped from Montreal on 12/3/79, several months late. Because of this delay, shipping costs are higher than anticipated and the release of these bolts to OCFT (now in storage in Douala) will depend on current discussions between OCFT and CIDA as to which party shall incur the increase in delivery costs.

17. Outputs: As of the end of December 1979, it has been estimated that 58% of the total construction activities have been completed.

It is useful to point out that, in reference to the logical framework as shown in the PP, (see Annex A attached) the following modifications should be included to better described the magnitude of the project output:

Section 1 (PK 4.765 to 8.966)

should include a main underpass and a station in Bassa (PK 5.5+ and 8.5+).

Sections 2 and 3 (PK 23.633 to 71.486)

should include stations at:

- Kinteki (PK 27.0₊)
- Pitti (PK 33.0₊)
- Loungahe (PK 41.0₊)
- Longbadjeck (PK 48.5₊)
- Malimba (PK 58.0₊)
- An important base of operations at Kopongo (PK 52.0₊)
- A section of paved roadway near Malimba station
- An overpass and approach ramp between the two sections (PK 68.0₊)
- Reconstruction of the railroad between the two sections (PK 67.2₊ to 69.3₊).

Sections 4, 5 and 6 have been omitted for they will be completed along the Edea-Eseka section, the construction of which is scheduled to begin late 1980. However, the reconstruction work at Mandjab station (PK 95.0₊ to 97.6₊) is part of this project output as well as an important quarry at Mbengue (PK 82.0₊).

All other work of reconstruction of the station of Edea and the two bridges over the Sanaga River is also part of project output.

In view of the above we shall proceed to discuss in detail the progress of the works and the quality of construction and supervision.

- a) Section 1: The work on this section was begun in October 1979 but has been progressing slowly because of unknown utility lines discovered during excavation (telephone, electricity, water) in spite of precautions taken by OCFT in collaboration with the respective utility companies.

This portion of the project is independent from the rest of the works and any delays encountered would not jeopardize the completion of the project as a whole.

- b) Sections 2 and 3: The base of operations in Kopongo, consisting of warehouses, work-shops, garages, generator station, depots, offices and residences for the Contractor and the engineer, a clinic, a school and a recreation center (club house, refectory, swimming pool, tennis courts, etc.) have been completed and are efficiently serving the project and the personnel.

Sections 2 and 3 represent the bulk of the construction. Along these sections all of the clearing and grubbing has been completed as well as the construction of a lateritic

service road. Drainage culverts have been installed to provide the drainage for nearly the entire length (to PK 71.0+). All earthwork is also nearly completed up to PK 71.0+. A short section has been omitted from PK 63.0+ to 64.0+ because the roadway crossing realignment in that area has to be completed first. The work began near the base at Kopongé (at PK 51.0+). In addition to the above described activities, finishing work (sub-base, ditches, slope protection, etc.) have extended from Kopongé towards Douala to PK 23.6+. The placement of the new rails and ballast has also progressed, to the same direction, to PK 34.0+.

The roadwork near Malimba station and the approaches to the overpass near Edea have been roughly graded. The reinforced concrete structure for the overpass has been finished and waiting to receive the backfill from both sides. This will be done as the work on the roadway approach will resume.

All of the buildings for the five depots, including residences for the railroad personnel, have also started and are in various phases of completion ranging from twenty to sixty percent (20/60%).

- c) Reconstruction of the Railroad Bridge over Bras Mort:
The existing superstructure has been dismantled and removed. The substructure has been reinforced by a concrete mantle, well anchored to the old concrete and the abutments have also been reinforced. The right abutment, which will absorb the longitudinal braking forces, has been well anchored into the rock by means of a tie-back and pile system. The construction of the superstructure awaits the arrival of the components. The structural steel components are almost completely fabricated and will be shipped shortly from Italy.
- d) Construction of Dual (Road and Rail) Bridge over the Bras Vizi: The substructure, consisting of two abutments and two piers at about fifty (50) meters on centers, has been completed. The superstructure will consist of composite prefabricated concrete panels and poured in place reinforced concrete slab supported by structural steel plate girders. One portion of the girders for the railway side of the bridge is being assembled ashore for the launching onto the substructure. The remaining components of the four plate girders are expected to be delivered to the site in the near future. The precast concrete sections for the railway side of the bridge have been entirely fabricated and are curing on site. The precast concrete sections for the roadway

side of the bridge are in the state of prefabrication. The concrete slab will be poured continuously over these sections after proper erection and alignment over the plate girders has been achieved. No expansion joints are anticipated because the entire bridge deck will expand evenly, the movements being relatively low due to the limited temperature variation in the area. Haircracks due to shrinkage stresses which have been taken into account in the design will probably form but have been deemed by the engineer to be neither objectionable nor detrimental to the bridge deck because they will be parallel to the main reinforcement and neither excessive range in temperature nor corrosive environment enter into the characteristics of the region. This bridge is expected to be completed late July 1966.

- e) Station at Edea: The only work done in this part of the project is the construction of four residential houses for railroad personnel which represents about twenty-five percent (25%) of the total. The completion of two more residences and some rail work will be accomplished with moderate effort and delay.
- f) Quarry of Mbengue: The quarry is in full production. The ballast material is being delivered by rail from the quarry to the point of application regularly and without delays nor complications. Other materials are being produced in this quarry, including the aggregate for the concrete and the bituminous wearing course and the material for base course used in the roadway work. These materials are being selected, graded and stockpiled by a system of secondary crushers and conveyor belts. The equipment and the entire plant is being operated, well maintained and it is expected to be utilized for the future work of the Edea-Eseka project.
- g) Station at Mandjab: The work in this area is eighty percent (80%) completed. Activities at Mandjab have included: realignment study, clearing and grubbing, drainage, earthwork and the construction of the station and residence buildings.
- h) Quality of Construction and Supervision: The engineer/contractor (OCFT/COGEPAR) team have designed, constructed and supervised the "Chemin de Fer Transcamerounais" since the start of Transcam I in early 1964. It has developed significant experience and understanding of the many problems encountered in the extensive task of the physical construction of the railroad. The project has crossed many types of terrains, vegetations, soils and rock formations. Many construction methods have been tried, adopted and refined to a high degree of efficiency with optimum results.

Thanks to the highly professional supervision of the engineer and the understanding of the Contractor, the quality in all aspects of the project is excellent. The work is progressing more rapidly than anticipated in the original planning. In fact, by the end of December 1979, the following items of work had been completed:

Service Road	90%
Realignment Study	100%
Plants and Facilities	95%
Clearing and Grubbing	65%
Excavation and Embankment	76%
Culverts	53%
Bridges	55%
Railroad Placement	26%
Buildings	35%
Miscellaneous	11%

At this rate, it is anticipated that the reconstruction of the Douala-Edea railroad may be completed by the end of October, 1980 (six months ahead of schedule).

In fourteen months about fifty-eight percent (58%) of the project had been completed, although very little could be done during the last rainy season (June-October 1979). In fact, at that time, the bulk of the activities consisted of earthwork which was impossible to continue in a time of the year when as much as three thousand (3000) millimeters - (almost 10 feet) of rain falls, mostly torrentially. It is anticipated that much more work may be completed during the next rainy season since the bulk of the activities in that period will be finishing works, building construction, concreting, etc. Therefore, it is conceivable that the forecasted six month early completion of the project will be a reality.

18. Purpose: The project purpose, as set forth in the PP logframe, is "(a) to reduce trip times, reduce accidents, improve efficiency of operations and permit heavier loading and longer trains on the Douala-Edea section, and, (b) to improve the financial status of REGIFERCAM and improve general efficiency over the entire Transcam railroad." This can, of course, only be realized once the total reconstruction of the project section is complete. There is no indication currently, however, that rehabilitation of the Douala-Edea section will not result in the purpose noted above.

19. Goal/Subgoal: The project goal of "improving quality and capacity of the Transcam rail system in order to better service the transport requirements of Cameroon, Chad and CAR," cannot be measured until after the completion of construction. The evaluation plan (see pp. 34-36 of PP) calls for such a post facto assessment some three years following project completion. It is, nevertheless, useful to note that recent data would appear to confirm the validity of all assumptions upon which estimates of goal achievement were based. Of particular interest and of fundamental importance to the proper functioning of the overall railroad is the progress which has been made to date on a number of parallel improvements previously planned by REGIFERCAM and noted below:

Training of personnel

- a) The Canadian Government has now completed training of 150 middle-level managers selected from the three REGIFERCAM technical divisions, at a total cost of \$800,000.
- b) A technical training school has been built and staffed by a \$1.5 million loan from the French Caisse Centrale. Its proposed objectives include the training of 400 workers over three years for the maintenance of rolling stock.
- c) ORT, through a 54 MCFA World Bank loan, has completed Phase I (study phase) of a proposal to reorganize REGIFERCAM management and propose a comprehensive rail training program. Phase II (execution) is now underway.

Renewal of rolling stock

- a) The French Caisse Centrale has, with the exception of 2 locomotives, completed its financing of 16 locomotives (6 - 3000 H.P., 10 - 900 H.P.) and 212 wagons (160 box cars, 52 specialized cars).
- b) The Canadian Government has now completed the formalities necessary for purchase of twenty 200 H.P. locomotives and 490 wagons (200 flat cars, 240 box cars, 50 specialized cars). Delivery is expected to begin in July, 1980 and should be complete before the end of the year.
- c) The World Bank has authorized a \$1.5 million loan to REGIFERCAM for the improvement and expansion of machine tools and other equipment destined for the rolling stock repair workshop. Delivery is anticipated before the end of FY 1980.

Other Improvements

A number of other improvements to the railway, for the most part financed by the REGIFERCAM, are currently being carried out without any serious delay worth of note. Included in this group are the signalization of the Douala-Yaounde line, the construction of a new repair workshop in Bassa and the construction of new storage and handling facilities in Yaounde, Belabo and Ngaoundéré.

Only one commitment which was noted as a basic assumption in the Project Paper has not progressed normally - that of the reconstruction proposal for Edea-Maloume, the only remaining portion of the entire railway not to be modernized. This aspect of the project will be commented on in greater detail in item 23, "Special Comments."

20. Beneficiaries: Once completed, the project can be expected to have a substantial direct impact on a wide variety of beneficiaries, including REGIFERCAM, all rail users and the GURC budget (see pp. 24-25 of PP). Furthermore, through its improvement of basic transport services, the project can be expected to offer support to general development within the zone of influence of the railway, including industry, forestry, agriculture and livestock sectors in both urban and rural settings. A more precise measurement of the numbers and profiles of beneficiaries will have to await a post facto assessment, however.

One important set of beneficiaries noted by the evaluation team but not described in the Project Paper was the 1,200 Cameroonian employees of COGELAR-HOCHTIEF who have been employed by the consortium for several years (records revealed that some 400 of these employees have been with the company since Transcam I commenced in 1964). The salary and indemnity advantages going to these employees represent over 70 MCFA/month (some \$4,000,000/year). In addition, at the end of the project the Contractor will, as he has done twice before for Transcam I and II, turn over to the GURC all permanent buildings located on its Kopongc base camp (including a 6-room primary school, modern dispensary, store, offices, and housing for 300 persons), and some 50 kilometers of good quality laterite service roads.

21. Unplanned effects: None.

22. Lessons learned: Lessons of note which were reinforced by the current evaluation exercise included:

- The poor quality of service furnished by the Canadian Government would appear to strongly recommend that this approach not be

re-utilized for the next section of Transcam unless CIDA can furnish more concrete assurance of competent follow-up on Canadian-sponsored procurement.

- The high quality of financial and technical supervision provided by UCFT on the Douala-Edea section has proved to be mutually advantageous from both the GURC and AID point of view and worthy of continued use on the next section of Transcam should financing be obtained.

23. Special Comments:

The question of Transcam IV: The Government of Cameroon and the foreign donor community have jointly sponsored a progressive construction program of the Transcam railway. A first section (Transcam I) was completed from Yaounde to Belabo (296 km) in 1969 and was followed by Transcam II from Belabo to Ngaoundéré (237 km.) in 1974, Transcam III (a) from Yaounde to Maloume (100 km.) in 1978 and now Transcam III (b) from Douala to Edea (50 km.) in 1980. In designating Transcam as the number one development priority for the nation, the GURC has clearly underscored its determination to see the modernization of its track through to completion. In a meeting held December 3, 1979 the GURC formally requested foreign donor assistance once again to complete the Edea-Maloume section (approximately 100 km.) - the final, but most costly section of the entire Transcam alignment. Clearly, once the government and the foreign donor community committed itself to beginning Transcam I, the only logical recourse was to complete the modernization of the entire line if the full benefit of such an investment was ever to be realized. It would appear useful, therefore, for the evaluation team to comment briefly on the appropriateness of the reconstruction of that final section of the railroad.

Justification: The section of Transcam between Edea and Maloume was built by colonial military engineers between 50 and 70 years ago. It is the most difficult section of the railroad, climbing some 1000 meters in altitude from Edea to Maloume and will necessarily be rebuilt with numerous tunnels and bridges. The continual degradation of the track along this section has been a source of constant preoccupation to Cameroonian officials and has led, in recent times, to a large number of derailment and traffic breakdowns. Since writing the PP in April, 1978 the degradation on the old track would appear to have accelerated dramatically, leading to an increase of some 50% in the number of derailments on that section due to the poor condition of the track. One landslide in October, 1977 completely stopped rail transport between Douala and Yaounde for three weeks, causing severe shortages of fuel and other consumable goods in Yaounde and points North. There is no doubt that this section is the proverbial "weak link of the chain," limiting the benefits accrued from past rail rehabilitation and construction

projects to their immediate zones of construction. For example, the modernized rail alignments from Douala to Edea and from Maloume to Ngaoundéré are capable of carrying significantly longer trains (from 600 meters to 900 meters) and heavier loading. A train destined for Ngaoundéré and loaded at Douala, however, is limited to the less efficient hauling capacity simply because the Edea-Maloume section (approximately 10% of the total trip distance) remains in the unmodernized state.

The level of effort required: Although clearly in need of reconstruction if the optimal level of benefit from past railroad investments is to be accrued (AID alone has invested a total of \$30 million in Transcam to date), it will be difficult to locate the amount of capital required to complete the Edea-Maloume section due to its high cost. Indeed, the latest OCFT estimate of total cost of construction for the Edea-Maloume section, including contingencies, is 50 billion, CFA, or approximately \$250 million. Additionally, every year of delay in executing the project will increase that figure by at least 10-15% per year, compounded, due to inflation alone.

Recommendations: The evaluation team has concluded that, given (a) the continued importance of the overall Transcam system for the national economies of Cameroon, Chad and CAR, (b) the continued degradation of the Edea-Maloume section and proportionately negative impact that it has on the other rehabilitated sections of the railroad, and, (c) the continued escalation of costs of construction, that the completion of the Edea-Maloume track rehabilitation should be realized as soon as possible. An EDF-financed socio-economic feasibility study of this section should soon be undertaken including an assessment of the projected primary and secondary impacts of the project on urban and rural development in the railroad's zone of influence. It is the recommendation of the evaluation team that AID/Yaounde determine its position on the feasibility of the project based on the results of the EDF study and consider making a final contribution to the project if that reassessment finds the project consistent with the Congressional Mandate and our development concerns in Cameroon.

Annex A: LOGRAME
 LOGICAL FRAMEWORK
 FOR
 SUMMARIZING PROJECT DESIGN

Est. Project Completion Date April 1981
 Date of this Summary April 1978

Project Title Transcameroon Railroad Phase III

	NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS											
DEVELOPMENT HYPOTHESES If Purpose, Then Goal	<p>Program Goal: The broader objective to which this project contributes</p> <p>Improve quality and capacity of the Transcam rail system in order to better service the transport requirements of Cameroon, Chad and C.A.E.</p>	<p>Measures of Goal Achievement</p> <ul style="list-style-type: none"> Increased utilization of Transcam for evacuation of agricultural, commercial and industrial goods as well as importing of consumer goods, DM, and food relief Reduced spoilage and waiting time at rail heads, especially in Ngamoundou Greater economic activity in areas affected by railroad 	<p>National accounts and statistics on economic activity and income by region</p> <p>REGIFERCAM annual and monthly reports</p> <p>Discussions with local users</p>	<p>Concerning long term value of program/project: GURC will continue to place top priority on Transcam Railroad system.</p> <p>No major trunk road will be constructed between Douala and points North of Yaounde.</p> <p>Other complementary improvements planned by REGIFERCAM will be carried out. (See Annex 2, p. 10)</p>											
	<p>Project Purpose</p> <ol style="list-style-type: none"> Over the Douala Edea section <ul style="list-style-type: none"> reduce trip time reduce accidents improve efficiency of operations permit heavier loading and longer trains Over the entire railroad: <ul style="list-style-type: none"> improve the financial status of REGIFERCAM and consequently reduce the drain on National services improve regional efficiency 	<p>Conditions that will indicate progress has been achieved: Initial project status</p> <ol style="list-style-type: none"> Over the Douala Edea section: <ul style="list-style-type: none"> faster speeds attained by trains, fewer accidents per year due to state of track improved trains at heavier loads Over the entire railroad: <ul style="list-style-type: none"> greater transport capacity and less freight rolling stock immobilization improving financial outlook of REGIFERCAM 	<p>REGIFERCAM yearly statistics</p> <p>Visual inspection and discussion with REGIFERCAM officials by AID</p>	<p>Affecting purpose to goal link</p> <p>Other inputs (labor, rolling stock, administration) contributing to railroad operations remains at at least current levels of efficiency.</p>											
MANAGEABLE INTEREST If Inputs, Then Outputs	<p>Outputs</p> <ol style="list-style-type: none"> Reconstruction of the following sections between Douala and Edea: <ul style="list-style-type: none"> Section 1 (PK 4,765 to PK 8,966) <ul style="list-style-type: none"> 2 (PK 23,633 to PK 47,211) 3 (PK 69,331 to PK 71,486) 4 (PK 72,277 to PK 74,045) 5 (PK 77,685 to PK 80,648) 6 (PK 109,918 to PK 112,090) Reconstruction Edea and Handjob stations, including two bridges over the Sangha River 	<p>Measures of Outputs necessary and sufficient to achieve purpose</p> <p>Completed construction of outputs at proposed design levels</p>	<p>Design and engineering specifications</p> <p>Progress reports by OMTI and contractor</p>	<p>Affecting output to purpose link</p> <p>Currency fluctuations and other contingencies (physical and price) will remain within the limits of the original price calculation.</p> <p>OMTI undertakes proper quality control and monitoring of contractor's monthly progress payments.</p>											
	<p>Inputs: Activities and Types of Resources</p> <p>AID loan \$7.5 M toward multidonor financing of following project inputs</p> <table border="0"> <tr> <td>Construction contract</td> <td>\$54.7 M</td> </tr> <tr> <td>Mood creation</td> <td>2.6 M</td> </tr> <tr> <td>Separate Canadian procurement</td> <td>0 M</td> </tr> <tr> <td></td> <td>67.3 M</td> </tr> <tr> <td>Special contingency reserve against currency fluctuation</td> <td>1.9 M</td> </tr> <tr> <td>Total</td> <td>\$66.2 M</td> </tr> </table>	Construction contract	\$54.7 M	Mood creation	2.6 M	Separate Canadian procurement	0 M		67.3 M	Special contingency reserve against currency fluctuation	1.9 M	Total	\$66.2 M	<p>Level of Effort/operations for each activity</p> <p>AID to contribute \$7.5 M to general construction contract, contingent on equivalent documented proof of Code 941 procurement of goods and services. Up to 10% of this total (\$750,000) may be utilized for local cost financing, if necessary</p>	<p>Records and reports of contractor and OMTI</p> <p>Inspection by AID technicians every six months or more, as required</p>
Construction contract	\$54.7 M														
Mood creation	2.6 M														
Separate Canadian procurement	0 M														
	67.3 M														
Special contingency reserve against currency fluctuation	1.9 M														
Total	\$66.2 M														

ANNEX B

Persons and Documents Consulted

A. Persons Consulted

Mr. Leyrat, Technical Director, REGIFERCAM
Mr. Houdet, Director, OCFT
Mr. Benier, Deputy Director, OCFT
Mr. Bontozzi, Chief, Studies Office, COGEFAR
Mr. Nobile, President, COGEFAR
Mr. Olivini, Director, COGEFAR/TRANSCAM
Mr. Moneyong, Inspector, REGIFERCAM
Mr. Weissman, Chief, Financial Office, COGEFAR
Mr. Jouvot, Chief Site Engineer, OCFT/Kopongo
Mr. Thillou, Soils Specialist, OCFT/Kopongo
Mr. Jean, Track Maintenance Specialist, OCFT/Kopongo

B. Documents

- GURC. Transports in the Douala-Yaounde Corridor: Economic Feasibility of the Projects for Realizing the Douala-Edea and Minka-Maloume Sections, Feasibility Study undertaken by SOFRERAIL/OCCR, June, 1977.
- _____. Marche N° DP 78-44: Revision de la ligne Douala-Yaounde, Deuxieme Tranche: Douala-Edea, OCFT, November 17, 1978.
- _____. Progress Reports 1-5, OCFT/Yaounde.
- REGIFERCAM. Etude de la reorganisation de la gestion et de la formation du personnel, 3 volumes, study undertaken by Union Mondiale CRT/Geneva, November, 1978.
- _____. Etat de derailements sur Transcam I du 1er Janvier 1979 au 15 Decembre 1979, Douala, 1980.
- _____. Situation financiere previsionnelle de 1979 a 1990, Douala, 1980.
- _____. Trafics et recettes compares 1978/1979 et 1979/1980, Douala, 1980.

USAID. Transcam III Project Paper, Project No. 631-0011,
Yaounde, April 25, 1978.

_____. Country Development Strategy Statement, Yaounde.
December 27, 1979.

COGEFAR-HOCHTIEF - Etat d'Avancement des Travaux , du
17 Jan, 1980