Folder Title:	Railroads Project - Cameroon - Loan 0687 - P000318 - Negotiations - Volume 2
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CAMEROON - Loan 687 CM - Negotiations II

Cam - Rails

Mr. Warren C. Baum

February 28, 1966

X. de la Renaudière

Cameroon - Railroad Project

1. Attached are (i) a dossier concerning the second section of the Trans-Cameroon Railroad and (ii) a memorandum including the comments of AID on the project.

2. The first section of the railroad is being built with joint financing from the EEC, the French Government and AID. The three institutions appear to be pretty well determined to go ahead with the financing of the second section. Indeed, the Belabo region where the first section ends is almost an economic vacuum and it would not make much sense to stop the railroad before NGaoundéré. However, with the cost of construction of the first section having exceeded the initial forecast, the three agencies involved are looking for others to provide some part of the financing necessary for the construction of the second section, and two of them, AID and EEC, are inquiring about possible Bank financing, up to say $8-10 million.

3. We have told AID that before they even suggest to the Government that it approach the Bank, we would have a first look at the information available on the project and inform them whether there was any chance at all that we might be interested. We would, consequently, appreciate your comments on the conception and justification of the project. I should say that we have already commented that coming in to appraise and finance a project one half of which is already completed and the other at an advanced stage of preparation is not a very attractive proposition.

Attachments - 2

Cleared with Mr. Williams
cc: Mr. Matter
Mr. Calika

XdelaRenaudière:di

TO: Mr. Miles G. Wedeman, AFR/CDF Date: February 7, 1966

THRU: Mr. Albert P. Disdier, AFR/CDF

FROM: James W. Fay, AFR/CDF

SUBJECT: Analysis of Phase II Transcameroon Railway Extension

INTRODUCTION

The purpose of this paper is to briefly review the background of the Transcameroon Railroad and analyize the economic justification for extending it to N'Gaoundere. The analysis of the economic justification will be based primarily on an evaluation of data contained in the report, "Transcameroon Railway Economic Evaluation of the Second Section Belabo-N'Gaoundere," prepared by the French firm Societe d"Economie Et De Mathematique Appliquees in December 1965. Doc # 1

BACKGROUND

In 1960 the Cameroon Government (GFRC) asked the U.S., France, Germany, and the European Economic Community for financial assistance to construct the extension of its railroad system from Yaounde to N'Gaoundere. However, when it became apparent that the estimated $60 million in financing required to extend the railroad to N'Gaoundere was not available the GFRC proceeded to undertake the extension in two phases. Phase I construction presently under way will extend the railway to Belabo a distance of 186 miles from Yaounde. Construction by the Italian firm COGEFAR commenced in October 1964 and is scheduled to last until early 1968. Total cost and the financing of Phase I are summarized as follows:

Item	Construction Costs Phase I (in million $)
Construction (including allowance for escallation)	23.2
Supply of Wood and Steel Ties (including allowance for escallation)	3.2
Rolling Stock	1.2
Ancillary Feature (stations, telecommunications, etc.)	8.4
TOTAL	36.0

Source	Financing of Phase I : Terms	Amount (in mil $)
A.I.D.	Loan 40 yrs, 3/4 of 1% with initial 10 yr grace period on amortization	$ 9.2
EEC	Grant	17.2
FRANCE	8.4 Grant - 1.2 Loan	9.6
		$36.0

Phase I construction is approaching 20 percent completion which is on schedule. There have been no major problems reported.

Efforts to proceed onto Phase II were initiated almost simultaneously with the completion of financing for Phase I. Indeed COGEFAR's bid for the construction presently under way contains an option clause under which the GFRC may, until November 1966, agree to award the construction of Phase II to COGEFAR at a 2 percent discount from COGEFAR's unit prices for Phase I. If this clause is exercised by the GFRC, a contract must then be signed with COGEFAR by July 1967 at which time construction would begin on Phase II. Since COGEFAR's work seems satisfactory to date and since its bid for Phase I was considerable lower than any other, the GFRC apparently wants to arrange for Phase II financing so it can excise its option clause by November of this year.

Economic studies in support of extending the Transcameroon Railroad from Belabo to N'Gaoundere were submitted to A.I.D., EEC, and France in the Spring of 1965. Review of these documents, which were essentially the same data submitted in 1960-61 for Phase I, indicated then additional information would be required for A.I.D. to determine if Phase II was economically justified at this time. Therefore, following meetings in Paris and Geneva, between representatives of A.I.D. and the Transcameroon Railroad Authority (OCFT) the latter agreed to finance and contract an additional economic study. This report prepared by SEMA in the Fall of 1965 updates studies made previously, compares the alternative of a road versus railroad from Belabo to N'Gaoundere and quantifies benefits resulting from extending the railroad to N'Gaoundere. The following sections of this paper will attempt therefore to summarize and evaluate the SEMA study.

TRAFFIC PROJECTIONS

1. North to South Traffic

North to south traffic projections in the SEMA study are based solely on the estimated tonnage of production for export of five products: Cotton, peanuts, livestock, fish and rice. Projections of the amount of tonnage these crops will produce are derived from data contained in the Cameroon Development Plan and from empirical evidence

of production for the last 5-10 years. The following table summarizes these estimates:

Mode of Transport	Tons of Product to be Transported 1963-64	1970-71	1976-76	1985-86
Railroad or road	15,400	62,100	79,000	127,300
Benoue River	18,000	19,000	22,000	24,000
Nigerian Railroad and Other	32,000	8,000	11,000	14,000
Total	65,400	89,100	112,000	165,300

Although above estimates indicate a relatively modest growth in total tons to be transported, only 4.6 percent per year increase, the share going to rail or road, is estimated by SEMA to increase eight-fold. The explanation for this change in transportation mode seems valid; an efficient rail or road link between northern and southern Cameroon will provide the cheapest means of transportation for 75 percent of the estimated tonnage.

2. South to North Traffic

Forecasts of the movement of goods from the southern region of Cameroon to the northern are based on the following:

a. population growth rates will remain at present levels;

b. per capita income will double in 20 years;

c. overall consumption of imported goods will average an annual per capita increase of 3.5 percent from 1963-64 levels;

d. divergence of per capita consumption between north and East Cameroon as a whole will be reduced by 20 percent in 1970 and 1 percent per year thereafter.

Based on these assumptions, projections of traffic tonnage destined for the northern region are summarized as:

Mode of Transport	Total Tons of Goods Requiring Transport 1963-64	1970-71	1975-76	1985-86
Railroad or road	16,600	42,000	69,300	158,500
Benoue River	22,700	18,500	20,700	24,400
Nigerian Railroad and Other	--	--	--	--
Total	39,300	60,500	90,000	182,900

These figures indicate that tonnages transported to the northern region will increase more rapidly than those previously shown for projected north-to-south traffic. The south-to-north figures indicate a 7.3 percent total annual growth, with an 11 percent per year

increase for rail or road traffic. The more rapid growth in south-to-north traffic projections is because the northern region will import primarily heavy products (fuel oil, metals, fertilizers, wood), whereas tonnages projected to move south are products with less weight per volume (cotton, peanuts, palm oil by-products).

3. Traffic with Chad

In addition to traffic movements between the northern and southern sections of the Cameroon, the SEMA study considers traffic to and from Chad. Presently some 80,000 tons annually are moved to or from Chad via East Cameroon. With an efficient transport link between Douala and N'Gaoundere a much greater volume of traffic should result. Therefore, the forecasted tonnage moving through East Cameroon to or from Chad is for 250,000 tons annually by 1986. This represents modest average annual growth rate of 5 percent. The rail or road's share of this tonnage however would be approximately 80 percent of the total by 1986, compared with only about 4 percent presently. This latter figure may be somewhat optimistic since it represents about 40 percent of the total 1986 forecasted traffic.between Belabo and N'Gaoundere.

4. Traffic Summary

Because of the nature of the goods on which the traffic projections are based, the vast majority of tonnages forecasted above will travel the whole distance between Belabo and N'Gaoundere. Admittedly, some wood and cattle shipments might be off-loaded enroute, but since the population density of this area is quite low, these amounts would be insignificant. It is therefore assumed in the SEMA study that the projections of tonnage can be converted to ton-kilometers by multiplying them by the distance of the proposed railroad or road alternative between Belabo and N'Gaoundere. The following table summarizes these projections via rail or road in millions of ton-kilometers from the time when a railroad or road would be opened.

Growth of Freight Traffic(in Both Directions)

	Amounts transported, in tons			Millions of ton-kilometers	
	North	Southern		Railroad	Road
Year	Cameroon	Chad	Total	(334 Kil. x tons)	(371 Kil. x tons)
1971	104,100	23,500	127,600	42.6	47.3
1972	111,800	24,700	136,500	45.6	50.6
1973	120,000	26,000	146,000	48.6	54.2
1974	128,800	93,100	221,900	74.1	82.3
1975	137,300	98,000	235,300	78.6	87.3
1976	148,500	105,000	253,500	84.7	94
1977	158,600	113,100	271,700	95.9	100.8
1978	169,300	121,300	290,600	97	107.8
1979	180,900	129,900	310,800	103.8	115.3
1980	193,200	138,600	331,800	110.8	123.1
1981	206,400	147,700	354,100	118.2	131.4
1982	220,400	157,000	377,400	126	140
1983	235,400	166,600	402,000	134.3	149.1
1984	251,300	176,500	427,800	143	158.7
1985	266,600	186,800	453,400	151.3	168.2
1986	285,800	197,600	483,400	161.4	179.3

5. Possible Additional Traffic

There are two other sources of traffic not included in the traffic projections which could significantly increase the forecasted tonnage of goods moved between northern and southern Cameroon. One of these sources of additional traffic would result from the exploitation of bauxite deposits at Martap-Ngaoundal in the northern region. These relatively low grade deposits would only be worked if the capacity of the aluminum smelter at Edea was increased to twice or three times its present capacity to justify exploiting this source. Consideration of this possibility has obviously been given serious attention by the GFRC and the French interest in the Edea smelter, but no decision has yet been reached.

The other source for increased traffic is based on the possible construction of a dam at Mbakaou, also in the northern section. This proposed dam would provide water for an intensive irrigation scheme which would appreciably increase the amount of products grown in the area and increase the demand for transport facilities. It is estimated that the implementation of this scheme would result in 50,000 tons of traffic annually.

ALTERNATIVE TRANSPORT SOLUTIONS

1. General

Using the traffic projections that are shown above, the SEMA study attempted to determine the most economic means for transporting the forecasted tonnages. The possible alternatives considered were:

a. Extending the Transcameroon Railroad to N'Gaoundere;
b. Constructing a road along the same general path as the proposed railway;
c. Reconstructing the existing road, that lies east of the proposed new road route, to all-weather heavy traffic standards.

Of the three possibilities, reconstructing the existing road can be rejected readily as the least economic. First, this route would be nearly twice as long (601 km vs 374) as either the proposed new road or railway extension. Secondly, since the existing road is in such poor condition and traverses more rugged terrain than the other alternatives, its reconstruction costs would be greater than the costs of building the direct road. This alternative would therefore be more expensive to construct and operate. Although the cost of reconstruction used in the SEMA study appears high this conclusion appears valid.

2. New Road Alternative

The possible direct road between Belabo and N'Gaoundere would generally follow the route proposed for the railway extension. It would divert from this route in a few places because since a road requires a wider bed than a railway (28' vs 13') it would be better to have it follow ridgelines to avoid heavy earthwork and drainage problems. The proposed direct road would therefore be about 226 miles long (371 kilometers).

The estimated cost for construction on the direct road, based on current prices in the Cameroon, is estimated at between $104,000 and $125,000 per mile. Using the lower figure, SEMA arrived at a construction cost of $23.5 million. It is assumed that these costs would be spread over a four year period to coincide with the estimated construction schedule, which estimates that work would begin in 1967 and be completed by the end of 1970. Annual road maintenance costs are estimated at $370 per mile, or $86,000 per year. In addition, SEMA estimated that the cost of resurfacing the road every five years would be $200,000.

It is also estimated that the average cost of hauling one ton one kilometer on the proposed road would be $3\frac{1}{4}¢$. Multiplying this figure by the projected annual ton-kilometers of traffic shown previously gives a yearly operating cost for comparison with the railroad alternative. During the initial year that the road is in operation, this cost would be $1.54 million and would increase to $5.8 million by the fourteenth year, based on the traffic forecast shown previously.

These costs were then projected for 50 years, which is the assumed life of the road and railroad. However, costs after year 20 are shown constant since traffic projects have only been made through 1986. Although the figure is not too meaningful, the total of the 50-year estimated costs for the road alternative is around $315 million. A more meaningful figure is the present worth value of these projected costs, which at various discount factors are:

Discount Rate	Present Worth of Costs
6%	$80 million
10%	$47 million
14%	$32 million

The SEMA analysis of the cost of the road alternative may possible understate its cost. The construction cost of $104,000 per mile is similar to other estimates of road construction in West Africa, but the estimated annual maintenance cost of $370 per mile and the resurfacing cost of 200,000 seem quite low. The estimated road life of 50 years is quite long and no charge is calculated for the cost of "rolling stock" (i.e., trucks and trailers) that will use the road.

3. Cost of the Transcameroon Railroad Extension

The SEMA study uses the COGEFAR bid price for the construction cost of the Belabo-N'Gaoundere extension of the Transcameroon Railroad with a 21 percent contingency factor for a total estimate of $36 million. Based on the proposed work plan the construction costs would occur as follows:

1967	$8.1 million
1968	9.9 million
1969	9.9 million
1970	8.1 million
Total	$36.0 million

Estimates for the rolling stock required to move the forecasted tonnage are about $3.1 million. This would allow for the procurement of:

3 - 2,200 h.p. locomotives	@ $500,000 each
8 - small switching engines	@ 92,000 each
69 - freight cars	@ 12,000 each

These pieces of rolling stock would be procured between 1970 and 1986 based on the capacity required to meet projected tonnages of freight.

The direct operating expenses of trains hauling the projected tonnage between Belabo and N'Gaoundere are based in part on data compiled in 1960 for the proposed Yaounde-N'Gaoundere extension. These expenses are computed separately for (i) personnel and equipment, (ii) locomotives, (iii) switching enginees, and (iv) freight cars, based on the following forecast of the number of trains weekly between Belabo and N'Gaoundere:

1971-73	3 trains weekly
1974-76	5 trains weekly
1977-79	6 trains weekly
1980-82	7 trains weekly
1983-84	8 trains weekly
1985 and thereafter	9 trains weekly

The total direct operating costs for the railroad alternative is therefore estimated at about $800,000 per year initially, increasing to $1.45 million in 1986 and thereafter.

Total capital and operating costs of the railroad for its assumed 50-year life are therefore estimated to be approximately $110 million. On a present worth basis, this figure at various discount factors becomes:

Factor	Present Worth Value
6%	$48 million
10%	$38 million
14%	$32 million

4. Optimum Solution

The preceding figures show that the railroad alternative has a higher cost of construction than a road built along the same general path ($36 million vs. $23.5 million). However, the operating expenses of the railroad are considerably lower, being $800,000 per year initially for the railroad versus $1.6 million for the road and rising to $1.44 million in 1986 for the railroad compared with $6.5 million for the road. When the two costs are combined, the railroad alternative has the lower present worth costs at discount rates up to 14 percent. SEMA also projects an IRR for the rail vs. the road solution assuming two different traffic hypotheses. One a low traffic projection, assumes 20 percent less traffic in 1976 and 40 percent less in 1986 than those shown above. On this basis the rail alternative would be better at discount factor up to 11 percent. The other a high projection assumes 20 percent more traffic in 1976 and 40 percent more in 1986 and results in favoring the rail solution at discount factors up to 15.5 percent .

Although the cost of the railroad alternative may also be understated - there will be more on this when CDF/ENG reviews the final plans - it appears that the SEMA conclusion that the railway extension is the better solution is valid if one half or more of the projected traffic materializes. One cannot be clairvoyant and say for certain that the forecast in traffic will be achieved but the recent growth in freight carried by the Cameroon railway system and the World Bank's recommendation that continued improvement in the transport sector be the highest priority for Cameroon development are hopeful indicators that the traffic projected will come to pass.

THE ECONOMIC BENEFITS RESULTING FROM EXTENDING THE TRANSCAMEROON RAILROAD

The SEMA indicated that the extension of the Transcameroon Railroad is the least costly alternative for the transport of goods between the northern and southern regions; but it must still be proven that such an extension will be economically justified. In order to determine this ,the economic benefits to the Cameroon by extending the rail link must be compared to the situation resulting from maintaining the present transport system; an earth road between Belabo and N'Gaoundere, 370 miles long.

1. Reduction in Transport Rates. If the Transcameroon Railroad is not extended, the cost of shipping goods between the northern and southern regions will continue at the existing freight rates - approximate 5¢ per ton kilometer. In addition, since the present road between Belabo and N'Gaoundere is 155 miles longer than the proposed railway extension, the costs of shipping goods would also reflect this added cost.

Taking these two factors into consideration (i.e., higher per T-K costs and longer distance) a comparison can be made between user cost of present means of transport versus user cost via the proposed rail from Belabo to N'Gaoundere.

The SEMA study assumes that traffic on the existing road between Belabo and N'Gaoundere would not exceed the 1971 tonnage projections, namely, 42.6 million T-K's. Therefore, were this traffic carried over the 365 mile long existing road it would equal 76.65 million ton-kilometers of traffic. At an average cost of approximately 5¢ per T-K the total transportation cost on 42.6 million T-K would be $3.7 million annually. The comparable cost of transporting this tonnage via the proposed railway extension would be the same tonnage projected for 1971 (42.6 million T-K's) times the estimated average T-K rail cost (3-1/3¢) or $1.4 million annually. The difference between the two figures represents the annual user savings due to the extension of the railroad. These $1.4 million in user savings would accrue for each of the 50 year life estimated for the railroad.

2. Generated Benefits. The SEMA study also estimates that the incremental "value added" created by increased activity generated in the transport sector is 1/2¢ per T-K of additional traffic. Traffic, as shown previously, is projected to rise from 42.6 million T-K in 1971 to 161.4 million T-K by 1986 due to extending the railroad. The "added value" is therefore equal to 1/2¢ per T-K times the differences between projected 1971 traffic, which is assumed to be the maximum that can be carried by the existing communications system, and the yearly increase in traffic projected from 1972 through 1986. For example, in 1986 the "added value" would be computed as:

(161.4 mkt - 42.6 mtk) x $.005 = $594,000 or say $600,000 annually

The total "added value" benefit for the estimated 50 year life of the railway extension is therefore about $22 million. On a present worth basis this averages a yearly benefit of around $200,000 at a 6 percent discount factor.

3. Increased Agricultural Activity. The increase in agricultural production in northern Cameroon is based on the creation of a low cost transport system between the northern and southern regions. The SEMA study estimated that about 75 percent of this projected increase in agricultural production between 1971-1986 would not occur unless the Transcameroon was extended. Therefore, the incremental benefits attributable to the proposed extension can be estimated as follows:

	In Millions of Dollars		
Years	Estimated value of Increased Production	Assumed Factor	Total
1971-75	$ 7.3	.75	$ 5.5
1976-80	$11.7	.75	$ 8.8
1981-86 and thereafter	$14.5	.75	$10.9

When the amounts shown above are then reduced by an additional 20 percent to allow for production costs paid outside the agricultural sector the total incremental benefit attributable to the railway extension can be summarized at various discounted rates as follows:

Discount Rate	Present Worth
6%	$111.2 million
14%	25.8 million
25%	14.0 million

CONCLUSION

The total incremental benefits resulting from extending the railway to N'Gaoundere can be compared with the total estimate cost of the extension, on a present worth basis, and summarized as follows:

	Million of Dollars	
Discount Rate	Total Benefits	Total Costs
6%	$132	48
14%	57	32
20%	29	29
25%	18	27

The above present worth analysis indicated that the discounted value of costs and benefits is equal at around 20 percent, hence this figure represents the internal rate of return of the project. The indicated IRR of the project is quite good but it should perhaps be evaluated in the light that it will allow considerable latitude for error.

Although the conclusions of the SEMA report may have been predetermined before the study was commenced there does not appear to be any place in the report where blatant or obvious methods or figures were used to bias its conclusion. However, the case for extending the railroad rests primarily on one point; -- how much traffic will travel over the proposed extension between 1971 and 1986? The SEMA study assumes an average annual growth of 9¼ percent of freight carried by rail during this period. This freight is generated from 60 percent within the Cameroon and 40 percent externally, primarily from Chad. And it is in the area of external traffic growth that the SEMA study is and perhaps must be most vulnerable to criticism. External traffic is assumed to grow at 15 percent per year for fifteen years, clearly a high growth rate. Considering the unstable political situation in the area, it is highly likely that the boarders between Chad and Cameroon could be closed for extended periods or that shipping via Nigeria or Congo (Brazzaville) would be favored.

Such a situation as indicated above would, however, penalize the economics of a road as much as the railway extension. The only solution to avoid such a contingency would be to make no investment in a transport networkbbetween north and south Cameroon. Such a remedy would place the burden on one to prove there will be a situation arising which will close the boarders or otherwise eliminate this source of traffic; clearly an impossible task.

It is therefore recommended that you accept in principle the conclusion of the SEMA study that is the extension of the Transcameroon Railroad to N'Gaoundere is a viable project and will advance the economic development of the Cameroon.

ccs:

JKnoll,AFR/WA
MCook,AFR/AFR
JSowalsky,GC/AFR
CSmith,AFR/CDF/ENG

THIS FILE IS CLOSED AS OF

DECEMBER 1968.

FOR FURTHER CORRESPONDENCE SEE:

1969 - 1971.

RECORDS MANAGEMENT SECTION
February 1969

CM RR

Form No. 27
(7-61)

INTERNATIONAL DEVELOPMENT ASSOCIATION	INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT	INTERNATIONAL FINANCE CORPORATION

OUTGOING WIRE

TO: LUTOLF
INTBAFRAD
ABIDJAN

DATE: DECEMBER 10, 1968

CLASS OF SERVICE: NLT

RCA

COUNTRY: IVORY COAST

TEXT:
Cable No.: 252

RE YOUR CABLE 198 ON CAMEROON WE AGREE POSTPONING FERCAM MISSION UNTIL

FEBRUARY THUS RELEASING POULIQUEN AND HAVING BRANDRETH JOIN DUNCAN

REGARDS

CHEEK

INTBAFRAD

NOT TO BE TRANSMITTED

MESSAGE AUTHORIZED BY:

NAME Bruce M. Cheek

DEPT. Western Africa

SIGNATURE Bruce M. Cheek

(SIGNATURE OF INDIVIDUAL AUTHORIZED TO APPROVE)

CLEARANCES AND COPY DISTRIBUTION:

cc: Messrs. de la Renaudiere, Jaycox

BMCheek:hpb

For Use by Archives Division

ORIGINAL (File Copy)

(IMPORTANT: See Secretaries Guide for preparing form)

Checked for Dispatch: _____

FORM NO. 59
(2-55)

cm RR

CROSS REFERENCE SHEET

COMMUNICATION: Memorandum

DATED: December 5, 1968

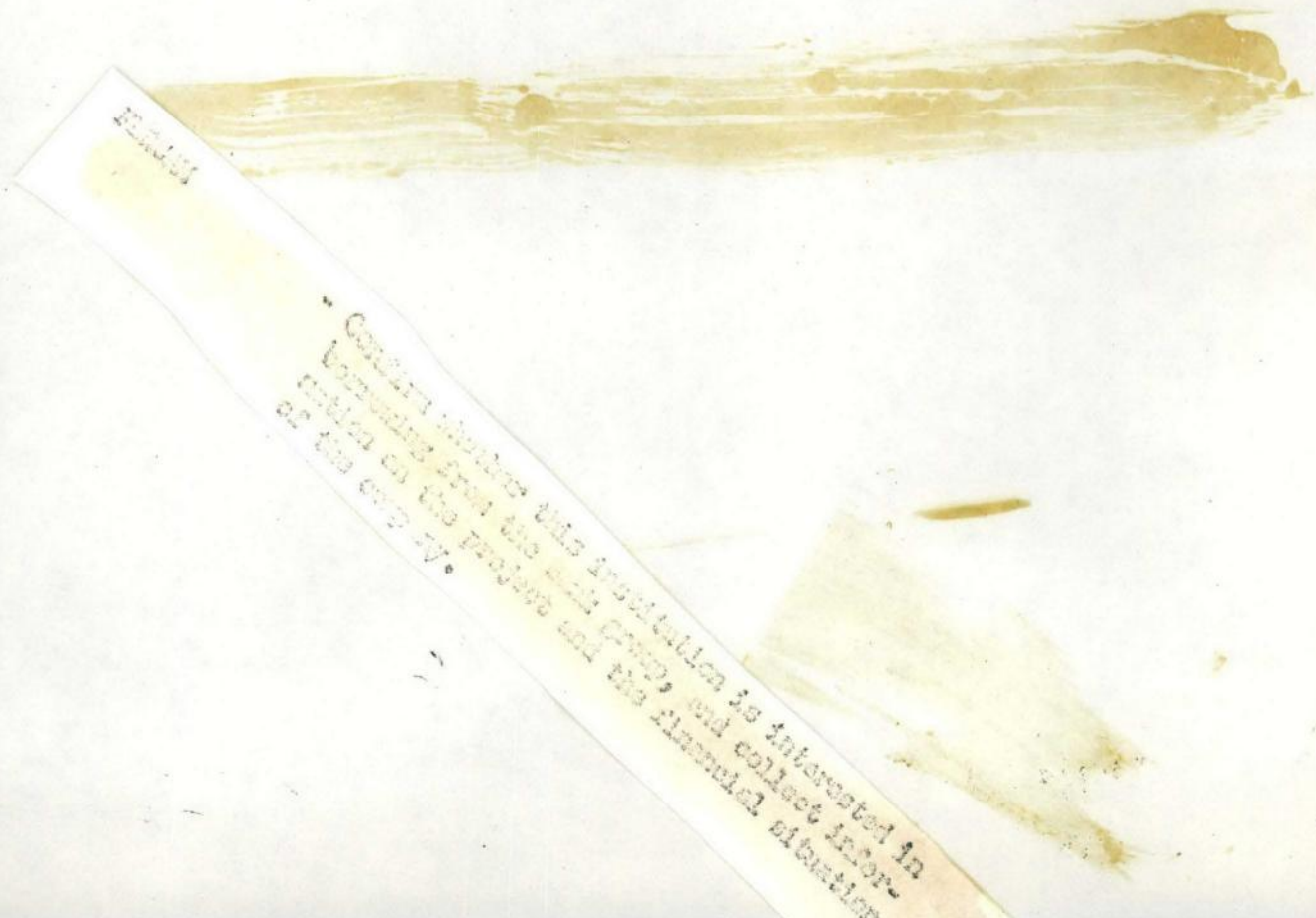
TO: C. Wilkinson

FROM: R. Chaufournier

FILED UNDER: Cameroon (General Negotiations)

SUMMARY: Terms of Reference for Mr. Wilkinson with instructions to pay particular attention to.....

Extract.....



CM RR.

FORM NO. 26
(6-65)

INTERNATIONAL DEVELOPMENT ASSOCIATION | INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT | INTERNATIONAL FINANCE CORPORATION

DEC 3 1968
Logged

INCOMING CABLE

DATE AND TIME OF CABLE: DECEMBER 2, 1968 1715

LOG NO.: RC 4/3

TO: INTBAFRAD

FROM: ABIDJAN

ROUTING	
ACTION COPY:	MR. CHAUFOURNIER TRANSPORTATION PROJECTS
INFORMATION COPY:	MR. DE LA RENAUDIERE PROJECTS-C305
DECODED BY:	

TEXT:

n check
to look into.

198 FOR CHAUFOURNIER AND SADOVE

RE CAMEROON FERCAM. TO AVOID SPECIAL TRIP TO CAMEROON BY POULIQUEN SUGGEST POSTPONEMENT MISSION UNTIL FEBRUARY THUS ENABLING BRANDRETH PARTICIPATION

LUTOLF

Jaycox

MT

FOR INFORMATION REGARDING CABLES, PLEASE CALL THE COMMUNICATIONS UNIT EXT. 2021

ORIGINAL

TYPED

FORM NO. 26
(6.65)

CM RR
orig Main Rds
X 82 Rds

INTERNATIONAL DEVELOPMENT ASSOCIATION | INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT | INTERNATIONAL FINANCE CORPORATION

INCOMING CABLE

DATE AND TIME OF CABLE: NOVEMBER 28, 1968 1705

LOG NO.: RC 8/29

TO: YOUNG INTBAFRAD

FROM: ABIDJAN

ROUTING	
ACTION COPY:	TRANSPORTATION PROJECTS
INFORMATION COPY:	PROJECTS-342
DECODED BY:	

TEXT:

193

REURCAB 239 LUDWIG HERE SINCE NOVEMBER 23 LEAVING TOMORROW 29TH FOR MAURITANIA. BRANDRETH JOINING DECEMBER 3. DUNCAN READY ACCOMPANY MORRIS SIERRA LEONE. GRATEFUL YOUR OFFER POULIQUEN PARTICIPATION FERCAM MISSION. WILL CABLE REPLY NEXT WEEK

GUE

FAMILY NOTIFICATION BEING MADE FOR MR. LUDWIG

MT

FOR INFORMATION REGARDING CABLES, PLEASE CALL THE COMMUNICATIONS UNIT EXT. 2021

DUPLICATE

Form No. 27
(7-61)

INTERNATIONAL DEVELOPMENT ASSOCIATION	INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT	INTERNATIONAL FINANCE CORPORATION

Mau Rds
X CM RR.
SL Roads

OUTGOING WIRE

TO: INTBAFRAD
ABIDJAN

DATE: NOVEMBER 27, 1968

CLASS OF SERVICE: LT

COUNTRY: (IVORY COAST)

Rea

TEXT: ✓

Cable No.: 239

REURCAB 188 ACCEPT YOUR PROPOSAL TO MAKE BRANDRETH AVAILABLE WITH THANKS STOP ASSUME BRANDRETH WILL COORDINATE HIS VISIT MAURITANIA WITH LUDWIG STOP PLEASE CABLE THAT LUDWIG NOW IN IVORY COAST AS WE HAVE NOT RECEIVED ARRIVAL NOTICE STOP ARRANGING FOR POULIQUEN TO VISIT NOUACKCHOTT DECEMBER 7 FOR TWO DAYS ENROUTE TO TUNISIA FOR HANDOVER TO BRANDRETH STOP REGARDING FERCAM MISSION WILL MAKE POULIQUEN AVAILABLE TO REPLACE BRANDRETH IN JANUARY STOP REURCAB 191 CABLED MORRIS YESTERDAY TO VISIT SIERRALEONE IN COORDINATION WITH PMWA

Ack Nov 28
(NO. 173)

YOUNG

NOT TO BE TRANSMITTED

MESSAGE AUTHORIZED BY:

NAME H. R. Young

DEPT. Transportation Projects

SIGNATURE HRYoung
(SIGNATURE OF INDIVIDUAL AUTHORIZED TO APPROVE)

HRYoung:va

ORIGINAL (File Copy)
(IMPORTANT: See Secretaries Guide for preparing form)

CLEARANCES AND COPY DISTRIBUTION:

Cleared with and cc: Mr. Cheek

For Use by Archives Division

Checked for Dispatch:

Modernization of
Railways in Cameroon

FORM NO. 75
(2-60)

INTERNATIONAL BANK FOR
RECONSTRUCTION AND DEVELOPMENT

INTERNATIONAL FINANCE
CORPORATION

INTERNATIONAL DEVELOPMENT
ASSOCIATION

ROUTING SLIP	Date

NAME	ROOM NO.
Op. Files	
P. 907	

	To Handle		Note and File
	Appropriate Disposition		Note and Return
	Approval		Prepare Reply
	Comment		Per Our Conversation
	Full Report		Recommendation
	Information		Signature
	Initial		Send On

REMARKS

From C. R. Wilkinson

Cam. - Railroads Pwy

La modernisation des chemins de fer au CAMEROUN

par M. H. HAMEL

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Comme introduction à un article consacré à la modernisation des chemins de fer du Cameroun, il nous semble utile de rappeler la phrase suivante, extraite d'une étude que le président Bosc consacrait, dans Chroniques d'outre-mer d'avril 1955, aux "chemins de fer en Afrique française" :

« Le chemin de fer, s'il a conservé longtemps l'empreinte de ses créateurs, dispose cependant de la même facilité d'adaptation que ses concurrents. »

Et, à l'époque où de nombreuses personnes ne croyaient plus à l'avenir du rail, considéraient l'ère du chemin de fer comme close en Afrique francophone, M. Bosc engageait résolument les réseaux placés sous la tutelle de l'Office central dans la voie du progrès.

Pour ne parler que de la dieselisation, M. Nicolas, alors qu'il était directeur de la Régifercam, estimait à plus de 350 millions C.F.A. par an, sur la base du trafic et des prix de 1956, l'économie annuelle réalisée par l'utilisation des locomotives diesel-électrique. Et il concluait son article intitulé « Le bilan de la dieselisation du chemin de fer du Cameroun » (Bulletin mensuel d'informations de la Régifercam de septembre 1957) :

« Il convient de rendre hommage à la clairvoyance de ceux qui ont su discerner en temps utile l'intérêt de ce progrès technique capital et ont réussi à l'imposer malgré les réserves et les craintes de certains financiers insuffisamment informés ; au premier rang d'entre eux il convient de citer le Conseiller d'Etat Surleau, président du conseil d'administration des chemins de fer de la France d'outre-mer et M. l'ingénieur général Bosc, directeur général de l'Office central des chemins de fer de la France d'outre-mer dont l'action a été déterminante dans la dieselisation du chemin de fer du Cameroun. »

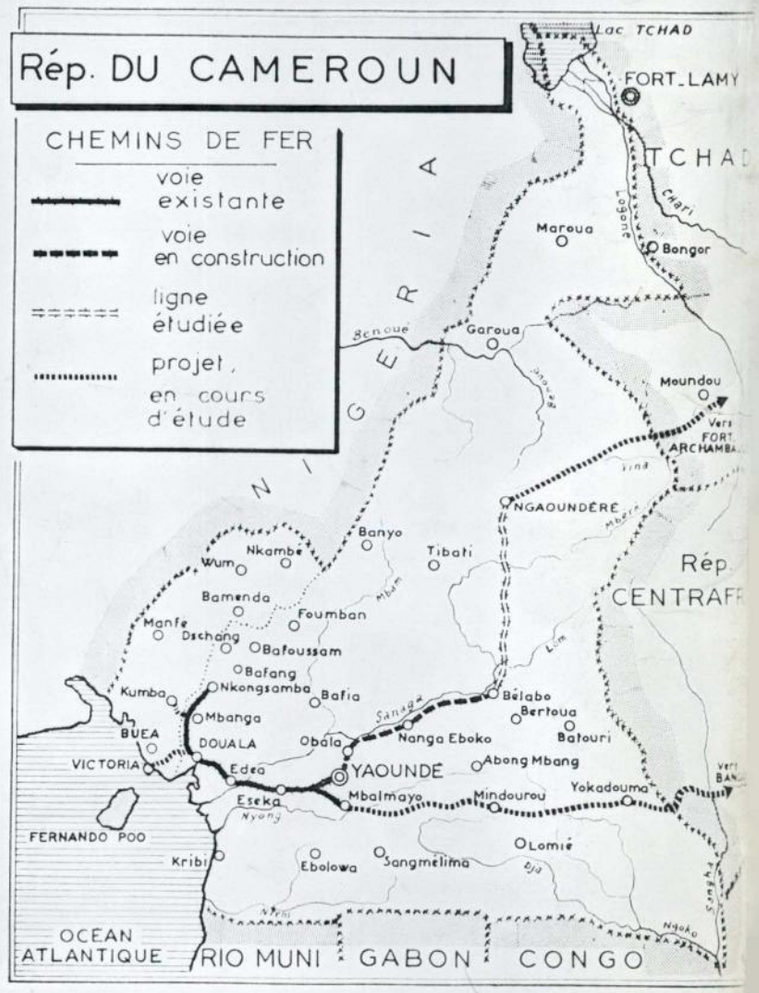
Pour la Régifercam l'impulsion a été bénéfique. Les directeurs successifs qui ont présidé aux destinées du rail camerounais depuis 1948, année de création de la Régie, se sont efforcés de moderniser, au maximum, un outil indispensable au développement économique du pays.

En passant successivement en revue :

— l'infrastructure et la superstructure du réseau ;

— le matériel roulant ;

— l'entretien et la gestion du chemin de fer ;



nous verrons les progrès accomplis depuis vingt ans. Nous indiquerons aussi, chemin faisant, les réalisations que la Régie espère effectuer au cours des prochaines années.

INFRASTRUCTURE

Parmi les améliorations importantes apportées sur la ligne Centre, signalons la construction du tunnel du PK. 201.

Entre les gares d'Eséka et de Makak, la voie suit la vallée de la Méloumé. Elle s'accroche en profil mixte aux flancs de pentes boisées ou rocheuses. Vers le PK 201, la nature du sol constituait une sujétion d'exploitation, par suite des éboulements fréquents qui y survenaient. Les glissements importants de terrain, provoqués en 1950 et 1951 par des infiltrations d'eau de pluie, montrèrent la nécessité de percer un tunnel. Les travaux débutèrent en septembre 1951. L'ouvrage, long de 194 m, a été financé par le FIDES.

Le réseau possède 51 ponts métalliques totalisant 2.454 m de long. Les ouvrages de la ligne Centre ont été calculés d'après le règlement allemand de 1907 et le règlement français de 1915 ; nous manquons de renseignements pour la ligne Nord. Pour permettre le passage des convois de 13 t par essieu, la Régie a renforcé, de 1953 à 1956, 21 ponts métalliques : 10 sur la ligne Centre, 11 sur la ligne Nord.

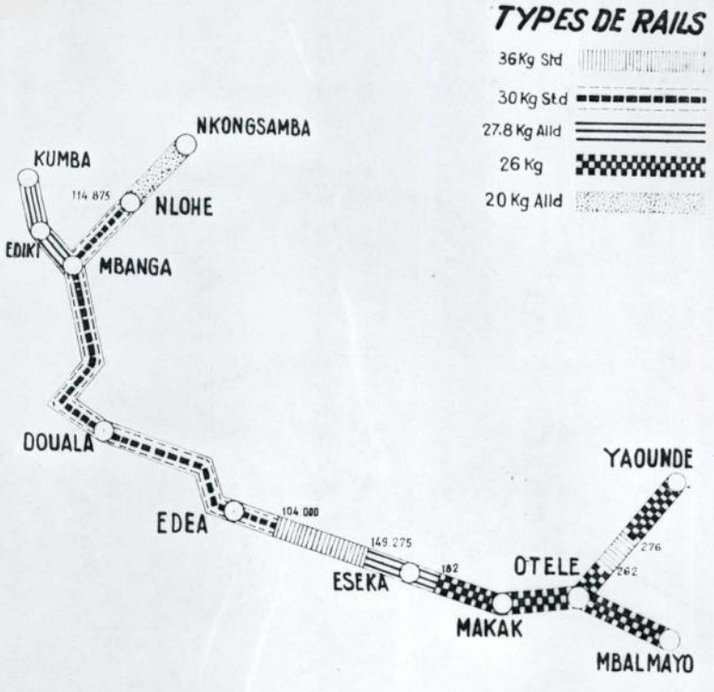
Une étude est envisagée pour un nouveau renforcement des ouvrages d'art de la ligne Centre, à 20 t par essieu.

SUPERSTRUCTURE

Nous examinerons successivement : la voie, les bâtiments, la sécurité des circulations.

Voie.

Lors de la construction, la Société Lenz utilisa du rail de 20 kg/mètre sur la ligne Nord et du rail de 27,8 kg/mètre sur la section Douala-Eséka. Les autorités françaises achevèrent la ligne Centre et transformèrent, en 1933, l'antenne Otélé-Mbalmayo avec du rail de 26 kg.



(Photo G. Prunet.)

Bourreuse-niveleuse-ripeuse Matisa BNRI 80.

Substitution de voie. — Après quarante ans de circulations de plus en plus intenses avec un poids par essieu accru, certaines sections de lignes présentaient des signes d'usure dangereux.

La ligne Nord fut la première à être rénovée. Les travaux débutèrent en mars 1949. Il a été possible de remplacer 115 km de rails 20 kg par du rail 30 kg. Mais il reste encore la section N'Lohé-Nkongsamba, longue de 45 km, équipée en rails de 20 kg. La Régie envisage son renouvellement par de la voie 27,8 kg provenant de la ligne Centre ; elle reposerait sur 1.700 traverses métalliques.

Sur la ligne Centre les travaux de substitution débutèrent en 1955. La section Douala-Makondo, longue de 104 km a pu être remplacée par du rail de 30 kg/mètre ; les sections Makondo-Bidjocka et Ottotomo-Akono, longues respectivement de 45 et 14 km, ont été renouvelées avec du rail de 36 kg/mètre.

Dès que certains travaux prioritaires seront achevés, en particulier l'antenne Mbanga-Kumba, la Régie reprendra les substitutions de voie sur la ligne Centre. L'armement sera réalisé par du rail de 36 kg/mètre, reposant sur des traverses en béton RS.

Soudure des joints. — Pour améliorer la stabilité de la voie, en éliminant les facteurs de déformation que constituent les joints, les programmes de renouvellement de voie ont été complétés par des programmes de soudure de rails.

Les travaux ont commencé en 1956 sur la ligne Nord. Ils ont été ensuite poursuivis sur la ligne Centre. Fin 1967, 426 km de voie étaient soudées.

Le rendement et la qualité du travail ont été améliorés par l'installation à Bassa, en 1962/1963, d'un atelier de soudure. Les barres longues qui sortent de cet atelier sont acheminées sur les chantiers de renouvellement au moyen de plateformes spécialement aménagées pour ce genre de transport.

Voies d'évitement. — A l'époque de la vapeur, les voies d'évitement des gares avaient de 200 à 250 m de long. La dieselisation du réseau obligea le chemin de fer à les allonger dans sept gares de la ligne Centre et deux gares de la ligne Nord.

Pour permettre le croisement des trains longs, remorqués par les CC Alsthom AGO de 2400 ch, de nouveaux travaux d'allongement des voies d'évitement ont été entrepris sur la ligne Centre. Fin 1967 les travaux avaient été réalisés dans les gares de Lungahé, Koponga, Makondo, Sodibanga, Messondo, Ndog-Bessol, Bidjocka, Badjob, Sombadjeck, Makak, Akono, Mvolyé et Onambélé.

Passages à niveau. — L'accroissement du parc automobile, d'une part, l'augmentation de la vitesse des véhicules, d'autre part, ont rendu plus fréquents les accidents dans les centres de Yaoundé et de Douala.

En vue d'accroître la sécurité dans ces deux villes la Régie a établi, en 1964, un plan d'équipement de dix passages à niveau par des demi-barrières automatiques : 8 à Douala, 2 à Yaoundé. Il a été réalisé en 1966.

Bâtiments.

Nous passerons en revue les gares et stations du réseau, le Centre ferroviaire de Bassa.

Gares et stations. — Cinquante-six gares et stations, espacées d'environ 10 km les unes des autres sur la ligne Centre, de 5 km sur la ligne Nord, permettent d'exploiter le réseau. Les quatre gare importantes sont : Douala, Edéa, Yaoundé et Nkongsamba.

Depuis sa création, la Régie a remplacé les bâtiments par trop vétustes des gares et stations de Maléké, Manjo, Mvolyé, Lungahé et Kopongo ; elle a fait reconstruire, d'après un projet de l'architecte Dufayard, le bâtiment d'Edéa. L'extension du réseau a provoqué la construction d'une nouvelle gare voyageurs dans la capitale fédérale ; en ce qui concerne la gare à marchandises, la Régie aura à financer la mise en place d'un faisceau de triage et la construction de 20.000 m² de magasins de stockage de produits.

En application de l'arrêté du 14 février 1949, un terrain situé dans la vallée du Mbopi et le long de la ligne Centre a été classé dans le domaine public ferroviaire pour la construction d'une gare à marchandises, d'un dépôt de machines, d'ateliers centraux et de magasins. Seul le Centre ferroviaire de Bassa, dont nous parlerons, a été réalisé. Les installations de Douala ne répondent plus aux exigences du service et la construction d'une nouvelle gare s'impose depuis plusieurs années. Elle suppose un investissement de l'ordre de un demi-milliard. Espérons qu'il sera possible de trouver, en temps voulu, les ressources financières nécessaires afin que de nouvelles installations puissent être mises en place à Douala au moment où le rail atteindra Ngaoundéré.

Les cours des gares de la ligne Nord, défoncées par les camions apportant les régimes de bananes avaient un aspect misérable. Grâce aux crédits du FIDES un effort important d'aménagement a été effectué de 1955 à 1957. Enfin la profession bananière a installé, en 1966/1967, des hangars pour l'emballage des bananes à Loum-Chantier, Penja et Manjo.

Centre ferroviaire de Bassa. — Déjà en 1935 le directeur des Travaux publics Milhau souhaitait la centralisation des ateliers du chemin de fer. Cette réalisation n'a été possible que lorsque les lignes Nord et Centre ont été reliées par le pont rail-route construit sur le Wouri.

Nous avons vu plus haut qu'en 1949 un vaste terrain avait été classé dans le domaine public pour y édifier entre autres de nouveaux ateliers et des magasins.

Les bâtiments du Centre ferroviaire de Bassa, étudiés par les services techniques de la Régie ont été édifiés à partir de 1951. Ils peuvent être classés en trois catégories :

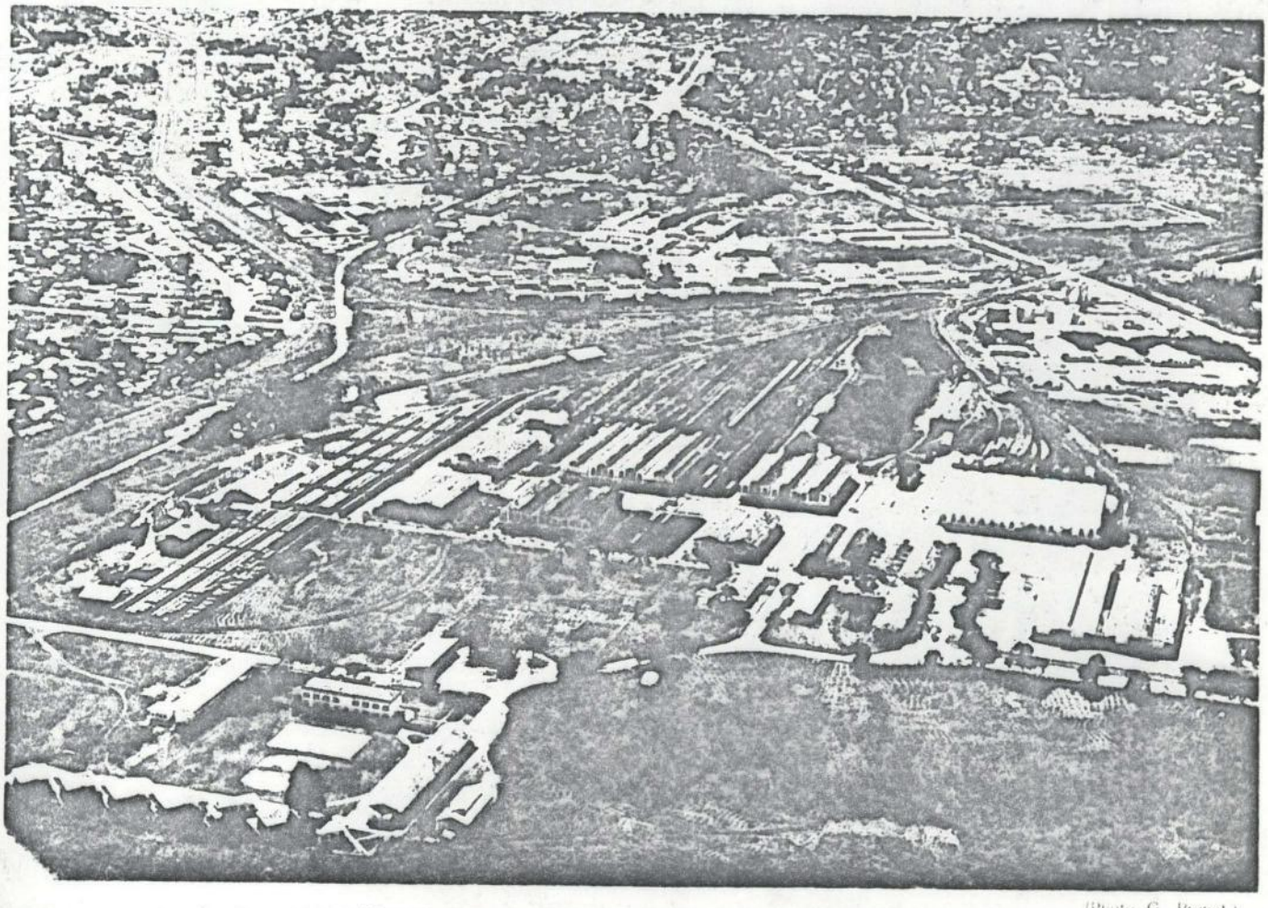
— bâtiments à usages d'ateliers : 22.712 m² de surface couverte ;

— bâtiments à usage de magasins et de bureaux : 5.788 m² de surface couverte ;

— bâtiments à caractère social : 4.031 m² de surface couverte.

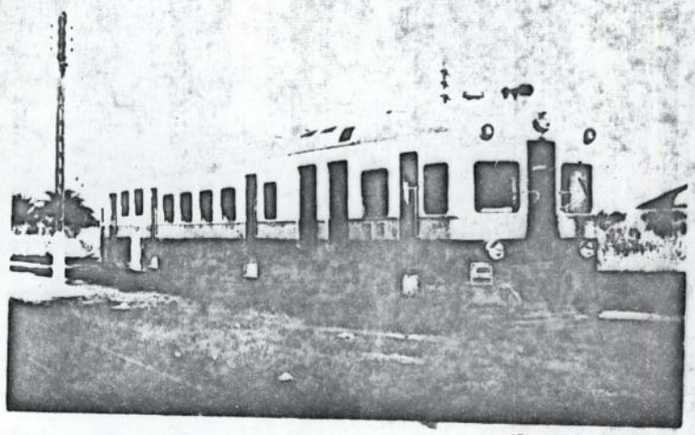
Le Centre qui s'étend sur 49 ha, est desservi par 4 km de route et un faisceau de 14 km de voies. Le drainage des eaux de pluies s'effectue par un réseau d'égouts de 3 km.

Les ateliers ont été conçus à une époque où le trafic annuel "marchandises" était inférieur à 400.000 t (299.000 en 1949, 378.000 en 1950). Bien que largement dimensionnés, puisqu'ils ont permis d'assurer, en 1966/1967, un trafic de 930.000 t, certains



(Photo G. Poinet)

Vue aérienne du centre ferroviaire de Bassa (oct. 65).



(Photo G. Prunet)

Autorail climatisé.

.....ers sont cependant encombrés, ce qui gêne l'entretien du matériel. La Régie a étudié un projet d'agrandissement du bloc-diésel, de l'Atelier de fabrication et de l'Atelier de chaudronnerie ; un nouveau dépôt de machines remplacera l'actuel. Actuellement, l'extension du bloc-diesel, dont la surface couverte sera augmentée de 1.560 m², est en cours d'achèvement.

Sécurité des convois.

En 1946, les liaisons téléphoniques étaient insuffisantes ; les standards étaient usagés. Un travail de modernisation a été entrepris sur l'ensemble du réseau.

La régularisation de la circulation des trains par dispatching, envisagée en 1948, a été réalisée en 1953. Cette organisation a été complétée en 1965, par la mise en place d'un poste central de commandement à Douala. Au cours du premier semestre 1968, la table de régulation LMT va être remplacée par une table Jeumont-Schneider, équipée à 100 boutons d'appel.

Par ailleurs un ampli de surveillance va être placé dans le eau du chef P.C.C.

Des liaisons directes, par courants porteurs, entre Douala et les gares importantes du réseau sont prévues. Une commande de matériel a été passée. En première étape seront réalisées, en 1968, les liaisons Douala-Eséka, Douala-Otélé et Douala-Yaoundé.

Courant 1963 des liaisons radioélectriques ont été établies entre Douala-Nkongsamba et entre Douala et Yaoundé. Ont été mises ou seront mises en station en 1968, les liaisons Mbanga-Ediki et Douala-Kumba.

Pour assurer le cantonnement absolu et le respect du croisement des trains dans les gares, la Régie a substitué, en 1967, au système actuel, le baton pilote électrique sur la section Douala-Edéa.

Pour diminuer le nombre des déraillements par bivoie, un programme d'équipement des lignes par des aiguilles talonnables et renversables a été établi ; il a été réalisé dans les principales gares du réseau.

MATÉRIEL ROULANT

Le 21 août 1947, M. Heurard de Fontgalland, alors chef de l'arrondissement des chemins de fer brossait, dans une causerie à la Radio-Douala, le tableau pessimiste suivant :

« Le parc du matériel n'a pas été renforcé en proportion du trafic : la moitié des locomotives ont près de quarante ans de service, aucune voiture de voyageurs n'a été reçue depuis vingt ans ; les wagons de marchandises de tous types sont en nombre très inférieur aux besoins. »

Il était indispensable de rénover le parc pour l'adapter au développement de l'économie camerounaise.

Matériel moteur.

Locomotives de ligne. — A part une modeste expérience tentée, avant 1939, par le chemin de fer Congo-Océan, qui avait acheté trois engins diésel à Marine-Homécourt, le parc tracteur des réseaux francophones, à la fin du second conflit mondial, ne comprenait que des locomotives à vapeur.

Les progrès réalisés dans la technique des moteurs diesel permettaient de moderniser, de façon avantageuse, les réseaux d'outre-mer. Aussi l'Office central décida-t-il leur diéselisation intégrale. Au moment où certains réseaux anglophones commençaient seulement à utiliser les locomotives diesel (1) les réseaux francophones avaient déjà fait largement appel à ce nouveau mode de traction.

En ce qui concerne le Cameroun la diéselisation était totale en 1955. Elle s'était effectuée dans les conditions suivantes :

— mise en service, en 1950, de 6 locomotives diesel-électrique CC Whitcomb, à moteur Superior. Ces machines, livrées au titre du Plan Marshall, ont toujours eu un fonctionnement difficile. Cette série est maintenant réformée ;

— achat, en 1951/1952, de 6 locomotives bicabine type BB Alsthom, série 200, à moteur Sulzer ;

— mise en service, en 1955, de 12 locomotives monocabine type BB Alsthom, série 300, à moteur MGO.

En 1969 le parc dont nous avons parlé plus haut sera complété par 3 locomotives BB 300 et, en 1960, la Régie achètera 2 locomotives BB 500 au Dahomey.

Jusqu'à l'arrivée des CC Alsthom, les locomotives BB constitueront l'ossature du parc de la Régie.

Toutes les locomotives possédées par la Régifercam étaient des machines de puissance modeste (610 à 730 ch). Dans le plan d'achat de matériel roulant établi en mai 1962, le choix de la Régie s'est porté sur les locomotives CC Alsthom à moteur AGO.

Cinq machines, commandées par marché du 30 mai 1963, ont été réceptionnées à Douala au cours du quatrième trimestre 1965 et au cours du premier trimestre 1966.

Pour faire face au trafic escompté dans les prochaines années, la Régie estime qu'elle devra compléter son parc par l'achat :

— en première étape de 5 locomotives BB 1100 ch pour assurer les circulations jusqu'à Belabo ;

— en seconde étape par l'acquisition de 3 locomotives BB 1100 ch et de 3 locomotives CC 2400 ch pour l'exploitation du chemin de fer jusqu'à Ngaoundéré.

Une première commande vient d'être passée pour l'achat de 4 locomotives BB de 1100 ch.

Autorails. — En 1951, la Régie avait reçu 3 autorails Renault de 300 ch, type ABJ-6. Ces engins d'une puissance trop modeste pour être utilisés rationnellement au Cameroun ont été vendus.

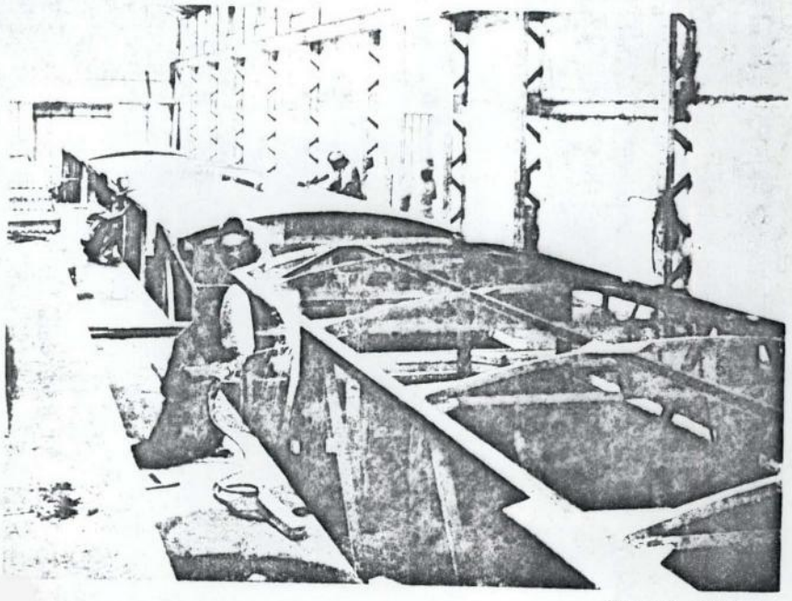
Ils ont été remplacés par sept autorails construits par les Etablissements Billard et par les Etablissements Soulé. Quatre engins ont été reçus par la Régie en 1964 et trois en 1966. Cinq autorails sont climatisés.

Pour assurer le service voyageurs jusqu'à Belabo, la Régie devra renforcer le parc actuel de quatre unités. Enfin il faudra encore acheter deux autorails supplémentaires pour l'exploitation du réseau jusqu'à Ngaoundéré.

Locotracteurs. — Le service des manœuvres en gare est assuré par 27 locotracteurs :

— 7 locotracteurs FAMH à moteur Renault de 300 ch. La série comprenait 10 engins mis en service en 1951/1952. Ces locotracteurs à transmission hydro-mécanique sont fragiles ; ils seront tous réformés avant 1970 ;

(1) Pour ne citer que le Nigéria, disons que les quatre premières locomotives diesel-électrique, type BO-BO, fournies par English Electric Company, furent livrées au cours de l'exercice 1954-1955 pour être mises en service sur la section Zaria-Kano.



(Photo G. Prunet)

Construction d'un wagon couvert de 40 t. Finition du montage.

— 10 locotracteurs BDR à moteur Poyaud de 150 ch, mis en service en 1955 ;

— 10 locotracteurs CEM à moteur MGO de 400 ch, livrés en 1965.

Pour faire face aux besoins du réseau, exploité jusqu'à Belabo, le parc devra être renforcé de 13 unités. Cinq locotracteurs supplémentaires seront par ailleurs nécessaires lorsque la ligne Centre atteindra Ngaoundéré. Une commande de 9 engins vient d'être passée.

Le tableau ci-dessous donne, au 31 décembre 1967, la consistance du parc moteur de la Régie des chemins de fer du Cameroun.

Type Série	Constructeur	Moteur	Nombre d'engins	Kilomètres effectués de la mise en service au 31-12-67
1. — LOCOMOTIVES :				
BB 200	Alsthom	Sulzer	6	6 137 259
BB 300	Alsthom	MGO	15	13 695 590
BB 500	Alsthom	MGO	2	1 048 163
CC 2400	Alsthom	AGO	5	641 086
2. — AUTORAILS :				
ZE 11	Billard Soulé	MGO	7	1 025 026
3. — LOCOTRACTEURS :				
DM-01	FAMH	Renault	7	1 447 374
BR-11	BDR	Poyaud	10	2 011 535
YE-21	CEM	MGO	10	519 742

Matériel remorqué.

A la fin du second conflit mondial, la situation était particulièrement critique : les perturbations de la guerre avaient provoqué un entretien ralenti du matériel ; la capacité du parc était insuffisante pour faire face à un trafic en expansion.

Matériel pour voyageurs. — Fin 1945 le réseau possédait 35 voitures à caisses en bois. La plupart d'entre elles avaient été mises en service en 1926-1927 mais, on faisait encore circuler quelques Beuchelt datant de 1910-1915. Le matériel était fatigué ; son aspect extérieur était lamentable ; le confort laissait à désirer.

Il faudra cependant attendre 1949 pour voir arriver les premières voitures métalliques, commandées au titre du Plan.

L'effort de modernisation de la Régie est résumé dans le tableau ci-dessous :

Nature du véhicule	Année de mise en service	Nombre
Voitures-lits de 1re classe (1)	1965	2
Voitures-couchettes de 1re classe	1960	3
Voitures-restaurant de 1re classe	1950	4
Voitures mixtes de 1-2e classe	1951	4
Voitures lourdes de 2e classe	1949-1952	22
Voitures allégées de 2e classe	1954-1964	21

(1) Voitures construites en 1950 et transformées en 1964-65 par les Etablissements CREDE.

Une remarque doit être faite pour les voitures-lits. Jusqu'en 1962, la Régie ne disposait que de voitures à 4 couchettes par compartiment. L'expérience tentée avec une voiture-lits, louée à la Régie du Sénégal, ayant montré que ce service correspondait à un réel besoin, le chemin de fer a fait transformer, chez Crede, deux voitures pour pouvoir établir un service quotidien sur la ligne Centre.

L'allongement du réseau provoquera :

— la mise en service d'une troisième voiture-lits,

et l'acquisition de dix voitures allégées pour rames autorails : 2 voitures de 1re classe, 4 voitures de 2e classe et 4 voitures mixtes 2e classe-bagages.

Fourgons à bagages et poste. — Le parc actuel comprend : 8 fourgons de 20 tonnes à caisse en bois, mis en service en 1952 et 4 fourgons métalliques allégés, mis en service en 1964.

Le parc sera à compléter par l'acquisition de 2 fourgons métalliques.

Matériel à marchandises. — Le début de la rénovation du parc a été provoqué en 1946 par M. Darnault, alors qu'il était directeur des Travaux publics. Le chemin de fer reçoit, en 1948 : 50 wagons couverts, 100 plateformes et 30 tombereaux. L'effort sera poursuivi par l'achat, en Europe, de wagons de 30 t. Puis la Régie en 1962, estimera préférable de construire ses wagons suivant trois prototypes de 40 tonnes étudiés par le chemin de fer.

Fin 1967, la Régie avait construit soit seule soit en collaboration avec deux sociétés de Douala : 105 plates-formes, 40 tombereaux, 90 couverts et 5 plates-formes élargies.

Le tableau ci-dessous donne la consistance du parc commercial marchandises et la capacité de transport du chemin de fer aux 31 décembre 1947 et 1967 :

Nature du véhicule	au 31-12-1947 Nombre	au 31-12-1947 Capacité de transport	au 31-12-1967 Nombre	au 31-12-1967 Capacité de transport
Plateformes	95	1 495 t	299	10 020 t
Tombereaux	58	775 t	149	4 570 t
Couverts	189	3 640 t	412	10 485 t
Wagons spéciaux	—	—	6	230 t
Citernes de 300 hl	—	—	5	1 500 hl

Le parc actuel sera à compléter :

— en première étape, par la construction, au Cameroun, de 50 wagons couverts de 40 t ;

— dans les cinq années à venir, par la fabrication de 100 plateformes, 100 couverts, 50 tombereaux et 1 plateforme surbaissée ;

— par l'achat de 2 wagons frigorifiques.

Wagons particuliers. — Outre le parc dont nous venons de parler, il a été mis en service, entre 1951 et 1966, 80 wagons particuliers : wagons-citernes pour les transports du vin et des hydrocarbures, wagons-réservoirs pour les transports d'alumine et de coke, ballasteuses pour COGEFAR.

ENTRETIEN DES VOIES ET DU MATÉRIEL

Nous allons successivement passer en revue l'entretien des voies, l'entretien du matériel.

Entretien des voies.

Pour contrôler l'état des voies, la Régie a fait l'acquisition en 1966 d'une remorque de contrôle Matisa. Cet engin, tracté

par une draisine ou par un locotracteur, à la vitesse horaire de 25/30 km, enregistre en continu toutes les mesures géométriques de la voie ferrée. Le calque, annoté par le bureau d'études du Service de la voie et des bâtiments permet d'établir des plannings d'entretien.

Le bourrage manuel de la voie ne permet pas d'obtenir un travail homogène. Un progrès avait été réalisé par l'acquisition, en 1950, d'une bourreuses standard Matisa BS 11. En 1963 la Régifercam achète une bourreuse-niveleuse Matisa BN 60 : cet engin donne un bourrage homogène et un nivellement de bonne précision. En 1967, le chemin de fer fait l'acquisition du matériel le plus moderne dans le genre, une bourreuse-niveleuse-ripeuse Matisa BNRI 80.

Enfin, pour les transports de ballast, la Régie a acheté, chez Arbel, en 1964, des wagons auto-déchargeurs.

Equipement complémentaire des ateliers.

Par ailleurs pour permettre aux ateliers du chemin de fer d'assurer, dans des conditions convenables l'entretien du matériel roulant supplémentaire provoqué par l'expansion du trafic, un programme d'achat de machines-outils a été établi. Les matériels à acquérir comprendraient en particulier : tour à roues montées, aléseuse horizontale, machine à rectifier les vilebrequins, tour parallèle de grande capacité, presse-plieuse, presse à caler et décaler les essieux.

GESTION DU CHEMIN DE FER

Les tâches administratives ont été améliorées dans les secteurs suivants : gestion du personnel, approvisionnements et magasins, comptabilité, division du Mouvement et division commerciale du service Exploitation.

Service du personnel.

Avant 1953 la gestion du personnel s'effectuait selon des méthodes archaïques : le Service du personnel de la direction utilisait des « registres matricules » encombrants et difficiles à utiliser, pour le contrôle des agents statutaires ; les établissements de chaque service recrutaient et géraient, suivant des procédés différents, les agents auxiliaires.

La mise en place d'une cellule de gestion système Planus a été effectuée en 1953 pour le personnel statutaire. La méthode a été étendue, en 1954, aux auxiliaires, gérés par les services.

L'expérience ayant démontré qu'il y avait intérêt à administrer tout le personnel de la Régie à l'échelon Direction, une étude est en cours pour le regroupement des cellules de gestion actuellement dispersées dans les services.

Par ailleurs au moment de la mise en place de la cellule de gestion du Service du personnel, les dossiers de documentation de la famille d'archives 3 (Personnel) ainsi que les dossiers individuels des agents ont été rangés dans des classeurs verticaux en métal.

Approvisionnements et magasins.

En 1953, les livres encombrants de la comptabilité matière ont été remplacés par des fiches ; une nomenclature détaillée a été établie ; une machine Burroughs facturière a été mise en service : elle a été remplacée, fin 1967, par un Burroughs E. 1000 qui, outre les opérations d'entrées et de sorties, calcule les prix de revient.

Jusqu'en 1953, l'approvisionnement des stocks s'effectuait à partir « d'états de besoins » établis par les services utilisateurs. Maintenant il existe un calendrier prévoyant le lancement, deux fois par an, des approvisionnements, pour chaque catégorie de matériel.

Enfin les difficultés d'approvisionnements en imprimés, principalement pour le Service Exploitation, ont conduit début 1968 la Régie à acheter une machine offset et à installer une imprimerie.

Comptabilité.

Le Service de la comptabilité utilise 4 machines Burroughs qui permettent d'effectuer les travaux suivants : trésorerie permanente, comptabilité fournisseurs, facturation et comptabilité clients, soldes et salaires du personnel, centralisation et établissement de la balance générale.

Dans un avenir prochain, ce groupe de machines sera utilisé pour établir un certain nombre de statistiques.

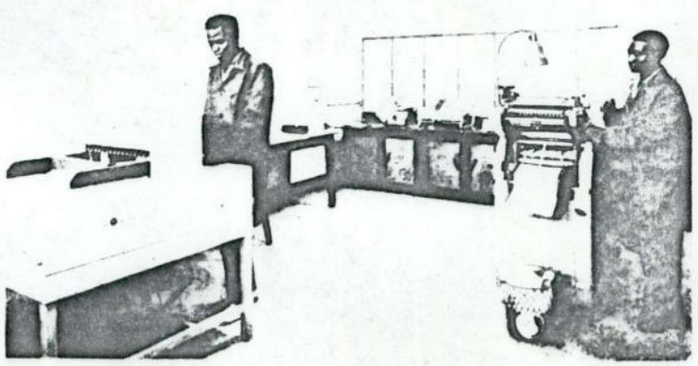
Par ailleurs, le Plan comptable, calqué sur la codification budgétaire tend de plus en plus à être analytique, principalement en ce qui concerne les prix de revient de la circulation et de l'entretien du matériel roulant.

Service exploitation.

A la suite d'une mission effectuée en 1963 par un ingénieur de la Société Paul Planus, la division du Mouvement a mis en place une « fiche wagons » qui permet de suivre la rotation du matériel, de surveiller les temps de stationnement et d'établir les « statistiques du Mouvement ».

Toujours dans le cadre de la mission Planus, des améliorations ont été apportées à la comptabilité des gares, à l'organisation du Contrôle des recettes et à l'établissement des statistiques commerciales.

Bien qu'avec ses 532 km le rail camerounais ne desserve actuellement que quelques départements du Sud de la Fédération, il joue cependant un rôle essentiel dans le développement économique du Cameroun. Pour lui permettre de tenir correctement sa place dans l'ossature du pays, nous avons vu que le chemin de fer n'a cessé de se moderniser depuis vingt ans et que des projets de substitution de voie ou d'achats de matériel sont en cours de réalisation ou vont être réalisés dans les prochaines années. Mais, de tous les progrès signalés les deux plus importants sont la dieselisation du réseau et la mise en place de rames autorails.



Imprimerie du service des approvisionnements.
(Photo G. Prunet.)

PWEA
cc PMEA
cc CM-RR

Mr. Robert Sadove

September 25, 1968

G. Mackay

Meetings with Messrs. Gordon and Lutolf
(Your memo of Sept. 23, 1968)

1) PMEA

East Africa

During the past few months we have had reason to be grateful to Mr. Gordon and his staff for probing discreetly and effectively into a difficult management/staff situation in EARH arising from the coming into being of new forms of organization preparatory to dividing the railways and the harbours. Although PMEA has no direct supervisory responsibility for railways and harbours operations I think it would be helpful if Mr. Gordon and Mr. Samii could continue to keep in contact with management/staff of EARH during the difficult transitional months ahead, when the loss of a few experienced staff without adequate replacement, or other untoward developments, could seriously prejudice efficiency and jeopardise the proposed Bank loans.

2) PMWA

Cameroon

We will be interested to be kept advised of PMWA's discussions with Fercam and the Government in respect of a possible application to the Bank for assistance towards a railway track renewal problem.

Congo (B)

As PMWA will know, UNDP have recently advised that they will require further evaluation of this feasibility study of realignment of the railway and consideration of financing will be deferred to June, 1969. There are two points: one, because of the delays involved UNDP financing for an urgent engineering study like this seems unsuitable; and two, Messrs. Kesson and Brandreth put a lot of work into identifying railway projects but ATEC/CFCO seem reluctant to approach the Bank. Leaving aside the question of whether the Bank in circumstances such as exist in this case should advocate financing by sources other than UNDP we should, I think, get PMWA's views on the general possibilities of railway project financing in Congo (B). We have a heavy program of work ahead and we do not want to be wasting man-hours on dubious starters.

Guinea (Boke)

Suggest discussion of how, if at all, the Abidjan office might be able to help in the administration of the new loan.

Mali

We would be interested to be advised of any significant developments as they affect Mali (and Senegal) of the technical and economic study to be made by China (Mainland) on a railway to connect the Mali and Guinea Railways.

Nigeria

We regard the Nigerian Railways as a problem project and one on which we would wish to help at the earliest practical date. Have PMWA any views?

Upper Volta

We have had the NEDECO study and reviewed it. Do PMWA agree with our view that even given the manganese project a railway extension to Tambao would be a very marginal proposition?

3) GENERAL

Will PMWA/PMEA have anything to report on relations with the ADB?

GMackay:bb

CM. Railways
orig. CM. 2nd Highway.

August 8, 1968

No. 341

Mr. Franz Lutolf
Permanent Mission
in Western Africa
Post Office Box 1850
Abidjan, Ivory Coast

Dear Franz:

CM Ports

Further to my memorandum No. 315 of July 15 concerning the follow-up of the port of Douala studies, I am today sending you our comments on the other items dealt with in Mr. Brochet's memorandum of June 10, i.e. the road projects identified by him, his recommendation to consider financing the rehabilitation of the Trans-Cameroon Railway, and his notes on the CAR-Cameroon transport study.

Extract....

(ii) Mr. Brochet recommended that the Bank consider financing the rehabilitation of the Fercam railway, and that a mission might be sent to Cameroon to help prepare an official application to the Bank. The following are our comments on the proposals by Mr. Brochet:

(a) We feel that, if Fercam is interested in Bank assistance, they should themselves be able to make a case for Bank assistance towards their track renewal program. The PMWA could, if required, give some general guidance on how to proceed. It could also be considered that someone from headquarters pay a short visit to Cameroon in connection with another mission to West Africa. At any rate, recent experience with ATEC shows that we should be reasonably sure that Bank financial assistance is indeed wanted before we become more deeply involved in the matter.

(b) We have little information on which to judge Fercam's financial, managerial etc. performance. You know that we are not engaged in the extension of the Fercam railway to N'Gaoundere presently being undertaken with financing from FED, USAID, etc., since we have doubts about the viability of this project. I think you have at your disposal in Abidjan ample information on this point. We would stress that we would have to be satisfied with Fercam's performance before any financing of their renewal program could be considered.

S. Noel McIvor

Mr. H. O. Schulte August 1, 1968

G. Mackay

CAMEROON: Railway (Fercam)

In Mr. Gue's letter No. 228 of June 19, 1968, to Messrs. El Emary/McIvor enclosing a report from Mr. Brochet, the suggestion is made that a Bank mission should take a closer look at financing the rehabilitation of the Fercam railway.

Mr. Brochet mentions that Fercam is in need of locomotives and freight cars; also, that 140 km of track needs renewal at an estimated cost of about US$6 million. It seems that some or all of the locomotives and cars would be financed by the Caisse Centrale de Cooperation Economique. Mr. Brochet further states that the General Manager of Fercam would welcome a Bank mission to study the problem and help prepare an official request for a Bank loan.

As there is a Nedeco-BCEOM transport study report covering Cameroon and the southern part of the Central African Republic due about October, 1968, I think we should defer decision on what we might do about the Fercam railway until we have received and studied this report.

In general terms, assuming the continuing need for the railway, it should not be too difficult for any reasonably competent railway management to make out a technical and financial case for a track renewal program within the context of its overall investment program; and the PMWA one imagines can advise Fercam in general terms on how to proceed. There should be no need for a Bank mission from Washington. One thing which Fercam could be doing now would be to complete our railway questionnaire, edited as appropriate by PMWA. Copies of this questionnaire, in French, can be made available to PMWA if it is agreed that such a questionnaire might be given to Fercam at this time.

GMackay:bb

cc: Messrs. Geolot, Brechot, Engelmann

CM Railways
orig CM. Rd. Proj II.
+ full report.

FORM No. 57 | INTERNATIONAL DEVELOPMENT ASSOCIATION | INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT | INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

Abidjan Office

TO: Messrs. El Emary/McIvor

DATE: June 19, 1968

FROM: André R. Gué

Letter No. 228

SUBJECT: CAMEROON - Highway Identification Mission

Extract

1. Attached is a report from Mr. Brochet in French[1/] on the above subject which is self-explanatory. I concur with his recommendations.

2. This report indicates that the Bank, if it so wished, could finance three fairly good road projects in Cameroon in a relatively short time. It should, however, be noted that FED has financed feasibility studies for two of them. According to the local FED representative, FED has not yet taken any decision on the financing of construction, and would have no objection to the Bank taking over from them, but it would be advisable to consult FED headquarters on this point.

3. Mr. Brochet also suggests that the Bank consider financing the rehabilitation of the Fercam railway. We have indeed heard from several sources (BCEOM-NEDECO, for example) that such a project would be justified. I would, therefore, recommend that a Bank mission take a closer look at this project possibility.

1/ In the absence of Messrs. Brandreth and Duncan, and because of our heavy workload, we were not in a position to do the translation.

Attachment

cc: Mr. Baum

AFRICA DEPT.
JUN 25 1968

- [x] El Emary
- [ ] McIvor
- [ ] Larsen
- [ ] Div.
- [ ] Div.
- [ ] Div.
- [ ] Div.
- [x] Co. Files
- [ ] Res. Files

A. G. El Emary

IV - Régie Fercam

Par suite de la guerre au Nigeria, le trafic a complètement cessé sur la Bénoué et est très gravement perturbé sur les chemins de fer nigériens. Le trafic en provenance ou à destination du Nord Cameroun et dans une certaine mesure celui de la région de Fort Lamy au Tchad emprunte le réseau Fercam.

Le manque de locomotives et de wagons et aussi le mauvais état de la voie sur certaines sections rendent difficile l'exploitation de ce chemin de fer.

Connaissant ces difficultés, j'ai demandé à M. Destopeleyre, Directeur de la régie, s'il serait intéressé par une aide technique et financière de la Banque pour les résoudre.

En ce qui concerne la fourniture de locomotives, un prêt de la Caisse Centrale de Coopération Economique permettra de résoudre tout au moins en partie le problème. La régie va par ailleurs mettre en fabrication dans ses ateliers un certain nombre de wagons.

Par contre il serait nécessaire de remplacer environ 140 km de voie très ancienne en profitant de l'opération pour effectuer certaines rectifications de tracé. Le coût total de l'opération pourrait se chiffrer à environ 1,5 milliards de FCFA ou US$6 millions.

M. Destopeleyre serait très heureux de recevoir la visite d'experts ferroviaires et d'économistes de la Banque pour étudier ce problème et l'aider éventuellement à rédiger une demande officielle de financement.

Tableau No. 1

Solutions

Infrastructure	A	B	C	D
Voies ferrées				
1er temps	A1 - Belabo-Berberati	B1 - Nanga Eboko-Yokadouma	C1 - Yaoundé-Yokadouma C'1-M'Balmayo-Yokadouma	D1 Bolinga - Yokadouma
2ème temps	A2 - Berberati-M'Baiki-Bangui	B2 - Yokadouma-Nola-M'Baiki-Bangui	C2 = B2	D2 = B2
Réseau fluvial	Réseau à construire ou à améliorer dans toutes les solutions			

1er temps
- Route 4e parallèle
- Route Salo-Nola-Berberati-Carnot
- Route Mouloundo-Yokadouma-Nola
- Réseau de routes afférentes à la Lobaye, la Sangha et la Ngoko
- Routes afférentes aux sections de voie à construire dans le 1er temps de réalisation

2ème temps
- Routes afférentes à l'ensemble de la voie ferrée qui sera retenue.

CH-RR

FORM NO. 57 | INTERNATIONAL DEVELOPMENT ASSOCIATION | INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT | INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

TO: FILES DATE: February 2, 1968

FROM: Norbert Koenig N.K.

SUBJECT: Cameroon - Financing of the Belabo-Ngaoundere Stretch of the Trans-Cameroon Railway

1. This memorandum is based on information received over the telephone from Mr. Wyatt of USAID.

2. The total cost of the Belabo-Ngaoundere estension of the Trans-Cameroon Railway is estimated at $43 million. It has been agreed among the parties involved that the financing will be contributed as follows:

FED	$20 million
USAID	$10 million
FAC	$ 7.9million
	$37.9million
Cameroon	$ 5.1million
	$43.0million

The major elements of the cost estimate are:

Construction	$30 million
Rolling stock, facilities for stations etc.	$ 8 million
Contingency	$ 5 million

AID will make its loan available on the following terms:
AID will lend to the Government, possibly for 40 years, including 10 years of grace, with an interest rate of about 3%. The Government would re-lend the money to the Railroad Authority. The exact terms will only be decided upon at the time of the signing of the Loan Agreement.

3. The time-table for the operation looks as follows:

Pre-selection of bidders	April 1968
Call for bids	Aug./Sept. 1968
Opening of bids	Jan. 1, 1969
Start of construction	April 1969
End of construction	during 1972.

cc: Messrs. Irion, Thalwitz, Paijmans, Lutolf

FORM No. 57 INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

Op. files
DEC 27 1967
CH-RR

OFFICE MEMORANDUM

TO : FILES DATE : November 27, 1967

FROM : Martijn J. Paijmans

SUBJECT : Transcameroon Railroad

1-S. Noel
2-Mr de la Renaudiere

At a recent meeting in Brussels decisions were taken about the financing of the construction of the second phase (Belabo-N'Gaoundere) of the Trans-Cameroon Railroad.

The total cost of this phase which is at present estimated at about $43 million equivalent will besplit up as follows:

FED	$20 million
U.S.	$10 million
France	$8 million
Cameroon	$5 million

About the terms of the foreign financing little is know, largely due to the fact that this, together with many other details has still to be worked out. In contrast to its financing of the first tranche in which FED's participation was a downright grant, FED authorities seem now to consider to make at least 25% of their contribution to the second tranche on a soft loan basis. The entire FED part of $20 million will be imputed on the present (second) FED's funds.

Also in view of the progress made regarding the Transcameroon Railroad and the to be expected discussions on the liaison N'Gaoundere-Tchad, FED staff indicated to be very much in favour of tripartite discussions between the Bank, FAC and themselves on the subject of a coordination of investment in the Tchad transportation sector. FED staff considers that Tchad should be assisted in building up a transportation system that would provide the country with two exits to the sea, namely the Transcameroon railroad and the Trans-equatorial link over Bangui and Brazzaville. Therefore, FED is in principle willing to consider also an improvement of the road link in this latter route, i.e. the link Bangui-Tchad. The present FED does however not have sufficient funds left for such an undertaking, the financing of which cannot be considered before the third FED will have been established.

cc: Messrs. El Emary/McIvor
de la Renaudière
Lutolf

MJP/mar

FORM No. 57

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

NOV 29 1967

OFFICE MEMORANDUM

TO: FILES

DATE: November 27, 1967

FROM: Martijn J. Paijmans

SUBJECT: Transcameroon Railroad

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cc: Messrs. El Emary/McIvor
de la Renaudière
Lutolf

MJP/mar

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

OFFICE MEMORANDUM

TO :

FROM :

DATE :

SUBJECT :

Cam - Railway
orig. Cam-Rds.

Mr. Warren C. Baum

April 13, 1967

B. Irion and W. Thalwitz

CAMEROON - Engineering Credit; Meeting with USAID

1. At their request we met on March 29, Messrs. Whyte and Smith from USAID, to exchange information on transportation problems in Cameroon-Chad. Messrs. de la Renaudiere and Kesson from the Bank also attended the meeting. USAID is one of the three lenders, the other being FAC and FED, which financed the Trans-Cameroon Railway project, Phase I (Yaounde-Belabo) and which are expected to finance Phase II (Belabo-N'Gaoundere). Construction of Phase II would provide the southern route link for the Bank/IDA project road N'Gaoundere-Garoua. The cost estimates for the construction of Phase II are presently being revised by the French consultants SEMA to take account of different assumptions regarding origin of goods and services. The consultants are expected to submit their report to the lending agencies during April 1967.

2. As soon as revised cost estimates are available, USAID wants to re-evaluate the economic justification of the Phase II project. Mr. Whyte who is in charge of this task was specifically interested in reconciling railway traffic forecasts made by their consultants with the Bank forecasts on road traffic for the N'Goundere-Garoua road. No major discrepancies were found, but it was pointed out that rail traffic forecasts were far less sensitive to traffic diversion due to alternative road investments in North Cameroon/Chad than road traffic on the N'Gaoundere-Garoua road.

3. The prospective lenders are convinced of the merits of going ahead with Phase II and agree that it would not make sense to let the railway end in Belabo. However, USAID is presently not in a position to make a firm commitment whether and to what extent AID would participate in the financing of Phase II Railway project. We gained the impression that the economic justification will not be a major obstacle; the main difficulty will be to work out financial participation of each of the three lending agencies consistent with the different procurement requirements. A decision may be reached at any time between July 1967 and early 1968. Completion dates for construction could, therefore, range from late 1971 to mid-1972.

4. Although it seems likely that the railway Phase II will be constructed, firm commitments about its financing have not yet been made. Thus the following alternatives remain open:

(i) Hold the Bank/IDA engineering project in abeyance until a decision about the financing of Phase II of the railway has been reached. This would avoid a possible waste of funds on the engineering credit in case financing for the construction of the railway cannot be arranged;

(ii) Not to tie, as presently envisaged in the green cover appraisal report, the Bank/IDA engineering credit to a firm completion schedule for connecting routes. This would assume that the railway will be built and would allow concurrent completion of both road and railway which have similar construction periods. Since final engineering has been completed for the railway, completion of road construction would fall behind the railway if the engineering credit for the N'Gaoundere-Garoua road was delayed until a decision is reached on financing for the railway.

BIrion/WThalwitz:bb:mp

Cleared with and cc: Messrs. Hardy/Young

cc: Messrs. de la Renaudiere
Kesson
El Fishawy
Povey

Cam-RR.

FORM NO. 59
(2-55)

CROSS REFERENCE SHEET

COMMUNICATION: Memorandum - Discussions with FAC

DATED: February 7, 1967

TO: Files

FROM: Mr. X. de la Renaudiere

FILED UNDER: CAMEROON - General Negoatiations

SUMMARY:

Cameroon

2. The Cogepar option for the construction of the second section of the Transcameroon railroad, which was due to expire in November, has been extended. Negotiations for the financing are not completed. The FAC may accept - exceptionally - that its financing should not be necessarily tied to French procurement.

FORM NO. 337D
(12-61)

Mr. Koenig
Room 560

Ministry of Economic Affairs
and the Plan
Office of the Trans-Cameroon Railway

Agreement No. _____

entered into with the NATIONAL GEOGRAPHIC INSTITUTE for serial photographic coverage of an area concerned in a project for a railway link between the Central African Republic and the Trans-Cameroon Railway.

CONTRACTOR: The National Geographic Institute, 136 bis, Rue de Grenelle, PARIS 7e.

AMOUNT: Fourteen million fifty thousand CFA francs. (14,050,000)

Signed, on _____

Signed by the Director, on _____

Notified, on _____

Charged to: State Budget, 1966/67
Chapter 01-100-04

TRANSLATION SECTION 1325/66
Translated From: French 7/25/66 By: GA:gue

The following has been agreed between

The Minister of Finance, acting on behalf of the Federal Republic of Cameroon, party of the first part, and

The National Geographic Institute, represented by its Director, 136 bis, Rue de Grenelle, Paris 7e, hereinafter called IGN, party of the second part,

TITLE I GENERAL PROVISIONS

Article 1 - Purpose

The purpose of this convention is to execute aerial photographic coverage of the zone contemplated for a railroad connection between Bangui and Douala and to ensure the supply of a number of photographic proofs relating to aerial coverage already carried out.

Article 2 - Functions of the Chief of Project

The functions of the Chief of Project shall be performed by the Director General of the Transcameroonese Railway Office, B.P. 625, Yaounde, hereinafter called the Office.

TITLE II - TECHNICAL ARRANGEMENTS

Article 3

The aerial photographs shall be made on the scale of 1/50,000 approximately, on infra-red emulsion. The photographs shall be taken with the aid of precision metric cameras in use at the IGN. The average coverage of 60% longitudinally and 20% laterally should permit stereoscopic examination.

The boundaries of the area to be photographed are indicated on the sketch attached hereto as Annex I.

Article 4

The photographs shall be taken as soon as possible after the convention is signed when an IGN photographic plane is in Central Africa (Cameroun or Gabon).

Article 5

Within one month after the aerial coverage is completed the Office shall be supplied with one set of proofs of the photographs taken.

A second set shall be held in reserve at the IGN with a view to later use in aerial traversing and restitution.

Article 6

In addition to the supply mentioned in Article 5, the IGN shall deliver to the Office two sets of proofs of the photographs listed in Annex II hereto. This shall be done within one month after the convention is signed.

TITLE III FINANCIAL ARRANGEMENTS

Article 7 - Amount of the Contract and Payment

The sums listed below shall be paid to IGN in return for the work done and the supplies furnished:

A) AERIAL COVERAGE

Payment according to the principles of work under State supervision on the following bases:

1)	Provision of the photographic plane	pro memoria
2)	One week's stay	CFAF 900,000
3)	Hour of flight	
	a) from MAKOKOU (1965-66 year)	110,000
	b) from DOUALA or YAOUNDE (1966-67)	82,500

The maximum amount demandable shall not exceed the sum of CFAF13,900,000

B) SUPPLY OF PHOTOGRAPHIC PROOFS

The number of proofs to be supplied under article 6 of the present convention amounts to two sets. Their delivery, post and packing paid, to the IGN Annex in Yaounde shall be cause for payment of the sum of CFAF 150,000.

C) TOTAL

13,900,000 + 150,000 + CFAF 14,050,000

Article 8 - Payment

The sums due in application of article 7 shall be paid on the following terms:

a) upon signature of the convention, as down payment, 2/10 of the maximum amount provided for under the convention, i.e.:

$$\frac{(13,900,000 + 150,000)}{10} \times 2 = 2,810,000$$

b) Upon provision of the photographic plane to carry out the aerial coverage, 5/10 of the maximum amount provided for this work:

$$\frac{13,900,000 \times 5}{10} = \text{CFAF } 6,950,000$$

c) The remainder of the sums due for the aerial coverage upon supply of the set of proofs and after calculation of the amount due.

d) The remainder of the payment for the supply of the proofs provided for in article 6 upon receipt of those proofs by the Office.

Article 9

The payments shall be made by deposit to the account of the IGN's manager of receipts C.C.P. 9131-60 Paris upon presentation of invoices drawn up by IGN.

Article 10 - Bond

The IGN is excused from furnishing a bond

Article 11 - Registration

The IGN is excused from the formalities and fees of registration on the present convention.

Annex I

TRANSCAMEROONESE RAILWAY PROJECT

Area to be photographed

Scale 1/2,000,000

Annex II

List of aerial photographic proofs on scale of 1/50,000 one copy of which is provided for in article 6 of the convention.

(See list)

i.e. a total of 385 photos

The National Geographic Institute
Paris, _____

Prepared by
The Director General of
The Office of the Trans-
cameroonese Railway

Yaoundé, _____

- J. BAYON -

Submitted by
The Minister of Economic
Affairs and the Plan,
President of the Board of
Directors of the OCFT

Yaoundé, _____

- D. MASUKE -

Approved by the
Minister of Finance

Yaoundé, _____

- V. KANGA -

Mr. Gordon C. Billington

May 5, 1966

A.F. Geolot

Cameroon: Abidjan's Report of February 18, 1966

I attach a memorandum dated April 28 by Mr. Loven commenting on railways, one dated April 26 by Mr. Lowdon on ports, and another by Mr. Wubnig dated May 2 on transport in general. I am sorry that it has not been possible to complete a separate comment on the roads before Mr. Matter's departure but in this case the subject is somewhat more complex because we have the N'Gaoundere-Garoua project (the Ingeroute study) under consideration.

The road paper should be available in the coming week and we will let you have it with our views on further action for transportation.

Attachments (in duplicate)
AFGeolot:ew

cc: Mr. Calika
Messrs. Hardy/Loven
Lowdon
Engelmann

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

INTERNATIONAL DEVELOPMENT ASSOCIATION

OFFICE MEMORANDUM

TO : Mr. Warren C. Baum DATE: May 2, 1966

FROM : Arthur Wubnig

SUBJECT: CAMEROUN - Planned Development of Roads, Railways and Ports

1. Our Abidjan mission has reported its findings and recommendations on the choice of Cameroun transport projects for possible Bank/IDA financing. Their conclusions stem from their own survey of the transport needs of the economy and of the Government's program of transport investment.

2. Clearly, from the report, Cameroun transport investment since Independence has not been guided by analysis of the economic need for larger, better transport facilities with due regard to the Government's ability to pay from its own means a proper part of the costs of providing roads, railways and ports. Instead, transportation investment has been shaped and continues to be shaped primarily by political considerations, and by the availability of foreign aid.

3. The Cameroun is a political fusion of what was formerly a French territory with what was formerly a British territory. In order to create inter-regional routes tending to ensure more effective fusion, new road links ought to be built and existing roads improved between the northwest (ex-British Cameroons) and the rest of the country (ex-French Cameroons). As a matter of policy, the Government intends to provide this linkage regardless of present and future loads, potential road user savings, induced agricultural production, and induced inter-regional trade.

4. In the Cameroun, as elsewhere in Africa, public investment since Independence has been largely a process of creating such social overhead capital to enlarge the productive capacity of agriculture, forestry, and local manufacturing, as can readily be financed by donations, grants and long-term credits on non-commercial terms from overseas sources. As a rule, such aid has been more easily obtained for transport, power, and irrigation projects than for other types of project. It has been easier to obtain overseas aid for transport specifically because the developmental stimulus of good roads, railways and ports is usually self-evident; because Highway Departments, State Railways, and Port Administrations are usually better organized and staffed to execute construction and improvement projects than the public entities in charge, e.g., of small-holder agriculture, urban water supply and sewerage disposal, workers' housing, vocational training, primary and secondary schools; and because the inter-governmental financing agencies of overseas governments are accustomed to assessing transport projects and making transport loans.

5. The Cameroun program of transport development has three primary aims:

(a) linking the northwest more effectively with the rest of the country by road construction and improvement;

(b) extending the railway line northward in order (i) to provide better routes between the various productive areas inland, and the southern region along the Gulf of Guinea, and (ii) to forge an access route to the Lake Chad area (situated on the border between Nigeria and the Chad Republic); and

(c) providing more ample port facilities for the growing overseas trade of the Cameroun by expanding the port facilities of Douala and/or making Victoria/Tiko into a large deep-water port.

6. The mission report discusses the main projects aiming to effect (a), (b) and (c) above. These need not be reviewed here, in the Projects Department's opinion, because the Bank/IDA should refrain from large scale lending for Cameroun transport until a realistic investment program is formulated. The first step to formulating one would be a transportation survey aiming to assess the true needs of the economy for roads, railways and ports and aiming to establish the economic priority of (i) investment in transport instead of agriculture; and (ii) investment in the individual fields of transport and the specific projects of each.

7. Our Abidjan mission does recommend "an overall transport survey on which to base priorities". The Projects Department considers this recommendation sound, but we believe that the broad terms of reference, which the mission suggest, should be restated to make it clear that projects are to be chosen for their economic need and productivity, with due regard to the fiscal capabilities of the Government, the financial soundness of the public transport entities, and not for political reasons in the expectation that ample grants, donations, and long-term credits can be obtained abroad.

8. The mission report sketches the whole of the transport sector in broad outline, and discusses the need of proper routes, means of access, and means of haulage to develop the economy. However, it does not examine certain vital issues.

(a) Roads were built in the northwest Cameroun during the British colonial regime which channelled most of the region's small trade to/from Nigeria. These roads still exist and still serve their original purpose. It might be economically unsound to build routes meant to divert the trade of the northwest toward the southern Cameroun because of the region's limited productive resources and trade potentialities, the rugged terrain of the northwest, and the inherent wastefulness of using scarce investment funds to divert traffic from routes which reach extensive railway and road systems

and connect with a large deep-water port. A main task of the transportation survey we envisage would be judging whether and how far the trade of the northwest could usefully be re-channelled from the Lagos route to a Douala route.

(b) The Government of the Central African Republic proposes to build a railway link with the Cameroun Railways in order to shift most or all of the C.A.R.'s overseas trade to future rail haulage via Douala from IWT/rail haulage via Brazzaville and Pointe Noire (Congo BRA). The Special Fund sent this proposal to the Projects Department last year. On reviewing its economic and operational aspects, we concluded that the Government should first assess the economics of linking with the Cameroun Railways by an expensive rail link or, alternatively, by an inexpensive road link. A C.A.R. survey to this end is now going forward under terms of reference which we helped to formulate. A main task of the Cameroun survey we envisage would be to evaluate the needed increase in the productive capacity of the Cameroun Railways and the Port of Douala once they are directly linked with the C.A.R. by rail, road, or both.

(c) Although the mission's report discusses the fiscal phases of the Government's expenditure for railways, roads and ports, it does not discuss the finances and earnings of (i) the Cameroun Railways, and (ii) the Port of Douala Administration; does not assess the sufficiency of the funds allotted to the Highway Department for (i) the local currency costs of new construction and major improvements, and (ii) the maintenance and upkeep of roads. A main task of the survey we envisage would be to review (i) the earning power and financial status of the entities in charge of the railways and ports, and (ii) the adequacy of the road construction and road maintenance funds allotted to the Highway Department.

Conclusions and Recommendations

1. The Government's program of transport development has been shaped primarily by concern with political fusion of the various regions constituting the Cameroun and by the expectation that overseas grants, donations and credits will be readily forthcoming. Little regard has been given in formulating transport projects to the economic need for particular works and equipment, the urgency and productivity of specific projects, the capability of the Government to pay for road, railway and port construction from its own means, and the financial viability of the public entities which administer transport facilities.

2. In these circumstances, the Bank/IDA should refrain from large scale financing of road, railway and port projects until their economic, financial and fiscal aspects can be judged in the light of a realistic transportation survey.

3. There may, nevertheless, be some urgent works such as farm-to-market roads and a few more berths at Douala; these the Bank/IDA could

reasonably consider for prompt lending even before the results of the transportation survey become known.

4. The survey should aim, above all, to assess the economic needs and the economic productivity of particular programs and projects. Its basic purpose should be to fix economic priorities with due regard to the financial viability of the transport entities concerned and the fiscal capability of the Government. It should disregard political considerations as far as possible and not presuppose (i) that foreign aid can be readily obtained for each and every useful project, or (ii) that investment in transport is necessarily more urgent and productive than investment in other forms of social overhead capital. The survey should take into account not only inter-regional trade but also established trade between the northwest and Nigeria and the rail or road link with the C.A.R.

5. The survey should be carried out by outside consultants; their team should include transport economists, agricultural economists, financial experts and fiscal experts, as well as road, railway and port engineers.

6. The survey could be conducted either as a Bank/IDA operation or as a Special Fund operation with the Bank/IDA as executing agent; in either case, the Bank/IDA should help formulate the terms of reference, advise on the selection of consultants, and consult with the consultants in the field studies.

AWubnig:emcc
BANK/IDA

cc: Messrs. Geolot
Hardy
Lowdon
Loven
Adler
Engelmann
Billington (3)
Calika (2)
Wubnig (2)

FORM NO. 57 | INTERNATIONAL DEVELOPMENT ASSOCIATION | INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT | INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

TO: Mr. Warren C. Baum DATE: April 28, 1966

FROM: R.A.D. Loven

SUBJECT: CAMEROON: Review of the Transport Sector, Chapter III, Railroads by the Bank's Abidjan Office, of February 18, 1966.

Following are a summary and my comments:

1. The network is single track meter gauge and consists of two lines originating in the port of Douala, one in a northerly direction (172 km), and the other to the east terminating at the capital Yaounde (308 km). Total route length is 517 km including a 37 km spur off the Yaounde line.

2. Operations were fully dieselized and appeared to be reasonably efficient; management was still largely French. Traffic density in 1964/65 was: freight 335,000 tkm per km, and passenger 200,000 pkm per km, which usually would be marginal for a railway to be financially viable. However, average freight revenue was high (CFAF 8.7 per tkm, equivalent to US¢ 5 per short ton mile), even by West African standards, which resulted in a satisfactory working ratio of about 69%, operating revenues being about CFAF 1.9 billion and cash operating expenditure CFAF 1.3 billion. Freight revenues accounted for CFAF 1.5 billion or 80% of the total.

3. A current line construction program includes a section of 296 km from Yaounde generally eastward, and a connecting section in a northerly direction of 335 km, a total of 621 km. Total cost of the first section is US$36 million and is being financed by FED, USAID, FAC and French suppliers. Construction is underway and expected to be completed in early 1968.

4. The cost of the second section, a total of US$ 41 million, was expected to be covered by the same agencies as mentioned above who would make their decision before the end of 1966. Construction of this section would be completed by the end of 1970.

5. In addition, a spur (30 km) is being built linking the northern line with West Cameroon. The cost of US$ 4.6 million is being met from the Railways' own resources (32%) and from grants by FED and FAC.

6. Other line extension planning was at various stages of preliminary studies, and some proposals involved extensions into neighboring countries (Chad, Nigeria). In general, the Abidjan Office's Review concluded that there would seem to be no economic justifications for these latter line extensions before, say 1975. Therefore, it seems unlikely that a bankable railway project would emerge from Cameroon in the near future.

7. The Abidjan Office's Review is well organized and gives adequate general information of the Railways' present operations and earnings, and of their projects and line extension plans. However, it would also be of help if a detailed map of the country were attached to the Review.

RADLoven:bb
IBRD

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FORM NO. 57 | INTERNATIONAL DEVELOPMENT ASSOCIATION | INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT | INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

TO: Mr. Warren C. Baum

DATE: February 28, 1966

FROM: X. de la Renaudière

SUBJECT: Cameroon - Railroad Project

1. Attached are (i) a dossier concerning the second section of the Trans-Cameroon Railroad and (ii) a memorandum including the comments of AID on the project.

2. The first section of the railroad is being built with joint financing from the EEC, the French Government and AID. The three institutions appear to be pretty well determined to go ahead with the financing of the second section. Indeed, the Belabo region where the first section ends is almost an economic vacuum and it would not make much sense to stop the railroad before NGaoundéré. However, with the cost of construction of the first section having exceeded the initial forecast, the three agencies involved are looking for others to provide some part of the financing necessary for the construction of the second section, and two of them, AID and EEC, are inquiring about possible Bank financing, up to say $8-10 million.

3. We have told AID that before they even suggest to the Government that it approach the Bank, we would have a first look at the information available on the project and inform them whether there was any chance at all that we might be interested. We would, consequently, appreciate your comments on the conception and justification of the project. I should say that we have already commented that coming in to appraise and finance a project one half of which is already completed and the other at an advanced stage of preparation is not a very attractive proposition.

Attachments - 2

Cleared with Mr. Williams
cc: Mr. Matter
Mr. Calika

FORM NO. 75
(2-60)

INTERNATIONAL BANK FOR
RECONSTRUCTION AND DEVELOPMENT

INTERNATIONAL FINANCE
CORPORATION

INTERNATIONAL DEVELOPMENT
ASSOCIATION

ROUTING SLIP

Date: March 2, 1966

NAME	ROOM NO.
Operational Files	

	To Handle		Note and File
	Appropriate Disposition		Note and Return
	Approval		Prepare Reply
	Comment		Per Our Conversation
	Full Report		Recommendation
	Information		Signature
	Initial		Send On

REMARKS

Copy of memo only attached. Dossier lent to us by AID (about 5" thick) has been sent to Baum and on return will have to be sent back to AID.

From: Doris Irving for X.delaRenaudière