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AGENCY FOR INTERNATIONAL DEVELOPMENT
Washington, D.C. 20523

OFFICE OF THE AUDITOR GENERAL
AREA AUDITOR GENERAL - LATIN AMERICA

AUDIT REPORT

USAID/BRAZIL

HIGHWAY ENGINEERING TRAINING AND ADVISORY SERVICES

HIGH LEVEL TECHNICAL ASSISTANCE

TO

DEPARTAMENTO NACIONAL DE ESTRADAS DE RODAGEM

LOAN No. 512-L-060

512-02290/1801

COPY No. 12

For the period December 1, 1968
through September 30, 1972

Audit Report No. 1-512-73-65
December 27, 1972

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REPORT ON EXAMINATION
OF
LOAN No. 512-L-060
HIGHWAY ENGINEERING TRAINING AND ADVISORY SERVICES
HIGH LEVEL TECHNICAL ASSISTANCE
TO
DEPARTAMENTO NACIONAL DE ESTRADAS DE RODAGEM

SECTION I - SCOPE OF EXAMINATION

The Brazil Residency of the Area Auditor General, Latin America has performed an examination of Loan No. 512-L-060, Highway Engineering Training and Advisory Services, High Level Technical Assistance to the Departamento Nacional de Estradas de Rodagem (DNER). This interim examination of the loan covered the period from the cut-off date of our prior audit report, December 1, 1968, through September 30, 1972. The audit was performed, intermittently, during the period from August 1, 1972 to October 31, 1972.

The main objective of the examination was to evaluate the effectiveness of the planning and implementation of the loan. Other purposes were to evaluate the administrative and financial management of the loan and the degree of compliance with the terms of the loan and AID policies and regulations.

Our examination was made in accordance with generally accepted auditing standards and included such tests of the financial records and loan related documents as were considered necessary in the

circumstances; and, discussions with concerned Mission and United States Federal Highway Administration (FHWA) officials.

Before issuance, this report was reviewed with the appropriate USAID/Brazil officials and their comments were given due consideration.

SECTION II - BACKGROUND INFORMATION

In mid-1965, the DNER requested the Mission to provide assistance in accomplishing the reorganization and redefinition of the purpose of the DNER, with a view of training personnel and developing the DNER into an institution comparable in function to the FHWA.

According to the Capital Assistance Paper (CAP), prepared for this loan, the DNER indicated that it would delegate its maintenance function to the various states. The CAP also stated that the International Bank for Reconstruction and Development (IBRD) and the Mission had separately concluded that the DNER should divest itself of operating functions (construction and maintenance) and concentrate on planning construction programs, establishing standards, supervising and financing.

In this connection, the CAP pointed out that in the Memorandum of Understanding between the IBRD and the Government of Brazil (GOB), the following objective relative to the DNER was set forth: the DNER "will be reorganized with a view to concentrating its activities on its major function of planning and control. The construction and maintenance of national highways will, as soon as practicable, be delegated to the individual State Highway Departments."

In keeping with the DNER's request for assistance, Loan No. 512-L-060, in the amount of US\$400,000, was authorized by AID/Washington on June 27, 1966. The loan agreement was not signed,

however, by the DNER until August 1967 because of a delay in obtaining presidential authorization. There was a further delay, for unknown reasons, in obtaining the signature of the Minister of Finance. This signature was not obtained until March 28, 1968, which then became the effective date of the loan.

The purpose of the loan is to provide for a comprehensive analysis of the DNER organization, responsibilities and activities; the preparation of a long-range plan for the improvement of the DNER organization and efficiency; the implementation of the plan; and, if found justified, to schedule and assist in the implementation of an orderly long-range transfer of maintenance and construction responsibilities to the States.

The Loan Agreement stated that the Mission would arrange for the services of a FHEIA team, composed of a team leader, four full-time team members and various temporary duty members. The team was to: (a) assist the DNER in the accomplishment of the purposes of the Agreement; (b) assist the DNER and its Brazilian consultant in the execution of the management study; and, (c) assist the DNER in implementing the adopted recommendations of the management study.

The Loan Agreement also stated that the Mission would assist the DNER in arranging and executing a training program in the United States for DNER employees.

The DNER agreed to retain and finance the services of a Brazilian consulting firm to perform a management study of

DNER organization and operations, in cooperation with the FHWA advisors.

In order to obtain the services of the FHWA advisors, Project Implementation Order/Technical Services (PIO/T) No. 512-229.1-2-6580032 was issued on December 10, 1968. The PIO/T showed that, in accordance with the CAP, the services of a Highway Engineer (Chief of Party (COP)), a Highway Planning Engineer, a Materials and Design Engineer, a Construction Engineer, a Cost Accountant and 12 various temporary duty advisors were required.

The PIO/T has been amended three times. The current amendment calls for two Highway Engineers (COP and Assistant), a Planning and Programming Engineer, a Construction Engineer, a Maintenance Engineer and various unnumbered temporary duty advisors.

Five Project Implementation Order/Participants (PIO/P) have been issued by the Mission in conjunction with the training of six DNER employees in the United States.

One Project Implementation Order/Commodities (PIO/C), No. 512-229.5-6580611, in the amount of US 500, has been issued by the Mission for the procurement of technical publications by the FHWA.

The current Terminal Date for Disbursements under the loan is June 30, 1973.

A financial summary of the loan, as of September 30, 1972, according to the accounting records maintained by the Office of

the Controller, USAID/Brazil, is as follows (please refer to Exhibit A for the detailed status of the loan):

<u>Description</u>	<u>In US Dollars</u>				
	<u>Loan Amount</u>	<u>Committed</u>	<u>Disbursed</u>	<u>Undisbursed</u>	<u>Uncommitted</u>
	400,000				
Technical Services		340,000	230,608	109,392	
Participants		15,680	7,087	8,593	
Commodities		500	67	433	
Total	400,000	356,180	237,762	118,418	43,820
	=====	=====	=====	=====	=====

SECTION III - SUMMARY OF EXAMINATION

Our report shows that although the CAP stated that the goal of the loan was to assist in the transformation of the DNMR from an operational type organization to a planning, financing, supervising, etc. type organization, similar to the FHWA, by 1970, the implementation of the loan has been considerably delayed and the purpose of the loan will not have been accomplished by the current terminal date for disbursements of June 30, 1973.

We found that while the loan was authorized in June 1966, the loan agreement was not signed by the Minister of Finance until March 1968, a delay of approximately 21 months.

After the signing of the loan, the implementation of the project was delayed because of differences of opinion in the Mission regarding the purpose and necessity of the loan. These differences arose because the DNMR had entered into a contract with a Brazilian consulting firm (the Fundação Getulio Vargas (GVF)), for the purpose of performing a study directed toward the reorganization of the DNMR. The consulting firm was also to implement its reorganization study.

In order to resolve the Mission's differences, a FHWA consultant was brought to Brazil to determine whether or not the loan should be carried out. The consultant, after studying the operations of the DNMR and the GVF, recommended that the loan, as signed, should not be implemented. The Mission, therefore, notified the DNMR that the loan was being cancelled.

However, the IERD requested that the loan not be cancelled until it had an opportunity to discuss the loan with the Mission and the DNER.

As a result of these discussions, the Mission decided that the loan should not be cancelled and that implementation of the loan would focus on the carrying out of the recommendations contained in the GVF's reorganization study.

Our report states that because only portions of the GVF's study related to the administrative reorganization of the DNER have been partially accepted by the DNER, the FHWA team has devoted its efforts to the reorganization and improvement of the DNER's technical operations. In this connection, the FHWA team has occasionally worked in conjunction with other technical consulting firms retained by the DNER.

The report indicates that, according to the prior COP of the FHWA team, the organization of the DNER is currently similar to a State Highway Department organization in the United States and that a long range goal of approximately 10 years will be necessary to transform the DNER into an organization similar to the FHWA.

Although the Mission allocated US 60,000 for the participant training of an unspecified number of DNER employees, only US 15,000 have been committed by the Mission for the training of six DNER employees in the United States. The DNER has indicated that it wishes the US 45,000 of uncommitted

participant training funds to be used in connection with meeting the "requirements for the technical assistance program."

Our report contains one recommendation for action by the Mission.

SECTION IV - FINDINGS AND RECOMMENDATIONS

A. TECHNICAL SERVICES

1. Planning

In August 1967 Loan No. 512-L-060 was signed by the Mission and the DNER. The agreement, however, did not become a legally binding instrument on the Government of Brazil (GOB) because of the absence of the signature of the Minister of Finance. This signature was not obtained until March 28, 1968, approximately 21 months after the loan had been authorized and approximately two months after the Mission had notified the DNER of its intent to cancel the loan and deauthorize the funds.

The loan agreement, as signed, called for the Mission to provide the services of a team of five FHWA technicians and temporary duty (TDY) personnel to assist in the analysis and reorganization of the DNER. These services were to be in cooperation with the services of a Brazilian consulting firm to be employed by the DNER.

It was noted that at the time of the signing of the loan agreement, the DNER had already entered into a contract with a Brazilian consulting firm. This contract, No. PG/SJ-1/68, dated January 3, 1968, was entered into with the GVF and called for the consultant to prepare a study of the DNER and (as amended) to assist in the "administrative reform" of the DNER. The term of the contract (as amended) was approximately two years, i.e. until approximately January 1970.

The Mission, however, was unable to issue the necessary PIO/T for the FHWA technicians because the DNER was unable to

satisfy the Conditions Precedent to the loan within the time frame set forth in the loan. The Conditions Precedent were eventually satisfied and approved by the Mission on November 25, 1968, approximately five months after the established date. PIO/T No. 512-229.1-2-65⁰⁰⁰² was therefore issued on December 10, 1968, to obtain the FHWA technicians.

We noted that during the period between the signing of the loan agreement and the issuance of the PIO/T, there appeared to be consternation between the Mission and the DNER regarding the necessity and purpose of the loan. In a memo, dated June 25, 1968, regarding a meeting of the Mission's Loan Committee, the Mission's Legal Advisor (LEG), informed the Mission Director that the position of the Mission's Engineering and Natural Resources Office (ENRO) was that neither the Mission nor the DNER were enthusiastic about the loan and that it was entered into at the behest of the IBRD. The LEG also stated that the ENRO and the Mission's Capital Development Office (CD) felt that the project was not a worthwhile endeavor because of the general attitude of the DNER.

Memoranda of Conversation dated in July 1968 relating to meetings between Mission representatives and the Director of the DNER, stated that the "technical assistance originally envisioned was no longer necessary" and that "the proposed scope of work for the FHWA team would complement the current organizational study being done by the GVF, as it would be related to the technical implementation of the recommendations arising from the study."

Although it was evident from the discussions with the DNER that the scope of work for the FHWA technicians would be different from that envisioned in the loan agreement, the pertinent PIO/T, when issued in December 1968, contained the same scope of work as that shown in the loan agreement.

After the issuance of the PIO/T there was apparently no recruitment of technicians because disagreements arose within the Mission regarding the purpose of the loan and whether or not the loan should be cancelled.

To resolve the issue, the Mission Director agreed to an ENRO suggestion that a FHWA consultant make a preliminary study of various aspects of the DNER with the primary objective of determining the receptivity of the DNER to a FHWA team. This study would have a secondary objective of determining the FHWA staff needed to proceed with the project if the DNER's receptivity was favorable.

The FHWA consultant arrived in Brazil in early June 1969 and carried out his survey of the DNER during that month.

In his reports to the Mission, the FHWA consultant stated that although the DNER needs and wants technical assistance:

- a. The GVF had studied the organizational structure of the DNER and issued a report, in February 1969, relating to the reorganization of the DNER.
- b. The reorganization of the DNER had been effected, generally along the lines of the recommendations contained in the GVF report, by Decree Law No. 64,242, dated March 21, 1969.

- c. The GVF was in the process of implementing its report.
- d. The recommended DNER organization appeared to be oriented to direct operations rather than an agency which would exercise direction, control, coordination and evaluation of highway programs.
- e. Single language counterpart personnel, let alone bilingual counterparts, were not available within the DNER.
- f. DNER support personnel for the FHWA team were not available.

In his final report to the Mission, the FIMA consultant stated that he could not "recommend that FHWA attempt technical assistance under the circumstances now present at DNER, because I am convinced that it would not be effective in the sense and to the extent expected by USAID."

As a result of the FHWA consultant's report, the Mission notified the DNER, in August 1969, that the loan was being cancelled and the funds would be deobligated. The Mission then, in early September 1969, requested AID/Washington to cancel the loan and to deobligate the funds.

In this connection, AID/Washington advised the Mission that it was delaying cancellation action because the IERD had expressed the desire that the loan not be cancelled without the IERD having an opportunity to discuss the loan with the Mission and the DNER.

During a meeting between the Mission and the IERD, the IERD representative stated that "the IERD considered technical assistance to the DNER by the FHWA to be a very important element of their negotiated transport sector financing and was essential to the proper implementation of the DNER reorganization study." The IERD representative also stated that "the DNER was interested in having FHWA assistance and felt that a useful role could be played by the FHWA in implementing the reorganization."

In a subsequent meeting between the Mission and the Director of the DNER, the Director stated that the IERD "has been insistent that the AID Loan OGO not be deobligated and that FHWA assistance be taken by DNER." The Director also stated that "DNER needed FHWA assistance, however not in the reorganization area itself but in various technical specialty areas for which FHWA was best qualified, such as programming, planning, design work, etc."

Apparently as a result of the various meetings, the PIO/T was amended in February 1970 to modify the scope of work by placing emphasis on the implementation of the reorganization studies already completed or in process.

In this connection, the Mission notified AID/Washington that the "project to be implemented is same project but with stress now placed on technical assistance for implementation of reorganization which has already been established without loan assistance by Vargas Foundation and DNER. Revised PIO/T

has same mix of personnel but with more emphasis on TDY "as needed" assignments rather than four full time consultants."

We noted that this amendment to the PIO/T dropped the requirement for a Materials and Design Engineer and substituted a requirement for a Maintenance Engineer. The amendment also changed the number of man-months of TDY personnel from 18 to 24.

We have also noted that two subsequent amendments to the PIO/T have changed the number and types of technicians required and reduced the number of man-months for TDY personnel.

The current amendment to the PIO/T calls for two Highway Engineers (one to replace the other as Chief of Party), a Planning and Programming Engineer, a Construction Engineer and a Maintenance Engineer. This amendment also shows that only seven man-months are allocated for TDY personnel.

2. Operations

In keeping with the issuance of PIO/T No. 512-229.1-2-650002, in December 1968, AID/Washington entered into a Participating Agency Service Agreement (PASA) with the FHWA in April 1969.

However, as indicated above, there was no recruiting action until after the amending of the PIO/T and the PASA, in February and April 1970, respectively.

Prior to the arrival of the COP (the Highway Engineer) and the Construction Engineer in September 1970, the FHWA assigned the Chief of its Latin America Branch, Foreign Projects Division,

to the project, during the period June 22, 1970 to July 26, 1970, in order to initiate the implementation of the program.

The Programming and Planning Engineer arrived in Brazil in February 1971 and the Maintenance Engineer arrived in November 1971, approximately 19 months after the issuance of the amended PASA calling for this type of service.

In January 1972, a Highway Engineer arrived in Brazil on TDY assignment. The assignment was subsequently changed to the permanent position of Assistant COP. This engineer is currently the COP for the program.

During March 1972, a TDY advisor provided assistance to the DNER in the improvement of its highway mapping program.

Two additional TDY personnel, members of a FHWA Design Team, arrived in Brazil in August 1972 from Argentina, and presented an abbreviated design course, consisting of three hour sessions on three different days.

During our review of the Mission's files and the COP's monthly activity reports, we found that although several of the early monthly activity reports stated that the GVF had been contacted, there was no evidence to show that any actual coordinated implementation of the GVF's reorganization study had been performed.

We were advised by the COP and the Mission's Project Manager that since only those portions of the GVF's study relating to the administrative operations of the DNER had been partially accepted by the DNER, the FHWA team has devoted its efforts, both

independently and in conjunction with other DNER technical consultant firms, to the reorganization and improvement of the DNER's technical operations.

Some of the areas in which the team has provided advice and assistance to the DNER are: developing a coordinated data system for highway planning; improving traffic counting procedures; designing a national highway functional classification system; and, developing new contract bidding procedures.

Presently the efforts of the Maintenance Engineer and the current COP are directed at the establishment of model maintenance residencies for the DNER. Based upon the team's recommendations, a model residency has been established in each of three states. These model residencies are to demonstrate proper preventive maintenance procedures to the DNER and State highway maintenance personnel. According to the Mission's Project Manager, these residencies will also provide the DNER with the criteria to determine the ability of a state to adequately carry out its maintenance responsibilities for Federal and State highways.

We have noted that although the CAP indicated that the ultimate goal of the loan is to transform the DNER into a planning and advisory type organization, the current organization of the DNER, according to the former COP of the FHWA team "is quite similar in many respects to State Highway Department organizations in the United States." The former COP stated, in his final report, that "a long range goal of approximately 10 years should be established for a change in DNER's activities to a supervisory, guidance role rather than direct operations of the system.

B. PARTICIPANT TRAINING

The Mission, in Implementation Letter No. 2, dated October 7, 1971, notified the DNER that US\$60,000, of the loan's funds, had been allocated for the participant training of an unspecified number of DNER employees. The letter requested that the DNER submit a plan, by March 31, 1972, identifying specific training goals and candidates for training. There was no evidence that the DNER had ever fully complied with this request.

However, we found that the Mission had issued five PIO/P's, totalling US\$15,000, for the short term training of six DNER employees in the United States. All of the trainees have completed their training and returned to the DNER.

The Mission's Project Manager has advised us that no other DNER employees will be sent to the United States for participant training because of the limited English language proficiency of DNER employees.

Although it appears that the residual training funds, US\$45,000, will be excess to the program, the DNER, on August 17, 1972, requested that the terminal date for commitment of funds under the loan be extended to December 31, 1972, "so that uncommitted participant training funds can be used to meet dollar funding requirements for the technical assistance program." The Mission complied with this request through the issuance of Implementation Letter No. 4, dated December 31, 1972.

Since the Mission is presently awaiting commitment documentation from the DNER, we are making no recommendation relating to

the deobligation of the residual participant training funds. However, we feel that the Mission should ensure that the DNER provides sufficient documentation regarding the need for and specific utilization of these funds.

C. COMMODITIES

PIO/C No. 512-229-5-6580611 was issued on October 14, 1971, in the amount of US 500, for the procurement of approximately 140 technical publications through the FHWA/ Washington.

According to information provided by the FHWA team, all but five of the publications have been procured.

Although the financial records maintained by the Mission's Office of the Controller show that only US 67 have been expended under the PIO/C, as of September 30, 1972, the FHWA team advised that, based upon information provided by its Washington office, all of the remaining funds will be required for the liquidation of the PIO/C.

D. REPORTS

Although Section 17 of the Special Loan Provisions to Loan No. 512-L-060 states that the DNER "shall furnish to AID such information and reports relating to the loan and to the program as AID may request," there was no indication that the Mission had requested the DNER to submit any reports on the program.

We feel that reports relating to the activities of the DNER and its consultants, other than the FHWA team, in connection with the goals and objectives of the loan would be of beneficial interest to the Mission.

Recommendation No. 1

The Mission should request the DNER to submit a report relating to the activities being performed in connection with the DNER's reorganization program.

E. GENERAL COMMENTS

The Brazil Audit Residency has issued one prior audit report relating to Loan No. 512-L-060. The report, No. 27/69, covering the period March 23, 1968 through November 30, 1968, contained one recommendation which has been satisfactorily closed by the Mission.

EXHIBIT A

LOAN No. 512-L-060

TECHNICAL ASSISTANCE TO DNER

FINANCIAL STATUS AS OF SEPTEMBER 30, 1972

<u>COMMITMENTS</u>	<u>AMOUNT COMMITTED</u>	<u>AMOUNT DISBURSED</u>	<u>TO BE DISBURSED</u>
DA 01 PIO/T 6580082	\$ 340,000	\$ 230,608	\$ 109,392
DA 02 PIO/C 6580611	500	67	433
DA 03 PIO/P 6580615	730	662	68
DA 04 PIO/P6580634	1,150	721	429
DA 05 PIO/P 6580646	2,100	1,130	970
DA 06 PIO/P 6580647	4,200	2,314	1,886
DA 07 PIO/P 6580648	7,500	2,260	5,240
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	\$ 356,180 =====	\$ 237,762 =====	\$ 118,418 =====
Uncommitted Balance			\$ 43,820 =====

EXHIBIT B

DISTRIBUTION OF
AUDIT REPORT
No. 1-512-73-65

	<u>COPY No.</u>
Mr. William A. Ellis, Director, United States Agency for International Development Mission to Brazil	1 - 10
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NOTE: All audit work papers are attached to COPY No. 23 which is on file in the Brazil Audit Residency Office, AAG/LA.