PD-AAF-786

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1981

Auditor General

AUDIT REPORT

ROAD MAINTENANCE II

PROJECT NO. 521-0084

USAID/HAITI

Audit Report Number 1-521-80-9

Issue Date April 30, 1980

Area Auditor General Latin America
Agency for International Development

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ROAD MAINTENANCE II
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EXECUTIVE SUMMARY

Introduction

In 1973 the Agency for International Development (AID) began to assist the Government of Haiti (GOH) to develop a permanent road maintenance capability. The project was called Highway Maintenance I and AID's input was a $3.1 million loan and a $2.0 million grant. Implementation ran from August 1973 through March 1978. Progress toward the establishment of an effective road maintenance program was slow. In a prior review, we reported that accomplishment was seriously frustrated and retarded by the lack of an effective organization to absorb the benefits of the technical assistance.

AID continued its assistance with a follow-on project called Road Maintenance II. The Grant Agreement was signed in June 1977 and provided $4.4 million. A 1979 amendment increased the grant by $1.2 million. The present project consists of several major components: (a) Equipment procurement of $1.5 million; (b) Technical assistance of $1.5 million; (c) Facilities construction of $1.0 million; and (d) Training of $1.6 million (including $1.2 million provided by a 1979 amendment).

We have made an interim audit of Road Maintenance II to determine what progress has been made toward achievement of an effective road maintenance capability by the GOH with AID-provided support.

Scope

This interim review was made to: (a) review the progress made in achieving project objectives; (b) examine the effectiveness of project management; (c) identify problems requiring management attention; and (d) determine if AID-provided resources were being used according to grant agreement terms and AID regulations. Our coverage was from June 30, 1976, to February 29, 1980.

Conclusions and Recommendations

An effective road maintenance capability has yet to be achieved by the GOH. The AID/GOH-financed Road Maintenance II project has administrative, operational, managerial, and training problems. These problems have hindered the development of the GOH's road maintenance organization into a self-sustained, full fledged road maintenance agency (page 4).

The management of the GOH road maintenance organization has been exposed to qualified technical assistance for almost seven years, but the organization has not developed a road maintenance capability that can function properly without the back-up of a technical assistance consultant. Working through counterparts, backed up by the technical assistance advisors provided by the contractor, the organization is still acquiring the management skills needed to carry out all aspects of road maintenance work (page 5)

The Grant Agreement specifies that new salary scales be developed. Aside from minimum-wage pay scales, no other pay reforms have been made. A request to elevate the road maintenance organization's pay scales to that of other GOH agencies has not been acted upon (page 7). We recommended that USAID/Haiti follow-up to determine what progress is being made (page 8).

Shortages of spare parts, and the need for adequate inventory controls and a spare parts management system have had a adverse effect of equipment maintenance. This has resulted in an equipment downtime rate ranging between 35 to 40 percent for the past several years (page 8). We recommended that USAID/Haiti urge the GOH implementing agency to review responsibilities and where possible to delegate additional authority over spare parts management and inventory control (page 11).

In our opinion, the Training Component of the Road Maintenance II project is the linchpin of the entire maintenance program. If the expanded training program is not successful, we believe serious consideration should be given to discontinuing further AID support of the GOH road maintenance program. USAID/Haiti disagrees with this view (page 14).

BACKGROUND

In 1972, the U.S., acting through the Agency for International Development (AID), agreed to participate with the International Bank for Reconstruction and Development (IBRD), the Interamerican Development Bank (IDB), and the Government of Haiti (GOH) in a joint effort to reduce the deterioration of Haiti's national highways.

In late 1972, the IDB initiated construction of about 123 miles of highway between Port-au-Prince and Les Cayes on the southern peninsula. During the same period, the IBRD initiated planning for a loan to rehabilitate 168 miles of highway between Port-au-Prince and Cap Haitien on the northern peninsula. Both activities were contingent on a joint commitment from AID and the GOH to upgrade an existing maintenance service so that the GOH would have a permanent road maintenance capability.

In February 1973, AID agreed to lend the GOH $3.1 million for a road maintenance program to be called Highway Maintenance I. The funds were used to provide the Service d'Entretien Permanent du Reseau Routier National (SEPRRN)* with the organization and resources needed to maintain the backbone of the national road system being constructed or rehabilitated with IBRD and IDB financing. Eventually, SEPRRN would assume the country-wide road maintenance responsibility. Major items financed by the AID Loan were highway maintenance equipment and maintenance shops.

A $2 million AID grant covered the cost of technical assistance for the maintenance program. In August 1973, SEPRRN signed a grant-funded technical assistance contract with a U.S.-based consultant. The consultant provided the initial training and some spare parts, tools, and equipment.

AID and the GOH realized that establishing a highway maintenance institution would not be easy, mainly because there is no tradition of orderly maintenance in Haiti. Progress was slow, and SEPRRN did not acquire the ability to operate independently. Even so, AID and the GOH decided that the Road Maintenance II Program was justified. SEPRRN had a capital investment of about $3.5 million in facilities and equipment.

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* The National Permanent Highway Network Maintenance Service; Hereinafter in this report referred to as SEPRRN.

The original Road Maintenance II Grant Agreement was signed in June 1977. (A 1979 amendment increased the training component and the total grant by $1.2 million.) Joint AID/GOH contributions to the program will total $26.5 million:

AID	($000)
Construction	$ 1.2
Highway Maintenance Equipment	4.7
Community Action	0.2
Technical Assistance	2.1
Training	1.6
	$ 9.8
GOH	
SEPRRN Operating Costs	$16.7
Total	$26.5

Construction money will be used to build a central administration facility at Port-au-Prince, a fourth garage/office facility in the city of Hinche, and six more subdistrict facilities. As of February 29, 1980, accrued expenditures were $9.5 million:

Phase I	($000)
Loan AID 521-L-005	$3.1
Grant 521-G-072	2.0
Phase II	
Grant 521-G-084	4.4
Total	$9.5

In January 1978, SEPRRN signed a contract with a U.S.-based consultant for 48 months of service, and the previous consultant was phased out shortly thereafter. The new consultant is responsible for transforming SEPRRN into an organization that will be capable of assuming country-wide responsibility for maintaining about 2,500 kilometers (1,563 miles) of roads by 1980. The consultant's scope of work provides for nine full-time advisors and a total of 354 man-months of work to complete the assignment. Advisors will assist in planning and budgeting, procurement and inventories, equipment maintenance, training, and on-the-job supervision of road maintenance operations. As of February 29, 1980, the contractor had been paid $1,491,031:

Contract Amount	$2,127,803
Reimbursed	1,491,031
Balance	$ 636,772

The AAG/LA made an interim review of the Phase I activities from the initial status on February 28, 1973, up to June 30, 1976. Audit Report No. 1-521-77-25 was issued January 18, 1977. The report's conclusion was that an effective road maintenance capability had not been developed; therefore, "the term and cost of AID's technical assistance, originally estimated to be completed in three years and four months will increase substantially before the benefits of AID's investment become evident".

Scope

This is an interim audit of the USAID/Haiti Road Maintenance II grant project for which expenditures totaled $4.4 million as of February 29, 1980. The purpose of our examination was to review the progress made in achieving project objectives, to identify problems requiring management attention, and to see if AID-provided resources were being used according to grant agreement terms and AID regulations. The period covered was from June 30, 1976, cutoff of our prior audit, to February 29, 1980.

Road Maintenance II project records, files, and activities were examined on a selective basis, and to the extent necessary to render an opinion on the road maintenance capability of the Haitian Government. Project implementation was discussed and reviewed with USAID/Haiti and host country officials, and personnel of the technical assistance consultant. Field visits were made to several road maintenance garage/repair shops and administrative facilities.

A draft report was reviewed with USAID/Haiti management officials. Their comments were taken into consideration in this report.

AUDIT FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Overview and Conclusion

An effective road maintenance capability has yet to be achieved by the Government of Haiti (GOH). The AID/GOH-financed Road Maintenance II project has administrative, operational, managerial, and training problems. These problems have hindered the development of SEPRRN into a self-sustained, full-fledged road maintenance agency.

SEPRRN management has not implemented an effective preventive maintenance program; therefore the benefits to be derived from such a program have not been realized. Repair of vehicles and other road maintenance equipment remains a problem due to improper diagnosis of the causes of breakdowns, slow acquisition of spare parts for a variety of reasons, and lack of proper supervision and training of mechanics. The downtime for primary and support maintenance equipment has been in an estimated range of 35 to 40 percent for the past several years.

Since SEPRRN does not yet have the necessary skills to operate a road maintenance system, it cannot function effectively without technical assistance support. Nevertheless, progress has been made toward the attainment of project objectives. In the last year, several encouraging and much needed steps have been taken:

-- The Maintenance Management Reporting System, developed by SEPRRN with the help of the technical assistance contractor, was accepted in full by SEPRRN in January 1979. Since then, SEPRRN and the contractor have been implementing the system for all maintenance activities. In February 1980, a review by SEPRRN and the contractor was underway to evaluate performance and SEPRRN's ability to carry out planned maintenance in the future.

-- The GOH has recently appointed a new Director General of SEPRRN. He is a civil engineer and has had experience in road construction.

-- The technical assistance contractor, F.R. Harris, Inc., has replaced its Chief-of-Party. This was done at the request of SEPRRN because of conflicts between the Chief-of-Party and SEPRRN management officials.

-- Reorganization of the Port-au-Prince central garage was in progress. An inspection unit to diagnose needed repairs was being added. This should greatly improve the repair process.

-- The newly approved training program is heavily geared toward developing the expertise of mechanics. This should increase SEPRRN's capability to identify repair problems and to speed up the repair process, resulting in a reduction of the deadline rate.

-- A Min/Max stock system and a component exchange system were being introduced to improve spare parts availability and speed up equipment repair. This should assist in bringing down the deadline rate.

After implementation of the Maintenance Management Reporting System began in January 1979, SEPRRN's goals were revised. According to the Grant Agreement, and the Project Paper, by 1980 SEPRRN road maintenance was to have covered 2,500 kms. of roads and 48 bridges. Late new equipment arrival forced SEPRRN to make what they considered a "manageable" revision in the FY 1979/80 goal.

Project Paper Goal	Category	Revised Goal
1,000 kms.	National Roads	600 kms.
1,500 kms.	Departmental Roads	1,400 kms.
48	Bridges	15

As of February 1980 goal achievement is:

240 kms.	National Roads	40% of goal
500 kms.	Departmental Roads	35% of goal
9	Bridges	60% of goal

The late arrival of Lot #1 equipment was blamed for the shortfall in targets but USAID/Haiti believes that not only will SEPRRN reach the revised goal set for this fiscal year, they will also reach the end of project goal of 2,385 kilometers of roads and about 150 bridges However, there is still some doubt about SEPRRN's capability to carry out a road maintenance program without the back-up of a technical assistance consultant for a few more years.

Road Maintenance Capability

Technical Assistance

SEPRRN's management has now been exposed to qualified technical assistance for almost seven years but the organization has not developed a road maintenance capability that can function properly without the back-up of a technical assistance consultant. Working through counterparts, backed up by the technical assistance advisors provided by the contractor, SEPRRN is still acquiring the management skills needed to carry out all aspects of road maintenance work. According to the USAID/Haiti project manager and the consultant's former chief-of-party:

> "SEPRRN is lacking in its ability to manage these activities...The expertise required for a majority of the road-maintenance activities in Haiti is not of a highly technical nature. SEPRRN personnel have most of the required skills. However, many have not received any training as managers and are thrown into situations where they are in charge of segments of an organization responsible for the maintenance of the network of roads of the nation."

Much of the cause for this condition was attributed to the unwillingness of the former SEPRRN Director General to delegate authority to line management, and lack of an organized training program. For these reasons, the expected upgrading of skills has not occurred to the extent necessary for SEPRRN's staff to independently manage road maintenance activities.

The former SEPRRN Director General managed the organization for almost four years and delegated very little authority to his staff. Because he made all decisions, the activity was stifled. In December 1979, the GOH appointed a new Director General.

Technical Advise

The first consultant, Hoskins-Western-Sonderegger, was contracted by SEPRRN in 1973 during SEPRRN's early months as an autonomous agency. The Hoskins contract cost AID $2 million and covered a span of 57 months (August 1973 to February 1978). The successor consultant, Frederic R. Harris, Inc., has been working with SEPRRN for about 26 months on a 48-month contract. Harris has provided a staff of nine specialists, each skilled in his particular field.

SEPRRN's former Director General, according to the consultant's chief-of-party, depended on him too heavily; he found himself functioning more as an operations manager than as an advisor. From time to time, members of his staff have likewise been relied on to function as operators rather than as advisors. The chief-of-party's rationale for permitting this dependence was that someone had to get the work done.

According to the consultant's systems advisor, it has been difficult to get personnel on the SEPRRN staff to accept any responsibility. Resistance seems to come from the feeling that it is the individual who is being tested rather than the system, and that failure to deliver the expected results may reflect negatively on the individual.

The 83 months of technical assistance cost AID about $3.5 million. SEPRRN obtained about $1.8 million of U.S. Government-financed equipment from Highway Maintenance I. Under Road Maintenance II, most of a $1.9 million equipment purchase has been received and contracts for another $2.0 million of equipment were awarded in January 1980. Despite these expenditures, the hoped for maintenance capability has not yet materialized. But substantial progress was achieved in planning and increased activities in maintenance, as pointed out in an AID-financed evaluation carried out in May and June of 1979:

> "Although SEPRRN's actual field performance ranges from excellent to non-existing, its overall prospects of performance appear to have increased substantially over the period evaluated. Thus, (at least) we think the preparations and planning undertaken in Phase I, which have been redesigned in Phase II, are having the effect of enabling and galvanizing the organization to undertake greater end-product activity. In that sense, the project is in a promising state."

Strengthening Institutional Capacity

An objective of this project is the strengthening of a weak institution through planned, organized technical assistance. The Grant Agreement specifies that the key to an effective road maintenance organization and the focus of the program will be the development of the SEPRRN organization and its ability to plan, budget, manage, and execute its programs. The technical assistance provided thus far was to have strengthened the organization and train key personnel, causing SEPRRN to become a force capable of maintaining roads independent of continued technical assistance support.

The Grant Agreement also specifies that problems of personnel recruitment and turnover will be attacked by development of new salary scales, a system of fringe benefits, and opportunities for advancement through training. This has been done to a limited extent.

Aside from the required minimum-wage pay scales, no other pay reforms have been made. Regarding middle management staff, SEPRRN has appealed to the Ministry of Transportation to have its pay scales elevated to the same level with other GOH offices but thus far the request has not been acted upon.

A cost sharing program for major medical insurance has been installed for all permanent employees. Participation is on a voluntary basis, and to date has been 100 percent. Though there are no other fringe benefits in the system, SEPRRN was one of the first GOH agencies to initiate such a health plan.

Positions within SEPRRN have certain qualifications and as trainees complete courses that qualify them for higher positions they will have the opportunity to apply for these positions as openings occur. Upward mobility is now being encouraged but career ladders have not yet been established to provide incentives for employees to compete for advancement. However, this area is covered by the new training program.

Recommendation No. 1

USAID/Haiti should follow-up with SEPRRN to determine progress on elevating pay scales to the same level with other GOH offices.

In comments to our draft report, USAID/Haiti did not agree with the recommendation. It said, "Progress in salary reform is consistent with GOH policy and USAID does not indorse a separate system for SEPRRN ".

We have left the recommendation in for two reasons. One, the grant agreement specifies that problems of personnel recuitment and turnover will be attacked by development of new salary scales, among other things. Second, our recommendation is not asking for a separate system for SEPRRN, but only to follow-up and determine progress on elevating pay scales to the same levels with other GOH offices. We believe this should be done, and that it is not at all inconsistent with USAID's endorsement of GOH policy.

Equipment Maintenance

Shortages of spare parts, and the need for adequate inventory controls and a spare parts management system have had an adverse effect on equipment maintenance. The results were that the equipment downtime rate has remained at a high level for the past several years, and that there has been reported some pilferage of spare parts.

In FY 1977/78 SEPRNN used about $247,000 worth of spare parts in a preventive maintenance program. But an average of about 40 percent of relatively new major units -- not including utility vehicles or pickups -- of highway maintenance equipment remained out of service due to parts shortages. Despite the value of the parts procured during the past year, there is still a shortage of spare parts. Under these conditions, it is difficult to plan or schedule repairs. In addition, SEPRRN did not have equipment records showing components by make, model, serial number, and other pertinent data needed to requisition and procure applicable spare parts.

In the prior audit report, we observed that the 1976 equipment downtime rate of 36 percent was caused by abuse of equipment and lack of an effective preventive maintenance system. The Consultant's equipment specialist told us that four factors prevented improvement in the downtime rate:

1) Work orders (when written) were written by the dispatching section based on driver complaints instead of diagnosis by a qualified mechanic or inspector.

2) There was no in-process inspection of repairs to control the quality of workmanship. Equipment was often returned to service in no better shape than when it came in for repair.

3) Cannibalization of equipment (removing a usable component from a downed piece of equipment to repair another) has been uncontrolled. When a piece of equipment breaks down and needed replacement parts are out of stock, it is set aside awaiting procurement of the parts. In the interim, which was sometimes several months, parts were removed from the downed equipment to repair other items. No record was kept of the parts removed. When the ordered parts arrived the equipment remained down because the "borrowed" parts had to be replaced. The USAID/Haiti project manager reports that modifications are now recorded.

4) Uncontrolled modifications of equipment had a like effect on availability. Such modifications were not recorded so the wrong parts were ordered when modified equipment broke down. The result was a dead parts inventory -- spare parts which cannot be used on any of the equipment in service. The USAID/Haiti project manager reports that modifications are now recorded.

The Garage Manager has found it impossible to keep hour counters on some of his vehicles. These are devices for preventive maintenance. Most are operated by being attached to the vehicle, either inside the cab or on the axle, and connected to the electrical system. Through the use of these devices it is possible to keep hourly records of a vehicle's operation thus permitting regular servicing such as oil changes, dust filter replacements, tune-ups, etc. These recorders are broken off the vehicle and otherwise rendered useless by the vehicle operators who are convinced that their sole purpose is to monitor the operator's activities for punitive reasons. Measures taken by SEPRRN to correct this abuse have not been effective.

According to the SEPRRN chief mechanic and the Harris equipment specialist, there is some pilferage of spare parts. However, without adequate records and equipment security controls no one really knows what the extent of the losses are.

The Project Paper, which was developed during 1976/77, carries the following:

> "Because of its vital relationship to an efficient functioning of the garage, inventory control and parts management is a high priority consideration for SEPRRN management. At present, modern parts and inventory management is non-existent."

The independent Group Seven evaluation makes the following observation:

> "Equipment downtime has little chance for improvement until:
>
> 1. Operators acquire a greater sense of responsibility for basic maintenance practices (sometimes referred to as 'first echelon' maintenance);
>
> 2. All concerned realize that it is <u>not</u> solely a matter of more skills-training;
>
> 3. An adequate and timely parts-replacement system is in effect;
>
> 4. An effective preventive maintenance program is vigorously practiced; and,
>
> 5. The Lot #1 equipment has been added to the fleet. (This should reduce the down-time percentage by simply adding numbers of new equipment, but will not necessarily reduce downtime of existing equipment.)"

Our prior audit report emphasized similar deficiencies. Peat, Marwick, & Mitchell, SEPRRN's auditors, pointed out this lack of records and controls and made appropriate recommendations to SEPRRN in the last three audit reports: 1976, 1977, and 1978. Adequate inventory controls, spare parts management, and acceptable equipment maintenance are still deficient.

According to SEPRRN's quarterly report covering January thru March 1979 (issued in August 1979), of the 42 pieces of equipment in the fleet at Port-au-Prince during the period, 25 were in "good" or usable condition, and the other 17 were in "bad" or down status. But the report states that "88% of equipment was available for use". The consultant's equipment specialist and the SEPRRN chief mechanic said this is in error. At any given time, according to them, about 35-40% of the units are in down status and the reasons usually involve spare parts non-availability.

According to the USAID/Haiti project manager, there is now in progress a reorganization of the Port-au-Prince central garage with the incorporation of an inspection unit to identify problems in lieu of depending on the drivers/operators. Also, the new training program is heavily geared to develop the expertise of the mechanics. These steps will increase SEPRRN's capability of identifying and correcting the problems. The spare parts issue is the next problem area that is being attacked with the introduction of a minimum/maximum stock system and component exchange system.

Another problem is that control of equipment spare parts was delegated to SEPRRN's Director of the Technical Section. (The incumbent of this position was also replaced in December 1979, when the change in Director General was made). The consultant's Equipment Specialist, a member of the advisory staff, recognized this as a problem in early 1979 and recommended that responsibility be transferred to the Garage Manager who, because of his function and location, could provide the needed supervision and control. Action was never taken on the recommendation. One of the reasons was that the Garage Manager, who received his training in the U.S., cannot be depended on to exercise that "type" of responsibility.

The Group Seven evaluators also isolated this element and identified it as a problem. They recommended that a transfer of the responsibility to the Garage Manager should be made but no such action had been taken to date.

Recommendation No. 2

USAID/Haiti should urge the SEPRRN Director General to reexamine responsibilities of the management staff and, where applicable, delegate commensurate authority to alleviate deficiencies in the following areas:

(a) spare parts management and inventory controls; (b) an equipment maintenance system with supporting records; and (c) personnel supervision.

Once this has been done, USAID/Haiti should follow up and monitor to ensure that results are implemented.

Maintenance Management Reporting System

As provided for in the contract scope of work, the technical assistance advisor Frederic R. Harris, Inc. (FRH), has been assisting SEPRRN to develop and implement a Maintenance Management Reporting System. This system defines the road inventory, service levels,

maintenance standards, and the work activities of the district's and sub-district's maintenance brigades. It also introduces a program budgeting, reporting and evaluation system.

In January 1979, the system was accepted by SEPRRN and implementation has been underway. Recently SEPRRN and FRH were reviewing/upgrading the system to refine and adapt it to Haiti's needs, evaluating performance to date, and determining the systems potential to carry out planned and future road maintenance events. SEPRRN also plans to hold classes to train middle management in the system's application and the proper interpretation of its functions.

Brigade Strength, Composition, and Use

Perhaps one of the most essential elements of the management reporting system is the ease it will offer for personnel and equipment monitoring -- keeping tabs on brigade strengths, location, activity assignments, and equipment use.

The work unit of road maintenance is the brigade. Due to the late arrival of Lot #1 equipment, brigade organization did not occur at the projected rate. There is a shortfall of three intervention brigades, three regarding brigades and one sealcoat brigade. On the other hand, the planned for goal of 50 hand brigades has been exceeded by 14 brigades. The bridge brigade goal of three is on target.

According to the project paper, SEPRRN's employee level was to have reached 2,564 by 1980. As of the end of November 1979 -- the latest reporting period available -- SEPRRN had 2,181 brigade employees and total employee strengh -- administrative, support, and brigade -- was 2,862.

The major portion of Lot #1 equipment has arrived (except for twenty dump trucks, three flat-bed trucks, and one low boy tractor). With the Lot #2 equipment expected to arrive later this year, brigade strength will improve and so should road maintenance activity. The shortfall of intervention, regrading, and seal coat brigades, which all require heavy equipment, should be eliminated.

Equipment Mix and Distribution

The revised management reporting system, as yet, has not disturbed the mix and distribution of road maintenance equipment as originally scheduled in the Project Paper. The mix and distribution are influenced by the type of Brigade and the function it will perform. These factors were the net result of evaluations made by SEPRRN engineers, the Phase I and II consultants, AID/W TDY consultants, and the USAID/Haiti engineering staff. The current equipment schedule is considered the minimum equipment needed to support the

Brigade's operations; that is, transport, maintenance and service, personnel support, garage/shop repair tools, and equipment.

Because the intervention brigade is the "sine qua non" of SEPRRN's workforce, it has the greatest requirement, 57 people and 20 pieces of equipment. The intervention brigade is a self-sustaining unit capable of handling any type of road maintenance. Five such units are in the SEPRRN inventory.

The remainder of the Brigades include: Regrading, a crew of 75; Bridge Brigades, a crew of 24 employees; the Seal Coat Brigade with a crew of 17; and the Hand Brigades with a crew of 30.

Construction and Improvements

Construction and improvements have been behind schedule but were progressing satisfactorily by the conclusion of our field work on February 29,1980.

SEPRRN was established in 1972 by decree/law. It is now in its seventh year and has its headquarters in Port-au-Prince. The GOH finances SEPRRN's operations through taxes levied on gasoline and diesel oil, and other sources when needed. As of November 30, 1979, they had 2,862 employees country-wide, 314 administrative and support personnel and 2,548 operating personnel. SEPRRN has responsibility for staffing, payroll, procurement, accounting, training, general administration, and control over four districts and six subdistricts.

Under Phase I, about $1.2 million was used to build a central garage/repair shop at Port-au-Prince. Garage/repair shops were built in two other districts, Cap Haitien in the north, and Les Cayes in the south.

Under Phase II of the Road Maintenance project, another $1.2 million was earmarked for further revisions, alternations, and new construction. For the Port-au-Prince headquarters and central garage, $458,000 has been allocated. About $708,000 has been scheduled to finance the construction of two new district office, and six new subdistrict offices and garages/shops in other parts of Haiti. By the end of 1980 SEPRRN was to have completed construction of these facilities.

As of February 29, 1980, the status of construction was: Port-au-Prince administration building and garage/repair shop was 10% complete; one district facility was 60% complete and the other one was not yet started; one subdistrict office was 80% complete and five subdistrict offices were not yet started. Construction progress was being closely monitored by USAID/Haiti. In their opinion, after initial delays were overcome progress has been satisfactory.

Lot A construction, the Port-au-Prince administration facilities, was supposed to have begun in February 1978. There was a delay of 14 months before construction actually started in April 1979. These delays were caused by faulty preparation of bid documents, late compliance with conditions precedent, and administrative oversight in advertising for construction. Lot B construction, the Port-au-Prince garage/repair shop facilities, was likewise delayed 11 months for the same reasons. Lot C construction for additional major district facilities and six subdistrict units was delayed 10 months. The problem here concerned prequalification of contractors and final selection. Of eight prequalified contractors, only four participated in the bids and three were selected.

Lots A, B, and C construction were to have been independently carried out with individual contractors doing the work. But Lots A and B were combined under one contractor; the Hinche district was awarded to a second contractor; and one district and one subdistrict were awarded to a third contractor. The net effects of these delays -- SEPRRN has been delayed about a year in receiving needed units for housing road maintenance equipment and personnel. However, the quality of construction is very good and the present rate of progress is satisfactory.

Training

To reach an acceptable level of road maintenance capability, SEPRRN needs considerably more training to prepare its personnel. The original estimate of requirements grossly understated SEPRRN's needs. AID recognized the problem. The technical consultant and USAID/Haiti jointly reviewed training needs and revised the training element upward.

The Road Maintenance II project earmarked $420,000 to upgrade the skills of SEPRRN's managerial and technical staff and to provide additional qualified personnel by 1980. Here is a breakdown of how the Phase II training funds were to be spent:

In-country Training	$187,000
Off-shore Training	95,000
Curricula Development & Instruction	104,000
Materials, Supplies & Equipment	24,000
In-country Travel	10,000
Total	$420,000

Some training was carried out under the Phase I portion. Instruction manuals were printed, and special classes were held on heavy equipment operations. Off-shore training included short courses in welding at a creole-speaking school in Louisiana plus sending several trainees to a maintenance supervisor's course at the University of Nebraska. Between September 1974 and 1976, about 165

technical and administrative personnel received in-service training in SEPRRN's own training division; 103 equipment operators received pre-employment training during the same period, and another 47 students were in pre-employment training during October and November of 1976.

In February 1977, the AID Development Assistance Executive Committee reviewed the Road Maintenance II Project and raised questions concerning the adequacy of the technical assistance and training components. The committee focused on the composition of the technical assistance team and SEPRRN's training capability, "especially considering the personnel turnover, illiteracy rate, and personnel requirements by 1980"

In June 1978, Frederic R. Harris, Inc. made the evaluation of SEPRRN's training needs called for by the Harris contract. The Harris report concluded that the design of the Road Maintenance II training component was inadequate. Principal findings were that: (a) the total number of miles to be maintained had increased from 1,293 to 1,738; (b) the estimated number of personnel to be trained had to be increased from 994 to 1,250; and (c) reliance on indirect training methods to provide qualified personnel was unrealistic. Harris' new training proposal was presented to AID in January 1979 and resulted in the project being amended on July 31, 1979. The original $420,000 was increased to $1,585,000.

As of February 29, 1980, SEPRRN had contracted with FRH who in turn subcontracted locally to train a staff which will become the SEPRRN training corps. This corps will be available for in-country training of SEPRRN personnel as needs arise.

The USAID/Haiti Engineering Department has responsibility for project monitoring and has assigned one full-time, direct hire to the project in addition to support of other staff as needed. We believe that the revised training program bears close watching at this point in the development process to be sure that important aspects are not overlooked.

The Road Maintenance II Project Agreement states, "The key to an effective road maintenance organization in Haiti, and the focus of the Phase II program, will be the development of the SEPRRN organization and its ability to plan, budget, manage and execute its programs. Technical assistance will be provided to strengthen the organization and train key SEPRRN personnel as necessary". In our opinion, the training element is the linchpin in the road maintenance program. We believe that if the proposed training is unsuccessful, AID support of a road maintenance program should be discontinued.

In its comments to our draft report, USAID/Haiti said, "USAID does not fully agree with the opinion rendered. We view the training component as an important element of the project".

By the time the present technical assistance contract ends on December 31, 1981, AID will have financed such assistance for SEPRRN for almost nine years. Again, if the new training component does not develop the SEPRRN organization to the point where they can operate a road maintenance program on its own, we believe that a decision to discontinue AID support would be in order.

Other Costs

None of the $150,000 Grant 084 funds earmarked for "Other" costs has been spent. The funds are to cover the training and equipment costs of a Community Action Program. SEPRRN's training division will provide a two-months training course in road maintenance and motivation in the classroom and in the field.

The Project, as conceived, involves the participation of about 40 communities under the guidance of community council leaders and supervisory personnel from the SEPRNN district offices. The emphasis will be simple maintenance of roads with average daily traffic of less than 50 vehicles. Designed as a labor-intensive activity, the launching of this project was awaiting the results of a Labor Intensive Pilot Project completed under the first year of the Agricultural Feeder Roads Program. This AID-financed pilot project was to study the use of labor-intensive efforts on construction and maintenance of unpaved roads.

The Labor Intensive Pilot Project results were not presented in a final report; a draft report was given to Harris which should serve as a basis to launch the Community Action Project. USAID/Haiti has instructed SEPRRN to proceed with the planning using the data available from the Pilot Project.

EXHIBIT A

LIST OF REPORT RECIPIENTS

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