CLASSIFICATION

PROJECT EVALUATION SUMMARY (PES) – PART

5210074-(12)
PD-AAB-706-A1

1. PROJECT TITLE

Agricultural Feeder Roads

5210074 0015 01

2. PROJECT NUMBER

521-0074

4. EVALUATION NUMBER (Enter the number maintained by the reporting unit, e.g., Country or Office, Fiscal Year, Serial No. beginning with 1 ...)

521-79-6

PD-AAB-706-A1

☒ REGULAR EVALUATION ☐ SPECIAL EVALUATION

5. KEY PROJECT IMPLEMENTATION DATES

A. First PRO-AG or Equivalent FY 76

B. Final Obligation Expected FY ___

C. Final Input Delivery FY 81

6. ESTIMATED PROJECT FUNDING

A. Total $ _____

B. U.S. $ 7,706,000

7. PERIOD COVERED BY EVALUATION

From (month/yr.) 6/76

To (month/yr.) 5/79

Date of Evaluation Review

8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
This PES summarizes and consolidates the evaluation findings and recommendations of Group Seven Assoc., and Mission actions, initiated and proposed, to implement the recommendations.		
Attachment #1		
Evaluation Study of Haiti Agricultural Feeder Roads Project, Group Seven Assoc., Inc., May, 1979.		

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS

- [X] Project Paper
- [ ] Financial Plan
- [ ] Logical Framework
- [ ] Project Agreement
- [ ] Implementation Plan e.g., CPI Network
- [ ] PIO/T
- [ ] PIO/C
- [ ] PIO/P
- [ ] Other (Specify) _____
- [ ] Other (Specify) _____

10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT

A. [ ] Continue Project Without Change

B. [ ] Change Project Design and/or [ ] Change Implementation Plan

C. [ ] Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)

T.NAGY, ENG [signature]

for B.MOSLEY, ENG [signature]

12. Mission/AID/W Office Director Approval

Signature [signature]

Typed Name William G. Rhoads

Date 1/3/80

AID 1330-15 (3-78)

I. Background

The Agricultural Feeder Roads Project was authorized on March 31, 1976. The Loan Agreement (521-T-007) was signed on June 29, 1976 and the complementary Grant Agreement was signed April 27, 1976. The Loan provides $5.0 million to cover the costs of equipment, materials and operating expenses to enable the Department of Public Works, Transportation and Communications (TPTC) to reconstruct approximately 940 kilometers of Agricultural Feeder Roads. Of this total, 620 kms were to have been constructed by TPTC construction brigades under force account and the remaining 320 kms were expected to be constructed by private Haitian contractors. Additional project components were (1) the establishment of an Equipment Leasing Service (SLELC) to provide private contractors with equipment needed for road construction, (2) the testing of labor-intensive road construction/maintenance methods on a pilot basis. The latter was expected to provide guidance for future labor-intensive feeder road construction in Haiti. The grant provided $2.4 million (this was increased to $2,706,000 by PP Amendment #1 in July 1979) for long-and short-term technical assistance, commodities, training, and other related costs. Technical assistance was provided in two distinct phases: (1) a short-term phase of 9 work months (wm) at the beginning of the project to provide priority services of an equipment procurement specialist, a leasing pool consultant and a highway engineer to assist with designs for the first roads to be reconstructed, and (2) the long-term phase of a range of long-term and short-term advisors to assist with the implementation of the various project activities. Through these components it was expected that the institutional capability of TPTC to undertake reconstruction of Agricultural Feeder Roads in Haiti would be significantly increased.

II. Major Findings of the Group Seven Evaluation

An in-depth evaluation of the project was conducted by Group Seven Associates, Inc. in May 1979. This evaluation provided the basis for redesign of the project. (Revision #2, 10/30/79). A brief summary of the salient findings follows.

External Factors and Unplanned Effects

The GOH policy environment was found to be compatible with project goals. Legislation creating the Equipment Leasing Service and reorganizing the Ministry

of Public Works was responsive to project design intent. In terms of implementation, however, there were deviations from the original design and some unplanned effects:

- The project created an entity which operated outside of TPTC and raised potential problems for the post-project period of (1) reintegration of TPTC employees seconded to the project, (2) the future of those directly hired by the project, and (3) the transfer to TPTC of systems and methods developed by the advisors and their counterparts.
- The GOH decree changed the road width standard from four to five meters and thus increased the cost of reconstruction targets.
- Diversion of funds from development programs to other sections of the budget were reported and deposits to the project account were often delayed.
- Departmental (TPTC) support of the project was less than adequate. Though TPTC did assign 14 regular employees to the project, it did not fulfill all staffing expectations either in terms of quantity or quality.
- TPTC leadership was not fully supportive of the Labor-Intensive Pilot Project, including research on construction methods, nor future labor-intensive road construction generally.
- In addition the following effects of the project at the local community level were observed:

  a) Because of better access, there is increased competition for local produce among middle men with higher prices to producers.

  b) Improved roads have sparked an interest in construction of other local "penetration" roads or trails to permit transport to the improved roads.

  c) Dissatisfaction has been expressed by some local officials and community councils because of the low rate of employment of local residents by the construction brigades. The dissatisfaction may have affected the morale of community council members and reduced their participation in related development activities. Whereas the local Community Councils may have previously contributed to road improvement, they no longer considered themselves involved.

e) The construction brigade reportedly had a negative attitude towards city officials and local residents in some areas. In one instance, the construction brigade apparently refused to compensate a peasant farmer for damages caused to his property.

f) Some of the local communities were quite concerned about increased vehicle speed through their areas to the point that they plan to take action to enforce traffic violations with local authorities.

Inputs

With regard to project design (which the evaluators treated as an input) it was found to be "uneven" in terms of the technical standards for road reconstruction. In some cases standards were too low (e.g., no new drainage) and in others too high (e.g., specification of crushed rock surfaces). The specification of "all-weather service" in itself implied adherence to much higher standards of construction than was generally anticipated.

A fundamental, logical weakness of the design was that it attempted to achieve too many objectives simultaneously. While strengthening TPTC capabilities with advisoryassistance is considered, the logical framework clearly makes the physical construction of 940 kms of all-weather roads the primary purpose of the project. Lack of accomplishment of the latter objective led to the recognition that institutional development of TPTC was equally important, if not the sine-qua-non for alternate achievement of the construction objective.

Concerning technical services, although the consultant performed adequately in execution of engineering projects, performance was less adequate in providing assistance for organizational development. With regard to implementation of the Labor-Intensive Pilot Project, the consultant had no prior relevant experience. While the report written by the consultant on the pilot experience provided some useful information, it failed to provide an explicit comparison of different mixes of labor and equipment in construction techniques. Consultant services overall were judged somewhat less than adequate.

The training input was notably weak both in design and implementation. This was partially due to the fact that the training function was not defined in any of the documents that obligate and guide the parties. Training was thus viewed by the concultant, not as a formal activity or task, but rather as a by-product of technical assistance.

The late arrival of equipment contributed materially to the low production of the brigades. Heavy equipment maintenance was a continuing problem, but some progress is being made toward its control.

Outputs (Project Accomplishments)

The Project Paper (PP) called for the reconstruction of 940 kms of rural roads throughout Haiti to provide "all-weather service". About 620 kms were to be built by Force Account and 320 by private Haitian contractors over a five year period. While the PP envisioned GOH brigade construction starting prior to mid-1976, the actual start was September 1, 1977. If, as now designed, the program were to end September 30, 1981, this would require the brigades to construct an average 12.9 kms per month and the contractor-built roads to average 6.6 kms per month. As of the end of March, 1979, the actual amount completed was 83.5 kms by the brigades and 3.5 kms by contractor compared with the requirement based on monthly averages of 245 and 126.5 respectively.

The evaluation found that the equipment leasing service (SLELC) was managed efficiently, but did not operate as originally expected. There had only been one contract awarded for feeder road construction and the contractor had not leased SLELC equipment. However, AID authorized leasing to other private contractors and organizations on an individually approved basis. The consultant considered it noteworthy that aggressive leadership was a strong contributing factor in SLELC's progress to date. Even though the originally-intended leasors had not materialized (that is, TPTC Feeder Road Contractors), other clients were solicited by SLELC management. The necessary approvals were obtained to modify the project's originally- stated purpose, thus permitting SLELC to operate its equipment. A training pro-

gram was instituted. With the experience being gained, SLELC is not only providing a useful service, but is becoming better qualified to perform the service for which it was originally designed.

With regard to the Labor-Intensive Pilot Project the Group Seven evaluation team concured with the findings of the AID-IBRD team which visited the project in October, 1978, viz, that the Consultant Draft Report did not contain satisfactory cost comparisons for labor vs. machine-intensive construction methods. Cost information now available has indicated that, whereas projected cost of labor-intensive construction was $9,500/km, actual cost was about $14,900/km. Actual cost of machine-based construction was on the other hand, about $18,300/km for the North Brigade and $17,700/km for the South Brigade. Although, the comparability of this cost information is questioned, present evidence supports the expanded use of labor-intensive methods.

For a variety of reasons, the evaluation judged the progress of the overall program was not satisfactory. While individual technical skills of some TPTC personnel seemed adequate, organizational, managerial and motivational factors were weak. This permeated the program and limited its effectiveness. Evidence was not available to indicate that TPTC could plan, organize and execute the Feeder Road Program without continuing advisor presence. While the knowledge and the resources appeared to be there, TPTC priorities did not favor the Feeder Roads Project overall and the labor-intensive position in particular.

Impact

Group Seven conducted two short field trips to collect data and gather information on socio-economic effects of Agricultural Feeder Roads to-date. Two reconstructed roads were chosen, one machine-based, the other labor-intensive. The machine-based construction is located in Northern Haiti (Barrière Bouteille - Carrefour Ménard - Dondon - St. Raphael - Pignon). The labor-intensive road is located in the Vallée of Jacmel (Jacmel -

La Vallée - Bainet - Trouin - Fauché - Blockauss - Ternier). The survey confirmed that the improved roads increased service to the rural areas including delivery of agricultural inputs and access to medical services.

Interviews conducted with passengers, city officials, bus and truck drivers, indicated substantial reduction in bus and/or truck fare as shown below:

Bus Fares 1/

(Gourdes)

	Before	After
Pignon - Cap-Haitien	7.50 - 8.50	3.50 - 4.50
St. Raphael - Cap-Haitien	6.50 - 7.50 - 8.00	2.50 - 3.50
Dondon - Cap-Haitien	2.50 - 3.50	2.00
Barrière Bouteille - Dondon	2.00 - 3.00	1.50 - 2.00
Bainet - Port-au-Prince	10.00	7.00

Truck drivers at Pignon and St. Raphael indicated clearly that they consume less fuel now than before. In Northern Haiti, to reach Pignon from Port-au-Prince through Cap-Haitien - Dondon - St. Raphael, which is a considerable detour, truck drivers used to consume up to 35 gallons of fuel. After the improvement of the road, they travelled through the Plateau Central (Hinche - Lascahobas) and consumed approximately half a tank of fuel (17 to 18 gallons). In addition, travel time was reduced. Similar, fuel savings were also reported by truck and bus drivers of the Vallée of Jacmel.

There are now more frequent trips in Northern Haiti from St. Raphael, Pignon - Dondon to Cap-Haitien, Hinche - Lascahobas - Port-au-Prince and other places now linked by feeder roads. People from St. Raphael and Pignon can now make up to two trips a day to Cap-Haitien any time. It is also easier for people at Pignon to go to St. Raphael or Dondon

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1/ Unfortunately, "before" refers to rainy season, while "after" is dry season. However, before reconstruction the roads were not operational even if dry.

These observations also seem valid for the Vallée of Jacmel area. People from Jacmel, Trouin, Fauché, Bainet, Blockauss make more frequent trips to Port-au-Prince and in less time. During the rainy season, it was not uncommon for either truck or bus on the Bainet link to have to stop for two or three days after a rainstorm to wait for the road to dry. It was not uncommon also for people from Pignon to have to stay overnight at St. Raphael en route to or from Cap-Haitien. Sometimes, they even had to make overnight stops at Dondon or St. Raphael en route to Pignon. With the road operational year around, there is less risk involved and bus, truck drivers and passengers are taking advantage of this opportunity.

People interviewed in both Northern Haiti and the Vallee of Jacmel area indicated an increase in the volume of trade in general. As for the Vallée of Jacmel, which produces grapefruit and vegetables, it may be hypothesized that in the long run, farmers will increase their production. In the past, grapefruit were often left to rot on the ground before trucks were able to go to La Vallée. The evaluators reported increased production of grapefruit and vegetables, which was traditionally limited to local consumption needs. Now, given the increase in traffic, the presence of more middlemen and easy access to other market centers, including Port-au-Prince, farmers appear to be responding favorably to such incentives by increasing production. However, due to lack of baseline data, and the rather superficial nature of our current information on production, no definitive conclusions can be reached.

As for the Northern segment, St. Raphael should be the first place where the presence of the road might be expected to increase the production and transport of perishable goods. St. Raphael, is traditionally considered as the granary of Northern Haiti, the principal market center in the North and the third largest market center in the Republic. Among a variety of other agricultural commodities, it produces vegetables such as; tomatoes, onions, and cabbages for local consumption only. Now, with the road operational year around, the local elite and members of Community Councils expect St. Raphael to regain its traditional market function.

The delivery of agricultural inputs is generally quite limited in Haiti. Major towns and cities already accessible by road still do not have access to agricultural products other than those produced locally. But there is little question that the feeder roads will play a significant role in the more efficient distribution of agricultural inputs and products in the future.

In Northern Haiti, particularly at St. Raphael, city officials indicated an increase in the use of medical and social services (e.g., school enrollment) to the point that expansion of those services is under consideration. People from Pignon, Dondon and surrounding villages now use the more readily available facilities at St. Raphael. The effects felt in St. Raphael are also felt in Cap-Haitien. Peasant farmers indicated that now it is easier to send their children to school at St. Raphael. It is also easier for them to use medical services at St. Raphael or Cap-Haitien if necessary.

Uppermost in the minds of people in Jacmel and La Vallée is that the link to the new Jacmel - Port-au-Prince road will enable sick people to go to the hospital more easily. For example a community leader at Ternier described the agony of transporting her very sick son by donkey down to steep slope to Policien, the nearest point on the old Jacmel - Port-au-Prince road.

III. Major Recommendations and Mission Actions

The Group Seven evaluation made several recommendations which formed the basis for redesign of the project described in the Project Paper Amendment (Revision #2 dated 10/30/79). The principal recommendations and resultant actions are cited below.

A. Major Recommendations

1. That objectives be redefined, realistic targets be identified and scheduled, and new costs be determined.

2. That the separate project implementation entity be moved closer to TPTC physically and administratively.

3. That more interest, recognition, and support be given to the TPTC reorganization.

4. That the GOH's true abilities and intention to finance the project be reassessed.

5. That a strategy be developed for road construction that would include both, capital-intensive and labor-intensive technologies and select the most difficult roads for machine-intensive (heavy brigade) work and the relatively easier roads for the labor-intensive (light brigade) mode. Priority should be given to labor-intensive reconstruction assistance to road segments where self-help, community action road work is already in progress.

6. That survey and design efforts for the brigades be re-examined to

determine what is essential for their use in construction and that the effort be limited to their needs.

7. That two road sections designed by engineer consultants be advertised for bidding by private contractors, that the prices be reviewed for comparison to brigade unit costs, and that the project be awarded if the costs are not excessive. The experience on these two road sections can be used to determine the future of the contract construction mode in the project.

8. That the light-brigade be defined as a labor-intensive lightly equipped mode and be formally authorized and adequately funded.

9. That greater emphasis be placed on budgetting the brigades on the basis of work units to be accomplished rather than time and materials consumed.

10. That greater emphasis be given to training and that a training specialist be included in the technical assistance team.

11. That baseline studies on some roads scheduled for reconstruction be conducted before construction begins in order to allow subsequent determination of socio-economic benefits.

12. That certain extensions be made in the technical assistance staff, including the Senior Transportation Advisor, the Transport Engineer, the Heavy Equipment Mechanic and qualified road construction engineers to work with the construction brigades.

F. Mission Actions

The following actions are keyed to the recommendations cited above:

1. The Project Paper was revised to reflect an increased focus on institutional development of the implementing agency (TPTC) and on labor-intensive road construction techniques. The revision also extended technical advisory services through the end of the project, provided for collection of baseline data needed to evaluate future impact, reduced the physical output targets (kilometers of roads to be built), and increased grant funding to cover the additional technical assistance and evaluation costs.

The goal of the project is still to improve the standard of living of the rural poor by stimulating rural employment and small farmer agricultural

productivity. The redesign, with its increased focus on labor-intensive construction techniques, in fact goes further toward reaching this goal with respect to rural employment than did the original design.

The purpose of the project is two fold: 1) to strengthen the capability of TPTC to manage and implement rural road construction; and 2) to improve the land transportation network in certain agricultural areas of Haiti. These purposes reflect increased emphasis on the institution-building aspects of the project (previously a sub-purpose) while maintaining the focus on improved rural transportation infrastructure.

2. The original PP called for the project to be administered and implemented under the new TPTC organizational structure. The TPTC Chief Engineer was to have been directly responsible for all aspects of the project, including activities of the Autonomous Transport Service (ATS), Construction and Supervision Service, TPTC Brigades and Departmental Engineers. A Project Manager reporting to the Chief Engineer was to have been designated and assigned to manage the technical assistance contract and to coordinate the various elements of the project. However, due to delays in the enactment of the TPTC reorganization plan, this plan was never implemented. Instead, a separate Agricultural Feeder Roads unit was established and housed separately from TPTC headquarters and certain key employees were assigned from other TPTC units. This unit also hired other required personnel, mostly on a contractual basis. Since the Feeder Roads unit does not fit organizationally within TPTC and many of its employees are not full-time TPTC employees, the unit has tended to operate as a semi-autonomous body. As a result, there has been very little transfer of knowledge or experience to TPTC from this separate project implementation unit.

This situation has obvious negative implications for the long-run capability of the TPTC to manage and implement this kind of activity. Therefore, in the remaining two years, the unit will be reintegrated into the TPTC so that by the end of the project the TPTC itself will have the capability to continue the work begun with project financing. In practical terms, this means the greater involvement of the Chief Engineer and the Resident Engineers in each TPTC district throughout the country in project activities. At present, the Feeder Roads construction brigades work independently of the Resident Engineer who, a the Minister's representative

in each district, is theoretically responsible for overseeing all TPTC activities in that area. By strengthening the role of the Resident Engineer, greater decentralization and local participation are likely to result and activities undertaken through this project can be more closely coordinated with other TPTC activities in the same area. In addition, integration of the project unit into the TPTC will mean an absorption of contract employees into TPTC with the benefits of greater job security for them and a greater body of knowledge about feeder road construction in TPTC.

3. The TPTC reorganization plan was implemented beginning in mid-1978. This is a process of at least two years which will result in a more rational organization of the Department and a strong central programming and planning unit. (The new Minister of Public Works has indicated his support for continuing the reorganization process). A limited amount of technical assistance through the TAMS contract has already been provided in support of the reorganization. With increased emphasis in the project on TPTC institutional development, the two TAMS advisors working at the central level (the Senior Transportation Engineer/Team Leader and the Transportation Engineer) will focus increasingly on ways to reinforce the reorganization process.

4. According to the original PP, GOH counterpart was to have come from two sources: the regular budget to cover central TPTC costs and materials and operating costs for force account construction efforts, and PL 480 Title I counterpart generations for the operations of the equipment leasing service and contract work. In addition, TPTC central operating costs were to come from the GOH budget, but were not calculated as part of the GOH counterpart contribution of the project. The status of GOH contributions to the project to date is presented in Table 4. USAID approved release of Title I generations to cover materials and operating costs, although not for the central bureau costs or for cost incurred on feeder roads before they were included in the program. The GOH will reimburse $89,000 spent from PL 480 generations to cover the shortfall in the required direct contribution from the TPTC budget ($31,000) and $58,000 corresponding to costs associated with the construction of the Cavaillon - Barradères road before it was included in the project. This will leave a total of $2,459,000 of the GOH contribution undisbursed of which $2,202,000 will be available for future construction activities under the project.

By adding the operational budget support for central TPTC operating costs to the project financial plan, the total GOH contribution to the project increases to $4,403,000 or 32% of total project costs. Annual GOH contributions will rise to $1,154,000 in FY 1979-80 and $1,305,000 in FY 1980-81.

5. The TPTC will be organized into three - and eventually four brigades for feeder road construction during the remainder of the project. These will include the two original heavy equipment brigades (North and South) and a labor-intensive lightly equipped brigade ("light" brigade). The "light" brigade will split in mid-1980 to form two labor-intensive construction brigades. The relatively more difficult roads will be constructed by the mechanized brigades while the easier roads will employ the labor-intensive approach. This represents a major departure from the original project design in three respects: (1) the PP did not envision any labor-intensive construction work beyond the pilot project which is now completed; (2) construction by private contractors has been excluded;and (3) force account work has been significantly expanded from two to five construction brigades.

As a result of the pilot project and its examination of labor-based reconstruction, TPTC has initiated the reconstruction of some 35 kms without the use of traditional heavy equipment. Notwithstanding some delays in obtaining the required light equipment (60HP tractors, 2 cyl. farm type wagons, and 1.5 ton vibrating rollers), this method of construction has proved to be extremely adaptive to Haiti. The pilot project, while not providing all of the desired comparative cost and alternative administrative organizational information, clearly demonstrated the feasibility of labor-based reconstruction in Haiti. The most important lessons learned from the pilot project were the need for low-cost haulage of material and increased compaction capability. Applying these lessons, TPTC has established a "light" brigade. The progress of the "light" brigade to date has been very encouraging. Based on success of the "light" brigade, TPTC plans to create an additional labor-intensive brigade in mid-1980 as part of this project. TPTC has already established the nucleus for this second unit. Some of the trained supervisors from the first unit will be transferred to the second brigade and, depending on the delivery date of the equipment for the brigade, it should be operational by mid-1980. A field engineer advisor will be provided through the

TAMS contract to the second "light" brigade to assist with its operations through September 1981.

In addition to basic hand tools and implements, each "light" brigade will be equipped with four 60 hp farm tractors, eight 2 cyl. heavy duty farm-type trailers, one 1½ ton vibrating roller and necessary supervisor transportation. This equipment is necessary to provide adequate haulage and compaction capabilities which cannot be provided exclusively with hand tools. TPTC will also rebuild and have available for support purposes a pool of heavy equipment. This pool will consist of two dozers, two graders and two loaders. In addition, air compressors and rock drills assigned to the mechanized brigades will be available when one or both of these brigades is not working in rocky areas where this equipment is required.

6. One factor contributing to higher road reconstruction costs than were projected in the PP is the composition of the brigades. A large survey and design effort was included, as well as extensive soils testing. The costs of the personnel related to these activities were figured into the costs of construction, even though most of this work was not contemplated in the PP design. TPTC and the Mission believe that the level of effort for these activities is inappropriate for the type of construction involved. Therefore, steps are now being taken by TPTC to reduce the survey, design and soils testing work performed for each road constructed, which should lower the operating costs for the brigades without adversely affecting the quality of the construction work.

7. Experience under the project to date has demonstrated that local private contractors are not prepared at the present time to become involved in rural road construction efforts at reasonable cost levels. On the most recent bid, received in June 1979, the lowest of three bids by private contractors was $25,000/km, as compared to a TPTC estimate of $15,000 and the PP estimate of $4,300/km. Private contractors in general lack experience in road construction work. Few are large enough to mobilize for road work in rural areas and they generally lack qualified personnel willing to work in isolated rural areas. In addition, there are apparently other less risky, more profitable construction alternatives (e.g. urban housing or office buildings) available to private contractors. Therefore, the inclusion of

private construction firms in the project has been discontinued for the foreseeable future and the road links projected for construction by contractors in the PP are being reprogrammed to the various TPTC brigades.

8. See comments regarding the "light brigade" in item #5 above.

9. Planned technical assistance to TPTC in the area of financial management may effect some internal TPTC changes in traditional methods of projecting operational requirements. However, statutory changes would be required to replace the line-item budget presently used by the GOH with a more modern, objective-oriented, program budget.

10. Although training was recognized as a need at the beginning of the project, there was no provision made for training per se in the composition of the technical assistance team. On-the-job training has been carried out by the TAMS advisors. However, there has been no focus to date on an overall formal training program directed at TPTC's long-term needs as a specific project activity.

There is a continuing need for trained personnel in TPTC, especially in areas which impact on the implementation of Agricultural Feeder Roads Programs. This is evidence by the substantial amounts of equipement downtime and the relatively poor state of project management and administration. Training needs become even more important in view of the institutional development focus of this project. Progress under the project to date has demonstrated that these needs cannot be adequately met by on-the-job, technical-assistance type training alone. Therefore, the amended project includes provision for a training advisor as part of the TAMS team on a short-term basis (approximately six months over the next two years). The advisor will work with the TPTC and other members of the TAMS team to convert appropriate material presently available into training materials and to design specific training courses, including a management training course. Participants in these courses will include not only personnel which have been involved in the Feeder Roads Project to date, but also personnel in other units of the TPTC which relate to rural roads construction but who have not been closely involved in this project.

The majority of the courses designed for TPTC under this project will be carried out in conjunction with the new SEPRRN training facility and program

Table 4

AGRICULTURE FEEDER ROADS PROJECT
STATUS OF GOH COUNTERPART CONTRIBUTIONS
AS OF AUGUST 31, 1979
($ thousands)

Inputs	Original PP Amount	Disbursed thru 8/31/79	Available
Materials	$ 250	$ 131	$ 119
Operating Costs	1,000 (a)	815 (a)	185 + 158 + = 243 (a)
Equip. Pool Overhead	270	270	-0-
Contract Work	1,950	183	1,767
Contract Engineering	280	238	42
Central TPTC Operations	(b)	307 (b)	288 (c)
Total	$ 3,750	$ 1,944	$ 2,459

(a) Expenditures in this category include $58,000 disbursed for Cavaillon - Barradères road link before it was included in project. This amount will be reimbursed to the project by TPTC and, therefore, added to the GOH contribution.

(b) Not quantified in original PP financial plan since these costs were to be covered by the regular GOH budget. Expenditures in this category have exceeded actual contributions from the budget by $31,000 to date. This deficit will be made up by the TPTC.

(c) Revised project financial plan (Table 7) includes $595,000 for this category. Amount available is therefore $288,000.

being financed under the AID Road Maintenance II grant (521-0084). This facility will become the National Highway Training Center and will eventually serve the needs of all of TPTC. Through inputs provided under the Road Maintenance project, the center will be able to train practically all skilled and semi-skilled personnel required by TPTC, such as mechanics, operators, supervisors, and foremen. In addition, the center will have administrative and management seminars for mid-and high-level engineers. As a consequence, the training component of this project will be limited to the small amount of technical assistance required to convert project-specific materials into training materials and courses and to design courses for the feeder roads program in conjunction with the SEPRRN training center. The costs of the actual training courses will be borne by the TPTC.

11. The original evaluation plan (Project Paper, pp. 94 - 97) stipulated that, given the virtual absence of baseline data in Haiti in all sectors of the economy, such data were to be gathered during the first 12 months of project implementation. However, such data were not gathered, with the exception of some baseline information on one of the Labor-Intensive Pilot Project road links, an activity in which certain conditions pre-and post-project were compared, i.e. perceived community infrastructural needs, unit costs of some commodities, roadside-vender activity, participation in traditional work groups, farm-related and general investment patterns, cash purchasing, actual and planned, and participant understanding of the project. Data were also gathered to provide a limited project participant household economic and land tenure profile.

Under the present Project Amendment, baseline data will be gathered before work begins on the new roads to be constructed under the project. Annex A contains a preliminary research design, including a list of potential research sites, criteria of selection, and data categories.

12. Although the original technical assistance plan in the PP provided for the bulk of the assistance to be completed after two years, in practice this has not worked out as planned. Therefore, there has been, and continues to be, a need for extensions in key advisory personnel. The refocus on institutional development of TPTC reinforces the originally-planned requirement for the senior transportation engineer through the end of the project.

The transportation engineer's tour will remain one year shorter than that of the team leader, and he will stay through September 1980. He will work principally with the Autonomous Transport Service (SAT) assisting with the planning, scheduling and design of Agricultural Feeder Roads. The senior transportation engineer will continue to work with the Construction Service and assist in the actual implementation of the road construction work. Upon the departure of the transportation engineer advisor in 1980, the senior engineer will assume responsibility for work with the SAT through the end of the project. He will also work with the TPTC Chief Engineer.

In addition to these advisors, a new financial management advisor is required to help TPTC establish a solid controller's office function as part of the reorganization plan and to continue assistance to TPTC in cost accounting and financial management areas related to the implementation of this project. A new advisor will be recruited under the TAMS contract to provide 18 months of services to the TPTC.

Delays in the procurement of heavy equipment have meant that the heavy equipment mechanic advisor and the field engineers working with the brigades have not been able to fulfill their original objectives. Consequently, these advisors will also be extended an additional 18 months. This will allow at least a year and a half of services once the brigades are fully equipped. In addition, the mechanic advisor will be able to assist with the training courses to be developed by the training advisor, in conjunction with SLELC and the SEPRRN mechanics and equipment maintenance program. Although the original technical assistance plan provided for only two field engineers -- one for each mechanized brigade -- the creation of the "light" brigade required an additional engineer to provide assistance to it. This position will be continued through June 1981. An additional field engineer position will be required by mid-1980 either to help the second "light" brigade begin operations or to assist the third heavy equipment brigade.

Several short-term advisors will also be provided during the remainder of the project. In addition, assistance in specialized areas such as soils testing, computerized information and management systems and quarry operations will also be provided.