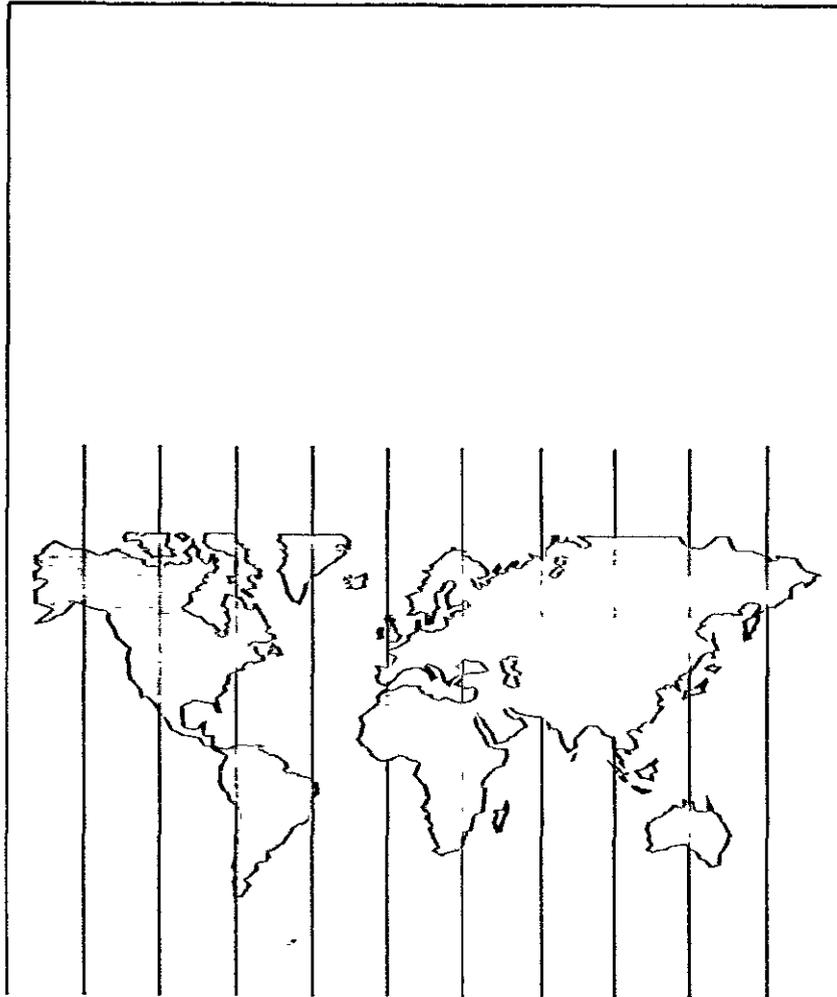


UNITED STATES  
AGENCY FOR INTERNATIONAL DEVELOPMENT

THE  
INSPECTOR  
GENERAL



Regional Inspector General for Audit  
NAIROBI

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MAJOR CHANGES ARE NEEDED  
IN AID'S ROAD PROGRAM IN KENYA

Audit Report No. 3-615-82-07  
January 26, 1982

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IN KENYA

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## EXECUTIVE SUMMARY

### Introduction

This report evaluates the progress made toward the achievement of program goals of the AID-supported Rural Roads System Project, which includes a Rural Access Road Component and a Graveling, Bridging and Culverting (GBC) Component; and the Roads Graveling Project. Funding for the Rural Roads System project consists of an AID loan for U.S.\$13 million and a grant of U.S.\$1.75 million. Funding for the Roads Graveling Project is provided from an AID loan of U.S.\$7.7 million and a grant of U.S.\$1.4 million.

The major goal of the Rural Access Road component of the Rural Roads System project is to assist in the financing of eight labor-intensive construction units. These units, over the 40 month construction life of the project, are to construct approximately 1050 kilometers of new all-weather access roads from existing tracks and rights-of-way in remote semi-isolated areas of six districts in Western and Nyanza Provinces situated in Western Kenya. Loan funds of US\$4.45 million have been allocated for this purpose.

The GBC component of the project has the goal of up-grading and rehabilitating about 2,000 kilometers of secondary and minor roads. The construction period for this component is 58 months. Loan funds will finance the U.S.\$8.6 million covering U.S. equipment and spare parts for one GBC construction unit. Grant funds of \$1.75 million will be utilized to finance technical services.

The Roads Graveling Project will finance \$7.7 million from loan funds to import U.S. capital equipment, construction materials and spare parts, as well as a portion of the local currency costs of petroleum and spare parts, necessary to equip, operate and maintain one construction unit to function within the Graveling, Bridging and Culverting Program (GBC) of the Government's Ministry of Transport and Communications (MOTC). The construction unit will be used to upgrade approximately 1300 kilometers of secondary and minor roads in Western and Nyanza Provinces to an all-weather standard. By upgrading these roads it is expected that smallholder farmer access to agricultural institutions, services and infrastructure will be greatly facilitated.

The project will also finance from grant funds (a) approximately 13 worker-years of services of a project engineer who will work at the Ministry's Special Projects Branch, and a construction superintendent and maintenance mechanic who will both work with the AID-provided gravelling unit, and (b) consulting services to evaluate the project. Grant funds total \$1.4 million.

Both projects are estimated to complete the scheduled work not later than February 29, 1984.

#### Purpose and Scope of Audit

The purpose of our audit was to determine whether (a) the Government of Kenya's (GOK) Ministry of Transport and Communications (MOTC) was effectively and efficiently using AID provided resources, (b) applicable laws and AID regulations were being complied with, (c) the projects were meeting their goals and objectives as stated in project documentation, (d) AID funds were properly expended, (e) USAID/Kenya had given adequate supervision to the projects, and (f) the intent of Congress was being followed.

The scope of our audit included visits to the MOTC's office in Nairobi and the two western provinces of Kenya. Our audit included (a) a review of USAID/Kenya's project files and financial records, (b) discussions with personnel at all levels of management and operations at the locations visited, and (c) such other tests and procedures as we considered necessary under the circumstances.

Our examination covered project progress for the period from July 1, 1977 to October 31, 1981. We discussed our audit findings with USAID/Kenya, and provided them with a copy of our draft audit report. Written comments were received from AID officials, and have been included in this report where considered pertinent.

#### Findings, Conclusions and Recommendations

We concluded that the GBC component of the Rural Roads System Project and the Roads Gravelling Project in Kenya were not meeting their planned outputs as evidenced by the shortfall in kilometers of road constructed. The project goal of the Rural Access Road Component of the Rural Roads System project is expected to be achieved.

The Government of Kenya's (GOK) absorptive capacity has reached the point where additional demands could adversely affect AID's assistance initiative. These and other matters are summarized below and detailed in the following sections of this report.

- The concept of training Kenyan counterpart personnel to assume technical positions in the Roads Graveling Project should be more fully addressed. The long range success of the project, in our view, could depend on this vital issue (page 5 to 6).
- Technical assistance personnel were used in positions other than those for which they were hired. This is a waste of valuable talent and, for other than the temporary shifting of personnel, should be minimized (page 6 to 8).
- The GOK is experiencing serious budget problems to the extent that the AID supported projects may be affected. This occurred in FY 1981, and there are indications that it will reoccur in FY 1982 (page 10 to 12).
- The Graveling Component of the Rural Roads System Project has about \$4 million in surplus funds. De-obligation action should be promptly initiated (page 12 to 14).
- Management controls over spare parts and fuel financed from AID-provided funds need to be tightened. The project could be incurring substantial losses because of this problem (page 14 to 16).
- The need for evaluations requiring outside expertise should be re-examined. Additionally, the areas on which evaluation contractors are to focus their efforts need more specificity (page 16 to 19).
- Marking requirements as stated in the Foreign Assistance Act, as amended, and Agency regulations needed to be addressed (page 19 to 21). (Action was initiated on this matter prior to issuance of this report.)

To improve the program, we recommended that USAID/Kenya take action to ensure that:

- MOTC staffs the GBC units with Kenyan counterpart personnel, both professional and technical, capable of assimilating the transfer of technology.
- GOK by its actions abides by its commitment to provide sufficient budgetary support to better maintain the roads system.
- Surplus project funds be promptly deobligated.
- Controls over spare parts and fuel be improved.

BACKGROUND

Introduction

The Government of Kenya's Ministry of Transport and Communications (MOTC) has responsibility for constructing and maintaining the country's roads. The MOTC has recently undertaken several new programs for increasing rural accessibility by improving road conditions.

The GOK first approached AID in early CY 1975 about the possibility of its assistance to the multi-donor supported rural roads program. Specifically, the Government requested assistance for road projects in Western and Nyanza Provinces. AID's response resulted in the Rural Roads System Project, (comprised of a rural access road component and a GBC component) and the Roads Graveling Project.

The purpose of the rural access road component is, using labor intensive techniques, to construct all-weather gravel surfaced roadways along existing paths and right-of-ways connecting small farmer areas with the classified road network to provide two-way access between the farms and market centers.

These access roads are of short lengths (usually 5 to 10 kilometers), and in many cases connect with a feeder road at only one end. Average daily traffic may only number about 5 vehicles, but bicycle, animal and pedestrian traffic is likely to be significant.

The government through the MOTC expects to construct some 14,000 kilometers of access road in 23 districts. AID will finance 75 percent of construction costs in 6 of those districts using the fixed amount reimbursement procedure.<sup>1/</sup> The objective of the rural access road program is to improve the living conditions and production of farmers by providing all-weather accessibility to social services, and better health and educational facilities.

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<sup>1/</sup>Under the fixed amount reimbursement procedure, AID reimburses on an amount fixed in advance based upon reasonable cost estimates. It is not based on actual cost. The emphasis in this method is to make reimbursement on planned outputs rather than inputs. AID reimburses the GOK in the amount of US\$4,762 for each kilometer of access road constructed.

The Roads Graveling program was to assist the MOTC by financing from loan funds equipment and materials to outfit and operate two graveling units. The purpose of the graveling component is to upgrade 3,300 kilometers of existing classified roadways<sup>1/</sup> utilizing equipment construction methods to all weather standards in the two western provinces of Kenya by adding gravel surfacing materials.

The two companion programs, roads graveling and rural access roads which implement the farm to market strategy, form the nucleus of the rural roads network. The strategy is entirely dependent on the integration of the rural roads into one all-weather road network.

Each project has a grant component which will fund technical assistance and evaluations. Total loan and grant funds made available for the projects total about \$24 million. Project funding by component is detailed in Exhibit A.

#### Purpose and Scope of Audit

The purpose of our audit was to determine whether (a) the Government of Kenya's (GOK) Ministry of Transport and Communications (MOTC) was effectively and efficiently using AID provided funds, (b) applicable laws and AID regulations were being complied with, (c) the projects under review were meeting their goals and objectives as stated in project documentation, (d) AID funds were properly expended, (e) USAID/Kenya had given adequate supervision to the project, and (f) the intent of Congress was being followed.

Audit work was performed at the USAID/Kenya in Nairobi, and at the Office of the Regional Financial Management Center also in Nairobi. Field work was conducted in the districts of Kisii, Kisumu and South Nyanza in Nyanza Province. In Western Provinces we visited project sites in Bungoma and Kakamega Districts. We inspected 35 roads in various stages of construction. We also inspected the parts warehouse in Kisumu which services the road graveling units for Nyanza and Western Provinces.

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<sup>1/</sup> Roads are classified by function and are ranked from Class A (International Trunk Roads) to Class E (Minor Roads). Rural Access Roads are unclassified. It is important to note that the class of the road does not necessarily denote the level of traffic it carries.

The field audit work focused primarily on project progress and how well the program was meeting its stated goals. In addition, we reviewed selected program records, tested the in-place controls used to account for spare parts and fuel, interviewed cognizant USAID/Kenya officials and contractor personnel, and discussed the program with local provincial and national-level host government officials.

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

The Roads Gravelling Project Needs To Be Restructured Stressing Equipment Maintenance and Technology Transfers

Gravelling, Bridging and Culvert Construction Progress

Construction progress for the two gravelling, bridging and culverting (GBC) units has lagged far behind established goals. The project calls for the construction of 3300 kilometers of all weather roads in Nyanza and Western Provinces. It was anticipated that each GBC unit would be able to produce 30-35 kilometers per month. As the chart below shows, monthly progress through 23 months of construction has fallen far below plans.

	Nyanza Province	Western Province
	Km completed as <u>of 9/30/81</u>	Km completed as <u>of 9/30/81</u>
Planned construction	690	690
Actual construction	187	191
Monthly average	8.1	8.3

Numerous reasons have been cited for the slow construction progress:

- Road graders were frequently unavailable due to mechanical failure.
- The planned construction rate of 30-35 Km per month was unrealistic
- Both GBC units lost many construction days because of heavy rains.
- Roads were constructed to full MOTC standards rather than just doing spot improvements
- The project was shut down for approximately 1-1/2 months because of GOK funding problems.

Rural Access Road Construction Progress

Although the countrywide rural access road program is lagging far behind plans, the USAID portion of the project is only slightly behind schedule. The USAID has agreed to reimburse the GOK for 1050 kilometers of all weather roads. As of June 30, 1981, 697 Km of roads were constructed to the earth construction stage with 279 Km of these having been gravelled. It is expected that all 1050 Km will have completed to the earth construction stage by June 1982. The final kilometers will not be gravelled until the road material has settled.

Prospects are dim that the roads projects will develop into long term successes. There are too many critical elements, such as the failure to transfer technology or the questionable capability of the GOK to adequately maintain additional roads, which are undermining the viability of the project.

USAID/Kenya disagreed with our conclusion and stated in their response:

"Mission believes that both the GBC and RAR project components are well conceived and are proceeding very well. We do not believe that the very broad generalization that 'prospects for long-term success are dim' is supported by facts.

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RAR -- Mission and donors are optimistic that the RAR program is basically well-founded and that, with proper emphasis on an established maintenance program, the chances for success are high. The construction rate is high, and a good maintenance concept is being implemented. However, Mission is proceeding cautiously in increasing the length of RARs to be financed. A decision on whether to fund additional roads will depend in part on MOTC's demonstrated progress in establishing the maintenance program. This issue will be jointly reviewed by donors in March 1982.

GBC -- The slower-than-planned rate of GBC output has been recognized by Mission and MOTC, and positive steps are underway to increase production (Crowther Report). It is noted that the original construction targets may require re-evaluation in light of difficult field conditions. We expect the Government to continue with the program after AID's financing is terminated on the Project Assistance Completion Dates specified in the Project Agreements. Mission will continue to press for improved maintenance planning and execution."

### Conclusion

There is a considerable lag between the time a project is conceived, planned and implemented. Usually during the implementation phase imperfections surface which are not necessarily the result of bad planning but do require management's attention.

We are focusing on these areas throughout the report and have made recommendations to improve the project and to effect, where possible, economies.

### Kenya Counterpart Personnel Are Needed to Fill Critical Professional and Technical Positions

One of the central factors which determine the initial as well as the continued success of a project is the transfer of technological skills to host country personnel. A project can only be considered to be fully successful if by its completion trained host country personnel are on-board to ensure the continued maintenance and/or further expansion of the project. This important criteria is not being achieved in the GBC project because of the absence of Kenyan counterparts in key positions.

The Roads Graveling Project provides for seven AID funded consultants who are supposed to furnish professional and technical assistance to the MOTC. These consultants possess technical expertise in areas such as civil engineering, construction management, equipment maintenance, and road maintenance engineering. These people were not functioning in a consultant or training capacity, but were fully operational in managing the day to day affairs of the project.

These individuals had little opportunity to furnish technical assistance training because there were no Kenyan counterparts for their respective position. Consequently, there was a considerable amount of technical expertise in areas such as road or equipment maintenance which will not be transferred to Kenyans by completion of the project. In our opinion, this shortcoming will have a very adverse affect on the long range success of the project.

The Mission's views on this matter are:

"The Project Agreements do not specifically require that MOTC provide counterparts to the program. In fact the TA personnel are to be in line positions, so that as soon as qualified Kenyans are available, they would take over the responsibility of operating the GBC units. The Government.

has successfully operated the units with Kenyan staff which were formerly staffed by Canadians. Another project operated fully by Kenyans is construction of the Thika-Garissa road. That qualified Kenyan staff is available has also been supported in the Crowther report which states (page 22): "... many Kenyan engineers appear to have ability to take over a viable operation with a minimal indoctrination period".

The Government has agreed to Kenyanize the Nyanza Province unit by July 1982, and an amendment to the PRC Harris contract to this effect is in process. We believe this to be a very positive step. Kenyans will be directly responsible for the operation of the unit and at the same time they would be able to consult with PRC Harris staff such as the Project Engineer."

#### Conclusion and Recommendation

While there may not be a requirement for counterpart personnel in project documentation, we believe that they are essential to project success. We noted in the January 12, 1981 Mission review of this program that the project manager cited the need for the MOTC to furnish counterparts for the GBC components of both projects.

#### Recommendation No. 1

USAID/Kenya should obtain the MOTC's firm assurance that it will provide counterpart personnel in the required numbers to assume professional, supervisory, and technical positions within the GBC. Counterpart personnel should be furnished in sufficient time to become proficient in project operations.

#### Technical Assistance Contract Personnel Should Perform The Duties For Which They Were Hired.

Technical assistance contract personnel funded from grant funds were not being used in the positions for which they were hired. To illustrate this point: The Project Engineer on the Roads Graveling Project was heavily involved in administrative matters to the point that he spent little time on project engineering; the roads maintenance advisor was building roads; and the deputy project engineer, who spent ten months as a warehouseman, was performing as a construction unit supervisor.

Mission project personnel stated that it was envisaged that the deputy project engineer would only fill the void temporarily until a permanent warehouseman was recruited. Unfortunately, for one reason or another, the recruitment did not move as quickly as planned.

We have no problem with the temporary shifting of personnel to meet project needs, but in our view 10 months out of a two year contract is far from temporary. During this extended period the project no doubt suffered because one of its engineers was not on station in an engineering capacity.

We suggested to the Mission that contract personnel be utilized in the areas of expertise for which they were hired.

USAID/Kenya responded in the following manner:

"Mission acknowledges that TA personnel have taken on duties beyond the scopes of their terms of reference. This situation was caused by (1) a chronic difficulty on the part of PRC Harris to quickly replace personnel and (2) inadequately trained and unqualified MOTC counterpart personnel.

PRC Harris had terminated the services of the first Deputy Project Engineer because of unsatisfactory performance, and five months elapsed before a suitable replacement was found. Moreover, the first Nyanza construction superintendent left unexpectedly due to personal problems, and his replacement was terminated because of health problems.

Early in the project, PRC Harris personnel recognized that the warehouse operation was suffering from inadequate supervision. In order to ameliorate this situation, first the Nyanza maintenance supervisor and then the new Deputy Project Engineer were assigned to the warehouse in order to prevent complete deterioration of warehouse operation and protect USG investment.

Both Mission and PRC Harris have recognized this problem and are in the process of correcting the situation. PRC Harris has submitted a proposed amendment to their contract to MOTC which covers personnel realignment. The amendment recognizes that MOTC needs to increase efforts to relieve PRC Harris personnel from the crushing load of administrative duties which is keeping them from getting out into the field... Mission hopes that the contract amendment will be executed in the immediate future."

Conclusion and Recommendation

Some movement has been made to correct this problem but there remains a considerable distance to go before resolution. Pending definitive action we are making the following recommendation.

Recommendation No. 2

USAID/Kenya should take the necessary action with the MOTC and contractor PRC Harris to realign technical assistance personnel into the positions for which they were hired.

Maintenance of Equipment Procedures Need To Be Improved

Since inception, construction progress has been hampered by sidelined equipment. Many breakdowns have been attributed to the unsuitability of certain road graders for East Africa and poor spare parts support. USAID/Kenya advised us that they recognize the unsuitability of this equipment for use in East Africa, and in the future will provide only equipment which has been time tested. Another contributing factor is the lack of proper maintenance.

We were not able to identify any written schedule of periodic or preventive maintenance which specifies what maintenance should be performed at periodic intervals. We also could not determine from the equipment maintenance logs what maintenance had been performed on each piece of equipment. This precluded us from determining whether all required maintenance was being performed. However, a shortage of qualified mechanics and a high rate of sidelined vehicles were indicators that a serious maintenance problem exists.

Several MOTC officials told us that maintenance was a problem because there are not enough qualified mechanics, particularly at the supervisory level. For example, the Bungoma GBC was supposed to have 30 mechanics and 2 mechanic inspectors. Actual on-board strength was only 15 junior mechanics. There were no senior mechanics who could function in a supervisory capacity. Staffing limitations affect both the quality and amount of maintenance which can be performed.

The lack of maintenance was also reflected in the amount of sidelined equipment. For example, three out of four graders had been out of operation for a year at the Bungoma GBC in Western Province. On the date of our visit, 18 out of 30 of the 10 ton trucks were inoperative. While we recognize that a

lack of spare parts is the cause of many vehicles being sidelined for lengthy periods, a lack of maintenance is definitely a contributing factor. Conditions in Nyanza Province were somewhat better.

The Mission had this to say in their comments:

"Government is not able to retain qualified mechanics because of competition with the private sector. For example, the USAID GBC program should have two senior mechanical inspectors per unit. However, since the beginning of the project only one such senior mechanical inspector was available for both units. Furthermore, the lower grade mechanics are not able to work effectively without proper supervision.

The GBC equipment availability rate is 40 to 60 percent, the same as for MOTC overall. Mission views this as a continuing problem tied to overall MOTC capabilities, but we will collaborate with MOTC on ways to monitor and improve the situation. With the proposed addition of administrative staff to each unit, we believe better records of preventive maintenance will be kept."

#### Conclusion and Recommendation

If an effective program cannot be developed because of MOTC limitations, USAID should seek an alternative solution. For example, permitting PRC Harris to hire senior mechanics instead of relying on the ministry to supply them. The present arrangement has not worked and we see nothing on the horizon which leads us to believe it will work in the future.

Both projects have allocated loan funds totaling about \$16 million for equipment and spare parts. To protect this equipment and to extend its useful life as long as possible, an effective equipment maintenance program is needed.

While USAID/Kenya is aware of the problem we believe definitive action is required. Thus, we are making a recommendation.

#### Recommendation No. 3

USAID/Kenya, in conjunction with the MOTC, develop a maintenance program to ensure that the GBC equipment financed from loan funds receives periodic and professional attention.

The Government of Kenya Needs To Address The Requirement  
For Improved Maintenance Of Its Rural Roads System By  
Providing Additional Budgetary Support

The Government of Kenya needs to improve its maintenance practices on Class D and E roads. These roads are approaches to the rural access roads. Unless the approach roads are usable, access to newly opened areas is, at best, restricted. We believe that the existing roads should be adequately maintained before AID funds new lines of communication.

Maintenance practices in Nyanza Province were marginal. Conditions were somewhat better in Western Province. We travelled on Class D and E roads that obviously had not been maintained for extended periods of time. In most cases the roads needed grading, culverts installed, and side ditches. Drainage needed improvement. One purpose of the access road program is to open up new areas for development. Unless these newly opened areas are accessible, the assistance funds spent to construct these access roads will have been for naught. As previously stated, AID reimburses the GOK in the amount of U.S.\$4,762 for each kilometer of access road constructed, and plans to spend a total of \$4.5 million on the rural access roads.

The cost to adequately maintain a kilometer of Class D and Class E roads is about Kenya Shillings (KS) 1,300/- per kilometer per year. We were advised that the GOK's Ministry of Transport and Communications' current policy is to spend about KS 600/- per kilometer per year for maintenance. This means only half the number of kilometers of road will receive maintenance, or the quality will be lessened. We believe this policy to be short sighted.

Maintenance of the rural access roads is another matter. The responsibility for maintaining them is within the purview of the Provincial Rural Access Roads Coordinator. The procedure is to hire maintenance contractors at the monthly rate of KS 180 per man. The work of these maintenance contractors, all labor intensive, amounts to cutting the weeds, cleaning out drainage ditches and, to the extent possible, filling in ruts and ditches on the road's surface. While this maintenance program is better than no program at all, it cannot begin to protect AID's investment in road construction.

The project agreement to which the GOK is a party is very clear in the matter of cooperating country resources:

SECTION 3.2. Cooperating Country Resources  
for the Project.

(a) The Government agrees to provide or cause to be provided for the Project all funds, in addition to the Assistance, and all other resources required to carry out the Project effectively and in a timely manner.

Both the Rural Access Roads Project and the Roads Gravelling Project were suspended for 1-1/2 months in early 1981 because of the Government of Kenya's (GOK) funding problems. There are indications that there will be a recurrence of this fiscal problem in March 1982.

Indications that a suspension is likely to occur are (a) a 25% reduction in the size of the labor force on the Rural Access Roads Project, (b) extended delays in contracting for the construction of bridges at various locations, (c) instructions to the field offices to halt needed equipment and material purchases, and (d) gravelling construction units accumulating compensatory time to be taken when the anticipated work stoppage is ordered.

Kenya's economy is not in the strongest position. There has been a recent 15% currency devaluation, petroleum costs consume about 40% of Kenya's hard currency, and the country's production of hard currency earners such as hides, coffee, and tea have decreased. The result is that projects at or near the bottom of the GOK's priority list are the first affected when there are budget restrictions.

We question whether the Government of Kenya has, or will have in the near future, the required absorptive capacity to properly maintain any additional roads. There is little question that roads, particularly those which are gravel surfaced, require regular attention.

Kenya has all the characteristics of a country which has an overburdened absorptive capacity. These characteristics take the form of much slower than anticipated achievement of development projects, an inability to meet commitments, and insufficient funds.

We believe the Mission should, to the extent possible, obtain the GOK's firm assurance that both the Roads Gravelling Project and the Rural Access Roads Project will continue to receive funding and their progress not be interrupted.

The Mission stated in their response:

"Under the PRC Harris technical assistance contract, a roads maintenance engineer has been provided to assist Provincial Engineers in Western and Nyanza Provinces to strengthen maintenance of minor classified roads. This effort has been successful in Western Province, but not in Nyanza Province. Mission has requested that, as part of the proposed amendment to the Harris-MOTC technical assistance contract, Harris personnel continue to provide roads maintenance advice in both provinces...

On the maintenance of rural access roads, MOTC and donors have made a commitment to maintain RARs by a system of local contractors. We believe that the pilot system should be given sufficient time to develop properly, since there is reasonable promise that this system is an alternative to equipment-intensive maintenance."

Conclusion and Recommendation

We believe maintenance to be a matter of the utmost importance. Thus, to protect AID's investment in the roads project, we believe the USAID should emphasize its concern to the GOK.

Recommendation No. 4

USAID/Kenya should obtain the GOK's firm assurance that either (a) Class D and E Roads which have been upgraded using AID funds receive proper maintenance, or (b) additional upgrading efforts (about 2,000 kilometers remain to be upgraded) will be reduced with commensurate emphasis added to the GOK's maintenance capability.

Surplus Project Funding Should Be Returned to the United States Treasury

There is approximately \$4 million in the Roads Graveling component of the Rural Roads System Project which are surplus to project needs and should be deobligated. We learned that of the \$8.5 million authorized, only about \$4.5 million is needed. These funds became surplus primarily because of (a) economies effected in equipment purchases, and (b) substantial overestimates in other project costs.

USAID/Kenya's commitment to the project was to fund the construction of about 1050 kilometers of all-weather road. As of June 30, 1981, 976 kilometers of rural access road had been constructed. The remaining 74 kilometers are expected to be completed by June 30, 1982, thus completing AID's commitment.

The Government of Kenya, on August 8, 1981, requested the USAID to fund an additional 1080 kilometers of rural access road using labor intensive techniques. The plan is to use the surplus funds of the gravelling component for this purpose. We understand the USAID is giving active consideration to the GOK's request.

We can see no reason to fund the additional 1080 kilometers merely because there are surplus funds available. With a tight U.S. budget and even tighter foreign assistance allocation, unneeded funds should be returned to the U.S. Treasury for other purposes.

There are other cogent reasons for not moving forward with the construction of additional rural access roads. To illustrate: (a) GOK's new maintenance program for access roads is still untested, and to add to an already strained maintenance program would be irresponsible, (b) maintenance of the access road system has a low priority with the GOK when it comes to allocating resources, and (c) other external donors are considering reducing their support for the access road program.

Additionally, in our view, the labor intensive construction techniques employed on the rural access roads do not meet the criteria of a technology transfer program. We believe the labor intensive method to be more of a social program than a development program. True, there are certain developmental aspects of the project but the tilt is predominantly in the public works direction. We discussed this point with selected GOK officials in the field. They said that our point was well taken but added: "Look at how many Kenyans are provided jobs through the access road program." We have no problem with this philosophy, but believe AID should not be financing programs which are primarily social in nature.

We are not advancing a recommendation on the pros and cons of labor intensive construction methods because the rural access road component of the project is concluding. However, we do suggest that the Mission reassess the labor intensive techniques prior to utilizing them on any future projects to determine if they conform to the directions of the current administration's U.S. foreign assistance policy.

Recommendation No. 5

USAID/Kenya should determine the exact amount of project funds in excess of needs for the gravelling component of the Rural Roads System Project (No. 615-0168) and take prompt deobligation action.

Other Matters Requiring Management Attention

An Adequate Inventory Control System Over Spare Parts  
And Fuel Needs To Be Established

Our work at the Western Province GBC disclosed that an adequate system for controlling the receipt, on hand balances, and issuances of spare parts and petroleum products was not in operation. The project is probably incurring substantial losses of these items because proper inventory controls had not been established. Strict control measures are necessary to account for these supply items because they are highly susceptible to pilferage due to easy marketability.

The Western Province GBC receives spare parts/supplies from the warehouse located in Kisumu. We selected a sample of approximately 60 items of various spare parts which, according to Kisumu records, had been issued to the GBC at Bungoma. In nearly all instances no stock card had been created to control the receipt and subsequent issue of the items by the Bungoma GBC. We were not able to locate receipt documentation to support that most of the items had ever been received by Bungoma. Additionally, we could not find records which showed that the items had been issued by the GBC. In short, there was no system of inventory control in operation.

There was no way to determine how many spare parts have been diverted from the project because of a lack of proper controls. Losses have probably been substantial because the items are so readily marketable (oil filters, spark plugs, generators, batteries and tires). Additionally, much of the down time on equipment can probably be attributed to the loss of spare parts.

The GBC was maintaining some inventory control records for its petrol and diesel fuel. However, more management oversight is required and tighter controls need to be implemented because losses are occurring. Our reconciliation of stock record cards to a physical count of petrol indicated there was a shortage of approximately 220 liters. We were unable to obtain a satisfactory explanation for this shortage.

Our comparison of a physical inventory of diesel fuel with stock card records indicated that there was a shortage of approximately 13,250 liters. Officials at the GBC felt the shortage might not be this large because there was uncertainty over the capacity of one underground storage tank. In any event, the amount of unaccounted for diesel fuel would still be very substantial if a larger capacity tank were taken into consideration. Additionally, large scale losses of fuel would be difficult, if not impossible, to detect unless storage tank capacity is known.

Project officials commented during our review that upcoming shortages of diesel fuel in Kenya could have an adverse affect on road construction progress. GBC equipment (graders, dozers, dumptrucks, etc.) are heavy consumers of diesel fuel. Consequently, it is very important that the GBC maintain tight controls over this important commodity.

In response to our observations the Mission advised:

"This need for adequate inventory control has been recognized by MOTC and especially its contractor PRC Harris, Inc. Efforts by MOTC to transfer or hire experienced and dependable warehousemen were not successful. PRC Harris also attempted to train raw recruits which explains to some degree errors in warehouse records. It was this concern that prompted Harris personnel to assign the Deputy Project Engineer to warehouse operation, and which prompted Harris to add a warehouse specialist to its staff.

Furthermore, MOTC will add more personnel (executive officers) to each GBC field unit who will be available to closely monitor inventory control.

MOTC will include in the quarterly reports progress made in tightening inventory control."

#### Conclusion and Recommendation

All cognizant parties acknowledge that there is a need for improved controls over spare parts and fuel, but very little has been done about it. Accordingly, we are advancing the following recommendation.

Recommendation No. 6

USAID/Kenya should take steps to ensure that an appropriate inventory control system is established over spare parts and fuel at the GBC warehouse in Kisumu, and at each GBC field unit.

The Number of Contractor Evaluations Should Be Re-examined

An annual evaluation component is included in the Rural Roads System and the Roads Graveling Projects. The total amount authorized for contractor evaluation is about \$600,000 and is financed from the grant element of the projects. The annual evaluations were to be broken down into two parts: engineering, which will be the primary responsibility of the USAID Project Manager; and the economic, social and environmental evaluations, which would require outside consultant expertise. We reviewed several contractor prepared evaluations and concluded that (a) the engineering evaluation did not surface anything that the Project Manager didn't already know; and (b) the economic, social and environmental evaluations were not precise, lacked depth, and were premature. Accordingly, we believe additional evaluations of these projects involving outside contractor expertise should be limited to those instances where there is a definite need. A senior MOTC official commented that he believed that sociological evaluations were of no value.

Agency policy regarding evaluation states that:

"Missions and Bureau should insure that evaluations are objective and candid and as searching and penetrating as warranted by the project's size of importance or duration. The objective is not to place blame but rather (1) to ascertain the project's developmental impact and continuing relevance to (possibly changing) country goals, (2) to improve Mission performance and programs, including budget and other routine management decisions, and (3) to contribute to future project/program selection and strategy in other Missions as well as in the one directly affected. In the latter connection, evaluation reports should contain information useful for similar activities planned elsewhere."

The contractor evaluations we have reviewed failed to meet this criteria.

To illustrate our point, one evaluation report on the economic, social and environmental aspect stated as conclusions:

- It is too early to make definitive statements about the expected benefits.
- Road workers' wages are a significant addition to the cash that is available locally.
- That precise cost benefit studies are not yet practicable.
- That RAR project should lead to increased agricultural production, and regarding social services, primary schools are expected to benefit from improved access roads.
- That the DDO and RAR engineer have important roles to play in road selection and in the success of RAR Projects.
- That it is fruitless to search for universal and precise indicators applicable to all areas.
- That in July 1979 (pertaining to the Access Road impact on wild life) the same leopard that attacked a young girl reportedly killed two sheep and a goat. But the leopard was subsequently captured.

The above gratuitous type findings cost the Agency \$52,378. In total about \$250,000 has been spent on evaluations. Another \$350,000 remains to be spent.

One engineering evaluation we reviewed was, in our opinion, satisfactory. It did not, however, identify any unknown problems to the Project Manager. We believe that the Agency, with its over two decades of experience in engineering and building roads all over the world, has the on-board expertise to evaluate its road projects. Contractor evaluations should be engaged only when this expertise is unavailable.

We recognize the need for evaluations. We believe that unless they are useful to managers, assistance funds, which are in short supply, will have been wasted.

To this finding the Mission responded:

"The main point in the audit finding is that the continual need for contractor evaluations should be re-examined. Our response is in two parts: socio-economic evaluations and engineering evaluation.

(1) Socio-economic evaluations

We believe it is simply too soon to judge the value of the impact evaluation and that it needs the time and resources allotted to demonstrate its relevance and utility. Evaluation studies require considerable time to complete, and not too much can be expected from them before they are completed. Systematic study requires establishment of a base line, collection of data on a regular basis over time to identify trends and where possible detailed study of specific topics to examine particular processes which are not well-understood.

The results of the studies to date provide ample justification for holding to commitments made. There is clear evidence of the value of the impact study in terms of relevance to the Government, to the Kenya Mission and to other AID missions also involved in rural roads programs.

Before doing so, we would like to respond to the more general issue of whether or not it makes sense to have started the impact evaluation studies in the first place. We think it does, in Kenya's case, for several reasons; in particular, the Kenya Rural Roads program is the leader and from many perspectives the appropriate model for rural roads programs in East and South Africa. The Kenya approach--which itself was developed from experiences learned in a deliberate Government sponsored exploratory rural development program (the Special Rural Development Program)--has already been useful to AID missions in several African countries, including Burundi, Lesotho and Tanzania. Wider disseminations of the Kenya approach will occur as the evaluation studies are completed. The Kenya Government supports the evaluation; it is strongly interested in continuation of the Rural Roads Program.

(2) Engineering Evaluation

Mission believes that the question is not whether AID has qualified engineers to conduct the study, but rather that impartial technical advice was needed on the appropriate utilization of GBC resources, specifically on the issue of spot improvement. One of the main reasons for the engineering evaluation was to determine whether the spot-improvement technology as contemplated in the project agreements was technically applicable to the site conditions. USAID/Kenya engineers had many discussions with the Ministry's responsible officers regarding adaptation of the technology, but the Ministry was reluctant to use the technology as the Ministry had very little prior

experience. Therefore, it was decided by USAID/K and the Ministry that a private consultant with broad experience in the design and construction of rural roads would be engaged to evaluate appropriateness of the technology. In this role, Mr. Crowther, well known and respected in the field of low volume roads, was uniquely well qualified.

The main advantage of hiring a private consultant acceptable to the Ministry was that he was considered a consultant to the Ministry and not to AID."

#### Conclusion and Recommendation

We believe that it is incumbent upon all Government agencies to expend public funds only when necessary. And to get value received from these expenditures. That is all we are suggesting to the USAID.

#### Recommendation No. 7

USAID/Kenya should re-examine its commitments for contractor evaluations on AID's road program in Kenya. In those instances where the USAID feels that a requirement remains, the USAID should ensure the Agency policy concerning evaluations is followed.

#### Marking Requirements as Required in the Foreign Assistance Act of 1961 (as amended) Need To Be Addressed

There were no signs or other means of identification to show that the construction of the Rural Access Roads Project or improvements to existing roads by the Roads Graveling Project to be financed as "American AID". Also no provision had been made to identify completed projects with suitable signs or other means giving credit for the assistance provided by the people of the United States.

The combined loan and grant agreement for both the Rural Roads System Project and the Roads Graveling Project signed on September 30, 1977 and July 1, 1977, state in Section B.8 of the Standard Provisions Annex: "The Government will give appropriate publicity to the Assistance and the project as a program to which the United States has contributed, identify the project site, and mark goods financed by AID, ..."

We saw no such signs or markings at the 35 project sites we visited in October 1981. We discussed this point with Ministry of Transport and Communications officials in the field. They

told us that everyone along the roads under construction knows that the United States is funding the project. We queried residents living adjacent to the sites, travellers, and workers on the roads, and they didn't have the slightest idea of the origin of the funding.

The source of AID's policy on appropriate project marking is Section 641 of the Foreign Assistance Act of 1961, as amended, which states: "Programs under this Act shall be identified appropriately overseas as 'American AID'."

AID implements this policy by requiring that project construction sites and other project locations display signs suitably marked and indicating participation by the United States in the project. These signs should be erected early in the construction phase and be replaced by permanent signs at the end of this phase. We think that efforts should be undertaken promptly to see that this policy is carried out with respect to the U.S. Government assistance being provided to Kenya.

The Mission stated in their response:

"On several occasions during CY 1979, USAID raised with MOTC that appropriate signs are required to be installed on the RAR construction sites, in accordance with the provisions of the project agreement. USAID also delivered to MOTC a large supply of signs showing the AID emblem.

MOTC objected to the display of signs on the grounds that the RAR programs is a multi-donor project, that the other donors do not require signs, and therefore the placing of USAID signs would give an inaccurate situation of proper donor involvement.

MOTC and MOF<sup>1</sup> will be advised that erection of proper signs is mandatory and must be accomplished.

The GBC project engineer has advised Mission that he is taking action to erect the required notices."

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<sup>1</sup>/ Ministry of Transport and Communication and Ministry of Finance

Conclusion

In addition to the above comments the USAID provided us with a copy of the letter written to both the MOTC and MOF. The letter stated that the USAID would not provide future reimbursement on those road projects until the marking requirements had been met. This action and other actions which the GBC project engineer has initiated obviates the need for a recommendation. We do suggest that the USAID make periodic follow-up inspections to verify compliance.

EXHIBIT A

MAJOR CHANGES ARE NEEDED IN AID'S  
ROAD PROGRAM IN KENYA

Summary of Funding Sources and Disbursements  
July 1, 1977 - October 31, 1981

Rural Roads System Project No. 615-0168

	<u>Authorized</u>	<u>Expended</u>
Loan	\$13,000,000	\$3,089,183
Grant	<u>1,748,000</u>	<u>957,467</u>
	\$14,748,000	\$4,046,650

Roads Graveling Project No. 615-0170

Loan	\$ 7,700,000	\$4,728,554
Grant	<u>1,400,000</u>	<u>668,928</u>
Sub-Total	\$ 9,100,000	\$5,397,482
Total Funding	<u>\$23,848,000</u>	<u>\$9,444,132</u>

List of Report Recommendations

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Recommendation No. 1

6

USAID/Kenya should obtain the MOTC's firm assurance that it will provide counterpart personnel in the required numbers to assume professional, supervisory, and technical positions within the GBC. Counterpart personnel should be furnished in sufficient time to become proficient in project operations.

Recommendation No. 2

8

USAID/Kenya should take the necessary action with the MOTC and contractor PRC Harris to realign technical assistance personnel into the positions for which they were hired.

Recommendation No. 3

9

USAID/Kenya, in conjunction with the MOTC, develop a maintenance program to ensure that the GBC equipment financed from loan funds receives periodic and professional attention.

Recommendation No. 4

12

USAID/Kenya should obtain the GOK's firm assurance that either (a) Class D and E Roads which have been upgraded using AID funds receive proper maintenance, or (b) additional upgrading efforts (about 2,000 kilometers remain to be upgraded) will be reduced with commensurate emphasis added to the GOK's maintenance capability.

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Recommendation No. 5

14

USAID/Kenya should determine the exact amount of project funds in excess of needs for the gravelling component of the Rural Roads System Project (No. 615-0168) and take prompt deobligation action.

Recommendation No. 6

16

USAID/Kenya should take steps to ensure that an appropriate inventory control system is established over spare parts and fuel at the GBC warehouse in Kisumu, and at each GBC field unit.

Recommendation No. 7

19

USAID/Kenya should re-examine its commitments for contractor evaluations on AID's road program in Kenya. In those instances where the USAID feels that a requirement remains, the USAID should ensure the Agency policy concerning evaluations is followed.

Appendix B

List of Report Recipients

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1

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