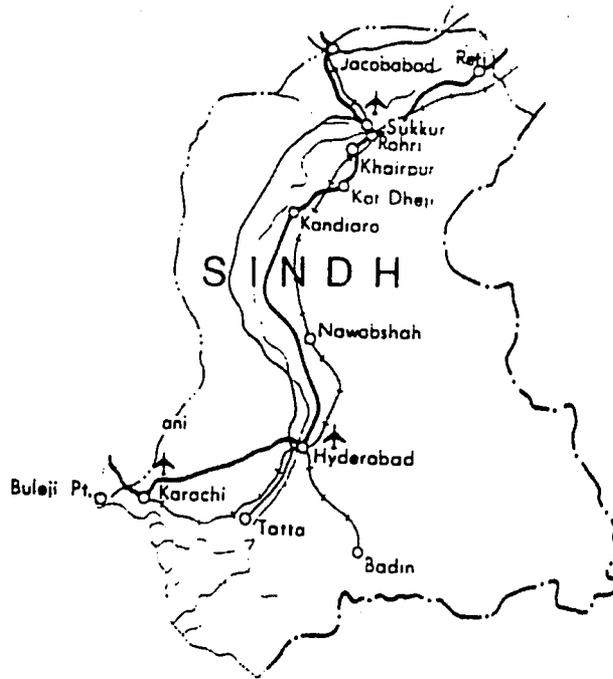


# FINAL REPORT

## Executive Summary



## Mid-Term Evaluation for Road Resources Management (RRM) Project Project No. 391-0480

Prepared for the  
**United States Agency for International Development**  
Islamabad, Pakistan

**IQC PDC-0249-I-00-0019-00 • Delivery Order No. 23**

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May 26, 1993

## **EXECUTIVE SUMMARY**

### **I. BACKGROUND**

1. **Name of Mission:** USAID-Pakistan; MID-TERM EVALUATION for ROAD RESOURCES MANAGEMENT (RRM) PROJECT Project No. 391-0480); May 15, 1992

2. **Activities Evaluated:**

The RRM project agreement was signed on June 18, 1987. The purpose of the project is to establish a maintainable rural road system in Sindh, Pakistan and identify the policy, management, and financial reforms needed to achieve a sustainable road system nation-wide.

The project consists of two main components: (1) Rural Roads Program which involves a comprehensive approach to planning and investments for rural roads among the districts in Sindh; and (2) Highway Policy and Finance Program under which the project efforts will investigate ways of overcoming the policy and financial constraints to effective management of road resources.

3. **Purpose of the evaluation and methodology used:**

Mid-term evaluation of the Road Resources Management (RRM) Project: (1) to assess progress to date in implementing the RRM Project, including validity of the concept of developing road maintenance and construction capabilities in the fifteen rural District Councils (primarily self-financed) and progress in achieving objectives and targets as originally conceived in the Project Paper; (2) to review and evaluate the changes made in project implementation approach with a view to making recommendations on improving the overall effectiveness of implementation; and (3) to provide recommendations of problems/constraints in implementation, host government institutional capabilities and changing socio-political environment in Sindh, towards making possible changes in project strategy to ensure sustainability of the project efforts.

Due to the time period authorized for the evaluation, it was not possible to visit all of the Districts in Sindh, so a representative sample of Districts were chosen, ranging from those most responsive to those less responsive to the goals and targets established in the areas of road maintenance and road rehabilitation activities. In each of the six (6) Districts visited discussions were held with the District Engineer and District Chief Officer or Financial Officer, where possible, to better determine how work was progressing, the current portion of the annual District budget allocated to road maintenance activities, and the current kilometers in each category of district roads - paved (bituminous surface treatment), brick paved, and local dirt (katcha) roads.

## II. FINDINGS AND CONCLUSIONS

### - ROAD MAINTENANCE (RM):

**RM1\*\*Finding:** - ORIGINAL PROJECT TARGETS OF MAINTAINED PAVED ROAD KMS. HAVE BEEN ABLE TO BE SUBSTANTIALLY ACHIEVED DESPITE CHANGING LOCAL CONDITIONS, AND SEVERE PROGRAM ADJUSTMENTS REQUIRED BY PRESSLER AMENDMENT FUNDING CUTS.

Despite local security problems (1990-92), major fluctuations of road inventory status in several Districts, and the early termination of the Technical Assistance contract in October 1991, the local USAID staff has been able to carry on maintenance planning and evaluation assistance to the Districts and achieve or exceed their 1991-92 maintained km. goals in all but two (2) of the Districts (Ref. Figure 3-7).

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**RM1\*\*Recommendation:** - CONTINUED SUPPORT AND REINFORCEMENT OF ROAD MAINTENANCE PRINCIPALS IS NEEDED TO BETTER ASSURE THE SUSTAINABILITY OF THESE ACHIEVEMENTS AFTER THE RRM PROGRAM.

Continued support and reinforcement of road maintenance principals (planning, execution, and evaluation) by USAID staff should be continued and expanded as possible during the remaining program life (through Dec. 1994) to follow-up and reinforce the training received, and better prepare the District engineers and their staff to manage the roads systems under their responsibility.

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**RM2\*\*Finding:** - DISTRICT ENGINEERS AND THEIR STAFF HAVE LIMITED OR NO SUPPORT EQUIPMENT AVAILABLE FOR MATERIAL HAULING, PROPER MATERIAL PLACEMENT, AND PROPER MATERIAL COMPACTION.

Most District engineers and their staff have limited or no equipment to assist their work crews in the hauling of materials to the work sites. For routine maintenance activities, material placement and compaction is limited to what each work crew can do manually with hand-hoes, and hand tampers (where available).

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**RM2\*\*Recommendation:** - AS FUNDING PERMITS, OR CAN BE MADE AVAILABLE, DISTRICTS SHOULD ACQUIRE, OR BE SUPPLIED WITH ADDITIONAL SUPPORT EQUIPMENT FOR ROAD MAINTENANCE ACTIVITIES.

Funding from all possible sources - District revenues, Government of Sindh grants/funds, other donors, and any available USAID funds, should be considered alone or in combination by the Districts to acquire additional support equipment. Due to limited funding availability, means need to be explored whereby funds from a single source, or more likely several sources could be combined by the District Councils each year or two, which would allow them to start acquiring the equipment they need to increase the productivity of their existing work crews.

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**RM3\*\*Finding:** - DISTRICT ENGINEERS NEED TO RELY ON CONTRACTORS TO SUPPLY THE EQUIPMENT AND SKILLED MANPOWER FOR THE PERFORMANCE OF PERIODIC MAINTENANCE ACTIVITIES.

Since most of the Districts lack the equipment to transport and place the required/specified materials for periodic maintenance activities such as the resealing of paved road surfaces, or the placement of new double bituminous surface treatments, and lack the skilled manpower for this work, they rely on contractors to do this works for them. Since local contractors are generally available, this is not a problem. This approach also helps to involve the private sector in the District's road maintenance program where it can be most effective - skilled work crews, and access to support equipment, permitting a better quality job for less cost.

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**RM3\*Recommendation:** - CONTINUED USE OF LOCAL CONTRACTORS FOR THE PERFORMANCE OF PERIODIC MAINTENANCE ACTIVITIES, OR OTHER SPECIALIZED TASKS IS ENCOURAGED.

Since the contractors generally have more skilled work crews, and easier access to specialized support equipment, they are generally able to accomplish the work more efficiently, permitting a better quality job for less cost. The continued use of local contractors for such work is encouraged where it remains to be cost effective. All contracted work should be performed to construction or reconstruction standards/specifications of the same or better standard than currently being employed by the USAID funded road maintenance and rehabilitation program.

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**RM4\*\*Finding:** - EVEN THOUGH DISTRICT COUNCILS HAVE STARTED TO INCLUDE A LINE ITEM IN THEIR ANNUAL BUDGETS FOR ROAD MAINTENANCE, A GREATER ALLOCATION IS NEEDED TO MADE TO COVER CURRENT FUNDING NEEDS.

Districts have started to allocate an increased amount of their District Budget for road maintenance work in budget Year 1991-92 (Ref. Figure 3-14). However, when compared with the currently estimated amount of funding considered necessary by USAID engineers to properly maintain each Districts paved road system (Ref. Figure 3-15), the Districts are under-funding the road maintenance sector by substantial amounts. In all but three districts (Badin, Nawabshah, and Sukkur), the 1991-92 budget amounts do not even cover the amount estimated necessary to accomplish their routine maintenance program on the paved road system.

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**RM4\*Recommendation:** - DISTRICTS NEED TO BE ENCOURAGED TO ALLOCATE A LARGER AMOUNT OF THEIR BUDGET TO ROAD MAINTENANCE.

During the remaining time of the RRM program, USAID engineers should work with the District Councils and District Engineers to educate them in the benefits of allocating a larger amount of their budget to road maintenance. Without the needed budget authorization, the District engineer and his staff will be unable to dedicate the necessary resources of in-District work crews, and local contractors to continue the necessary maintenance of their road system (paved and unpaved). This shortage of resources - both financial and logistical - will result in a further deterioration of each District's road system, and increase substantially the funds needed to be spent in future years.

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**- ROAD REHABILITATION (RR):**

**RR1\*\*Finding:** - ORIGINAL PROJECT TARGETS OF REHABILITATED PAVED ROAD KMS. HAVE HAD TO BE REDUCED BY 10% AND ARE ABLE TO BE SUBSTANTIALLY ACHIEVED DESPITE CHANGING LOCAL CONDITIONS, AND SEVERE PROGRAM ADJUSTMENTS REQUIRED BY PRESSLER AMENDMENT FUNDING CUTS.

Despite local security problems (1990-92), major fluctuations of road inventory status in several Districts, and the early termination of the Technical Assistance contract in October 1991, the local USAID staff has been able to carry on the road rehabilitation planning and construction assistance to the Districts and achieve their 1991-92 km. goals in the Districts (Ref. Figure 4-1).

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**RR1\*\*Recommendation:** - CONTINUED SUPPORT AND REINFORCEMENT OF ROAD REHABILITATION STANDARDS AND PRINCIPALS IS NEEDED TO BETTER ASSURE THE SUSTAINABILITY OF THESE ACHIEVEMENTS AFTER THE RRM PROGRAM.

a. Continued support and reinforcement of road rehabilitation principals (planning, execution, and evaluation) by USAID staff should be continued and expanded as possible during the remaining program life (through Dec. 1994) to follow-up and reinforce the training received, and better prepare the District engineers and their staff to manage the roads systems under their responsibility.

b. Contacts with Government of Sindh (GOS) officials should be continued, and encouragement for the GOSs establishment of construction/reconstruction standards to the same or better standard than currently being employed by the USAID funded road rehabilitation program.

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**RR2\*\*Finding:** - DISTRICT COUNCILS, DISTRICT ENGINEERS AND THEIR STAFF CONSIDER "GOS" SPECIAL GRANTS AND MATCHING FUNDS TO BE OUTSIDE OF, NOT PART OF THEIR REGULAR BUDGET AND THEREFORE NOT SUBJECT TO THE SAME QUALITY OR STANDARD OF CONSTRUCTION AS THE "RRM" PROGRAM HAS REQUIRED

Most District Councils, District engineers and their staff consider GOS special grants and matching funds to be "extra" money, to be used without adherence to any specific project or construction standard, unless so specified by the GOS at the time of allotment. As a result such funds are generally used to do as much work as possible - kilometers of road, meters of water line, etc., and that any previously established standards of work quality on similar work are not required to be adhered to or followed.

As a result, much sub-standard work is being performed in a effort to spend the "extra" funds as quickly as possible, and cover as large a project as possible. Such sub-standard work fails prematurely and then results in greater repair costs, sooner to the District than work properly designed and constructed

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**RR2\*\*Recommendation:** - CONTACTS WITH THE DISTRICTS AND GOS SHOULD BE EXPANDED TO ENCOURAGE THE ESTABLISHMENT AND CONSISTENT USE OF ROAD CONSTRUCTION STANDARDS ON ALL DISTRICT ROAD PROJECTS.

Contacts with District Councils and Government of Sindh (GOS) officials should be continued, and encouragement for the Districts and GOSs establishment of road construction/reconstruction standards to the same or better standard than currently being employed by the USAID funded road rehabilitation program. Such standards should be established and required to be used as a minimum on all roads constructed or rehabilitated in the Province of Sindh.

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**- TRAINING (TR):**

**TR\*\*Finding:** - ORIGINAL PROJECT TARGETS FOR TRAINING IN THE AREAS OF ROAD MAINTENANCE MANAGEMENT, ROAD REHABILITATED, AND FINANCIAL MANAGEMENT HAVE NOT BEEN ABLE TO BE COMPLETED TO DATE DUE TO SEVERE FUNDING REDUCTIONS RESULTING FROM THE PRESSLER AMENDMENT

Original project targets were to prepare and implement a series of training courses/workshops on around seventeen (17) topics in various areas of road maintenance management, road rehabilitation, and financial management. Due to the severe funding reductions resulting from the Pressler Amendment, the technical assistance contract with CSC was terminated early (in 1991), and before they were able to prepare the initial course materials in only a very few areas. That work effort has not been able to be carried on by the current (smaller) USAID staff due to staffing limitations, and limitations in program funding available to contract these course development services with local organizations.

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**TR\*\*Recommendation:** - DURING THE REMAINING PROGRAM TIME (1993-94), EFFORTS SHOULD BE INCREASED IN THE TRAINING AREA. WORKING WITH THE DEPT. OF LOCAL GOVERNMENT AND RURAL DEVELOPMENT, EXPLORE THE POSSIBILITY OF CO-FINANCING THIS EFFORT - PART USAID, PART DLGRD FUNDING, USING THE RURAL DEVELOPMENT ACADEMY AT TANDOJAM.

Additional training efforts during the remaining program time (1993-94) will help to reinforce the initial training work completed to date, and help to better prepare the local district staff to perform their respective functions more effectively, and contribute to a greater chance that the RRM program principles will be carried on following its completion. Without such training, the chances of program sustainability are considered poor to fair due to the limited number of individuals trained to date, and the limited number of training courses/workshops able to be held to date.

Within the remaining RRM program, 1993-94 period, it is recommended that USAID work with principally with SLGRDA (at Tandojam) and MTRI (in Karachi), as needed, to schedule additional and follow-up courses for District staff at all levels, if possible - engineers, administrators, accountants, etc.. The recommended areas to be covered in these courses and workshops would be:

- District Road Maintenance Management;
- Road Condition Surveys;
- General Survey Methods;
- Road Construction/Rehabilitation Standards;
- Quality Control of Road Construction/Maintenance Materials;
- Road Construction Inspection;
- Financial Management;
- Budgetary Procedure Improvement

The possibility of co-financing this effort should be explored with the DLGRD. DLGRD could assist by completing the installation of the pending upgrade of the main electrical service required to the Rural Development Academy at Tandojam, fund the repainting of the classrooms and hallways, and encourage the attendance of district staff at the training sessions able to be offered. USAID could assist by employing a local training services contractor to complete the preparation of training course materials, and coordinate the participation of outside lecturers, as required to present the training in the topics able to be offered. The training materials developed by CCSC prior to the early termination of their contract can serve as a base on the number and type of training sessions recommended. Based on actual funding, or resources available to DLGRD and USAID, the updated list of courses/workshops able to be held can be determined.

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### **III. LESSONS LEARNED -**

Despite the severe reductions in program funding, several of the program objectives have been able to be met -improved road maintenance program, expanded system of maintainable roads. But others have had to be reduced substantially, or eliminated entirely - training program for district engineering, administrative, and financial staff; experimental road construction program; upgrading of katcha roads. These reductions have reduced the number of program objectives able to be accomplished, and limited the areas where program sustainability could possibly occur.

### **IV. CHANCES FOR PROJECT SUSTAINABILITY -**

Due to severe funding reductions imposed on the RRM program, as a result of Pressler Amendment reductions, only partial/limited sustainability will be possible.

During the course of the RRM program, very limited training has been able to be conducted in the areas of road maintenance management principles, and even less in the areas of financial and budget management. This very reduced training effort has only partially prepared the District engineers and their staffs to carry on the program goals.

In addition, since the start of the RRM program, the District paved road system has increased from 739 kms. to 1113 kms. (+50.6%) in 1993. This increased system, puts a greater need for improved road maintenance management, and financial and budget management capabilities at the District level. Better preparation of the District engineers, their technical staffs, and the Districts financial/accounting staffs is needed to be able to meet these increased management responsibilities. Such training should be emphasized during the time remaining under the RRM program (through December 1994), and especially from June 1993 through August 1994.

Districts are now including a budget line item for road maintenance as a result of RRM program efforts. This is a significant advance. However, as a result of the increased paved road system in each District, the allocations made for road maintenance work need to be increased substantially. Efforts need to be increased by the USAID engineers during the 1993-94 period, working with both the District Councils and District Engineers, to educate them in the reasons for increasing the road maintenance budget item and the benefits each District could achieve.

Since Districts have the authority to collect taxes and fees for their local operations, improvements in the collection system are important if the Districts are to receive their full, legitimate share of the existing revenues. The evasion of tax payments, and under-payment of existing revenues to each District needs to be reduced. Improved training of the District staffs in these areas will help correct operations in these revenue collection areas.