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IMPLEMENTATION COMPLETION REPORT

JAMAICA

ROAD INFRASTRUCTURE PLANNING & MAINTENANCE PROJECT
(LOAN 3275-JM)

June 25, 1997

Environment and Infrastructure Division
Country Department III
Latin America and the Caribbean Region

CURRENCY EQUIVALENTS

Currency Unit - Jamaican Dollar (J$)

(April 1990)

US$1.00	=	J$7.00
J$ 1.00	=	US$0.14

(December 1996)

US$1.00	=	J$35.00
J$ 1.00	=	US$0.03

WEIGHTS AND MEASURES

Metric System

FISCAL YEAR OF BORROWER

April 1 - March 31

ABBREVIATIONS AND ACRONYMS

MOC(W)	Ministry of Construction (Works)
MLGW	Ministry of Local Government & Works
MPUT	Ministry of Public Utilities & Transport
PIOJ	Planning Institute of Jamaica
FYIIP	Five Year Infrastructure Investment Program
MLG	Ministry of Local Government
IDB	Inter-American Development Bank
EU	European Union
RIPMP	Road Infrastructure Planning & Maintenance Project
PSMP	Public Sector Modernization Project
IBRD	International Bank for Reconstruction & Development
NCHIP	North Coast Highway Project

Vice President:	Shahid Javed Burki, LAC
Director:	Paul Isenman, LA3
Manager:	Eugene McCarthy, LA3EI
Task Manager:	Robin Hughes, LA3JM

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PREFACE

This is the Implementation Completion Report (ICR) for the Road Infrastructure Planning and Maintenance Project (RIPMP) in Jamaica, for which Loan 3275-JM in the amount of US$35 million equivalent was approved on April 12, 1990. The Loan Agreement was signed on December 12, 1990 and made effective December 19, 1990.

The original loan closing date was June 30, 1996 but this was extended, at the request of the Borrower, by six months to December 31, 1996. The loan was 100% disbursed, and the last disbursement took place on May 28, 1997. It is expected that the Borrower will provide supporting documentation in respect of the US$16,328.97 balance of the Special Account by June 30, 1997. Following the closure of the Bank financed Kingston Urban Transport Project (KUTP, Loan 2389-JM) on September 30, 1993 certain incomplete activities were added to RIPMP. This ICR thus reports on those activities carried out under RIPMP, including those activities carried forward from KUTP.

The ICR was prepared by Mr. Robin Hughes (LA3JM) and reviewed by Messrs. Raj Nallari (Acting Resident Representative LA3JM), Eugene McCarthy (Division Chief LA3EI) and Maria Victoria Lister (Operations Officer, LA3DR) of the Latin America and the Caribbean Region.

Preparation of the ICR was begun during routine supervision by the Resident Mission during the latter half of 1996 and the final supervision mission was carried out in January 1997. It is based on material on the project file and interviews conducted in Washington and Jamaica. Project files were not available for KUTP as the project was being audited by OED. The Borrower contributed to the preparation of the ICR by conducting an ex-post evaluation of a sample of road subprojects financed under the loan, providing statistical data and a retrospective assessment of the project and commenting on the draft ICR.

ROAD INFRASTRUCTURE PLANNING AND MAINTENANCE PROJECT
LOAN 3275-JM

JAMAICA

EVALUATION SUMMARY

Introduction

1. Between 1965 and 1990, the Bank has been involved in six projects in the roads subsector in Jamaica. The first and third highway projects were for detailed design and construction of main arterial roads. The second, fourth and fifth highway projects focused on road maintenance. The sixth project, the Kingston Urban Transport Project (1984) addressed upgrading and maintenance of urban roads combined with improvements to public transport, and ran concurrent with the Road Infrastructure Planning and Maintenance Project (RIPMP) for two and a half years. In addition, the Public Administration Reform Project (PARP), 1984, addressed the rationalization of ministerial functions which was to seriously impact on the efforts to reorganize the Ministry of Construction (Works) (MOC(W) - subsequently reconstituted as the Ministry of Local Government and Works in early 1995 and hereafter referred to as "the Ministry". Improvements were also made to human resource management but this had limited sustainable impact on employment conditions at the Ministry.

2. The previous transport sector projects suffered in varying degrees from the lack of implementation capacity within the Ministry and availability of counterpart funds. RIPMP sought to build upon the limited improvements in institutional implementation capacity that had been achieved. RIPMP was conceived as part of a US$302 million Five Year Infrastructure Investment Plan (FYIIP) designed to upgrade, and bring back to a condition of maintainability after years of neglect, the nation's extensive road infrastructure, including rural and urban roads, bridges, drainage facilities, and traffic signs, signals and markings. The project provided the following: (i) support for the annual investment evaluation, prioritization, and implementation process; (ii) coordination of technical assistance; (iii) facilitated the coordination of the various externally funded projects in the Ministry; (iv) and financing those priority activities for which there was no alternative funding.

Project Objectives

3. The primary objectives of the project were to: (i) strengthen the institutional capacity of the Ministry to plan, manage and maintain the road transport infrastructure in Jamaica in a cost effective manner; (ii) improve the cost effectiveness of the Borrower's investments in its road transport sector; and (iii) improve road safety. Following closure of the Bank financed Kingston Urban Transport Project (KUTP) in September 1993, the scope of RIPMP was extended through inclusion of the following unfinished KUTP activities: a Transport Sector Study, a highway upgrading feasibility study and rationalization of the bus franchise arrangements in the Kingston Metropolitan Region (KMR). These activities were to assist the Government with formulation of Transport Policy, identification of future investments for possible private sector involvement and to provide for an adequate and efficient system of urban transport in the KMR.[1]

4. The objectives were clearly stated, consistent with the Bank's and Government's sector policies, realistic but relatively broad in focus. There were limited performance and impact indicators incorporated in the project design which made the impact of the project difficult to assess. In execution, the strategies developed to achieve the project objectives were simple and the project proved to be very flexible but of relatively high risk due to the difficult fiscal environment that existed at the time.

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[1] Activities undertaken by the KUTP were reported on by ICR No. 14694, dated June 26, 1995.

Implementation Experience and Results

5. The project was designed to facilitate achievement of its objectives by providing mechanisms and resources to the Ministry through a program of: Institutional Strengthening, Training, Technical Assistance and Studies - US$5.6 million (actual expenditure US$6.63 million); Eligible Infrastructure Investments - US$25.5 million (actual expenditure US$27.1 million); Equipment Management and Spare Parts - US$400,000 (actual expenditure US$1.26 million); and Unallocated - US$3.5 million (reallocated).

6. **Project outcome**. Although technically sound, only a small number of the project objectives were achieved due to a number of implementation constraints as listed below. The Ministry was only partially reorganized and its Institutional Capacity received limited strengthening through the provision of technical assistance resources, studies, training and the development of planning tools and mechanisms. Although significantly different from that planned, a program of road and bridge maintenance and rehabilitation, together with flood control activities, was implemented. An ex-post evaluation of a sample of road maintenance subprojects (approximately 22% of the loan value) indicates that the investments were generally cost effective. However, it has not been possible to measure if improvements in operational and investment cost effectiveness were made. Improvements in overall road safety were achieved but it is difficult to attribute all of the gains made to the Road Safety Study initiated by the project. Limited improvements were made to the Ministry's Equipment Management and Maintenance capabilities. The Transport Sector Study assisted the Borrower with transport policy formulation but subsequent implementation of its recommendations to rationalize the existing bus franchise arrangements did not provide an adequate and efficient system of urban transport. The project has a high probability of maintaining the achievements generated by the Road Safety component; however, the Sustainability of the Institutional Strengthening component and the Ministry's ability to plan and manage the road network is less certain as it is very dependent on the priority the Borrower places on attracting and retaining quality staff and developing mechanisms that will provide sufficient and timely funds to finance the activities of the Ministry. Overall, outcome is rated as unsatisfactory, and sustainability as unlikely.

7. The project was implemented over a six year period and apart from the hiring of some of the Technical Assistance (TA) consultants, none of the project activities were implemented as planned during project design. Three years into implementation only 30 percent of the loan had been disbursed compared to the appraisal estimate of 62 percent. After a six month extension of the closing date and a four month grace period the loan was 100 percent disbursed. Five main factors negatively affected project implementation: (i) fiscal constraints and cumbersome administrative procedures which affected project financing, procurement and staffing; (ii) frequent changes in senior management at the Ministry resulted in a lack of commitment to the reorganization process; (iii) two major ministerial reorganizations during the life of the project; (iv) the shortage of counterpart staff due to poor remuneration levels, and (v) the lack of a Project Coordinator for 18 months.

8. **Bank performance**. Bank performance during the project cycle was generally unsatisfactory and suffered from deficiencies attributable to two main factors. First, the design of the project -- which was technically sound and in keeping with accepted practices of the time -- did attempt to incorporate lessons learned from previous projects in the sector, namely that: (i) financing mechanisms necessary to maintain the road network in an acceptable condition must be established; and (ii) the provision of adequate levels of remuneration to attract qualified and experienced staff within the Ministry is essential. However, analysis of the project performance has revealed that the measures incorporated in the project design to address the issues were inadequate. Second, changes in task management five times during the project negatively affected implementation. Performance during implementation was uneven: (i) obstacles were identified but underlying constraints were not addressed; (ii) inputs were monitored but the project impact was ignored; and (iii)

flexibility was demonstrated in responding to changing circumstances and priorities, sometimes to the detriment of the Ministry's ability to manage the project.

9. **Borrower performance**. Borrower performance was weak overall during the course of the project. The Ministry participated in the preparation phase and produced significant documentation in support of the project design. Implementation performance, however, was generally unsatisfactory. Changes in senior management and ministerial organizations resulted in a loss of focus and ownership of the project's objectives. Inter-institutional coordination was weak, although it improved during the last 18 months of the project, as did the pace of implementation. The Ministry's performance was limited by the shortage of counterpart staff. Due to the Borrower's limited sucess in addressing the root cause of the problem -- low levels of remuneration -- the Ministry resigned itself to over-utilizing the TA component of the project through a 260 percent increase in staff months in order to raise its implementation capacity. It would appear that this type of approach has reinforced the Ministry's dependency on foreign consultants and externally financed projects. This dependency has seriously precluded the building of sustainable implementation capacity.

Future Operations and Key lessons Learnt

10. The Bank's next planned investment project in the Transport Sector, namely the Road Infrastructure Development Project (RIDE) includes the major components identified in the two major feasibility studies/preliminary designs that were financed by RIPMP, namely the upgrading of the A1, highway from Spanish Town to St. Ann's Bay Highway and the Portmore/Kingston Causeway. The project, which is estimated to require a loan of US$60 million, is in the Bank's pipeline for FY99. Procurement and Institutional Capacity constraints are to be addressed in the Public Sector Modernization Project (PSMP) signed in October 1996. The maintenance of tertiary roads is to be addressed by the upcoming Parish Infrastructure Project. RIDE is part of a larger initiative whereby the Bank is working closely with the Inter-American Development Bank (IDB) and the European Union (EU) to promote sustainable highway investment, maintenance and financing policies and practices for the road network.

11. Seven key lessons emerged from the project: (i) project design must reflect the institutional capacity of the implementing agency, mechanisms should be developed to address implementation constraints, prior to committing financing, and any institutional reform process should not be dependent on individual personalities for its successful implementation; (ii) while a project must be flexible enough to respond to changing circumstances, priorities and the needs of the Borrower, significant changes or the addition of new activities must be weighed against the associated risks, the demands on the Bank's technical/supervisory resources plus its ability to supervise additional components that fall outside the scope of the original project; (iii) the Borrower's project staff need to be held accountable for project performance, and implementing agencies that cannot demonstrate adequate management and reporting ability should not be permitted to carry out extensive programs of works and procurement of equipment through petty contracts; (iv) the complexity of Government procurement procedures was demonstrated in this and other Bank financed projects and requires system-wide rather than project-by-project solutions; (v) without substantial modification of the conditions of pay and employment, the sustainability of administrative and institutional efforts is unlikely; (vi) specific project outcome and impact measures, in addition to input and output indicators, should be established during design, evaluated as part of the project, and consistently monitored to determine project achievement and impact; (vii) successful project implementation requires commitment on the part of Government and effective, continued and coordinated supervision by the Bank with minimal changes in task management.

PART 1. PROJECT IMPLEMENTATION ASSESSMENT

A. STATEMENT/EVALUATION OF OBJECTIVES

1. The primary objectives of the project were to: (a) strengthen the institutional capacity of the Ministry to plan, manage and maintain the road transport infrastructure in Jamaica in a cost effective manner; (b) improve the cost effectiveness of the Borrower's investments in its road transport sector; and (c) improve road safety. Following closure of the Bank financed Kingston Urban Transport Project (KUTP) in September 1993, the scope of RIPMP was extended through inclusion of certain unfinished KUTP activities, namely, a Transport Sector Study, a highway upgrading feasibility study and rationalization of the bus franchise arrangements in the Kingston Metropolitan Region (KMR). These activities were to assist the Government with formulation of Transport Policy, the identification of future investments for private sector involvement and to provide for an adequate and efficient system of urban transport in the KMR.[2]

2. These objectives were considered highly important to the continuing economic reform measures underway at the time. They were consistent with the Bank's sector strategies and the Government's overall policy of taking a more coordinated approach to external assistance in the highway planning and maintenance subsector, improving investment efficiency, reducing budgetary expenditures and to continue the privatization measures already being actively pursued for road transport services and other transport modes.

3. The objectives were clearly stated, realistic but relatively broad in focus. The strategies developed to achieve the project objectives were relatively simple but the institutional reform process suffered from major ministerial reorganizations and a lack of ownership by senior management in the Ministry. There were also limited performance and impact indicators incorporated in the project design which made the impact of the project difficult to assess. In execution the project proved to be very flexible but of relatively high risk due to the difficult fiscal environment that existed at the time.

4. The project was designed to facilitate achievement of these objectives by providing the mechanisms and resources to the Ministry through a program of: Institutional Strengthening, Training, Technical Assistance and Studies - US$5.6 million (actual expenditure US$6.63 million); Eligible Infrastructure Investments - US$25.5 million (actual expenditure US$27.1 million); Equipment Management and Spare Parts - US$400,000 (actual expenditure US$1.26 million); and Unallocated - US$3.5 million (reallocated). The fact that the Infrastructure Investments were part of a Five Year Infrastructure Investment Program (FYIIP) of road transport sector projects -- financed by the Government and external agencies -- gave the Borrower the opportunity, and hence flexibility, to regularly reassess priorities in a time of high inflation, devaluing local currency and fiscal stringency. Quick response to damage caused by natural disasters, for example major flooding, was accommodated within the project. In addition the Bank recognized the fiscal constraints that were adversely impacting on implementation and reduced the amount of counterpart funding required.

5. Incorporation of the KUTP activities, and an additional implementing agency, complicated the management of the RIPMP and diverted financial and human resources from the Ministry to the Ministry of Public Utilities and Transport (MPUT). Due to the politically sensitive and risky nature of urban public transport in Jamaica the bus franchise rationalization activities were probably not realistic in the context of a private sector with limited management capacity, limited access to affordable financing and a

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[2] Activities undertaken prior to the closure of the KUTP were reported by ICR No. 14694, dated June 26, 1995.

Government not prepared to allow economic fares to be charged for social and political reasons. Implementation has been extremely demanding of the MPUT and as a result of its recent unsatisfactory experience the Government is in the process of reformulating its Urban Transport policy.

B. ACHIEVEMENT OF OBJECTIVES

6. The project only partially achieved its primary objective of strengthening the institutional capacity of the Ministry but it has not been possible to quantify if there have been any improvements in the cost effectiveness of the Borrower's operations or investments in the road transport sector. However, the objective of improving road safety was achieved. The subsequently added activities of assisting the Government with the formulation of Transport Policy and the identification of future investments were partially achieved. The provision of an adequate and efficient system of urban transport in the KMR was not achieved and there is a low probability that this will occur in the near future without major restructuring of the system.

7. The project specified minimum levels of annual investment in road maintenance to be financed through the central budget, as was the accepted practice at the time of project appraisal, but due to fiscal constraints and a shift in emphasis from maintenance to rehabilitation in the first three years of the project, the minimum levels proved difficult for the Government to meet. By today's standards the project's lack of sector policy objectives that relate to the sustainable financing mechanisms necessary to maintain the road network in an acceptable condition would not be appropriate. Little systematic or sustainable effort was made by the Borrower to overcome the lack of availability of counterpart funds for road maintenance but since mid 1996 there has been increased interest expressed by the Borrower in the use of mechanisms such as Dedicated Road Maintenance Funds. The lack of specific outcome, performance and impact indicators for this project made it very difficult to assess the cost effectiveness of the Ministry's planning, management and maintenance operations. Based on an ex-post sample evaluation of the periodic maintenance activities it would appear that these were cost-effective investments but it is not possible to establish if there has been an increase in cost effectiveness over time due to the project. The lack of comprehensive and detailed reporting by the Ministry and the extensive use of Statements of Expenditure (SOE) procedures for disbursement -- approximately 53 percent of all disbursements were carried out using SOEs -- make it impossible to quantify, and hence assess the impact of all of the physical investments financed by this loan, particularly relating to the routine maintenance and rehabilitation of roads and bridges done by petty contracts.

Strengthening the Institutional Capacity of the Ministry (estimated to be 6% of base project costs)

8. The inability of the Ministry to carry out its responsibilities on a timely basis in the past, in addition to the lack of timely counterpart funds, has historically resulted in numerous delays and generally poor performance in respect of externally funded projects. The project was designed to build on the technical and managerial expertise developed in the past and concentrated on developing the institutional organization and ability to manage a multi-year public sector program.

9. **Reorganization of the Ministry**. The target date for reorganization, May 1991, was not met due to delays caused by the bureaucratic process involved a major restructuring of the ministries first in March 1992 and then January 1995, and a lack of commitment on the part of the Ministry. A partial first reorganization along the lines envisaged in the design of the project was not effected until early 1993 when the Directorate of Major Projects assumed responsibility for planning, becoming the Directorate of Major Projects and Planning (DMPP). There were no other significant changes to the organization. The remainder of the changes identified in the project design were not made for two main reasons; (i) ministerial reorganizations resulted in an increased scope of activities that the Ministry did not feel could be managed

under the proposed arrangements; (ii) changes in senior management resulted in a loss of ownership for the proposed reorganization.

10. Although there has been some improvement, it is still not clear that the Directorates represent the mission and focus of the Ministry and the planned elimination of the various independent project entities has only been partially achieved. At the close of the project there were three project units within the Works section of the Ministry (reduced from six) and one within the Local Government section of the Ministry. With the exception of sections of the North Coast Highway Project (NCHIP) unit, all units now report through one directorate or another, which has improved planning and accountability. Some progress has been made in addressing the lack of implementation capacity through the use of external services for tasks such as design, drafting and supervision of much of the capital works program.

11. **Development of mechanisms to improve planning and to coordinate implementation of externally funded projects.** The project assisted with the development and implementation of the FYIIP, which is a five year rolling program of investments, including those not financed by the Bank, scheduled according to priority based on their economic ranking. The system appears to have been adopted as an integral part of the planning process although it would appear that the analysis is not as rigorous or comprehensive as originally intended. All projects, before inclusion in the FYIIP, were to have been subject to environmental analysis, the format of which was to have been developed under this project but this was not done. Environmental issues are currently dealt in accordance with Government guidelines and those of the individual lending institutions, but these issues are not dealt with as part of the planning process, typically resulting in delays in implementation.

12. To facilitate coordination the Government was to hold an Economic Infrastructure Review meeting of the active external funding agencies not later than November 30 of each year. After a number of abortive attempts the first, and last, of these meetings was held on June 9, 1993, 19 months later than scheduled. Although the meeting was considered a useful exercise by the Ministry, the level of effort required to organize it and prepare the necessary papers led to its discontinuation.

13. A Flood Water Control Study, involving a comprehensive investigation and resulting in recommendations for flood water management in flood prone areas was to have been completed by March 1993. It was to specifically address development criteria, policy, and physical investment for inclusion in the FYIIP necessary to mitigate the economic and personal losses due to flooding. Initial preparations were made to appoint consultants to carry out the study but, due to a parallel initiative being undertaken by the Office of Disaster Preparedness (ODP), this was never started. As a result, none of the specific objectives of this component were achieved under this project. The ODP study was of limited scope and did not address all of the issues required.

14. **Technical Assistance.** In an effort to overcome the shortage of qualified and experienced technical personnel the project made provisions for 108 local and 138 foreign staff months. It is estimated that 38 local and 498 foreign staff months were actually financed by this project. TA consultants worked as line staff within the various Directorates and project units so as to ensure maximum benefit to the Ministry in technology transfer and counterpart training. The intention being that on completion of the project the counterpart staff would be able to carry out the duties previously undertaken by the TA consultants. The consultants appeared to have easily been absorbed into the daily activities of the Ministry and they significantly improved the Ministry's implementation capacity, fully achieving and possibly exceeding the expectations of the project design, albeit only in the short term.

15. The bulk of the TA was provided through two teams of consultants assigned to the Planning Unit and the Traffic and Road Maintenance Divisions for the duration of the project. Although a number of

counterpart staff have benefited from working with the TA consultants there has been a steady turn over in Ministry staff and a significant amount of implementation capacity has been lost as a result. It is anticipated that once the institutional reforms proposed under the Bank-financed Public Sector Modernization Project (PSMP - signed in October 1996) are implemented a proportion of the previously employed staff will be attracted back to the Ministry. Closure of the project at the end of 1996 highlighted the lack of residual implementation capacity as the Ministry elected to retain approximately 60% of the consultants previously financed by the project. The heavy reliance on the consultants was also confirmed by the amount of staff months used, compared to the amount planned during project preparation, an increase of 260 percent. It is too early to say what the long term impact of the TA has been but there are indications that the effect has been positive but not sustainable.

16. **Training.** This component of the loan was designed to complement the reorganization of the Ministry and was an integral part of the TA. It was to provide extensive training of staff to strengthen the performance capabilities of the Ministry and to strengthen the Ministry's Training Unit. The Training Unit received minimal strengthening and its capacity was limited by the availability of staff and the lack of budgetary allocations to support its functions. Continuous on the job training was carried out by the TA consultants in numerous technical fields but its effectiveness was limited due to the shortage of counterpart staff to train. The project's schedule for training indicated that 17 senior staff members were to participate in overseas courses and study tours, the information available indicates that 15 were actually trained. Overall the SAR estimated that training would be provided for a total of 8900 participants, of which 7000 were to be private individuals contracted to work in the parishes under the "lengthman" program. No official data is available on the numbers actually trained or the training's impact, but indications are that the 800 lengthmen that were employed by the Ministry received informal and unstructured on the job training from supervisory staff.

17. **Acquisition and utilization of equipment for the Ministry to facilitate management of the road subsector.** 10 computers, related equipment and software were acquired through the project and there are strong signs that the Ministry has fully integrated them into daily usage by the organization. Discussions with Ministry staff indicated that due to the increased usage of computers in the organization as a whole there are now serious shortages of equipment. These shortages are to be addressed through the Public Sector Modernization Project (PSMP) which was signed in October 1996, of which the Ministry is one of the beneficiaries. In addition, 5 pick up trucks, 2 station wagons and 5 "4-wheel drive" vehicles were purchased through the project to facilitate the mobility of the project staff and consultants whilst implementing the various project components. It would appear that the acquisition of both the computer equipment and vehicles has had a positive impact on the Ministry's ability to manage the road subsector.

Cost Effectiveness of Borrowers Investments.

18. A Road User Cost Allocation study was to have been carried out by August 1993 and this was to have made recommendations for changes in road financing taxes and user fee structures that would make payments of the various vehicle classes or user groups more representative of their respective responsibilities or, more compatible with Governmental economic/social policy. Due to the Ministry's changing priorities at the time and changes in management at the Ministry this study, as designed, was not carried out. Instead, the TA consultants developed Vehicle Operation Cost (VOC) and Economic Viability (EV) models, based on HDM-III, and by April 1993 these were in use. The work undertaken by the TA consultants served to raise the awareness of officials within the Ministry of the benefits of proper financial analysis of projects and assisted greatly with the generation of the information required to fully utilize the FYIIP as a planning tool.

19. An IDB commissioned study, completed in 1996, confirmed the project design's assumption that there is significant cross subsidization taking place in the road subsector. The study indicated that the ratio of "Revenue" to "Road Cost" for motor cars and heavy trucks were 1.8:1 and 0.2:1 respectively. This combined with the tendency to overload trucks and the limited ability of the Government to enforce the current maximum axle load regulations is resulting in an uneven distribution of the benefits that are derived from routine and periodic maintenance investments. These benefits were estimated by the Planning Unit in 1993 to be a reduction of an average of approximately 25 percent of VOCs due to reductions in road roughness. The SAR estimated that the overall EIRR of the project to be in excess of 40 percent. The Ministry does not use the VOC/EC models for retrospective monitoring of projects but this was requested for a selected number of subprojects financed by this loan (approximately 22 percent of the loan value) and these are itemized in Table 9. Of the investments analyzed an overall EIRR of 30 percent was achieved but two of the eleven subprojects had EIRRs less than the minimum 12 percent required by the SAR. It is anticipated that future revised traffic management arrangements will result in an increased EIRR for one of these subprojects.

Infrastructure improvements (estimated to be 90% of base project costs).

20. **Capital Investments/New Sub-Projects.** Six highway upgrading sub-projects were identified during project preparation for Bank financing. Due to the lack of counterpart funds, a shift in emphasis to road rehabilitation, and the fact that three of the subprojects were absorbed into the NCHIP, none of these subprojects were constructed during the course of the project. A further seven highway upgrading sub-projects were added to the FYIIP for funding by the Bank but only one of these was constructed.

21. **Rehabilitation** - The sole rehabilitation subproject identified during project design and actually constructed was a major hydraulic structure, the Sandy Gully Spillway (part of the Flood Water Control Program). The Bank also financed the emergency repairs and rehabilitation of the Portmore/Kingston Bridge and its approach roads -- a major arterial route serving the dormitory community of Portmore which had to be closed for five months due to structural deterioration of the bridge -- and the reconstruction of Spencer James Drive so as to facilitate improvements to the major bus terminus at Half Way Tree. Shortly after the project commenced, in January 1991, heavy rains and the consequent flooding caused extensive damage to the road network and associated structures. The Ministry developed a program of road maintenance and rehabilitation, the Special Road Rehabilitation Project (SRRP), which involved 460 km of tertiary roads serving rural communities. In May 1993 heavy flooding caused further serious damage to many roads and using a combination of force account and existing contracts, some 230 km of rehabilitation work were actually completed.

22. **Routine Road and Bridge Maintenance Program.** The Bank financed a significant amount of work involving repairs to bridges, road patching, repairs to sidewalks, cleaning and repairing drains but due to the deficiencies in reporting by the Ministry and the extensive use of SOEs it is not possible to quantify exactly how much was achieved.

23. **Periodic Road Maintenance Program.** A program of asphaltic resealing in Kingston, scheduled for March 1992, was delayed until April 1993, again due to lack of counterpart funding, and a total of approximately 65 kilometers was resealed. The absence of a comprehensive road condition survey made it difficult for the Ministry to plan a structured program of periodic maintenance, so it was not until mid 1994 that any significant work was initiated. Due to lack of counterpart funding, contracts for the rehabilitation and overlay of 85 kilometers of rural and urban roads were not signed until May 1995 and the works were completed by September 1996.

24. **Flood water control.** The lack of a Flood Water Study meant that no clear strategy or pipeline of projects for financing were developed. Consequently, the subsequent additions to the program were developed in response to emergencies and were not as a result of a systematic and comprehensive planning process. The additions to the program financed by the Bank included reconstruction of box culvert bridges, river training works, the purchase and installation of gabion baskets and the purchase of 10 Bailey Bridges plus spare parts and training.

25. **Traffic Management.** The TA consultants assigned to the Traffic Management Division (TMD), through the provision of traffic and highway design/supervision engineering services, made significant contributions to the Ministry's program of highway and junction improvements throughout the KMR and served to raise the general standards of traffic management in the Ministry. A total of 7 major traffic management schemes were designed and implemented, a further 6 were designed but not implemented and a total of 7 highway improvements were designed of which 5 were constructed. Only one of these civil works was partially financed by the project. In addition, programs of signal equipment upgrading, carriageway markings and sign replacement were undertaken. Overall there has been noticeable improvement in the KMR's road environment as a result. A computerized traffic planning model for the KMR was developed following recommendations from the KUTP but delays in initiating and completing the model resulted in the recent program of junction improvements being designed without the benefit of the traffic model. The implementation of the TMD's activities was severely hampered by the lack of counterpart funds and the shortages of technical staff. Of particular concern now is the continuing lack of a qualified traffic engineering staff to utilize the traffic model as intended.

Equipment Maintenance Program (estimated to be 2% of base project costs)

26. The Hire Fund Scheme in the Ministry has been in existence since 1976, when it was created as a pilot scheme, as recommended by the Bank financed Second Highway Project. This fund was to provide for recovering the costs of owning, maintaining and running a fleet of construction equipment by means of hire charges to the fleet users. During the late 1980s the Hire Fund had been starved of funds due to weaknesses in the organization's management and its inappropriate revenue generation mechanisms. As a result, the project aimed to help set up and assist with implementation of a new equipment management system, to help develop contracts for equipment rental and lease, and to develop a mechanism to increase accountability.

27. Restructuring was to be complete by January 1992 but little progress had been made by then. As required, an Interim Board of Directors was appointed to manage the Hire Fund and proposals were requested of local consultants to provide technical assistance to assist with the reorganization. In October 1992, a Cabinet decision was made to privatize the Hire Fund and the employment of consultants was put on hold. The privatization never materialized and although appointed, the Interim Board of Directors never met. In February 1994, a Mechanical Management Specialist was engaged to carry out a review of the hire rates and recommend actions required to restructure the scheme. The final report was presented in March 1994 and most of the recommendations relating to hire charges are now being implemented. Other activities that were to be financed by this component of the loan were the provision of spare parts and equipment. Due to poor reporting by the Ministry and the extensive use of SOEs it is not possible to comment on the impact of this procurement. However, the extensive delays and lack of progress with the institutional reform process make it unlikely that there has been any significant positive impact as a result of this investment.

Road Safety Program (estimated to be 2% of project costs).

28. In order to reduce road traffic accidents a Traffic Signal Management/Road Safety study was to be carried out. By mid 1992 the Borrower decided that the Road Safety Study would be financed by the Swedish Government who had offered free technical assistance resources and that local costs of the study would be jointly financed by the Bank and the Government. The offer of specialist technical assistance, combined with the excellent work being carried out by the consultants in the TMD, resulted in the Borrower deciding to remove the Traffic Signal Management section from the study. The final report of the road safety study was published in December 1993, eight months behind schedule. The study proved to be an extremely useful tool for the Ministry and served as a catalyst for the provision of additional resources for the setting up of a Road Safety Unit within the Ministry in March 1994. The unit is charged with the task of promoting road safety through a program of public education utilizing the printed and electronic media plus a number of other initiatives identified by the study. The study, which appears to have the support of the Government, also incorporated a three phase, time and resource bound program of activities that were directed towards a sustainable approach to accident reduction and an overall improvement in the safety of the road environment.

VEHICLE/ PERSONAL ACCIDENTS STATISTICS[3]

Year	No. of Persons Killed	No. of Persons Injured	Total No. of Accidents	No. of Vehicles Certified Fit*
1989	400	3,037	6,608	98,857
1990	na	na	na	105,401
1991	444	na	na	na
1992	428	3,673	8,045	119,313
1993	434	3,253	8,247	111,438
1994	385	3,055	8,574	125,121
1995	367	3,044	7,379	135,059
1996	342	3,031	6,860	157,610**

* For corresponding FY, actual No. on the road estimated to be approximately twice this amount
** Extrapolated from figures up to December 1996

29. The study estimated that the accident risk in Jamaica is approximately 15 times higher than in the USA based on a fatality per 100,000 car relationship. Although it is difficult to draw firm conclusions as to the impact of the Road Safety study component of the loan on the prevalence of road accidents in general, it can be surmised that the collective effort of the Government and the Private Sector has had a positive impact in the form of a reduction in the number of road accidents and fatalities. The Road Safety Study estimated that road accidents in 1991 cost Jamaica approximately US$38 million (not including "pain and suffering" costs). The available accident statistics indicate that, overall, accidents were reduced by 15% from 1991 to 1996 -- a saving to the country of approximately US$28.5 million over the five year period, or US$5.7 million per annum.

KUTP activities that were added to RIPMP

30. **Transport Sector Study.** The study was carried out by TA consultants over a seven month period commencing March 1993. It evaluated and recommended actions and investments in each of the four transport subsectors that the MPUT is responsible for (marine, rail, air and public transport) suitable for

[3] Sources (a) Economic and Social Surveys, (PIOJ) (b) the Island Traffic Authority (c) Road Safety Unit

local and external financing. The recommendations of the report were to be used in the preparation of a proposed Transport Sector Loan which was, at that time, in the Bank's FY94 lending program. The Transport Sector Loan did not materialize in the form envisaged but from the study came the following recommendations on policy and administration: (a) proposals for strengthening the staff of MPUT and the Transport Authority; (b) transport services should be provided by the private sector, without subsidy from the Government; (c) Government should maintain a business environment conducive to encouraging long term private investment in the transport sector; and (d) the role of effective planning in reducing or managing the demand for transport should be recognized.

31. Resulting from these recommendations came the bus franchise rationalization, the Transport Authority was partially strengthened (by the Government), MPUT was strengthened through the provision of 32 staff months of TA under RIPMP, the Government divested the national airline, is in the process of divesting the national railway company and is investigating ways of privatizing the Island Traffic Authority. While it is too early to say if the divestment initiatives have resulted in a significant reduction of the Government's budgetary expenditure, there is a high probability that this will be the case in the long term. There is little indication, however, that progress has been made in recognizing the role of effective planning in reducing the demand for transport.

32. **Feasibility studies** One of the activities transferred to the Ministry from the MPUT was a feasibility study for a toll road from Spanish Town to St. Ann's Bay. Additionally, the Transport Sector Study, as described in paragraph 30, recommended that the Portmore/Kingston Causeway should be upgraded as a high priority. In September 1993 the Bank agreed that both subproject studies could be financed by RIPMP but calls for proposals were not made by the Ministry until August 1994. Contracts with the consultants were not signed until early 1996. Draft final reports were presented to the Ministry in November 1996 and the output from these studies will be used to help prepare the Bank's next Transport Sector project.

33. **Kingston Metropolitan Region Franchise Rationalization.** Bus operations in the KMR have been provided by the private sector since 1983. Ninety percent of the fleet, however, was owned by proprietors with only one bus. Attempts to encourage a national cooperative did not significantly reduce the fragmentation in operation or the irregular and unreliable service. In order to reintroduce discipline to the provision of urban bus services a rationalization process was designed and implemented under the guidance of a steering committee comprising members of the Government, transport interests and user groups. The operation of the franchises was to be enforced by the Transport Authority which was to be financed from revenue generated from franchise fees.

34. Prequalification documents for the franchises were sent out to interested parties in June, 1994 and bids were received in August, 1994. Due to the Government's objections to the proposed fare structure (based on distance traveled as opposed to the number of stages traveled) and unwillingness to increase bus fares to the levels proposed by the TA consultants, the fare tables were removed from the Invitations to Bid at the last minute although reference was made to a forthcoming fare table. Provision was made for a direct subsidy if a fare table consistent with commercial viability of franchise operations was not introduced. In spite of the fact that the tender process was compromised, and it was evident that none of the applicants met the required criteria, particularly in respect of their ability to directly control the operations of a sufficiently large stock of vehicles, the Government decided to proceed with selection of franchisees. Performance bonds were to be produced by the successful bidders but this requirement was relaxed before contracts were signed in January 1995 and the new franchise arrangements went into operation in April 1995.

35. Without an economically viable fare table and demonstrable income stream the franchise holders were not able to obtain finance from commercial banks in order to expand their fleet and improve the level of service. Recognizing these constraints, enforcement of many of the franchise conditions were held in abeyance and the Transport Authority was largely impotent as a regulatory agency in the KMR. The poor service levels generated much widespread public discontent and the deaths of two school children in bus related accidents resulted in the Government purchasing 40 vehicles to be leased to the franchisees at favorable rates in lieu of subsidy. These buses were to be operated by the franchise holders exclusively as school buses during the school peak periods and they will ultimately become the property of the franchisees. Direct and indirect subsidy (the provision of buses) payments totaling US$4.4 million have been made by the Government but little improvement in the standard of service is evident

36. By March 1997, one company was on the verge of bankruptcy and the other two were in financial trouble. Realizing the shortcomings of the current system, the Government agreed to accept some of the responsibilities previously assigned to the franchisees, namely; (a) the construction and leasing to the franchisees of fully equipped depots; (b) purchasing and leasing to the franchisees new buses; and (c) the provision of training for bus crews and mechanics. A Government owned company was created for the purchasing, insuring and leasing of the buses and depots and coordinating the training efforts. Towards the end of 1996 the Government contracted with vendors for the supply of 150 Mercedes Benz buses and 120 Volvo buses for a total of US$40.78 million. Delivery was expected to commence in April 1997. Government intervention as direct supplier of terminals, depots, vehicles, training, etc. has weakened the business control of private sector management and there are indications that the buses on order do not meet the requirements of the franchise holders.

37. The objectives of the franchising system are not being met. The number of buses and available seats in the system has actually decreased by approximately 5000 (approximately 25 percent), -- some were diverted into a parallel system of "Executive Class" buses that operate outside of the Government controlled fare structure -- and the level and quality of service does not appear to have improved significantly from that which was in existence prior to the introduction of the franchise system in 1995. The peak load factors, for both low and high demand routes, have reduced marginally from 2.0 and 3.0 in 1995 to 1.8 and 2.7 in early 1997 respectively. The 1984 KUTP project design set load factor targets of 1.0 and 1.05 respectively but these were not relevant during the franchise rationalization due to the completely different implementation environment experienced. Due to a lack of information it is not possible to comment on the operating costs per passenger or the foreign exchange needs for vehicle operation. For the same reasons it is not possible to determine if budgetary expenditures for urban transport by the Government have been reduced as expected.

NUMBER OF BUSES AND BUS SEATS IN SERVICE IN KMR[4]

Year	Overall Numbers Licensed		Overall Numbers in Operation	
	No. of Buses	No. of Seats	No. of Buses	No. of Seats
1993	826	23,853	na	na
1994	728	21,013	630	16,380
1995 *	835	23,842	725	20,300
1996	753	21,084	500	14,000
1997	845	23,660	541	15,148

* Year Franchise Rationalization took place

[4] Sources: (a) Economic and Social Surveys, (PIOJ) (b) the Island Traffic Authority

C. MAJOR FACTORS AFFECTING THE PROJECT

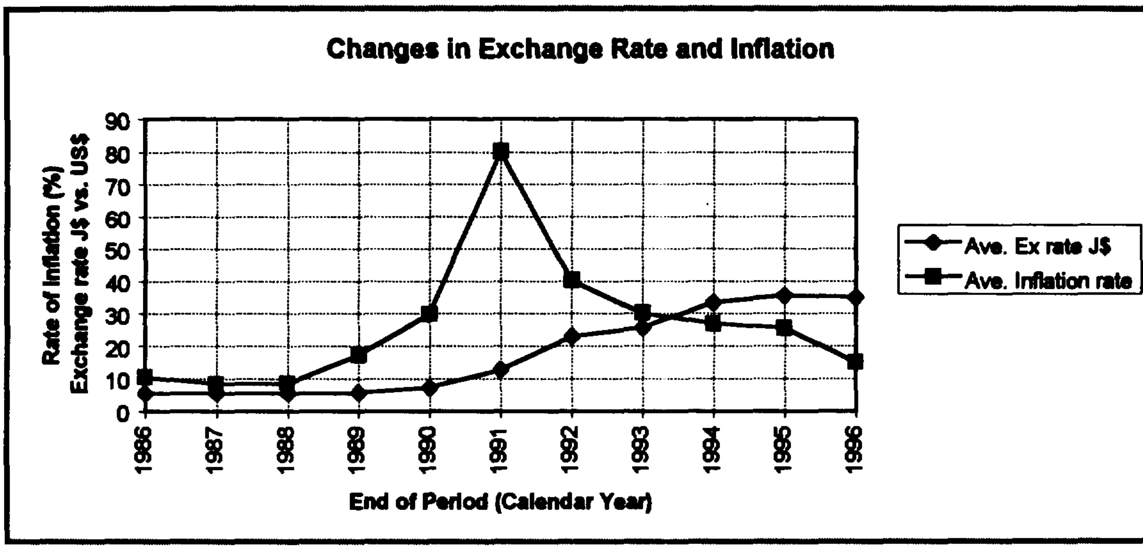
38. The project was implemented over a six year period and apart from the hiring of some of the Technical Assistance (TA) consultants, none of the project activities were implemented as planned during project design. Three years into implementation only 30 percent of the loan had been disbursed compared to the appraisal estimate of 62 percent. The loan was fully disbursed after a six month extension of the closing date and a four month grace period. Five main factors negatively affected project implementation: (i) fiscal constraints and cumbersome administrative procedures which affected project financing, procurement and staffing; (ii) changes in senior management at the Ministry resulted in a lack of commitment to the reorganization process; (iii) two major ministerial reorganizations during the life of the project; (iv) the shortage of counterpart staff due to poor remuneration levels, and (v) the lack of a Project Coordinator for 18 months.

39. **Factors not generally subject to Government control.** During the course of the project there were two significant flood events that caused major damage to the road network resulting in a diversion of scarce financial and human resources to address the damage. The periodic maintenance programs of work carried out under this project served to identify the fact that the majority of local contracting organizations have limited contract management and supervisory capacity, and are not familiar with international forms of contracts.

40. **Factors generally subject to Government control.** Two major institutional reforms involving the Ministry occurred which served to delay and disrupt the proposed reorganization of the Ministry. In March 1992 the Ministry of Construction (Works) (MOC(W)) was amalgamated with the Ministry of Construction (Housing) to form the Ministry of Construction (MOC) and as a result the personnel, administrative, information departments, and to some extent the technical departments were merged. A significant number of technical staff were made redundant from the Ministry as a result of this merger, further weakening its technical and managerial capacity. In January, 1995 the Ministry of Local Government merged with the MOC to form the Ministry of Local Government and Works. At the same time Housing was split from the MOC and transferred to the Ministry of Environment.

41. A difficult fiscal environment combined with cumbersome budgetary and other administrative procedures disrupted the project implementation significantly. Insufficient and delayed budgetary allocations, resulting from Government's stabilization program -- and IMF conditionalities -- affected the project during the first four years of implementation. From September 1991, when foreign exchange liberalization took place, up to the end of 1995 there was a steady devaluation against the US$ totaling approximately 270 percent, and inflation peaked in 1991 at 80 percent per annum and then declined steadily to 15 percent at the end of 1996.

42. The unavailability of local counterpart funds was compounded by the Government's requirement that all expenditure, whether locally or externally financed, must be 100 percent prefinanced through the budget. In addition the Special Account was only used to pay foreign suppliers of equipment, foreign consultants which were 100 percent reimbursable or any transaction that required foreign exchange payments. The uneven flow of funds from the MOF, partly due to the fiscal constraints and partly due to the system of warrant allocations, resulted in the delays in signing of contracts and payments to civil works contractors. Government's requirement that all contracts above relatively low thresholds be submitted to Cabinet for approval, combined with uncertainty regarding the availability of funds, also contributed to significant delays in contract signing. General Consumption Tax (GCT) rates rose from 10% to 12.5% in June 1993 and subsequently 15% towards the end of 1995 at which time construction costs became eligible for GCT charges, contributing to the overall increased costs of construction.



43. The difficult fiscal environment combined with the lack of budgetary support in the Transport Sector and uncertainty regarding the availability of funds made it very difficult for the Ministry to plan large programs of work, hence none of the local contracting companies invested in new plant and equipment. As a result, the local road maintenance contracting companies were inadequately prepared when in 1995 five major overlay contracts were advertised. Limited interest was also shown by foreign companies as the large cost of mobilizing plant and equipment could not be justified without the prospect of future programs of work being available.

44. Project implementation (and subsequent operation) was hindered by difficulties in recruiting qualified and experienced counterpart staff. The shortages of staff were due mainly to the low levels of remuneration compared to the Private Sector, uncomfortable working conditions and limited career prospects. By late 1995, the Works section of the Ministry had 370 technical posts, of which 172 positions were vacant. Wages in the Public Sector are controlled by central Government. Although the Borrower has acknowledged the need for adequate levels of remuneration to attract and retain experienced and qualified staff it faces both internal and external pressures to reduce its size and the associated recurrent expenditure. The Government's Administrative Reform Program addressed compensation policy and aimed for salary parity (85 percent) with private sector equivalents for management and technical positions, but had limited sustainable impact on employment conditions in the Public Sector as any gains were quickly eroded by inflation. Progress has been slow to develop the linkage between productivity and appropriate levels of remuneration.

45. The use of Project Units for project implementation allows the Ministry to pay enhanced wages to the project staff assigned to the units and as a result there has been a tendency to over- utilize the project unit format. Their use creates resentment amongst non-project staff and results in a drain of competent staff from line positions to the project units. This tendency is reinforced by the donor community who, due to the lack of implementation capacity within the Ministry, prefer to have their projects implemented by discrete project teams working only on their project. By the end of the project approximately 35 members of Ministry staff were assigned to the RIPMP in various project units and these staff have now either reverted back to their original posts, been assigned to other projects or made redundant.

46. Following several years of planning and deliberating the Government committed itself to resolving the urban transport issues through introduction of the bus franchise rationalization within a very short time frame. Delaying implementation of the process, when it became apparent that the fare structure and levels

of fares proposed by the consultants were not acceptable, was not considered a politically viable option. The franchise arrangements should have been redesigned with a clear and transparent subsidy mechanism based on more realistic standards of service and appropriate fare structure.

Factors generally subject to implementing agency control.

47. Notwithstanding the project's efforts to strengthen implementation capacity, the management of the Ministry suffered from a situation whereby senior management were consistently caught up in the day to day activities of the organization with few middle managers to delegate to. The end result of this was that senior management had little time to plan and important decisions relating to project activities were often deferred. The Ministry took advantage of the flexibility of the project combined with the provision of substantial TA resources to circumvent the key issues of adequate remuneration and staffing levels which were not under their control. There are indications that, following closure of the project, subsequent projects will continue the Ministry's dependency on externally financed projects for the provision of short-term implementation capacity.

48. Ministry staff identified that, in addition to the lack of reliable and adequate financing, the lack of a complete and current inventory/condition survey of the road network was a major obstacle to the planning and financing of a sustainable road maintenance program. It was not until September 1992 that an extensive condition survey of the main road network was commissioned and this information was used to prepare road maintenance programs for inclusion in the FYIIP. A Dedicated Road Conservation Fund Report, dated November 1993, proposed fundamental changes to the way in which road maintenance is financed. These proposals were presented to the Ministry of Finance but they were not acceptable at the time. This initiative is again being pursued by the Permanent Secretary at the Ministry.

D. PROJECT SUSTAINABILITY

49. The project has a high probability of maintaining the achievements generated by the Road Safety component as the Government has demonstrated its commitment to achieving its target of reducing the number of road accidents by 20 percent over a five year period commencing in 1994. However, the sustainability of the institutional strengthening component and the Ministry's ability to plan and manage the road network in a cost effective and efficient manner is much less certain as it is dependent on the priority the Government places on attracting and retaining quality staff and developing mechanisms that will provide sufficient, and timely funds to finance the activities of the Ministry. It is anticipated that recent developments in the decentralization of responsibility for the maintenance of the tertiary road network from the Ministry to the Parishes, under the Local Government Reform Program, will reduce some of the pressure on the Ministry's implementation capacity. The changes made under the equipment management program, although minimal, have a reasonable probability of Sustainability.

50. The urban transport activities carried out under the RIPMP have a low probability of Sustainability and it is unlikely that improvements can be effected to the existing franchise arrangements that would improve its Sustainability without major readjustments. The increased level of Government intervention in the sector, although not explicitly stated, is clearly targeted towards a more centralized approach and possible exclusion of the private sector in the long term if performance levels are not raised. Damage has been done to the Government's credibility and it is unlikely, at least in the short term, that the private sector will make the necessary substantial investments in order to raise performance levels. Due to the current fiscal constraints it is not certain that the Government will have sufficient resources to make the kinds of investments necessary to create and run a Government owned urban transport system.

E. BANK PERFORMANCE

51. **Project identification, preparation and appraisal.** The design of the project -- which was technically sound and in keeping with accepted practices of the time -- did attempt to incorporate lessons learned from previous projects in the sector, namely that: (i) financing mechanisms necessary to maintain the road network in an acceptable condition must be established; and (ii) the provision of adequate levels of remuneration to attract qualified and experienced staff within the Ministry is essential. However, analysis of the project performance has revealed that the measures incorporated in the project design to address these issues were inadequate. The eighteen month period between identification and appraisal did not adversely impact on implementation of the project. However, the eight month gap between appraisal and signing of the loan agreement was a period when inflation was rising rapidly and this adversely impacted on the cost estimates used at appraisal. During preparation few relevant output, performance and impact indicators were specified, the emphasis was more on specifying implementation targets such as the dates for provision of key staff members and when reports should be forwarded to the Bank.

52. Appraisal of the project correctly identified the lack of counterpart funds as a major risk to the successful implementation of the project. It did not, however identify the possibility of substantial reorganization of the ministerial system that took place in 1992 as part of the Government's Administrative Reform Program (supported by the Bank financed PARP, which closed in June 1988), that there would be significant bureaucratic delays involved in reorganizing the Ministry's internal structure, or that changes to senior management would result in a loss of commitment to the change process. Overall Bank performance is rated as marginally satisfactory.

53. **Supervision.** Although supervision appeared to be satisfactory in the early stages of the project, the high turnover of task mangers, five in total, resulted in a lack of continuity that adversely impacted on the quality of the Bank's supervision efforts. Performance during implementation was uneven: (i) obstacles were identified but underlying constraints not addressed; (ii) inputs were monitored but the project impact was ignored; and (iii) flexibility was demonstrated in responding to changing circumstances and priorities, sometimes to the detriment of the Ministry's ability to manage the project. The Bank was delinquent in allowing the Ministry to proceed with the project for 18 months without a Project Coordinator in place and the Bank's reporting lacked attention to detail regarding physical achievements, implementation constraints and the background as to why targets were not being met. Supervision was hampered by the lack of monitorable output, performance and impact indicators. When the KUTP activities were added to RIPMP in 1993 the Bank appears to have lost touch with these elements of the project and little reporting was done through RIPMP. It is possible that closer supervision by the Bank, combined with appropriate advise, may have salvaged the bus franchise rationalization exercise. Although supervision efforts were increased in late 1995 when Task Management responsibilities for the project were moved to the Resident Mission, overall supervision is rated as unsatisfactory.

F. BORROWER PERFORMANCE

54. **Project preparation.** From the information available it would appear that the Borrower produced project preparation information in the form of the initial FYIIP and numerous other studies. As a result, the overall performance was considered satisfactory. The Borrower clearly understood the limitations of its implementation capacity but failed to take into account the importance of addressing the staffing levels in a sustainable manner or the effect on the implementation of the project that the increasingly difficult fiscal environment would have.

55. **Project implementation.** The loan agreement was declared effective within two weeks of the loan being signed. Initially project management was satisfactory but following the departure of the Project Coordinator in late 1993 there was a serious lapse in reporting and the central project expenditure controls and management processes broke down. Implementing units in the Ministry were allowed to circumvent the DMPP and no quarterly or annual reports were prepared. This situation improved substantially in the last 18 months of project when a new Project Coordinator was appointed and the Planning Institute of Jamaica implemented Quarterly Review meetings for all Bank financed projects. The new Project Coordinator, however, was not able to report in detail as to what transpired during this 18 month period, indicating that there had been a substantial breakdown in the project management responsibilities of the DMPP. Disbursements requests were often late and poorly prepared. Overall performance is rated unsatisfactory.

56. **Compliance with loan covenants.** Compliance with loan covenants was generally unsatisfactory, particularly the financial, audit and reporting covenants. The loan covenants required a minimum annual level of expenditure on road maintenance -- based on actual expenditures at the time of project preparation -- but due to fiscal constraints and the fact that the emphasis shifted from road maintenance to rehabilitation in the first three years of the project this covenant proved difficult for the Government to meet. In reality, the actual amounts expended on road maintenance were difficult to verify as most road maintenance contracts contained significant amounts of rehabilitation. If rehabilitation was included in the equation then the rate of compliance improved appreciably.

57. Audits were carried out by the Government's Auditor General (AG) and the quality of reports was considered, on a number of occasions, to be barely acceptable. Audits were required to be forwarded to the Bank four months after the end of the Government's fiscal year. This turned out to be an impossible timetable for the Ministry and AG to meet and as a result audits were invariably late. For example, the report for FY95/96 was 7.5 months late. The poor quality of Applications for Withdrawal for SOEs prepared by the Ministry resulted in the Bank commissioning an independent SOE audit in early 1996. This confirmed that the internal financial management processes and controls were not being adhered to. An action plan to rectify the deficiencies was developed and implemented by the Ministry following consultation with the Bank.

58. The project's reporting covenant required detailed quarterly and annual reports to be forwarded to the Bank. From the end of 1993 to May 1995, when the Project Coordinator's post was vacant, no reports were prepared. From May 1995 onwards, monthly steering committee meetings were held from which monthly progress reports were generated for the main activities underway at the time, resulting in much improved communication between the Bank and the Borrower. Overall performance is rated unsatisfactory.

G. ASSESSMENT OF OUTCOME

59. The overall project results were unsatisfactory. The project contributed little to its main objectives of strengthening the capacity of the Ministry to plan, manage and maintain the road transport infrastructure in a cost effective manner, improving the cost effectiveness of the Ministry's investments and improving road safety. The reorganization of the Ministry was not completed as planned, the Equipment Management Program was not fully implemented, and it is not possible to verify the effectiveness of a significant proportion of the expenditure under this loan due to inadequate reporting of work done through petty contracts. However, the TA component made significant, if not sustainable, improvements to the implementation capacity of the Ministry, major cost effective periodic road maintenance investments were undertaken, two major highway upgrading projects have been identified for future investment and associated feasibility studies have been successfully completed and the Road Safety Study, combined with

other initiatives in the sector, contributed to a reduction in road accidents. In addition, mechanisms are now in place to assist the Ministry to plan and manage the highway investment program.

60. RIPMP provided assistance to the Borrower with the drafting of transport policy and identification of institutional strengthening requirements of the MPUT. However, the project did not provide an efficient system of urban transport in the KMR. The Government has, through its actions, demonstrated that it is prepared to become a major investor in the urban transport sector in order to overcome the deficiencies in the system.

H. FUTURE OPERATIONS

61. The detailed design and civil works investments identified in the two major feasibility studies prepared during RIPMP will form the basis of the Bank's next transport sector loan, the Road Infrastructure Development Project (RIDE). These investments, both of which are identified in the current FYIIP, are the upgrading of the Portmore/Kingston Causeway and the upgrading of the A1 Highway from Spanish Town to St. Ann's Bay. Both subprojects have limited potential for private sector investment and the viability of tolling has been investigated and found to be possible for discrete sections of the routes. The project is expected to require a loan of approximately US$60 million and RIDE is currently in the Bank's pipeline for financing in FY99. Procurement and Institutional Capacity constraints are to be addressed in the PSMP and the maintenance of tertiary roads is to be addressed by the upcoming Parish Infrastructure Project. RIDE is part of a comprehensive program being developed by the Government in conjunction with the Bank, the IDB and other donor agencies. The focus of this program is to reduce user costs and thereby encourage the diverse economic activities which will allow the country to develop a sustainable economic base. The main objective of the program will be to create a sustainable maintenance system based upon domestic capabilities and personnel. The donor community is closely collaborating in sectoral dialogue with the Government to promote sustainable highway investment, maintenance and financing policies and practices.

K. KEY LESSONS LEARNED

The key lessons learned from the implementation experience of this project are as follows:

(i) Project design must reflect the institutional capacity of the implementing agency, mechanisms should be developed to address implementation constraints and any institutional reform process needs to have broader ownership in the relevant Ministry rather than be dependent on individual personalities for its successful implementation. Stating minimum annual levels of investment for road maintenance in a Loan Agreement does not guarantee that these resources will be made available. Instead, sustainable road maintenance financing policies should be addressed by any future project and assistance provided to develop systems that relate the needs of the users, plus the benefits received from any investment, more directly to user charges. As a result of initiatives undertaken during the course of this project the Ministry is investigating the possible use of a Dedicated Road Maintenance Fund. Providing extensive TA resources that supplant counterpart staff and create dependencies on externally funded projects does not build sustainable implementation capacity and should be avoided if possible.

(ii) While a project must be flexible enough to respond to changing circumstances, priorities and the needs of the Borrower, significant changes or the addition of new activities must be weighed against the associated risks, the demands on the Bank's technical/supervisory resources plus its ability to supervise additional components that fall outside the scope of the original project.

(iii) The Borrower's project management staff must be held accountable for the performance of the project. SOE thresholds must reflect the capacity of the implementing agency and should be adjusted during the course of a project if necessary.

(iv) The complexity of Government procurement procedures was demonstrated in this and other Bank financed projects and cannot be resolved on an individual project since it requires system-wide solutions, as proposed under the PSMP.

(v) Without substantial modification of the conditions of pay and employment the Sustainability of administrative and institutional reform efforts are unlikely. Management structures need to be updated and streamlined, workers empowered and remuneration levels should be based on productivity and performance. The PSMP will analyze and then propose changes to the Ministry's management structure and also assist with the implementation of the forthcoming recommendations.

(vi) Specific project outcome and impact measures, in addition to input and output indicators, should be established during design, evaluated as part of the project and consistently monitored to determine project achievement and impact. This is now a standard requirement for all new projects.

(vii) Successful project implementation requires commitment on the part of Government and effective, continued and coordinated supervision by the Bank with minimal changes in task management, particularly for problem projects. Consistency in Bank staff should help ensure greater familiarity with the decision making structure of the country and underlying constraints, enhance relationships with counterparts and otherwise contribute to improved implementation. Where changes are unavoidable, there needs to be detailed and systematic transfer of responsibility and project related information to the new task manager.

PART II: STATISTICAL TABLES

Table 1: Summary of Assessments

A. Achievement of Objectives	Substantial	Partial	Negligible	Not Applicable
Macro policies	☐	☐	☐	☑
Sector policies	☐	☐	☑	☐
Financial objectives	☐	☐	☑	☐
Institutional development	☐	☑	☐	☐
Physical objectives	☐	☑	☐	☐
Poverty reduction	☐	☐	☑	☐
Gender issues	☐	☐	☐	☑
Other social objectives	☐	☐	☐	☑
Environmental objectives	☐	☐	☑	☐
Public sector management	☐	☑	☐	☐
Private sector development	☐	☑	☐	☐

B. Project Sustainability	Likely	Unlikely	Uncertain
	☐	☑	☐

C. Bank Performance	Highly Satisfactory	Satisfactory	Deficient
Identification	☐	☑	☐
Preparation assistance	☐	☑	☐
Appraisal	☐	☑	☐
Supervision	☐	☐	☑

D. Borrower Performance	Highly Satisfactory	Satisfactory	Deficient
Preparation	☐	☑	☐
Implementation	☐	☐	☑
Covenant compliance	☐	☐	☑
Operation	☐	☐	☑

E. Assessment of Outcome	Highly Satisfactory	Satisfactory	Unsatisfactory	Highly Unsatisfactory
	☐	☐	☑	☐

Table 2: Related Bank Loans/Credits

Loan/ Credit Title	Purpose	Year of Approval	Status
Preceding operations:			
1. Highway I	To upgrade some of the more heavily traveled and congested primary road sections north and west of Kingston.	3/65	Closed Repaid
2. Highway II	Contributed to the preservation of the road network by reducing the backlog of deferred periodic maintenance, upgrading selected roads and improving the MOW's (now the MLG&W) the road maintenance procedures.	5/73	Closed Repaid
3. Highway III	To upgrade some of the more heavily traveled and congested primary road sections north and west of Kingston. Also improved the MOW's ability to carry out transport planning and coordination.	7/74	Closed Disbursed
4. Highway IV	Addressed Road Maintenance problems through a program of road resealing and strengthening and by improving the MOW's road maintenance organization.	6/79	Closed Repaid
5. Highway Maintenance	Continued the program of activities started under Highway IV.	5/83	Closed Disbursed
6. Kingston Urban Transport	To provide an adequate and efficient system of urban transport in the Kingston Metropolitan Region. The use of the Private sector was to be included where feasible.	3/84	Closed Disbursed
Following operations:			
1. Parish Infrastructure	To support Local Government Reform, improve the implementation capacity of Parish Councils, arrest the deterioration of parochial infrastructure and to help to alleviate poverty in rural and inner city areas.	97	To Board September '97

Following operations(cont.): 2. Public Sector Modernization	To support the Gov.'s efforts to bring about major improvements in the quality of service provided by selected public agencies and ministries (including the Ministry); to strengthen their ability to formulate policy, technical standards and operational norms; continue the rationalization of the public sector; to improve efficiency, value for money and transparency in Gov. procurement and contracting; to enhance public sector accountability and improve financial and personnel management.	10/96	Ongoing Undisbursed

Table 3: Project Timetable

Steps in Project Cycle	Date Planned	Actual Date
Identification	7/88	7/88
Preparation	na	na
Appraisal	4/09/90 (1)	4/20/90
Negotiations	na	10/12/90
Board Presentation	20/09/90 (1)	12/04/90
Signing	na	12/12/90
Effectiveness	12/15/90 (2)	12/19/90
Midterm Review	na	None
Project Completion	12/31/95 (3)	12/31/96
Loan Closing	06/30/96 (4)	12/31/96 (5)

(1) Project Brief dated March 20, 1990
(2) Memorandum of President dated November 8, 1990
(3) Loan Agreement dated December 12, 1990
(4) Staff Appraisal Report dated November 8, 1990
(5) Final Disbursement: May 28, 1997

Table 4: Loan Disbursements: Cumulative Estimated and Actual (US$ million)

FY	91	92	93	94	95	96	97
Appraisal Estimate	5.81	13.7	21.7	28.5	35		
Actual	2.3	3.22	9.61	16.9	21.1	27.8	35
Actual as % of Estimate	39.5	23.5	44.3	59.3	60.2	79.4	100

Note: Disbursements during the Ist semester of 1991 includes US$2.3 for the establishment of a Special Account.

Table 5a: Institutional Key Indicators for Project Implementation

Indicators	Estimated	Actual
I. Key Implementation Indicators *The Borrower was required to carry out the following actions:*		
1. (a) Commence implementation of the road safety study included in Annex 2, 12 (b) of the Project SAR. (Schedule 2, Part D of Loan Agreement)	12/31/91	Inception Report presented to Borrower 10/92
(b) Furnish to the Bank its recommendations on the study referred to in 1. (a) above.	12/31/92	Draft Final report 06/93
(c) Review with the Bank the recommend-ations referred to in 1. (b) above.	04/30/93	Final Report 12/1993
2. (a) Commence implementation of the road user cost study included in Annex 2, 12 (a) of the Project SAR (Schedule 2, Part A, 6 (a) of the Loan Agreement).	12/31/92	03/93 under revised TORs
(b) Furnish to the Bank its recommendations on the study referred to in 2. (a) above.	9/30/93	10/93
(c) Review with the Bank the recommend-ations referred to in 2. (b) above and a proposed plan of action to address issues raised in the study referred to in 2. (a) above.	12/31/93	Complied with
(d) Commence implementation of such action plan revised as needed to take account of the Bank's comments thereon.	Promptly after 12/31/93	Full Compliance 12/94
3. (a) Commence implementation of the flood water study included in Annex 2, 12 (c) of the Project SAR. (Schedule 2, Part A, 6 (b) of the Loan Agreement).	03/92 (SAR)	No timetable specified in Loan Agreement - not done under this project.
(b) Furnish to the Bank its recommendations on the study referred to in 1. (a) above.	03/93 (SAR)	
(c) Review with the Bank the recommend-ations referred to in 1. (b) above.	06/93 (SAR)	
4. Appoint under terms of reference including	<u>Date By</u> - <u>Resources</u>	

the term of their respective contracts, and with qualifications and experience satisfactory to the Bank:	(F) Foreign Consultant (L) Local Consultant	
(a) a Project Director, later modified to Project Coordinator;	01/01/91- 36 mths.(F)	10/22/90- 36 mths.(F), 05/95- 20 mths.(L)
(b) a transport economist;	01/31/91- 24 mths.(F)	02/11/91- 10 mths.(F) 01/30/92- 19 mths.(F),
a highway engineer;	" - 24 mths.(F)	01/18/93- 6 mths. (L) 01/30/91- 19 mths.(F) 01/92 - 58 mths (F)
(c) two project engineers;	02/28/91- 48 mths.(L) " - 12 mths.(F)	01/91- 70 mths.(F) 01/01/92- 58 mths.(F) 10/94- 28 mths. (F) - Transport Modeler (3)06/91 - 198 mths (F)
two equipment management consultants;	02/28/91- 12 mths.(L) " - 12 mths.(F)	08/91 - 12 mths. Local Firm appointed 02/94- 2 mths. (F)
and an institutional specialist;	02/28/91- 24 mths.(L)	Not appointed, instead a team from the MPS was appointed.
(d) an environmental specialist.	03/31/91- 12 mths.(F)	Not appointed
5. Prepare and furnish to the Bank, a written report on the progress achieved in execution of, <u>inter alia</u>, the physical, financial and institutional aspects of the project. Each such report shall be of such scope and detail as the Bank shall reasonably request and shall include, <u>inter alia</u>, information indicating progress achieved, measured against key monitoring and evaluation indicators acceptable to the Bank.	Not later than 30 days thereafter the end of each quarter.	Partially complied with, the Project Coordinator's post was vacant from 10/93 to 05/95 during which time no reports were prepared. Since 05/95 monthly progress meetings were held and reports presented to the Task Manager.
6. Furnish to the Bank a written report on the progress made during the previous year in the implementation of the Road Infrastructure Investment Program including other externally	01/10 of each year.	Partially complied with, the Project Coordinator's post was vacant from 10/93 to

funded projects. Each such report shall be of such scope and detail as the Bank shall reasonably request and shall include inter alia, information indicating progress achieved, measured against key monitoring and evaluation indicators acceptable to the Bank.		05/95 during which time no reports were prepared. See 5. above
7. Carry out an equipment management program satisfactory to the Bank.	As agreed in the program approved by the Borrower on 09/19/90	Inventory and audit commenced 08/91 but was not completed until 03/92, 02/94 Mechanical Management Specialist hired. Limited progress made.
8. Carry out a reorganization of the MOC(W) satisfactory to the Bank.	As agreed in the program approved by the Borrower on 09/19/90	Partially achieved but the mergers with the MOC(H), MLG and subsequent moving of responsibility for Housing to the MOE created an atmosphere of constant change and disruption. Also effected by the shortage of qualified and experienced technical staff and changes in senior management.
9. Furnish to the Bank, as part of the update of the Road Infrastructure Investment Program referred to in Section 3.04 of the Loan Agreement, evidence that any land required for construction activities included in such update for carrying out the following year has been duly acquired.	10/31 each year.	Complied with but often late.
10. In the event that any investment to be included in the update of the Road Infrastructure Investment Program requires displacement or resettlement of population and upon the Bank's request, carry out a resettlement plan for such population which shall be satisfactory to the Bank.	Prior to commencing investment.	No investments required resettlement. Future investments in upgrading of the Portmore/Kingston Corridor and A1 Highway will both require resettlement.

Table 5b: Physical Key Indicators for Project Implementation

Activities to be completed	Estimated Completion Date	Actual Completion Date
I. *As set out in the SAR* A. Construction and Upgrading		
Washington Boulevard	03/93	Not done
Lances Bay Bridge Approaches	03/91	Not done - now part of NCHIP
Agualta Vale - Dover	03/93	Not done - now part of NCHIP
Kingston - Morant Bay	03/93	Some minor upgrading done during overlay contract.
Carey Park - Falmouth	03/92	Not done - now part of NCHIP
Land Acquisition	03/91	Partial
Feasibility Studies	04/94	December 31, 1996
B. Rehabilitation	03/95	(Sandy Gully Spillway - see E.)
C. Periodic Maintenance		
New Periodic Program	03/95	09/96 (85 km)
IBRD Kingston Resurfacing	03/92	04/93 (65 km)
D. Routine Maintenance		
Road and Bridge Maintenance	03/95	Not known
E. Flood Water Control		
Sandy Gully and Tributaries	03/92	April 1994
Flood Studies and Mapping	03/94	Not done
F. Traffic Management and Road Safety	03/94	12/96
G. Institutional Training, Technical Assistance and Equipment	09/93	12/96
H. Plant and Equipment Management		
Equipment and Technical Assistance	03/92	08/94

Table 5b: Physical Key Indicators for Project Implementation (cont.)

II. *As modified during annual reviews* A. Construction and Upgrading		
Hope Road Corridor	03/96	Not done
Spencer James Avenue	na	10/94
Trafalger Road	12/97	Not done
Waterloo Road	12/97	Not done
Constant Spring Road	03/98	Not done
Spanish Town Road	03/99	Not done
Negril to Sav-la-mar	03/98	Not done
Spur Tree Curves	03/96	06/96
B. Rehabilitation		
Rehabilitation of Portmore Causeway Bridge	na	05/91
Special Road Rehabilitation Project (SRRP)	na	02/95 (230 km)
C. Flood Water Control		
Rio Cobre River Training	na	95
Yallas Fording - Culverts and River Training	na	96
Purchase of 10 Bailey Bridges plus spares	na	95

Table 5c: Key Indicators for Project Effectiveness

Indicators	Estimated Achievement	Actual Achievement
I. *As set out in the SAR* No Effectiveness Indicators were specified		
II *Modified Effectiveness Indicators (as added to project 09/93 from KUTP)* (The following indicators were specified in the SAR for KUTP)		
Public Transport	By 1989/90 Reduce to:	
1. Reduce Travel Times (1984=100%)	70%	Information not available, - due to significantly increased traffic congestion reduction is extremely unlikely.
2. Reduce peak load factors (low demand routes) - estimates are as anticipated in 1984 and are not particularly relevant due to the substantially different urban transport environment that now exists.	1.0	1992 = 3.0 1993 = 2.8 1994 = 2.6 1995 = 2.0 1996 = 1.8 1997 = 1.8
3. Reduce peak load factors (high demand routes) - as in 2. above.	1.05	1992 = 2.5 1993 = 2.5 1994 = 3.0 1995 = 3.0 1996 = 2.8 1997 = 2.7
4. Regularity of service	+/-5%	Information not available
5. Operating cost/passenger	J$0.21	Information not available

Table 6: Key Indicators for Project Operation

I. Key Operating Indicators in SAR/MOP
1. No indicators for project operations were defined in the SAR. They were not required as standard procedure at the time of appraisal
2. No future operation indicators were defined at project completion but the Bank recommended to the Borrower that a plan for the Operational Phase of the project be prepared that would define the performance indicators to be used to monitor operations and development impact. None has been prepared

Table 7: Studies Included in Project

Study	Purposes as defined at appraisal/redefined	Status	Impact of Study
Studies Identified in SAR 1. Road User Cost	To recommend changes in road financing taxes and user fee structure which would make payments of the various vehicle classes or user groups and groups more representative of their respective responsibilities, or more compatible with Gov. economic/social policy.	Not done as defined, no formal redefinition appears to have been done but VOC and EC models were produced.	Substantial
2. TSM/Road Safety	To recommend changes for reorganization, training legislation, enforcement education and engineering measures to reduce the accident and fatality rate in Jamaica	Completed in December 1993 - financed by the Swedish Gov. (foriegn costs) and the Jamaican Gov./Bank (local costs).	Substantial
3. Flood Water Control	To recommend development criteria, policy and physical investment necessary to mitigate the economic and	Not done under this project	None

	personal losses as a result of flooding.		
Studies added to the Project 4. Transport Sector Study	 To provide recommendations for institutional strengthening of MPUT and for policy, planning, operation, and private sector initiatives in the ports, rail, air and urban subsectors. Also to evaluate and recommend appropriate actions and investments in the sector suitable for local or external financing	 Completed October 1993	 Substantial
5. Kingston Bus Rationalization	To study, recommend and implement suitable urban transport franchise arrangements which would facilitate the private sector providing an efficient and cost effective transport service.	The study was completed May 1994 and bids for franchises received in August 1994. Contracts were signed January 1995 and implementation is ongoing.	Substantial
6. Feasibility Study - Upgrading of A1 corridor	To study the feasibility of upgrading the A1 Highway from Spanish Town to St. Ann's Bay and then prepare Preliminary Designs.	Study and Preliminary designs were completed December 1996.	Not Applicable
7. Feasibility Study - Upgrading of Kingston/Port-more corridor	To study the feasibility of upgrading the Kingston/Portmore corridor, from Halfway Tree to Spanish Town, and then prepare Preliminary Designs	Study and Preliminary Designs were completed December 1996	Not Applicable

Table 8A: Project Costs

Item	Appraisal Estimate (US$M)			Actual (US$M)		
	Local Costs	Foreign Costs	**Total**	Local Costs	Foreign Costs	**Total**
Civil Works	23.0	10.9	33.9	NA	NA	34.55
Equipment and Spare Parts	0.1	0.5	0.6	0.36	1.26	1.62
Technical Assistance - Design, Supervision, Training & Studies	4.0	2.8	6.8	0.16	6.6	6.76
TOTAL BASE COSTS	27.1	14.2	41.3	NA	NA	42.93
CONTINGENCIES 1.	6.1	2.9	9.0	NA	NA	NA
TOTAL PROJECT COSTS	**33.2**	**17.1**	**50.3**	**NA**	**NA**	**42.93**

1. Combined Physical and Price contingencies.

Table 8B: Project Financing

Source	Appraisal Estimate (US$M)			Actual (US$M)		
	Local Costs	Foreign Costs	**Total**	Local Costs	Foreign Costs	**Total**
Government	15.3	0.0	15.3	NA	NA	**7.93**
IBRD	17.9	17.1	35.0	NA	NA	**35.0**
TOTAL	**33.2**	**17.1**	**50.3**	**NA**	**NA**	**42.93**

Table 9: Economic Costs and Benefits

(Based on the Borrower's ex-post evaluation of a sample of Periodic Maintenance Overlay subprojects - these investments, 85% financed by the Bank, represent approximately 22% of the total loan)

Road Subproject	Length (km)	Costs (J$)	NPV (J$)	B/C RATIO	EIRR (%)
Olivier Rd. to Norbrook	1.81	13,457,250	29,932,743	3.42	45.32
Shortwood Rd. to carmel Ave.	0.16	1,190,907	1,951,214	2.79	37.24
Hope Rd. to UWI Gate	1.6	11,909,070	40,654,144	4.72	61.38
Barbican to Charlemont Drive	1.17	8,693,621	24,170,205	4.03	52.85
Old Harbour Roundabout to Angels	1.33	9,321,047	(2,248,015)	0.74	7.11
Bull Bay to Harbour View	4.49	27,091,520	129,379,849	6.17	79.6
Fern Gully *	3.3	23,127,410	48,738,906	3.29	43.71*
Four Paths to Green Bottom	12.54	94,318,883	6,027,664	1.07	13.18
Pamphret to Grants Pen	9.81	59,191,048	48,897,358	1.89	25.55
Moneague to Green Park *	7.15	50,109,388	(21,311,092)	0.53	2.65*
Grants Pen to Bull Bay	4.97	29,987,718	63,006,757	3.28	43.62
Total	48.33	328,397,862	369,194,733	2.22	29.95

* The economic analysis is based on current traffic management arrangements - the Government has indicated that in the long term it intends to close Fern Gully to all but tourist traffic for environmental reasons. Through traffic would be diverted to the Moneague/Green Park route which would result in a redistribution of benefits. The Borrower has explained that the EIRR and NPV are low for Green Park because the roughness of the road prior to overlaying was acceptable but its skid resistance was poor. The VOC model used attributes greater weight to improvements in roughness than skid resistance, hence benefits were low.

Notes: 1) Discount rate used in analysis was 12%

2) The main benefits were derived using: (i) the reduction in vehicle operating cost due to decreased roughness and improved speed; and (ii) the reduction in person traveling time due to improved vehicular speed.

Table 10: Status of Legal Covenants

Agreement	L.A. Section	Covenant Type	Status	Original Fulfillment Date	Revised Fulfillment Date	Description of Covenant	Comments
	2.02 (b)	1	C	NA	NA	Borrower shall open and maintain in dollars a special deposit account in the Bank of Jamaica.	Complied with, account transferred to a commercial bank in January 1996.
	3.01 (a)	6	C	NA	NA	(a) Borrower shall carry out the Project through MOC(C) (the Ministry) with due diligence and efficiency and in conformity with appropriate administrative, economic, engineering and financial practices, and shall provide, promptly as needed, the funds, facilities, services and other resources required for the Project.	MLG and MPUT added as additional implementing agencies.
	3.01 (b)	5	C	NA	NA	(b) Borrower shall carry out the Project in accordance with the Implementation Schedule set forth in Schedule 5 to the Agreement.	Schedule was adjusted to suit the fiscal constraints and heavy flooding in May 1993
	3.03 (c)	3/4	CP	NA	NA	Borrower shall: (i) provide in its annual budget, and make available promptly as needed in J$ equivalent, as counterpart funds for road maintenance funds under its Road Infrastructure Investment Program each fiscal year, until completion of the project, a minimum of: (A) \$20,000,000 for FY 91/92; (B) \$21,000,000 for FY 92/93; (C) \$22,000,000 for FY 93/94; (D) \$23,000,000 for FY 94/95;	Due shift in emphasis from maintenance to rehabilitation and difficulties in establishing exact amounts spent specifically on road maintenance (and not road rehabilitation) the amounts expended are not easily verifiable. Information was not supplied in a consistent manner.

Agreement	L.A. Section	Covenant Type	Status	Original Fulfillment Date	Revised Fulfillment Date	Description of Covenant	Comments
		3/4	CD	NA	NA	(E) $24,000,000 for FY 95/96; and (ii) within thirty days after the date of such budget is approved each fiscal year, furnish to the Bank such budget showing the amounts stipulated above.	
	3.04 (a)	9	CD	31 Oct. each year	Varied	Borrower shall: (a) not later than Oct. 31 of each fiscal year, furnish to the Bank the proposed annual update of the Road Infrastructure Program (RIIP) including Eligible Investments, which shall be satisfactory to the Bank;	The last RIIP (FY 96/97) was received by the Bank on March 10, 1997.
	3.04 (b)	9	C	NA	NA	(b) from time to time advise the Bank of any additions or modifications to the RIIP as they occur during the course of the fiscal year; and	Notifications took place during supervision missions
	3.04 (b)						
	3.04 (c)	9	CP	30 Nov.	Varied	(c) not later than November 30 of each fiscal year, review with the Bank and all co-financiers of the RIIP, the proposed annual update referred to in paragraph (a) of this section.	The co-financier meetings have not been held in accordance with the stipulated timetable, the first and last Gov. held meeting was June 9, 1993.
	3.05	9	C	NA	Varied	Borrower shall, before commencing to execute, or committing funds for the execution of a surface transport investment estimated to cost $5,000,000 or more: (a) inform the Bank of such investment and	Notifications occurred during supervision missions.

Agreement	L.A. Section	Covenant Type	Status	Original Fulfillment Date	Revised Fulfillment Date	Description of Covenant	Comments
						commitment, and if its assessment of the impact of such investment on the Road Infrastructure Investment Program and the project; and (b) give the Bank an opportunity to comment on such investment and commitment.	
	3.06	2	CP	NA	NA	Borrower to maintain full cost recovery in respect of the National Road Transport Sector and advise the Bank of any changes in policy or actions which would adversely affect such cost recovery, and afford the Bank an opportunity to review and comment on such changes.	
	3.07	2	C	NA	NA	Borrower to maintain a pricing policy for gasoline, diesel, lubricants and bitumen which net of taxes shall be at all times not less than the opportunity cost of the product in question.	
	4.01 (a)	1	C	NA	NA	(a) The Borrower shall maintain or cause to be maintained separate records and accounts adequate to reflect in accordance with sound practices the operations, resources and expenditures in respect of the Project of the departments or agencies of the Borrower responsible for carrying out the Project or any part thereof.	
	4.01 (b)	1	C	NA	NA	(b) Borrower shall: (i) have the records and accounts referred to in paragraph (a) of	

Agreement	L.A. Section	Covenant Type	Status	Original Fulfillment Date	Revised Fulfillment Date	Description of Covenant	Comments
	4.01 (b) cont.					this section including those for the Special Account for each fiscal year audited, in accordance with appropriate auditing principles consistently applied by independent auditors acceptable to the Bank;	
		1	CD	31 July each year	Varied	(ii) furnish to the Bank, as soon as available, but in any case not later than four months after the end of each such year, the report of such audit by said auditors, of such scope and in such detail as the Bank shall have reasonably requested;	Audit report for FY 95/96 was received by the Bank on March 14, 1997.
			C	NA	NA	(iii) furnish to the Bank such other information concerning said records and accounts and the audit thereof as the Bank shall from time to time reasonably request.	
	4.01 (c)	1	CP	NA	NA	For all expenditures with respect to which withdrawals from the Loan Account were made on the basis of statements of expenditure, the Borrower shall: (i) maintain or cause to be maintained, in accordance with paragraph (a) of this section, records and accounts reflecting such expenditures;	The Bank initiated an independent SOE audit utilizing a firm of private auditors. The final report, which, was received by the Bank June 1996, indicated that there were weaknesses in the financial management systems at the Ministry. Steps have since been taken by the Ministry to rectify the situation.
		1	CP	NA	NA		

Agreement	L.A. Section	Covenant Type	Status	Original Fulfillment Date	Revised Fulfillment Date	Description of Covenant	Comments
			C	NA	NA	(ii) retain, until at least one year after the Bank has received the audit report for the fiscal year in which the last withdrawal from the Loan Account was made, all records (contracts, orders, invoices, bills receipts and other documents) evidencing such expenditures;	
			C	NA	NA	(iii) enable the Bank's representatives to examine such records;	
						(iv) ensure that such records and accounts are included in the annual audit report referred to in paragraph (b) of this section and that the report of such audit contains a separate opinion by said auditors as to whether the statements of expenditure submitted during such fiscal year, together with the procedures and internal controls involved in their preparation, can be relied upon to support the related withdrawals.	

resent Status:

= Covenant applied with	SOON = Compliance expected in Reasonable Short Time
D = Compliance after delay	CP = Complied with Partially
C = Not Complied with	NYD = Not Yet Due

ovenant Types:

= Account/audits
= Financial performance/revenue generation from beneficiaries
= Flow and utilization of project funds
= Counterpart funding
= Management aspects of the project or executing agency
= Management aspects of the project
= Involuntary resettlement
= Indigenous people
= Monitoring, review and reporting
0 = Project implementation not covered by categories 1-9

Table 11: Compliance with Operational Manual Statements

There was compliance with all pertinent Bank Operational Manual Statements throughout the project cycle.

Table 12: Bank Resources: Staff Inputs (SW, Actual)

Stage	FY												Total
	86	87	88	89	90	91	92	93	94	95	96	97	
Preparation		1.1	1.3	2.1	24.7								**29.2**
Appraisal					7.9	4.7							**12.6**
Negotiations						2.6							**2.6**
Supervision						6	10.4	15.3	17.2	10.2	16.1	15.8	**91**
Midterm Review *													
Completion												6	**6**
TOTAL		**1.1**	**1.3**	**2.1**	**32.6**	**13.3**	**10.4**	**15.3**	**17.2**	**10.2**	**16.1**	**21.8**	

* Not done.

Table 13: Bank Resources: Missions

Stage of Project Cycle	Month/ Year	No. of Persons	Days in Field	1. Specialized Staff Skills Represented	Performance Rating 3. Impl. Status	Performance Rating 3. Devt. Objs.	2. Types of Problems
Identification	88	NA	NA	NA			--
Preparation	89	NA	NA	NA			--
Appraisal	04/90	3	18	TS,F,EC			--
PLW 4.							
Supervision:							
I	08/91	2	9	HE, TS	1	1	AF
II	05/92	1	7	HE	1	2	AF
III	12/92	2	13	TS,ME	2	1	AF,PM
IV	12/93	2	13	ME,E	2	1	AF,PM
V	05/94	2	28	ME,E	S	HS	AF,PM
VI	09/94	2	18	ME, E	S	U	AF,PM
VII	03/95	2	23	ME, E	S	S	AF,PM
VIII	04/96	1	ongoing	HE	U	S	AF,PM
VIII	06/95	1	ongoing	HE	U	U	PM,STD,PR
X	04/96	1	ongoing	HE	S	U	PM
Completion	01/97	2	ongoing	E,EC	U	U	PM

1. **Staff Skills**
   D= Disbursement specialist; F = financial analyst; EC= economist; L = legal; M = management specialist; P = procurement specialist; HE = highway engineer; TS = transport specialist; ME = municipal engineer; E = engineer.

2. **Type of Problems**
   AF = Availability of funds
   PM = Project Management Performance
   CLC = Compliance with Legal Covenants
   STD = Study delayed
   ENV = Environmental control
   PR = Procurement Delayed

3. **Ratings**

   1/HS = no problem; 2/S =moderate problems; 3/U = significant problems

4. PLW = Project Launch Workshop - not done

APPENDIX A

JAMAICA ROAD INFRASTRUCTURE PLANNING AND DEVELOPMENT PROJECT

(Loan No. 3275-JM)

FINAL SUPERVISION MISSION
February, 1997

AIDE MEMOIRE

1. The final supervision mission of the Road Infrastructure Planning and Maintenance Project (RIPMP) was conducted by Robin Hughes and Robert V. Pulley of the World Bank's Resident Mission. Meetings were held from January 10 to February 21, 1997 with representatives from the Ministry of Local Government and Works (MLG&W), the Ministry of Finance (MOF) and the Planning Institute of Jamaica (PIOJ). The findings and recommendations of this mission are summarized below. The mission wishes to thank these organizations for their cooperation and assistance. This aide memoire is subject to confirmation by Bank management in Washington, DC. Attachment 1 gives the list of the persons met by the mission.

OVERVIEW OF PROJECT IMPLEMENTATION

2. At the request of the Government, the project completion date was extended for an additional six months until December 31, 1996 to complete the remaining civil works and the two major feasibility studies. The implementation of all components is complete but there are issues of project Sustainability that need to be addressed, as discussed in paragraph 14. **The mission recommended that the Borrower prepare and adopt a plan for the Operational Phase of the project that would define the performance indicators to be used to monitor operations and development impact.**

PROJECT MANAGEMENT

3. It is evident that the management systems at the MLG&W improved under the current Project Coordinator although there are still weaknesses that require additional effort. **The Bank will continue its efforts to assist the reform of the MLG&W through the Public Sector Modernization Project (PSMP).**

PROJECT IMPLEMENTATION

Feasibility Studies

4. **Feasibility Study for the Upgrading of the Portmore to Kingston Corridor** - The contract for the study was signed with the consultants, M.M. Dillon, on January 19, 1996 and the consultants submitted their Draft Final Report to the MLG&W for approval in late November 1996. The issue of human resettlement, as raised in the previous supervision mission, was dealt with by incorporating within the consultant's TORs the requirement to produce a resettlement plan. Other extensions to the consultant's TORs included incorporation of a Drainage Study, additional alternative junction arrangements for the Three Mile Roundabout Junction and an extension of the corridor to Spanish Town. See paragraph 20.

5. **Feasibility Study for the Upgrading of the A1 Highway from Spanish Town to St. Anns Bay** - The contract with the successful bidders, Societe Nouvelle Ingeroute (France), was signed on February 7, 1996. The Draft Final Report was submitted by the consultants in early December 1996. The TORs were extended to include an assessment of the financial viability and potential for Private Sector Investment. See paragraph 20.

Civil Works

6. **Overlay Contracts** - This component comprised the rehabilitation and overlaying in asphaltic concrete of approximately 84 kilometers of pre-selected roads in the corporate and rural areas. The works were divided into five contracts and these were all substantially completed by September 1996. **Activities that were not complete before the Loan Closing Date consisted of remedial works and application of carriageway markings during the Overlay Contracts' Maintenance Periods, it was agreed that these activities will not be financed by the Bank.**

7. The original contract sum for the five contracts combined was J$360,443,437.60, of which 80% was to be financed by the Bank. At the time of contract signing (July 1995) the exchange rate was US$1 to J$33, giving an approximate total contract value of US$10.92 million equivalent. The current estimated final contract sum is J$472,200,000.00 which equates to approximately US$13.49 million equivalent, at January 1997's rate of US$1 to J$35. This represents an overall increase of approximately 23%. Some of this increase is due to inflation (escalation in the prices of materials and labor), but the remainder is due to variations in the scope of the works. **Due to the shortage of loan funds it was agreed that the Bank will not be called upon to finance the full extent of the cost overruns.**

8. Following completion of the Overlay Packages the MLG&W indicated that there are ongoing road maintenance site supervision duties, contract document preparation and tender procedures for future overlay packages that will require the

continued employment of consultants O'Sullivan and Graham. As a result, the Ministry stated that it had negotiated an extension to O'Sullivan and Graham's contract which will be financed from Government resources.

9. **Resealing contracts** - The MLG&W had previously requested that the Bank finance three resealing packages for approximately 32 kilometers of roads in the Corporate Area, total value US$1.1 million. **As there was an insufficient balance of Loan funds to finance these contracts the Government financed the work from its own resources. It was agreed that the Government will not request reimbursement for these contracts from the Bank.**

Traffic Management

10. A major program of junction improvements in the Kingston Corporate Area (KCA), financed from Government resources, had been prepared and is now being implemented by the Traffic Management Division of the MLG&W. This program of highway improvements, estimated to cost approximately US$22 million, was prepared in conjunction with Wilbur Smith, the Ministry's Traffic Management consultants. Wilbur Smiths contract came to an end on December 31, 1996 and they have now demobilized. A new consultant has since been employed.

11. The planning of this program of junction improvements was undertaken without the benefit of a comprehensive traffic forecasting model or an up-to-date traffic and land use/development masterplan for the KCA. The Traffic Management Division (with the assistance of Wilbur Smith) created a traffic model using the computer program TRANSPLAN but the model's implementation was substantially delayed due to problems with collection of baseline data. This model was to have been fully operational by the end of June 1996, at which time the deadline was extended to December 1996. The MLG&W has indicated that although the model is essentially complete they do not have the necessary qualified or experienced staff to utilize it to its full potential. The Sustainability of this component is in doubt. **The mission recommended that the MLG&W retain sufficient qualified and experienced personnel as soon as possible to ensure that the traffic model will be used as intended. It was also recommended that the MLG&W and other associated Government agencies, work towards establishing a comprehensive land use/masterplan for the KCA.**

12. A highway improvement scheme that was to have been financed by the Bank, the widening of Hope Road from Matildas Corner (Liguanea) to Richings Avenue is to be re-tendered. The revised start date is currently late 1997 and the estimated works costs are US$3.4 million. **As agreed previously, the work will be financed from Government resources.**

INSTITUTIONAL STRENGTHENING

13. The major thrust of this project was to develop the capabilities and processes within the MLG&W to improve the cost effectiveness of the investment program. Some reorganization was carried out but the MLG&W continued to suffer from an inability to recruit and retain sufficient numbers of qualified technical and managerial staff. This continues to seriously hinder implementation of projects.

14. The closing of the Loan on December 31, 1996 resulted in the departure of the Traffic Management consultants (financed by the Bank) and some thirty plus MLG&W members of staff (financed from Government resources) were given notice that their employment status would be amended to one of the following options: (1) return to the substantive post within the Ministry (along with a drop in salary); (2) apply for an alternative post within the Ministry; or (3) be made redundant. The full impact of the loan closure has yet to be seen, however it is evident that the MLG&W has been heavily dependent on its project staff and consultants and that little preparation has been made to effect a smooth transition to non-project status. The fact that the MLG&W had seen it necessary to retain the existing Road Maintenance consultant, a new Traffic Management consultant (both using Government resources) and that there are no suitable staff within the Traffic Management Division to fully utilize the computerized traffic model, strongly reinforces the view that there has been little sustainable capacity built up as a result of the Technical Assistance component of the loan.

15. One of the objectives of the Bank financed PSMP, which was signed in October 1996, is the strengthening of the MLG&W's core organization. However, the project has still not been declared effective and the consultancy work required to analyze the MLG&W management structure and consequently make recommendations for change is in Phase 2 of the Project - as a result the consultancy work is scheduled to commence in late 1997. **If the MLG&W is to achieve maximum benefit from this proposed institutional strengthening, and hopefully the revamping of its road maintenance financing arrangements (see paragraph 19), it is advised that the consultancy activities are brought forward in the Government's program.**

PROJECT FINANCE

16. Disbursements in the last six months of the project continued to lag behind original projections and disbursement applications were not submitted to the Bank in a timely manner. Disbursements up to December 31, 1996 amounted to US$33.5 million or 96% of the total loan amount of US$35 million. Discussions with the Project Coordinator confirmed that there were sufficient activities completed prior to the Loan Closing Date that will fully utilize the remaining loan proceeds. A further batch of applications, approximate total value US$1.1 million, was received by the Bank at the end of January 1997. **The Bank agreed to keep the Loan Account open until April**

30, 1997 to allow full drawdown of the balance of the Loan. The Borrower agreed to forward all applications for withdrawal to the Bank, for eligible expenditures, before this date. Any balance of the loan that has not been drawn down by April 30, 1997 will be canceled.

17. The poor quality of presentation of Applications for Withdrawal forms continued to delay the processing of claims and a number of applications had to be returned to the Borrower. Additionally, due to concerns regarding the standard of documentation being presented to the Bank for reimbursement using Statement of Expenditure (SOE) procedures, an SOE audit was commissioned by the Bank and the resulting audit report was received in June 1996. The audit report confirmed the Bank's concerns that there were deficiencies in the MLG&W's internal financial management systems and also made recommendations for the improvement of these same systems. **The MLG&W had indicated that these improvements have been implemented, however, the Bank is still awaiting an official response from the Government. It was agreed that the Auditor General would report on the progress of these improvements to the management systems in the annual project audit.**

18. The annual project audit (FY1995/96) was to have been submitted to the Bank no later than September 30, 1996 but at the end of December 1996 the report had still not been received. **The Acting Permanent Secretary of the MLG&W committed himself to presentation of the final report to the Bank before the end of February 1997. However, due to delays at the Auditor General's office the report will not be available until March 14, 1997. The mission reiterated the Bank's concern regarding overdue audit reports and the fact that future projects that are due to be approved by the Bank's Board of Directors, for example the Parish Infrastructure Project, could be delayed until the overdue report is received by the Bank.**

ROAD MAINTENANCE ISSUES

19. The level of routine/periodic maintenance for the 6,800 km of national roads in Jamaica continues to be a cause for concern. The total FY1996/97 expenditure for road maintenance, Capital A projects (Gov. financed), is expected to be US$42.8 million and for Capital B projects (international lending/grants, etc.), US$26.6 million. Although this satisfies the Loan covenant that a minimum of US$24 million per annum should be provided in the Government's budget for periodic and routine road maintenance senior officials in the MLG&W were still of the opinion that this expenditure represents only a small fraction of the road maintenance needs of the country. Until the road condition surveys (to be financed by the European Union and the Inter-American Development Bank) are complete the full extent of the county's needs cannot be accurately quantified. **The mission reconfirmed the Bank's commitment to work with the Government towards the development of sustainable financing arrangements for road maintenance and agreed to provide**

assistance with the holding of a DRMF seminar in Jamaica. This seminar is tentatively scheduled for mid July 1997 and the EU delegation has indicated that it would be willing to participate and to provide resources as necessary.

UPCOMING PROJECTS

20. The two major studies mentioned above are major components of the Road Infrastructure Development Project (RIDE - formerly called the Transport Sector Project) which is currently under preparation by the MLG&W and the Bank. **It was agreed that the Final Reports for the two studies will be formally submitted by the Government, as part of a Project Preparation Report, to the Bank once the internal review process is complete and they have been accepted by the Borrower.** This submission should include, inter alia, a statement of acceptance of the consultants' recommendations, the project financing requirements and a proposed program for advancement to the next stages of the project. It is anticipated that this submission to the Bank will take place by the end of March.

21. The Bank has requested, following discussion with the MLG&W, a Japanese Grant facility of US$0.85 million to finance the next phase of the project preparation and it is anticipated that the funds will be available from early April 1997. This grant will finance the initial phases of the Detailed Design stage of Dillon's and Ingeroute's contracts but there will be a shortfall of approximately US$2 million for the consultancy fees required for the Detailed Design stage. The MLG&W has indicated that a Project Preparation Facility (PPF) will be required to finance this shortfall. **It was agreed that the Bank will proceed with the preparation of the Japanese Grant Agreement documents once grant approval from Japan has been received and the Bank has received a formal request from the PIOJ. The MLG&W confirmed that a request for a PPF had been made to the PIOJ, but to date this request has not been transmitted to the Bank. It was agreed that the MLG&W will follow this up with the PIOJ.**

IMPLEMENTATION COMPLETION REPORT

22. The Bank discussed with the Project Coordinator and the PIOJ the contents and timing of the Borrower's contribution to the Implementation Completion Report and copies of the Bank's reporting guidelines were provided for their information. It was agreed that the Project Coordinator would submit his draft version of the report to the PIOJ by the end of February 1997. **It was agreed that the final report will be submitted to the Bank by April 1, 1997. If this report is longer than 10 pages, a summary not exceeding 10 pages, must be provided.**

For MLG&W: For the World Bank:

Dr. Alwin Hales
Acting Permanent Secretary

Robin Hughes
Task Manager

Kingston, Jamaica, March 12, 1997

Attachment

1

PERSONS MET

Government

Ministry of Finance Mr. Raymond Brooks Deputy Fin.
Sec.
and Planning
Planning Institute of Mr. Orville Simmonds WB Desk Officer

Jamaica
Ministry of Local Government Dr. Alwin Hales Acting Per.
Sec.
and Works Mr. Dennis Chong Dir. of
Major Projects
Mr. Peter Schroeter Dir. of
Maint.
Mr. Horace Sutherland Project
Coordinator
Mr. Williams Principle.
Fin. Officer
Mr. Keaton Morgan Road
Safety Officer

Lending/Donor Agencies

European Union Delegation Mr. Richard Wilkinson Technical
Advisor
Inter American Development Bank Mr. James Campbell Sector
Specialist
Local Mission

Consultants

O' Sullivan and Graham Mr. Alan Machray Country
Manager
Wilbur Smith and Associates Mr. Andrew Hayes Country
Manager
M.M. Dillon Ltd. Mr. Chris Dunham Project
Manager
Ingeroute Mr. Robert Jeancenelle Project
Manager

APPENDIX B

BORROWER'S CONTRIBUTION TO PROJECT IMPLEMENTATION COMPLETION REPORT (ICR)

INTRODUCTION

The Ministry of Local Government and Works (MLG&W) is the agency of Government charged with the responsibility for upgrading and maintaining all public roadways and bridges throughout the island and for the provision of traffic management systems. During the latter part of the eighties, the Ministry, with assistance from the World Bank, developed a Five Year Infrastructure Investment Program (FYIIP). This was a rolling program from which projects to be financed for subsequent years were compiled. Out of this FYIIP, the Road Infrastructure Planning & Maintenance Project (RIPMP) was formulated. A loan of US$ 35.0 million for financing part of the RIPMP with a total cost of US$50.316 million was signed with the Bank in December 1990.

The overall objectives of the project were to strengthen the institutional capabilities of the Ministry to plan, manage and maintain the road infrastructure and to improve road safety.

The project consisted of three components:

1 Institutional strengthening

2 Road infrastructure investment - construction, upgrading and rehabilitation

3 Traffic Management Program - Road Safety

The overall performance of the project could be considered unsatisfactory when rated against its stated objectives. Notwithstanding this rating, the project has partially assisted the Ministry of Local Government and Works in strengthening its capacity to plan and manage the road infrastructure as evidenced by the *overlaying and resealing of roads, traffic management, procurement of equipment* and improvement in human resources development. The weaknesses of the project were mainly due to deficiencies in project management and the uncompetitive compensation in the Ministry of Local Government and Works which aided a high level of staff attrition.

The project was designed with a flexible infrastructure investment component to allow the implementing agency to decide over time, the specific operations to be included under this component. Though this had some advantages, it created an *ad hoc* approach to investment planning, resulting in difficulties in monitoring and evaluation.

PROJECT IMPLEMENTATION - ACHIEVEMENTS

1. Institutional Strengthening:

The main focus of this component was the development of capabilities within the Ministry to improve the cost effectiveness of the investment program. The major reorganization within the Ministry was the formation and staffing of the Directorate of Major Projects in 1993. It is envisaged that remaining institutional weaknesses will be addressed under the Public Sector Modernization Project being funded by a consortium of lending agencies, including the Bank.

In the area of training, the focus was on development of the human capital aimed at strengthening the performance capabilities of the Ministry. Training was an integral part of the Technical Assistance and its main limitation was the unavailability of counterpart staff in required numbers. The schedule of staff training indicated that 8,900 of the Ministry's staff were to be trained. Of this amount 7,000 were employed under the lengthman system, but only 800 or 11 percent received training. This serious shortfall will impact negatively on the Sustainability of the Ministry's maintenance program. Fifteen of the seventeen senior staff scheduled for overseas courses and study tours participated. Areas of training were in computing, soil investigations, traffic management and technician courses. The exposure gained from training has impacted positively on the human resources capabilities of the Ministry.

A number of systems - largely computer based - were developed and these enabled the Ministry to co-ordinate the implementation of projects. This was achieved largely through the Technical Assistance component within which the Road Maintenance Engineers and Traffic Maintenance Consultants were engaged.

Procurement activities included items of equipment which had a positive effect on the Ministry's ability to manage the road sub-sector. The main procurement items were computers and computer accessories and vehicles, particularly for project supervision. Various items of equipment were acquired by the traffic branch. These included:

a) Traffic Signals
b) Road marking equipment
c) Road Scrubbers
d) Pavement Cutters
e) Roughness Wheels, etc.

The road related equipment was particularly important in sustaining the Ministry's capability to improve road standards and traffic management.

1. Civil Works:

Substantial achievements were made under this component of the project resulting in positive impact on road improvement. The areas of significance were :

i) **Routine Maintenance**: A program of routine maintenance was put in place in all the parishes - largely through the use of a lengthman system. Under this program the maintenance work on the islandwide network was significantly improved. The Technical Assistance component contributed significantly to the implementation capacity of the Ministry in effecting cost savings and periodic road maintenance measures.

ii) **Rehabilitation and Upgrading**: A program of rehabilitation and upgrading of a number of roads throughout the island was implemented. Contracts to overlay 85 kilometers of pre-selected roads were accomplished. In 1995 three contracts were awarded to reseal 32 kilometers of roads in the Corporate Area. However, due to insufficient balance of loan funds these contracts were financed from government resources.

The main areas of concern with the civil works component were :

iii) The failure to provide adequate numbers of counterpart staff as works overseers to the foreign consultants, thereby constraining the transfer of technology.

iv) In some instances the flow of budgetary resources to the project was slow, impacting negatively on project implementation.

The flexibility of the project in procurement procedures facilitated greater use of local contracts thereby strengthening the local capacity to implement road infrastructure projects.

3. Road Safety:

The focus under this component was traffic management. A number of systems were developed and implemented over the final two years of the project. The Liguanea to Half-way-Tree and Three Miles systems have significantly improved traffic flows in the respective areas.

The study on road safety maintenance which was a component of the project was carried out through technical and economic assistance from another international agency with the concurrence of the Bank. The study was an important management tool for the Ministry in the establishment of the Road Safety Unit within the Ministry, utilizing project funds.

A significant contribution of the road safety component was a major program of junction improvements in the Corporate Area. It can be said that these traffic signs have contributed to a reduction in road accidents in the Corporate Area.

PROJECT IMPLEMENTATION - WEAKNESSES

An aspect of the project design was to identify and prioritize a pipeline of investment projects to be funded by lending institutions. Projects for funding would coincide with the priority listing. The main weaknesses with this modality were twofold: firstly, the lending agencies were scheduled to meet annually for donors' meetings where the decision on financing of specific projects would be taken. Only one meeting was held during the life of the project. Secondly, the funding priorities of the other international agencies were varied and might not have coincided with the projects being offered in the sector for priority financing. This made the process less effective.

During implementation, the lack of staff in sufficient numbers at all levels of the project management hierarchy (and generally within the Ministry) limited the achievement of project objectives. At the end of project implementation, the Ministry was marginally in better position to efficiently manage the investments in the road sector than it was at commencement. Although strategies were developed during implementation to enhance performance, the level of technical and non-technical persons required to effectively implement these strategies was not realized. Although training at the management level was satisfactory, because of uncompetitive remuneration staff attrition was noticeable. The Ministry is cognizant of this shortcoming and plans are being developed to address this problem. However this is likely to be accomplished in the medium term.

There seems to have been no real insistence on the part of the Bank to ensure that the Borrower complied with the loan covenants. In the earlier years of implementation this seemed not to be an issue, for although compliance was often late there was reporting. During the mid years reporting was non-existent.

There was no compliance with loan covenants and no explanation was provided to the Bank. Project Audits were submitted up to one (1) year late. **Compliance was improved in the latter years as the project benefited from the Quarterly Review Meetings instituted by the Planning Institute of Jamaica and the Bank. The assignment of a Resident Task Manager by the Bank also had a positive effect on issues relating to implementation.**

BANK'S AND BORROWER'S PERFORMANCE

Borrower: The Ministry commenced the implementation of the project satisfactorily. A Project Coordinator was appointed before the commencement of the project. Under his guidance the project seems to have been properly managed. Quarterly reports were prepared which paid special attention to compliance with loan covenants as well as to the physical and financial performance of the project. After two years in implementation the Project Coordinator resigned. Over the next eighteen months there was not a dedicated project Official appointed to oversee the project, hence coordination of the sub-components was absent. There are no comprehensive documented reports of the project activities during that period. There is no indication that any management meetings for the project were held during that period and no attention was paid to the compliance with loan covenants. During the final two years of the project a Coordinator was contracted. There is evidence that efforts were made to correct errors over the previous period of poor management.

Bank: During the implementation of the project the Bank appointed five (5) Task Managers. There was significant loss of continuity in the supervisory aspect on the part of the Bank over the life of the project. Supervision missions were infrequent and as such the Bank was not able to institute the required feedback mechanisms to effectively supervise the project. The appointment of a local Task Manager during the final eighteen months of the project contributed to improvements in the implementation process.

PROJECT SUSTAINABILITY

Government is committed to the Sustainability of the gains achieved under the project. This is demonstrated by the plans for financing road maintenance and construction projects in the sector, utilizing cost recovery modalities. In terms of institutional strengthening, the Ministry of Local Government and Works is scheduled to benefit under the Public Sector Modernization Program.

URBAN TRANSPORT

During the latter part of 1992 the Kingston Urban Transport Project (KUTP) loan was amended to facilitate the participation of the private sector in the transport sector. On closure of the KUTP in 1993, two components were transferred to RIPMP viz, the Transport Sector Study and feasibility study for a toll road from Spanish Town to Saint Ann's Bay and the implementation of the recommended franchise rationalization. The two feasibility studies are completed and await Government's signaling its non objection to the advancement of these to the design stage. The development of these projects will have a positive impact on road development.

There were two (2) sub-components under the consultancy for the Transport Sector Study:

1: a comprehensive review of all roads transportation

2: the implementation of a rationalized bus system

A number of recommendations came out of these studies :

1 Strengthening of the staff of the Ministry of Public Utilities & Transport (MPU&T) and the Transport Authority

2 All Transport services to be provided by the private Sector with no Government subsidy

3 Government to maintain a business environment conducive to encouraging long term private investment in the transport sector,

The results of these recommendations, which have been implemented in varying degrees, were :

1. The bus franchise rationalization

2. Partial strengthening of the Transport Authority

3 .. Strengthening of MPUT through the provision of thirty-two (32) man-months of a transport Specialist

4. Divestment of the National Airline.

5. Serious efforts to divest the Railway System and to fully privatize the Island Traffic Authority

The rapid process of privatization being implemented in the economy is a paradigm shift which impacted negatively on the rate of changes especially in the transport sector. Government is cognizant of its role in facilitating the transition of sector to private entrepreneur and has instituted appropriate measures to reduce the obstacles.

LESSONS LEARNED

1. Project Design

The project design, while flexible, is flawed to the extent that accountability and coordination on the part of the Borrower were not adequately planned. This resulted in lapses in the reporting and compliance procedures to the Bank and local authorities. In the final analysis it was difficult to track the progress of the project effectively. In the design of future projects this flexibility should not be ruled out, however effective systems should be put in place to prevent a repeat of the accountability and coordination questions raised in this project.

2. Project Management

Proper project management is a basic requirement for the implementation process. The non-existence of such a requirement for eighteen months was undesirable and should not have been allowed. Under such conditions a poor performance in implementation is inevitable. Government and the Bank should be cognizant of the above issue in the management of future projects. The area of project management will be addressed under the Public Sector Modernization Project.

3. Supervision

Consistency in Bank supervision is an important element in project implementation. In this regard the Bank failed to provide proper supervision. The changing of five Task Managers during the period of implementation had a negative impact on the project being brought to fruition. The Bank should be aware of its supervision role in the implementation process of future projects.

The recently instituted Quarterly Review Meeting by the Planning Institute of Jamaica will provide an early alert mechanism for corrective measures to be taken where such lapses arise in the implementation of future projects.

Planning Institute of Jamaica
1997, June

IMAGING

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