

AFRICAN DEVELOPMENT BANK GROUP



GAMBIA

ROADS REHABILITATION

Project Performance Evaluation Report (PPER)

**OPERATIONS EVALUATION DEPARTMENT
(OPEV)**

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EQUIVALENTS AND ABBREVIATIONS

Currency Equivalents

The Gambia Currency Unit	:	Dalasi (GMD), GMD 1.00 = 100 Bututs
1 UA =GMD 10.5876	Oct.-Dec.	1989(Appraisal)
1 UA =GMD 11.0694	Apr.-June	1991(Consultant mobilises)
1 UA =GMD 12.0939	Oct.-Dec.	1991(Commencement of Works)
1 UA =GMD 14.3244	March	1995(First Disbursement)
1 UA = GMD 13.8218	July	1997(Subst. compl. Ph. II)
1 UA =GMD 13.8218	October	1998 (Last Disbursement)

Weights and Measures

1 metric ton (t)	=	2.205 lb.
1 kilogram (kg)	=	2.2 lb.
1 metre (m)	=	3.28 ft
1 foot	=	0.305 m
1 kilometre	=	0.621 mile
1 mile	=	1.609 km
1 square kilometre (km ²)	=	0.386 square mile
1 hectare (ha)	=	0.01 km ²

Fiscal Year

1st July - 30th June

ABBREVIATIONS

AADT	Average Annual Daily Traffic
ADT	Average Daily Traffic
ADB	African Development Bank
ADF	African Development Fund
ADI	African Development Institute
CBR	California Bearing Ratio (a test measurement of the load bearing capacity of soils)
CFTC	Commonwealth Fund for Technical Co-operation
CIDA	Canadian International Development Agency
CSE	Compagnie Sahélienne d'Entreprise
DoSA	Department of State for Agriculture
DoSFEA	Department of State for Finance and Economic Affairs
DoSWCI	Department of State for Works, Communication and Information
DTS	Department of Technical Services
EIRR	Economic Internal Rate of Return
ERR	Economic Rate of Return
FE	Foreign Exchange
GAMECS	Gambia Engineering Consultancy Services
GDP	Gross Domestic Product
GNP	Gross National Product
GoTG	Government of The Gambia
GUC	Gambia Utilities Corporation
IRI	International Roughness Index
LC	Local Currency
NTF	Nigeria Trust Fund
PAR	Project Appraisal Report
PCR	Project Completion Report
PPF	Project Preparation Facility
PIU	Project Implementation Unit
PPER	Project Performance Evaluation Report
TA	Technical Assistance
TAF	Technical Assistance Fund
TAMS	TAMS Consultants, Inc.
TOR	Terms of Reference
UA	Unit of Account
UNDP	United Nations Development Programme
VOC	Vehicle Operating Costs
VO	Variation Order
VPD	Vehicles Per Day

PREFACE

1. This Project Performance Evaluation Report (PPER) is concerned with the performance of the Roads Rehabilitation Project in The Gambia, which comprised four components, namely (i) two sections of the bitumen paved South Bank Road from Kuloro to Faraba Banta, and Sanianga to Killy, (ii) the Brumen Bridge along this road, (iii) the Bund Road carrying heavy traffic in and out the Banjul port, and (iv) phases I and II of Banjul streets including pavement, drainage and side-walks.
2. On 22 November 1989, ADF Loan N° F/GAM/ROD/89/15 in the amount of UA 14,506,572.64 was approved for the project. The first disbursement was made on 13 March 1995 fifteen months after the substantial completion of the appraised works, and the last disbursement on 19 October 1998 fifteen months after completion of the Banjul Streets Phase II works. The Loan was used to finance rehabilitation and reconstruction works under the project components.
3. The project components were completed at different dates between November 1993 and October 1997. The Brumen Bridge and the South Bank Road sections were entirely opened to traffic by the end of 1993. The Bund Road was completed at the beginning of 1994. Phase I of the Banjul streets was delayed until July 1996 and Phase II was completed in October 1997. The Project Completion Report was prepared, following a mission to The Gambia in February 1998.
4. Three project components were successfully implemented. However, the field inspection showed that component (i) on rehabilitation of two sections of the South Bank Road has recently undergone structural failure because of poor workmanship. This component cannot be considered to have been successfully implemented and the project cannot therefore be considered to have attained all its objectives. The principal objectives of the project were to: (i) improve and protect the vital primary road link between the south-western agricultural areas of the country and the main marketing and population centres in the west near Banjul; (ii) improve access to and circulation within the capital city and primary commercial centre of Banjul in order to support continued economic development; and (iii) enhance the economic recovery programme of the country by reducing vehicle operating costs. Objectives (i) and (iii) were not fully attained.
5. The PCR has narrated and covered in broad terms the implementation experience on this project. This evaluation report looks deeper into this experience as well as other issues of the completed project. The evaluation report therefore clarifies, amplifies and complements the findings in the PCR. While this report accepts the lessons given in the PCR, it nevertheless provides a set of additional lessons which are designed to enhance the effectiveness of Bank Group financed projects in The Gambia and in other member countries of the Bank.
6. The evaluation report is a result of a post evaluation mission undertaken from 14 to 29 March 1999. The information contained herein is based on discussions with The Gambia Government officials, visits to the project sites, information from the appraisal and PCR reports, and from project documents and Bank files. The draft of this report was submitted for comments to the relevant operational departments of the Bank and to the Borrower; comments received were taken into account in the final version of the report.
7. The overall assessment in both the PCR and this evaluation report shows an unsatisfactory project performance outcome.

BASIC PROJECT DATA

1. Country: The Gambia
2. Project name: Roads Rehabilitation Project
3. Loan Number: F/GAM/ROD/89/15
4. Borrower: Government of The Gambia
5. Beneficiary: Government of The Gambia
6. Executing Agency: Department of Technical Services of the
Department of State for Works, Communication and Information

A. BASIC LOAN DATA

	<u>Appraisal Estimate</u>	<u>Actual</u>
1. Amount (UA million)	14.507	14.477
2. Amount cancelled (UA million)	n. a.	0.029
3. Interest Rate (% annum)	nil	---
4. Service Charge (per anum)	0.75 %	---
5. Repayment Period (years)	50	---
6. Grace Period (years)	10	---
7. Loan balance (UA million)	---	0.029
8. Loan negotiation Date	---	18 October 1989
9. Loan approval Date	---	22 November 1989
10. Loan Signature Date	---	4 December 1989
11. Loan Effectiveness Date	---	25 April 1991

B. PROJECT DATA

					<u>Appraisal Estimate</u>	<u>Actual</u>		
1. Total Cost (UA Million)					16.11	16.08		
2. i) FE Component (UA million)					14.36	14.47		
ii) LC Component (UA million)					1.75	1.61		
3. Financing Plan (UA million)								
	<u>FE</u>	<u>LC</u>	<u>Total</u>	<u>%</u>	<u>FE</u>	<u>LC</u>	<u>Total</u>	<u>%</u>
ADF	14.36	0.15	14.51	90	14.47	0.01	14.48	90.0
GoTG	-	<u>1.60</u>	<u>1.60</u>	<u>10</u>	-	<u>1.61</u>	<u>1.61</u>	<u>10.0</u>
	<u>14.36</u>	<u>1.75</u>	<u>16.11</u>	<u>100</u>	<u>14.47</u>	<u>1.61</u>	<u>16.08</u>	<u>100.0</u>
4. Deadline for First Disbursement					---	4.12.1991		
5. Effective Date of First Disbursement					July 1990	18.7.1991		
6. Deadline for Last Disbursement					1.3.1994	30.11.1997		
7. Effective Date of Last Disbursement					---	19.10.1998		
8. Commencement of Implementation (Consultant appointed)					1.7.1990	3.4.1991		
9. Commencement of Construction					1.3.1991	3.12.1991		
10. Completion of Works					1.3.1993	July 1996		
11. Completion of Phase II of Banjul Streets					May 1996	15.10.1997		
12. End of maintenance period					1.3.1994	15.10.1998		

C. PERFORMANCE INDICATORS

1.	Cost overrun	nil	
	Cost underrun	UA 0.029 million	
2.	Time overrun	40 months	
	Slippage on effectiveness	17 months	
	Slippage on first disbursement	12 months	
	Slippage on last disbursement	55 months	
	Number of extensions of last disbursement	4	
	Slippage on start-up of works	9 months	
	Slippage on completion of works	40 months	
	Slippage on completion of Phase II works	58 months	
3.	Project Implementation Status	Completed	
4.	Implementation Performance	Unsatisfactory	
5.	Bank Performance	Unsatisfactory	
6.	Project Outcome	Unsatisfactory	
7.	EIRR	16.9 %	2.4 %

D. MISSIONS

Type	N° of Missions	Date	N° of Persons	Man Weeks
Identification	0	-	-	-
Preparation	1	July 1986	1	1.5
Appraisal	1	29.7-17.8.1989	2	2.0
Follow-up	1	Oct. 1990		
Supervision	3	Jan. 1991	2	4.5
		17.7.-2.8.1992		
		17.3-4.4.1997		
Completion (PCR)	1	Feb. 1998	2	4.0
Post-evaluation (PPER)	1	March 1999	2	3.5

E. DISBURSEMENT (UA million)

	<u>Appraisal</u>	<u>Actual</u>	<u>%</u>
Total Disbursement	14.507	14.477	99.8
Undisbursed Balance	-	0.030	0.2
Amount cancelled	-	-	-

Annual Disbursement (UA million)

	<u>Appraisal</u>	<u>%</u>	<u>Actual</u>	<u>%</u>
1990	0.074	0.51	0	0.00
1991	8.197	57.01	0.227	1.56
1992	5.425	94.41	5.376	38.62
1993	0.811	100.00	3.988	66.11
1994			2.478	83.19
1995			0.841	88.99
1996			1.138	96.84
1997			0.015	96.94
1998			0.414	99.79
	<u>14.507</u>	100.00	<u>14.477</u>	99.79

F. CONTRACTOR

1. Name : Compagnie Sahélienne d'Entreprise (CSE)
 2. Responsibility : Execution of the Construction Works

	<u>Appraisal</u>	<u>Actual</u>
3. Date Contract Signed :	1 February 1991	28 November 1991
4. Date of Commencement	1 March 1991	3 January 1992
5. Date of Completion	1 March 1993	June 1996
Completion including Phase II	-	October 1997
6. Duration of Contract	24 months	54 months
Duration including Phase II	-	70 months
7. Amount of Contract (UA million)	10.78	13.016
8. End of Maintenance Period	1 March 1994	July 1998

G. CONSULTANT

1. Name : TAMS Consultants, Inc.
 2. Responsibility : Design review and construction supervision

	<u>Appraisal</u>	<u>Actual</u>
3. Date Contract Signed	1.7.1990	3.4.1991
4. Date Contract Completed	31.3.1993	September 1997
5. Contract duration	33 months	77 months
6. Amount of Contract (UA)	0.857	1,597

H. BANK GROUP FINANCED PROJECTS IN THE TRANSPORT SECTOR

	<u>Name of Project (funding)</u>	<u>Source Amount</u> (UA million)	<u>Date of</u> <u>Approval</u>	<u>Project</u> <u>Status</u>
(1)	Yundum Airport II completed	NTF	2.00	28.10.1976
(2)	Banjul - Serrekunda Highway completed	ADB	3.90	29.8.1979
(3)	Yundum Airport IV completed	NTF	4.50	27.4.1982
(4)	Banjul Port I completed	ADB	6.982	22.6.1982
(5)	Banjul - Serrekunda Highway Suppl. completed	ADB	2.109	22.5.1989
(7)	Roads Rehabilitation completed	ADR	14.507	27.11.1989
(6)	Institutional Support to DoSWCI and Essaw - Farafeni Road completed	TAF	2.763	30.10.1991
(7)	Banjul Port II on going	ADF	16.00	14.12.1993
	Total of financing		52.761	

1. EVALUATION SUMMARY

1.1 Project Objectives and Scope

1.1.1 The Roads Rehabilitation Project resulted from the combination of road and bridge rehabilitation components with Banjul streets reconstruction following a direct request of the GoTG to the Bank. The road and bridge components were originally identified under IDA's Second Highway Maintenance Project. Feasibility studies were available for the South Bank Road, the Brumen Bridge and the Bund Road. Detailed engineering designs were later prepared for the Banjul Streets and the Brumen Bridge.

1.1.2 The principal project objectives as stated at appraisal were to:

- (i) improve and protect the vital primary road link between the south-western agricultural areas of the country and the main marketing and population centres in the west near Banjul;
- (ii) improve access to and circulation within the capital city and the primary commercial centre of Banjul in order to support continued economic development; and
- (iii) enhance the economic recovery programme of the country by reducing vehicle operating costs.

1.1.3 The project was highly relevant and consistent with the development needs of the country and with the Bank's strategy in The Gambia. The project was an important contribution for the development of a trunk road network in order to integrate the country and create basic conditions for economic development. It represents one of the contributions of the Bank to the development of the transport sector.

1.1.4 The two sections of the South Bank Road were rehabilitated, but were not conveniently protected against functional distress, low serviceability levels and anomalous increase of vehicle operating costs, while the Brumen Bridge, the Bund Road and the Banjul Streets appear to have been more successful in contributing to the fulfilment of project objectives. Therefore the project cannot be considered to have attained all its objectives. Objectives (i) and (iii) were not fully attained.

1.2 Project Implementation

1.2.1 Seventeen months elapsed between the approval of the loan and its effectiveness. There was a delay of 16 months from the date the loan was signed to the date the loan became effective. This delay was due to the inability of the Borrower to fulfil in time some of the conditions precedent to the first disbursement, namely the condition on annual budget allocations to meet its share of the project cost, and the conditions on staff assignment to act as Project Co-ordinator and recruitment to serve as long term technical assistants and train national counterpart staff.

1.2.2 A comparison between the appraisal and actual implementation schedules for the project shows a delay of 9 months between the dates of start up of the appraisal and actual schedule, and a 40 months delay between the completion dates. Construction works were therefore delayed for 31 months, even if the Phase II of Banjul streets is not considered. Inclusion of Phase II of Banjul streets increases the delay in construction to almost 47 months.

1.2.3 Many design changes were effected during construction (section 3.1). These changes are signs of both weaknesses inherent in the available design documents and fluctuation of opinions and hesitancy of the parties.

1.2.4 Procurement of goods and services was carried out by the Borrower according to the Bank rules of procedure.

1.2.5 At appraisal, the project cost was estimated at UA 16.11 million, net of taxes; the actual cost of the completed project was UA 16.08 million. The ADF Loan was UA 14.507 million and the actual disbursement was 14.477, or 99.79%, leaving an unused balance of UA 0,030 million that was cancelled. Financial management during construction was satisfactory and did not originate cost overrun in spite of design changes and additional works.

1.3 Compliance with Loan Conditions and Covenants

1.3.1 All loan conditions were fulfilled. The GoTG gave several undertakings under different loan conditions but was actually unable to implement some of these. Thus undertakings given under “other conditions” (i) on adequate budgetary allocations for routine and periodic maintenance and (ii) on regular collection of traffic data, still require appropriate implementation.

1.3.2 Regarding the requirement for adequate budgetary provisions to allow for routine and periodic maintenance works on the entire road network and each of the project roads and bridge, it is recognised that budget allocations do not cope with actual needs. Routine maintenance of the project roads and bridge has been neglected and the situation of the South Bank Road is critical.

1.4 Institutional Aspects

1.4.1. At the beginning of project implementation, the Department of Technical Services was facing serious staffing problems. The appointment of the counterparts and project coordinator delayed loan effectiveness. A Project Implementation Unit (PIU) was set up by the Consultant.

1.4.2. The Bank funded a project on institutional support to the transport sector from November 1994 to December 1998. However, one of the most critical problems in Department of Technical Services still remains the capability of Government to attract and retain national staff. This capability determines institutional continuity and safeguarding of the benefits of the technical assistance.

1.4.3. The Government of The Gambia is proceeding with the establishment of a Road Fund and a Road Authority and is taking positive steps towards the implementation of both institutions.

1.5 Project Impact

1.5.1 The project had an important socio-economic impact for the rural inhabitants of the South Western Bank including women farmers. Its components include an important main road and bridge whose impact on the South Western Bank reaches far to the east. The combined South Bank Road, Banjul - Serrekunda Highway and Bund Road constitute the primary trunk road of the South Bank. This trunk road is critical for the existing and planned feeder road networks, which are intended to improve marketing with increased farm production and food security.

1.5.2 The project also had an important socio-economic impact for the inhabitants of the urban centres near Banjul including women engaged in commercial activities. The Banjul streets component had a positive impact on sanitation for the urban population and created better conditions for education, commercial activities and the country’s re-export business.

1.5.3 There was no environmental impact assessment study for the project road but environmental considerations played an important role in design and negative impacts on soils and water were carefully minimised during construction and for the design life of the road.

1.6 Performance Evaluation

1.6.1 Following the opening of the roads and bridge by the beginning of 1994 and the streets up to July 1996 for Phase I and October 1997 for Phase II, some increase in traffic volumes was noted. Estimated traffic growth rates are, on average, 2% for rural roads and 3% for urban areas.

1.6.2 The EIRR calculated at appraisal on the basis of the feasibility study and detailed design was 16.9%. This is to be compared with 15.0% and 12.4% obtained respectively in the PCR and in this PPER. The value of the EIRR is decreasing from appraisal to post-evaluation as a result of low traffic growth rates, increased vehicle operating costs on the South Bank and Bund roads and additional resealing works urgently required by the functional failure of the South Bank Road.

1.6.3 A Project Implementation Unit was set up by the Consultant and assisted the Government's Project Co-ordinator and the Consultant's team. It performed satisfactorily during project implementation but its files and documents on the project could not be traced in Banjul.

1.6.4 The performance of the Contractor can be considered satisfactory as far as construction of the Brumen Bridge is concerned. However, it was unsatisfactory during the works of the South Bank Road where poor workmanship and incompetence have resulted in early functional failure. The Contractor was apparently ill-prepared to handle city street construction and the Banjul streets works resulted in extended delays, more than doubled construction time and long lists of defects and repairs at substantial completion. The Bund Road required repairs during the maintenance period and the surface of patching represents 1 % of the total pavement surface.

1.6.5 In addition to the supervision of the works and financial contract management which was satisfactory, the performance of the Consultant for procurement activities was also satisfactory. In spite of inadequate design before tendering (South Bank and Bund roads) and short delays for design review, the Consultant strove to solve unforeseen technical problems and, at the same time, keep costs under control. Many changes were made during design review and 28 variation orders issued thereafter. Some of these changes resulted in technical improvements but others not, and a few changes resulted in unnecessary additional costs. Overall, the performance of the Consultant was satisfactory.

1.6.6 With regard to the overall administration of the project, the Borrower and the Executing Agency were not particularly effective as they were slow in fulfilling the loan conditions and processing payments.

1.6.7 The Bank did not participate in project identification. As soon as the loan application was received, the Bank sent one mission in July 1986 for project preparation and another mission for project appraisal in July - August 1987. Project preparation from 1987 to 1989 was satisfactory as far as the Banjul streets and the Brumen Bridge component were concerned but appears to have been neglected for the road components. The Bank was effective in providing guidance to the Executing Agency in order to support project implementation and in replying to submissions by the Borrower and Executing Agency without unnecessary delays. The Bank effected one follow-up mission at the begin of project implementation but only three supervision missions. The performance of the Bank under this project was not satisfactory.

1.7 Project Sustainability

1.7.1 The present unsatisfactory state of maintenance of the project roads, bridge and streets and the road network as a whole is the factor which may harm project sustainability. In this respect the situation of the South Bank Road is critical and the two rehabilitated sections show extensive distress and signs of functional failure.

1.7.2 However, prospects for improvement of road maintenance in The Gambia appear to be improving and the Government is expected to take decisive action under the National Transport Plan, 1997 - 2006. An essential step will be the implementation of both the highway authority and a dedicated road fund.

1.8 Conclusions, Feedback and Recommendations

1.8.1 Conclusions

The present report accepts the conclusions of the PCR (section 9.1. of this report) with the additions stated below:

- (i) The project was relevant and consistent with the economic development strategy of The Gambia, the Bank's strategy for the country and the Bank's missions and goals.
- (ii) The project has not met all its main objectives. Objective (ii) on improving access to and circulation within the capital city and primary commercial centre of Banjul in order to support continued economic development can be considered to have been attained. However, objective (i) on improvement and protection of the vital primary road link between the south-western agricultural areas of the country and the main marketing and population centres in the west near Banjul, and objective (iii) on enhancing the economic recovery programme of the country by reducing vehicle operating costs have not been entirely met.
- (iii) In spite of changes and additions made during implementation, the actual project cost was slightly lower, or 99.8% of its appraised cost estimate but the EIRR decreased from 16.9% at appraisal to 12.4 % at post-evaluation as a result of more realistic traffic forecasts and early functional failure of the South Bank Road sections as well as incipient functional failure of the Bund Road.
- (iv) In spite of the design changes during construction, the project components were generally completed according to the required technical standards and main design characteristics. However, poor workmanship resulted in many repairs during the maintenance period particularly along the Bund road and in early functional failure of the South Bank Road.
- (v) The implementation of the project experienced considerable delays which caused a time overrun of 40 months. The length of the construction phase was 31 instead of 24 months for Phase I and an additional 16 months for Phase II works of Banjul streets.
- (vi) The Department of Technical Services as the Executing Agency for the Project performed satisfactorily in overseeing project execution with the assistance of the PIU.
- (vii) The Bank's performance is on the whole rated as short of satisfactory, because the Bank should have been more effective and active during the preparation and supervision stages.
- (viii) The reconstruction of Banjul streets certainly had a positive impact in the living conditions and the commercial activities of the city. The reconstruction and widening of the Brumen Bridge improved the road link between the southern agricultural areas of the country and the great Banjul urban area and the rehabilitation and widening of the Bund Road also improved the connection of that link with the Banjul Port. However, the project failed to improve the link itself.

Only two sections of the South Bank Road were rehabilitated and widened. The rehabilitated sections underwent premature deterioration following poor workmanship of the seal coat and vehicle operating costs are very high along this road.

- (ix) The roads, bridge and streets have not received adequate routine maintenance and the South Bank Road displays extensive functional failure.
- (x) The overall assessment shows unsatisfactory project outcome.

1.8.2 Lessons

The following lessons can be drawn out of the project:

- (i) Implementation schedules do not appear to be monitored step by step and target dates are hardly respected. The parties, namely the Borrower and the Bank do not appear to be very concerned by time effectiveness (section 3.3 of this report).
- (ii) Economic and engineering feasibility studies cannot replace the detailed engineering design which is an essential phase for preparing appropriate tender documents: construction works cannot be tendered on the basis of feasibility studies because at this level of project investigation design assumptions cannot be based on substantial evidence and costs cannot be evaluated with satisfactory accuracy. Updating of cost estimates when required often results in unnecessary design review. (section 3.2 of this report).
- (iii) Inappropriate, unrealistic, or onerous conditions, when established as conditions precedent to first disbursement, can lead to delays in declaring a loan effective. Once again in this project, procurement of technical assistance by the Borrower was the cause of delays in loan effectiveness (sections 3.1 and 3.8 of this report).
- (iv) Unnecessary design reviews, additional studies and design changes reflect professional staff weakness of the Executing Agency and poor supervision by the Bank (section 3.2 of this report).
- (v) Poor workmanship may result in extra maintenance costs and curtailed project benefits (sections 4.1 and 4.3 of this report).

1.8.3 Recommendations

The following recommendations are formulated for the consideration of the Government and the Bank:

For the Government

- (i) The Government should intensify its efforts in acquainting itself with and enforcing Bank's Rules of Procedure for Procurement and also with some standard loan conditions such as the provision of legal opinion and annual audited financial reports. In any case, the Government should be required to respect the target dates now in force concerning loan signature and loan effectiveness (section 3.1 of this report).

- (ii) In order to avoid or minimise design modifications during construction, sufficient time and resources should be allowed for detailed engineering design and senior engineers should be assigned to supervise and scrutinise the work of design consultants (section 3.2 of this report).
- (iii) The Government should strive to reduce delays in processing disbursement applications through its own administration (section 4.7 of this report).
- (iv) The Department of Technical Services should ensure that routine maintenance of the project components is undertaken as soon as possible (chapter 5 of this report).
- (v) Routine maintenance programmes for the Banjul streets should include provision for adequate cleaning of the drainage system (section 4.1.8 of this report).
- (vi) The Department of Technical Services should ensure that patching and appropriate resealing of the two sections of the South Bank Road be programmed not later than year 2000 (section 4.1.3 of this report).
- (vii) Maintenance engineers should regularly inspect and timely repair any erosion damage that could occur along the South Bank Road and the embankments of the Brumen Bridge (section 4.1.4 of this report).

For the Bank

- (i) The Bank should always be satisfied with project identification and preparation before deciding to appraise a project in order to avoid duplication of design resources and hesitancy on basic concepts and important details (section 3.2 of this report).
- (ii) Technical issues should always be resolved and clarified at preparation, before appraisal rather than having additional investigations and design reviews carried out by consultants selected for construction supervision (section 3.2 of this report).
- (iii) During the project preparation stage, the Bank should always allocate sufficient time and resources for engineering detailed design and should not accept tendering of construction works based on economic and engineering feasibility studies. Cost evaluation updating should not be considered as a sound basis for tendering if the engineering investigations and studies were not detailed and comprehensive (section 3.2 of this report).
- (iv) The Bank should closely supervise and/or check the adequacy of project preparation so that design reviews and changes in design during project execution can be avoided as far as possible (section 3.2 of this report).
- (v) The most realistic unit price rates, physical and price contingency allowances should be studied and adopted during project preparation (section 3.6 of this report).
- (vi) Disbursement schedules based on detailed and realistic project execution schedules should be included in project appraisal reports. In this regard, guidelines on preparation of disbursement schedules should be developed to assist project officers (section 3.7 of this report).

- (vii) During physical implementation the Bank should closely monitor construction and send periodic supervision missions to the site in order to assist in taking well funded decisions on technical issues and solutions as submitted by the Borrower (section 4.8 of this report).
- (viii) The Bank should follow-up the routine maintenance of the project components (section 4.1 of this report).
- (ix) The Bank has to ensure that as from 1999, the Department of Technical Services will forward to the Bank, the original audited financial statements and signed copies of the Auditor's reports on all on-going road projects (section 3.8.5 of this report).

1.8.4 Follow-up Action Matrix

A summary of the follow-up actions is presented in Annex 7 of this report.

2. BACKGROUND

2.1 Macro-Economic Context

2.1.1 The Republic of The Gambia has the smallest area of all continental countries of Africa. The country is located in West Africa at latitude 13° 28' N and bounded by Senegal and the Atlantic Ocean, stretching 350 km from west to the east on both banks of river Gambia.

2.1.2 The Gambia has an area of 10,368 km². Its width varies from about 50 km near the mouth of the river to about 24 km inland. It comprises the flood plain of the river flanked by its old terraces. The terrain is flat to undulated with altitudes ranging from 0 to 53 m. The climate is tropical with contrasted hot, rainy season (June to November) and cooler, dry season (November to May).

2.1.3 The country's population is about 1.3 million inhabitants with a growth rate of 3.42 % (1998 estimate). The Gambia's population is still youthful, with 46% being under 15 years.

2.1.4 The Gambia ranks among the least developed countries in the world with an estimated per capita income between US \$ 300 and 360. The economy is small and depends on few sectors for its growth.

2.1.5 The key growth sectors of the economy of The Gambia are agriculture (21% of GDP), tourism (10%), re-export trade (12.5%) and industry (11%, including manufacture, construction and electricity). The economy of The Gambia is export oriented and also strongly dependent on imported commodities including food. Transport and communications play a key role in support of overall growth in the economy and account for 23.5% of the GDP.

2.1.6 In recent years, the economy of The Gambia grew at fluctuating rates from a high of 5.45% to a low of 0.41%, with a negative rate in 1994-95. The average economic growth rate was about 4.1% for the period 1978-85, 3.1% for the period 1985-89 and 3.3% for the period 1990-94. At present the growth rate appears to be more stable: 4.1% in 1996, 5.1% in 1997 and 5.4% in 1998. The estimated GDP per capita for 1997 was around US\$ 350 and was improving but The Gambia still ranks among the least developed countries in the world. In 1990-95, 57% of the urban population and 41% of the rural population was living below the poverty line.

2.1.7 Agriculture plays an important role in national development and comes first as a leading sector in its contribution to the GDP. A significant proportion of output from this sector is used in the manufacturing industry. Crop production is dominated by cereals for domestic consumption and groundnut for export. By order of importance, cereal crops are millet, rice, sorghum, and maize. The Gambia was once self-sufficient in rice but has now to supplement its production with imports. Following international competition, the production of groundnuts has dropped to low levels but groundnuts and groundnut products still represent the first export commodity, followed by fish and cotton.

2.1.8 Since 1985/86 the GoTG has implemented an Economic Recovery Programme (ERP) followed in 1990/91 by the Programme for Sustainable Development. Substantial results have been achieved by these programmes, namely arresting inflation, stabilising the dalasi exchange rate, and decreasing fiscal deficit. The country smoothly moved from a highly regulated to a largely market-based economy and a number of public enterprises have been privatised. The reforms made it possible for the economy to grow at an average rate of 4.6% over the ten year period up to 1996 and The Gambia was amongst the top eight faster growing economies of Africa.

2.1.9 The economic growth slowed down as a result of political and exogenous factors including the closure of the border with Senegal and the devaluation of the CFA franc, but other macro-economic indicators continued to be impressive: further decline of inflation, stable and positive interest rates, and stable foreign exchange reserves. In spite of decline of revenue from international trade taxes, the Government was still able to reduce the overall budget deficit from 5 to 3%. The GoTG is pursuing the policy of expenditure control, revenue diversification and encouragement of investment and economic growth. With the population growing at about 3.42% per annum, The Gambia needs growth rates of at least 7% per annum to keep its unemployment rate from rising further and alleviate poverty.

2.2 The Road Sub-Sector

2.2.1 Historically, river Gambia played an essential role in the country's development and was the only efficient mode of transport for freight through the country until the second world war. It still plays an important role and the main commodity currently being transported by river is groundnuts. Following the sinking of the only passenger boat in service, passenger traffic is now entirely by road. Road communications between the northern and southern areas of the country are facilitated by two major ferry services and eight additional ferries either crossing the river or one of its tributaries.

2.2.2 In 1995 the road network of The Gambia comprised the lengths and proportions of bitumen paved and unpaved road sections as shown in Table 2.1, Annex 2. The total length is around 1,500 km and more than 30% of that length is bitumen-paved.

2.2.3 Rural roads are classified as primary, secondary and tertiary national roads. Roads in urban areas are also classified as primary, secondary and tertiary urban roads. Road design standards taking into account traffic flows have been defined for the different classes of rural and urban roads.

2.2.4 The general condition of the road network of The Gambia is not encouraging and has been worsening at a fast pace between 1996 and 1998 as shown in Table 2.2, Annex 2. The condition of the unpaved network deteriorated faster, since unpaved roads are more vulnerable to lack of maintenance. More than half of the unpaved road network is now in either critical (failing) or failed condition. Thirty percent of the bitumen-paved network is failing or has failed and only another thirty percent is in good condition. If this deterioration trend is not reversed by allocation of sufficient resources for routine and periodic maintenance and efficient management of road maintenance the remaining forty percent of road network in fair condition will decrease with corresponding increase of the length in critical condition.

2.2.5 The problem of raising revenue required for funding upgrading, rehabilitation and maintenance of the road network is to be addressed by a road levy fund and the problem of a right balance between capital investment and maintenance should be addressed by a road maintenance management system currently being developed by consultants.

2.2.6 The GoTG and the DTS are progressing in the right direction. From November 1994 to December 1998 ADB funded technical assistance to the DTS in order to improve its planning and management capacity. The implementation programme of the Road Fund and the Road authority is currently in the process of approval by the cabinet and both institutions could start operations within three years.

2.3 History of Operations

2.3.1 The highest share of the Bank Group's commitments to The Gambia is in the transport sector, amounting to UA 52.78 million or 36.0% of total commitment as at 28 October 1996. The total amount of the road sub-sector commitments was the same order of magnitude as the amount of commitments for the Banjul port. The Bank also financed the works and equipment of the International Airport.

2.3.2 By the end of 1998, the Bank Group had approved thirty operations (loans and grants) in The Gambia, including 8 in the transport sector, 7 in the social sector, 5 in the public utilities sector, 6 in the agricultural sector, 1 in the industrial sector and 3 multi-sector.

2.3.3 Most projects in the transport sector were completed and the only on going project is the Banjul Port II. The focus of the Bank Group intervention is now in the agriculture and the social sector. However, given the deteriorating condition of the road network, the transport sector still needs attention.

2.4 Project Formulation

2.4.1 The Project was identified during implementation of the IDA-financed First Highway Maintenance Project and was initially included within the various components of the proposed Second Highway Maintenance Project which was prepared by consultants that carried out economic feasibility and engineering studies between 1984 and 1986. In 1986 the Bank was approached by the GoTG concerning possible participation in the IDA programme. In July 1989 an ADF/IDA joint mission travelled to The Gambia in order to prepare the project and determine the components that would be suitable for financing by ADF, but the detailed engineering design of ADF components (rehabilitation of the Bund road and 50 km of the South Bank Road, reconstruction of the Brumen Bridge) was delayed by lack of funds from the IDA PPF (Appraisal Report, section 1.1.4). The Appraisal Report also states that "later in 1987, all of the requirements for the release of these funds were met and the engineering consultants proceeded with final project design work." However, this "final design work" was never completed because the consultant in charge of construction supervision was later comparing alternatives for the Brumen Bridge reconstruction, and the topographical surveys of the South Bank Road and the Bund Road were only carried out by the Contractor. Actually, for the road components this "final design" was simply an updating of cost estimates made in July 1989.

2.4.2. The GoTG again approached the Bank with a request to add an additional component on Banjul streets rehabilitation, and the Bank granted the request and secured financing for feasibility and detailed engineering studies for this component under the Canadian bilateral assistance funds administered by the Bank.

2.4.3. Following completion of the detailed design, an appraisal mission was sent to The Gambia by the Bank from 29 July to 17 August 1989 and loan negotiations took place in Abidjan on 18 October 1989. The Loan was approved on 22 November 1989.

2.4.4. The project was designated Roads Rehabilitation Project, comprising five components: (i) rehabilitation of two bitumen paved, 35.6 km long sections of the South Bank Road, (ii) rehabilitation of the 3.5 km long Bund Road bypassing the city of Banjul and providing direct access for heavy traffic to the Port of Banjul, (iii) reconstruction and widening to two lanes of the 116 m long Brumen Bridge providing the only crossing of the Bintang Bolon River along the South

Bank Road, (iv) reconstruction and rehabilitation of 10.55 km of designated arterial, commercial, and collector streets in Banjul, including pavement, sidewalks and drainage structures, and (v) consultancy services for construction supervision and project management of components (i) to (iv). Design review was later included in the consultancy services.

2.4.5. The date of issue of tenders in the implementation schedule was 1 September 1990, or only two months after the date of appointment of the consultant. This delay was not sufficient for the consultant to carry out a design review before the preparation of the tender documents and no specific period of time was allowed in the schedule for the design review. The appraisal report states in section 5.4.1 that “economic feasibility studies and detailed engineering designs” were available for the rehabilitation of the South Bank Road and the Bund Road, and that “similar studies and structural design” were available for the Brumen Bridge, but the existing design documents for the road components were actually economic and engineering feasibility studies prepared from 1984 to 1986 for the evaluation of the Second Highway Maintenance Project and updated in 1989. From 1986 to 1989, a Canadian consultant was hired to prepare the “preliminary engineering and final design of the Banjul streets component” and this span of time could actually have also been used for the detailed design of both road components.

2.5 Project Rationale

2.5.1 The Project components were essential for the continued economic growth of The Gambia and made up a consistent package that could propitiate development of agriculture in the south-west of the country and development of commerce and services in the great Banjul marketing centres. The South Bank Road was the only road link providing access to the south of The Gambia. The Bund Road was essential for direct access to the port of Banjul bypassing the city and also for the storm drainage of Banjul and provided protection against high tides. The Brumen Bridge was the only bridge over the Bintang Bolong river which constitutes an obstacle to access to the eastern areas of the south bank. The Banjul streets were selected to represent the most important arterial and commercial streets of the city.

2.5.2. An economic and engineering feasibility study carried out in 1984-86 for the Second Highway Maintenance Project indicated that the improvement of the project roads and bridge were viable with relatively high internal rates of return. The three components were selected as first priorities for this country wide project.

2.5.3. The rehabilitation of the Banjul streets was later also found to be viable and the selected streets were also priority. They included designated arterial and important collector streets as well as commercial streets.

2.6 Project Objectives and Scope at Appraisal

2.6.1. The project appraisal was conducted in a satisfactory manner. The appraisal report provided a detailed implementation schedule of four years and four months with fourteen target dates.

2.6.2 The project objectives as stated at appraisal were to (i) improve and protect the vital primary road link between the south-western agricultural areas of the country and the main marketing and population centres in the west near Banjul; (ii) improve access to and circulation within the capital city and primary commercial centre of Banjul in order to support continued economic development; and (iii) enhance the economic recovery programme of the country by reducing vehicle operating costs.

2.6.3 The appraisal and the completion reports of this project did not use the logical framework approach. Retrospectively, (i) and (ii) above should be considered as project objectives while (iii) is a development goal (Annexe 9).

2.6.4 The two sections of the South Bank Road were rehabilitated, but do not appear to have been conveniently protected against functional distress, low serviceability levels and anomalous increase of vehicle operating costs. Contrary to the others, this important project component is not contributing to achieve project objectives. The first objective has therefore not been attained. All other sections of the South Bank Road are in critical or failed condition and yet this vital primary road link is the only possible route for passenger traffic.

2.6.5 Project objective (ii) was attained and the Banjul streets, the Bund Road as well as the Brumen Bridge are supporting continued economic development of the country.

2.6.6 Project objective (iii) was attained except for what concerns the South Bank Road where vehicle operating costs are high and increasing fast.

2.7 Financing Arrangements

2.7.1 The project was financed by the ADF and the GoTG. According to the original estimate the total cost of the project was UA 16.11 million with a foreign exchange cost of UA 14.36 million or 89.1%. The ADF had to contribute 100% of the foreign exchange and 8.6% of the local costs, or 90% of the total project cost, net of taxes. The GoTG had to meet the remaining 91.4% of the local costs representing 10% of the total cost. The total local cost was only 10.9% of the total project cost.

2.7.2 The final cost of the project was UA 16.08 million or 99.8% of the appraised cost. The actual ADF disbursement was UA 14.477 million and the GoTG disbursed UA 1.603 million. The funding proportions did not vary from appraisal estimates. The ADF loan was almost fully disbursed with a small undisbursed balance of UA 0.030 million which was cancelled.

2.7.3 The appraisal and actual Project financing plans were the following in UA millions:

	<u>FE</u>	<u>LC</u>	<u>Total</u>	<u>%</u>	<u>FE</u>	<u>LC</u>	<u>Total</u>	<u>%</u>
ADF	14.36	0.15	14.51	90	14.47	0.01	14.48	90.0
GoTG	-	1.60	1.60	10	-	1.61	1.61	10.0
Total	<u>14.36</u>	<u>1.75</u>	<u>16.11</u>	<u>100</u>	<u>14.47</u>	<u>1.61</u>	<u>16.08</u>	<u>100.0</u>

2.8 Evaluation Methodology and Approach

2.8.1 The present project performance evaluation report was prepared following (i) a desk review of the project documents and information available in Bank files; and (ii) a post evaluation mission to The Gambia, undertaken from 14 June to 29 March 1999. The documents reviewed included the appraisal report, the project completion report, the economic and engineering studies, monthly progress reports and the final construction report by the Consultant, and the correspondences available in the Bank files. In the course of the field mission, additional information was collected and visits to the project sites were effected; a detailed inspection of the roads, bridge and streets was carried out. Discussions were held with staff of the Executing Agency and with officials of other government agencies.

2.8.2 Since the project was characterised by abnormal implementation delays, a project actual versus appraised schedule was prepared in the form of a bar chart comparing all target and implementation dates that could be documented. The chart of scheduled and actual implementation can be usefully consulted to facilitate and clarify different sections of this PPER and is shown in Annexe 3.

2.8.3 The assessment of the economic impact was based on comparison of the with and without project situation. The assessment of the institutional impact used the before-after approach.

2.8.4 The PPER presents a retrospective evaluation of the project. In particular, it assesses the relevance and degree of achievement of objectives, as well as the operational, economic, institutional and sustainability aspects of the project. It supplements the PCR, draws additional conclusions and lessons, and puts forward recommendations for both the Bank and the Government.

3. PROJECT IMPLEMENTATION

3.1 Loan Effectiveness

3.1.1 The loan for the project was approved by the ADF Board on 22 November 1989. The loan agreement was signed two weeks later, on 4 December 1989 by the Government of The Gambia and the Bank. It only became effective on 25 April 1991.

3.1.2 The long delay of seventeen months between signature and entry into force was required by the Government of The Gambia to fulfil the loan conditions. However, only two conditions were largely responsible for the implementation delays.

3.1.3 The conditions precedent to the first disbursement given in section 5.01 of the Loan Agreement required the borrower to have

- (i) given an undertaking that it will make regular, adequate allocations in its annual budget to finance its share of the Project cost;
- (ii) given an undertaking that it will assume the responsibility to meet all cost overruns on the Project;
- (iii) given an undertaking not to use the proceeds of the Loan for the payment of the various duties and taxes relating to goods and services required for the execution of the Project;
- (iv) given an undertaking that all lands required for the Project will be acquired and will be made available by 1 March 1991 for the timely execution of the Project;
- (v) satisfied the Bank that a suitably qualified and experienced engineer from the Ministry of Works and Communications has been assigned to act as the Government's Project Co-ordinator; and
- (vi) given an undertaking that, as the executing agency for the project, the Ministry of Works and Communication will co-ordinate with the Municipality of Banjul and the Urban District of Kanifing in the implementation of the Project.

Other conditions required that it should:

- (i) continue to make adequate budgetary allocations to allow for routine and periodic road maintenance works on the entire road network in The Gambia and, upon completion of the project, on each of the project roads and bridge;
- (ii) continue to collect on a regular basis, daily traffic counts on the project roads and at other important locations on the road network;

- (iii) within twelve months of loan signature recruit a Civil Engineer, a Maintenance Engineer, an Architect and a Transport Economist to serve as long-term technical experts under a technical assistance programme. These experts shall be assigned to the Ministry of Works and Communication to assist the organisation and to train local personnel,
- (iv) within twelve months of loan signature recruit at least four suitably qualified Gambian nationals to work as direct counterparts to the four Technical Experts mentioned in condition (iii) during their respective terms in the Ministry of Works and Communication.

3.1.4 Conditions (i), (ii), (iii), (iv) and (vi) were formally fulfilled by giving the appropriate undertakings. Condition (i) was enforced until project completion but not in a regular and expeditious manner that would have avoided delays in payments to the Contractor. The GoTG financed its share of the cost of the project as set out in the financing plan but it had no opportunity to meet non existing cost overruns on the project as required by condition (ii). The undertaking given under conditions (iii), (iv) and (vi) were also satisfactorily enforced. The fulfilment of condition (iv) was not easy and four different engineers from the Ministry of Works and Communications were appointed to act as the Government's Project Co-ordinator.

3.1.5 Other condition (i) was not followed by appropriate action. This condition was actually very important and reflected concerns on critical problems facing the GoTG in the road sub-sector. However, the GoTG was not prepared to enforce implementation of the this condition. The situation deteriorated after completion of works and the project roads, bridge and streets have not been maintained since.

3.1.6 Other condition (ii) was also not followed by appropriate action and no updated traffic count results are available to properly evaluate the impact of the project and reassess project economic viability.

3.1.7 Other conditions (iii) and (iv) together with condition (v) caused delays in declaring the loan effective but were finally enforced by the Government.

3.1.8 In general, a delay of almost one and a half year before project start up is unacceptable because it affects negatively the project cost and its economic viability. At the time of this loan, the deadline of 6 months maximum for any loan to become effective had not yet been adopted; otherwise, the loan could have been cancelled.

3.1.9 The maximum delay of six months now in force between loan approval and compliance with loan conditions requires that the latter be carefully discussed with the Borrower and expressed in realistic terms at appraisal. The issue on the capacity of the Borrower to fulfil loan conditions should be carefully analysed at the preparation stage. Conditions involving staff recruitment are generally time consuming. Rather than be set as loan conditions, other issues such as traffic surveys and maintenance management should more effectively be solved by accompanying projects and project components. In order to accelerate the fulfilment of the conditions precedent to the first disbursement and project start-up, the Bank is now sending a "launching mission" to the Borrower soon after the Loan is signed. Such a mission is instructed among other things, to remind the Borrower of the loan conditions, assist in their fulfilment, and advise the executing agency on Bank's rules of procurement.

3.2 Changes in Project Design

3.2.1 Manifold changes in project design were made at two different phases of project implementation. The design review prior to construction was the opportunity to make design changes and improve upon some technical details. However, during construction, new design changes were made and twenty eight variation orders were issued.

3.2.2 Tenders were to be called on the basis of recent detailed engineering designs and cost evaluations except for the road components where no geometrical surveys had been carried out. The appraisal report did not consider a design review. However, the terms of reference for consultancy services included tasks “on review of existing drawings, design documents and other data, on a review and recommendations report, additional studies if required, harmonization of technical aspects of tender documents, and development of a cost estimate”. The Consultant mobilized beginning of April 1991 and the works commenced beginning of January 1992. Nine months were actually available for design review and tendering as compared to the appraised six months for tendering procedures.

3.2.3 The Consultant prepared an Addendum N° 1 to the Tender Documents in order to cover design changes that he had recommended and had been accepted by the Borrower and the Bank. Some of these were improvements, like the provision of raised sidewalks with drainage under the sidewalk, others resulted in unjustified additional costs, like the removal and replacement of part of the Bund Road embankment material before additional studies were undertaken. Others, like the substitution of the seal coat of the deck of the Brumen Bridge by a textured concrete surface, were later again changed or nullified by variation orders. In this example, the deck concrete finally received a bituminous overlay. It is also important to note that the existing Banjul streets detailed design explicitly gave the reasons for the recommended level sidewalks with level drainage as being local experience with kerb gates and pipe leads becoming inoperable due to lack of maintenance.

3.2.4 The Consultant recommended additional geotechnical investigations and laboratory testing for identification of pavement materials and structures of the Banjul streets following doubts expressed by World Bank officials on the “optimistic” design assumption of a relatively high CBR = 10%. The investigations and tests were carried out and the actual soaked CBR was found to be even more “optimistic” and higher than 16%. The Bank objected to deep geotechnical investigations for identification of compressible clay layers under the Bund Road embankment, which would require important resources and delays.

3.2.5 The additional studies were carried out and the Consultant recommended stronger structures for the Banjul streets based on the same traffic assumptions as the existing design. Based on test results, that appear to be erroneous, the Consultant also recommended recompaction of the existing subgrade that had been supporting traffic for years and this resulted in unnecessary additional construction costs.

3.2.6 The design life as selected for the South Bank and Bund roads was fifteen years. Short design lives of fifteen or even ten years are commonly adopted for rural roads in developing countries, following uncertainties in traffic forecasts. For the Banjul streets, the design life was ten years and this appears to be unusually short and was questionable for two reasons: (i) in urban roads and streets traffic forecast uncertainties do not play an important role because traffic is generally high and close to the upper limit set by capacity considerations; (ii) at the end of a short design life, reconstruction or overlaying of a rural road causes limited disturbance, but this is not the case for urban streets with elaborated drainage systems, utilities and a densely populated environment.

3.2.7 The additional studies resulted in variation orders and some other variation orders were issued to modify and improve construction details and drawings and to add three more street sections. At the beginning of construction, variation orders were also issued for utilities work, in order to avoid excavation and laying of new electric cables by the Gambia Utilities Corporation (GUC) after construction completion. A variation order changing the scope of the works was finally issued for Phase II of Banjul streets

3.2.8 It can be concluded that the design review opened the door to many controversial and conflicting design changes that were often unnecessary and not always in the right direction. The design review also brought about confusion to the field of design responsibility and quality insurance with two different consultants involved in design matters. The Borrower and the Bank accepted and had no objection against the detailed engineering design by the first consultant that was even qualified as “final” in the appraisal report. Without evidence of any design errors or shortcomings, the same Borrower and Bank thereafter directed a different consultant to carry out a design review and additional surveys and studies “necessary to confirm or modify the designs” and to “harmonise technical aspects of the existing tender documents”. In this process, the Borrower and the Bank accepted and made no objection to design changes and alternatives opposing designs and design concepts that they had agreed before. This process also had a cost: the second consultant was paid to carry out the above mentioned tasks, and design changes resulted in some unnecessary additional construction costs.

3.2.9 Both consultants cannot be blamed for the situation brought about by the design changes since they were only following their terms of reference. The Borrower and the Bank should always feel concerned by the technical implementation of projects and create suitable conditions for the most appropriate and feasible technical solutions to be selected and successfully carried out at every stage. Important conditions are that the services of the best qualified consultants be procured and selected and that close collaboration and relationships based on confidence be maintained between consultants and executing agencies.

3.2.10 During project implementation, indiscriminate and incessant use of variation orders was made. Accepted good contract management practice requires that variation orders should neither modify cost items by more than 20% nor exceed the amounts set for contingencies if unforeseen work is required. Variation orders should never result in changes of scope of works and contract addenda are required to be negotiated for that purpose. These basic principles of sound contract management were neglected and no time constraints could be identified to justify such neglect. Difficult situations were created for the Loan Administration Department of the Bank.

3.2.11 The scope of works was modified twice by variation orders. The first modification was the inclusion of utility work on behalf of the GUC shortly after the commencement of the works. The reason for the inclusion of GUC work was technically justified and sound but it is not clear why planning of such works was not known by the consultant before tendering works if it were not poor co-ordination between the project and institutions involved in town management and planning. The reimbursement of the cost of the utility work by GUC was a protracted, cumbersome procedure that was only concluded in 1997 with resulting delays of disbursement applications for payment of Banjul streets Phase II works.

3.2.12 The second modification of the scope of the works was Phase II of Banjul streets and this modification was programmed a long time in advance. There was no time constraint that could justify avoidance of formal procedures for a contract addendum or amendment.

3.3 Implementation Schedule

3.3.1 The appraisal report provided a detailed implementation schedule with fourteen different target dates. A comparison between the appraisal and actual implementation schedules for the project as a whole is given in the bar charts of Annex 3 to this report.

3.3.2 Although some actual implementation dates are not known, the comparison shows that the consultant commenced his services eight months later than appraised. The delay was increasing and attained ten months for the deadline for reception of tenders. Pre-contract services by the Consultant took nine instead of the appraised seven months. The date of commencement of the works was ten months later than the appraised date.

3.3.3 This delay of 10 months looks small when compared to the delay of 56 months for the date of completion of the works. The implementation bar chart (Annexe 3) shows that the South Bank Road and the Brumen Bridge were substantially completed within 23 months of commencement of works, while the Bund Road was substantially completed by the end of the 25th month. The works of Phase I of Banjul streets lasted for four and a half years and Phase II required an additional sixteen months.

3.3.4 The loan was only declared effective on 25 April 1991 or about one month after the commencement of the consultancy services.

3.3.5 The total delay of 56 months in the implementation of this project can be broken down as follows:

Procurement Procedures	delayed	10 months	or	18 %
Construction of Banjul Streets Phase I	delayed	30 months	or	54 %
Additional time for Banjul Streets Phase II	delayed	10 months	or	18 %
Delays of Phase II	delayed	6 months	or	10 %
Total	delayed	56 months	or	100 %

3.3.6 The delay of the procurement procedures was partly caused by the design review. The Contractor was apparently ill prepared or not motivated for street construction work and is largely responsible for construction delays. His part of responsibility in the total delay of 56 months amounts to two thirds.

3.4 Reporting

3.4.1 The construction works were adequately supervised. The Consultant prepared 41 monthly reports and a construction completion report in September 1997. These reports contained sufficient detailed information to enable monitoring of project implementation but were not regularly sent to the Bank by the Government.

3.4.2 The Executing Agency did not prepare quarterly supervision reports. This work should have been carried out by the Government's Project Co-ordinator with support from the Project Implementation Unit. However, the Government failed to assign a qualified and experienced engineer in a continued manner to this position which was filled by four different persons.

3.4.3 Despite reminders from the Bank, the Borrower did not submit any annual audit reports. The submission of audited financial statements is a requirement of the general conditions of loan agreements and ought to have been complied with.

3.4.4 The reasons for delays in reporting by the Executing Agency and lack of supervision reports and annual audited financial statements are related to institutional weakness of the Executing Agency and the Ministry of Finance.

3.4.5 The non submission of annual audit reports is a common deficiency affecting many Bank funded road projects and is now being addressed by the inclusion of an audit component on new projects whenever considered necessary.

3.5 Procurement

3.5.1 All goods and services were procured in accordance with the Bank's rules of procedure (PCR, section 3.5). However, the procurement process for the works was delayed by the design review.

3.5.2 There was some confusion during the procurement procedures for works. The deadline for submission of tenders was originally scheduled 15 October 1991. With the declared purpose of expediting project implementation, this date was subsequently advanced one month and set 17 September 1991 and the site visit was changed from 2 - 3 September to 19 - 20 August 1991. Three of the seven prequalified contractors requested a time extension by one month and the fourth stated that he could not meet the submission date. This request was not accepted and, as a result, only two contractors submitted tenders, CSE and SATOM. CSE was already working in Gambia (Serrekunda - Banjul Highway) and his tender was substantially lower than the tender of SATOM.

3.5.3 The Bank should have objected to the reduction of the time allowed for tendering which was obviously going to result in poor competition.

3.5.4 The construction works were entrusted to a qualified Contractor who had delivered a good product in a previous project (Banjul - Serrekunda Highway), but did not respond to expectations in this project, causing long delays in the reconstruction of the Banjul streets and providing poor workmanship and repeated defects in road and street construction.

3.5.5 The award of the consultancy services contract was made in accordance with the Bank's procedures. The selected consultant provided appropriate contract management and did his best to enforce quality control and improve standards.

3.6 Project Costs

3.6.1 Table 2.4 below shows a summary of project costs, net of taxes as appraised and actual.

Table 2.4
Summary of Project Costs (UA million)

	<u>Appraisal</u>			<u>Actual</u>		
	<u>FE</u>	<u>LC</u>	<u>Total</u>	<u>FE</u>	<u>LC</u>	<u>Total</u>
Construction	13.57	1.67	15.24	12.79	1.34	14.13
Supervision	0.79	0.08	0.87	1.68	0.27	1.95
Total	14.36	1.75	16.11	14.47	1.61	16.08

3.6.2 Table 2.4 indicates that the appraised cost was exceeded for supervision. But, since the construction cost was lower, the final total cost was slightly lower than appraised. The main reason for the higher cost of supervision was the long delay in construction completion. The consultant's contract

was repeatedly amended to extend the consultancy services. Contract amendments were also prepared for additional investigations following the design review and for extension of the PIU services. A total of ten amendments were issued.

3.6.3 In spite of many design changes and additional works the construction cost was not exceeded.

3.6.4 The Contractor incurred penalties for time overrun. The penalties were waived by the Borrower for unknown reasons.

3.7 Disbursements and Financial Sources

3.7.1 The Project was jointly financed by ADF (90 %) and the GoTG (10 %). The part provided by each source did not change from appraisal to completion.

3.7.2 The direct disbursement method was used to pay the monthly invoices submitted by the Contractor and the Consultant.

3.7.3 A schedule for the appraised and actual annual disbursements by the Bank is shown in section E of the summary data sheet.

3.7.4 After completion of the original works (Phase I), the first undisbursed balance was used for the additional Phase II works on the Banjul streets. After completion of Phase II, a small balance of UA 0.030 million remained undisbursed.

3.7.5 Disbursements made to pay works for the GUC were reimbursed to the Government by GUC and placed in a special account of the Central Bank. The amount in this account was later transferred to the ADB and used to pay disbursement applications. This uncommon procedure was time consuming and required legal advice and discussions inside the Bank and with the General Accountant of the GoTG.

3.8 Compliance with Loan Conditions and Covenants

3.8.1 As mentioned in section 3.1.1 above, conditions precedent to the first disbursement were fulfilled but with considerable delays and difficulties. Some of them were not satisfactorily fulfilled and certain undertakings were not enforced by the Borrower to this date.

3.8.2 Conditions (i), (ii), (iii), (iv) and (vi) as well as other condition (iii) were satisfactorily fulfilled. However, some delays have been reported in payments to the Contractor and the project had no cost overrun.

3.8.3 Other conditions (i), (ii) and (iv) were not satisfactorily fulfilled. Up to this date budgetary allocations for road maintenance continue to be inadequate and the project roads, bridge and streets have not been maintained since completion of construction. No updated traffic data was available for the project roads and streets. The Government was also unable to provide full time counterpart staff to the four technical experts recruited under other condition (iii). Fulfilment of condition (v) was not quite satisfactory because the Government failed to keep one qualified professional as Government's Project Co-ordinator and four different engineers occupied the position.

3.8.4 Gambia has a small population and shortage of qualified manpower. The resulting institutional weakness cannot be modified in the short range. However, progress is being made by the DoSWCI towards the solution of acute institutional and maintenance problems. The establishment of a road dedicated fund and a road authority is being considered.

3.8.5 It is also to be noted that the annual financial audit reports required in Section 703 (c) of the Loan agreement were not submitted by the Borrower.

4. PERFORMANCE EVALUATION

4.1 Operating Performance

4.1.1 The two sections of the South Bank Road and the Bund Road were fully opened to traffic by the end of 1994, and the Brumen Bridge a few months later. The Banjul streets of Phase I (10.59 km) were fully opened to traffic in June 1996 and Phase II (5.41 km) in October 1997. Since completion of construction, an increase in traffic volumes was noted and average traffic growth rates are 2% for rural roads and 3% for urban roads.

4.1.2 The inspection of the two sections of the South Bank Road (Kuloro to Faraba Banta, 8.2 km and Sanianga to Killy, 27.4 km) has shown extensive functional failure following construction defects of the double surface dressing and no structural distress. Chips loss of the upper layer is generally in excess of 50 % and could have resulted from low bitumen spray rates and lack of control of traffic speed during the curing period of the bitumen binder as this was not specified in the contract documents. Widespread streaking and centre line joint defects indicate that the contractor was not qualified to operate surface dressing equipment and made no efforts to learn this technology. Chips stripping is developing fast into ravelling and potholing and distressed pavement surface often exceeds 1 - 2 % and is sometimes in excess of 5 %. The evaluated present international roughness index of the reconstructed sections of the South Bank Road is IRI = 6.0 - 9.0 m/km. Non reconstructed sections have an international roughness index in the range IRI = 6.0 - 12.0 m/km.

4.1.3 After five years of traffic loading the two rehabilitated sections of the South Bank Road are thus in critical condition and functional failure will spread fast if appropriate repair is delayed further. Due to extensive defects surface dressing resealing is no more feasible. After patching, both sections should be resealed with either slurry sealing or a thin bitumen cold or hot mix overlay.

4.1.4 The inspection of the Brumen Bridge only shows minor defects, namely fine cracks related with the bolts which are maintaining the guard rails. There are no apparent grounds for concerns on the operation performance of this structure, provided that appropriate maintenance is carried out. However, the structure and the embankments show various types of deterioration that have neither been maintained nor repaired since construction. In spite of slope protection with lateritic boulders, the left bank embankment shows longitudinal cracks related to settlement and / or slope slide. Slopes of both left and right bank embankments have been eroded by water and animals. Guard rails have not been repainted and show deep corrosion in some places. They have been damaged and require repair in other places. A dozen bolts are missing in an exposed joint steel plate.

4.1.5 After five years of traffic, the Bund Road shows relatively satisfactory performance and its evaluated present international roughness index is in the range IRI = 4.0 - 6.0 m/km. This road has bituminous concrete wearing course, but received extensive patching mostly along the shoulders during the maintenance period. Patching represents 1 % of the total surface and could be related to traffic loading, formation widening or settlement of compressible soils under the embankment. The first assumption is corroborated by some newly developed settlements with cracking along wheel paths indicating incipient pavement failure.

4.1.6 Deflection tests should be carried out to evaluate the remaining service life of the pavement of the Bund Road. The pavement was designed for 15 years but is already showing signs of structural distress.

4.1.7 The Banjul streets of Phase II have been constructed to lower standards than Phase I. Pavements of Phase I streets with hot mix wearing courses show good operating performance, whereas most pavements of Phase II with surface dressing wearing courses display poor grading and workmanship.

4.1.8 The drainage system suffers from lack of maintenance with all kerb gates clogged and many pipe leads and covered side ditches full of sand and debris. Stagnating dirt water represents a health hazard for the inhabitants of Banjul and has been encountered in the side ditches of the James Senegal, Wellesley, Thomas or Harley Nje, and Cotton streets. In Tafsir Demba Mbye Street, a large hole in the middle of the pavement resulted from inappropriate repair of pipe collapse during construction works. In Albion Place, a length of 10 m of covered side ditch have been damaged by traffic and left without repair.

4.1.9 The operating performance of concrete sidewalks of the commercial streets is good. A variation order was issued to replace lateritic by basalt aggregates. The variation order resulted in improved concrete quality and higher costs but such improvement is believed to have been redundant for sidewalk concrete.

4.1.10 The operating performance of bitumen sealed sidewalks of the residential streets is unsatisfactory. The sidewalk level is 10 cm higher than the top level of the lateral walls of ditches and the sidewalk edge above the ditch is not lined and adds to the debris filling the ditches. Furthermore the bituminous sand seal was generally applied on compacted sand and has since been extensively damaged (ravelling and potholing) by pedestrian traffic. The use of sidewalks by disabled people was not considered.

4.1.11 In summary it can be said that the operating performance of project components has been jeopardised by poor workmanship as well as some inappropriate design and specifications. Repair and maintenance have not been provided since construction. The Banjul city drainage system is supposed to be cleaned once a year before the rainy season but the efficiency of this annual maintenance is doubtful.

4.1.12 Lack of repair and maintenance is already threatening the two sections of the South Bank Road, with extensive functional failure only five years after construction. The Department of Technical Services is currently planning rehabilitation of this road but experience shows that maintenance allocations are usually well below the requirements set by the Department and there is no formal assurance that patching and resealing of both sections will take place in the near future.

4.2 Financial Performance

4.2.1 Since appraisal in October 1989, the national currency (the dalasi) kept a general down trend of devaluation. Before 1992 the dalasi was being devaluated every quarter but, starting from the second half of 1992, the general devaluation trend followed a saw pattern. The average yearly rate of devaluation was 6.88 % between 1989 and 1991 and 2.77 % between 1992 and 1998.

4.2.2 These devaluation trends introduced some fluctuation in the project cost and increased the Borrower's contribution to the project. However, late reimbursements to the Borrower (section 3.7 above) had an opposite effect.

4.2.3 The project was not designed for revenue generation. The project roads, streets and bridge are not subject to toll collection and do not provide financial revenue.

4.2.4 Revenue raised by the Government from the transport sector (taxes on fuels, tyres, etc.) goes to a central pool. Budgetary quarterly allocations are then made for the maintenance of the road network, but these allocations fall short of the requirements as evidenced by the current deteriorated condition of the network (Annexe 2.2).

4.2.5 This situation could certainly improve after the implementation of a road fund. Prospects for a dedicated road fund are discussed in section 4.4 of this report.

4.3 Economic Performance

4.3.1 The project was designed to stimulate the economy of Banjul and the South Bank region through provision of improved access to the main population centres and to the port of Banjul.

4.3.2 The economic evaluation, as carried out at appraisal (PAR) and completion (PCR), showed the roads, streets and bridge improvements to be timely with a rate of return of 16.9 and 15.0 % respectively. The evaluation involved a comparison of the costs of implementing the project with the expected benefits arising from: savings in vehicle operating costs and maintenance cost savings. Non-quantifiable benefits were also expected to arise with the implementation of the project, and these included: direct and indirect job creation during construction, improved accessibility to health, educational, administrative and market centres and time saving for passengers.

4.3.3 The project costs expressed in dalasi included the total investment expenditures undertaken under the project. In spite of changes in design and scope of the works, the actual cost of implementing the project was not higher than the appraisal estimate of the economic cost.

4.3.4 The project comprises the Brumen Bridge, two 35.6 km long sections of the South Bank Road, the 3.5 km long Bund Road and 16.0 km of Banjul streets. More recent traffic figures were not available in Banjul and the traffic assumptions and forecasts of the completion report (PCR) were adopted for this report.

4.3.5 The National Transport Plan of 1977-2006 (DHV Consultants BV, Sept. 1997) assumes a rate of growth of 2.0% for urban traffic and 3.5% for the South Bank Road. In this report, the same traffic growth rates as in the PCR were adopted; these are slightly above 5.0% and better reflect the economic growth of the country. The tables of Annex 4 show the assumed traffic forecasts.

4.3.6 The table of project benefits is shown in Annex 5. This table includes maintenance and vehicle operating costs. These costs differ from those of the PCR in the columns of the South Bank Road and the Bund Road. For the South Bank Road, functional failure from 1996 to 2000 is resulting in higher vehicle operating costs. For the Bund road, progressive structural failure with increased vehicle operating costs is starting in year 2000.

4.3.7 The table of Annex 6 shows the streams of costs and benefits. The benefit streams are limited to the design life of the components, or 20 years for the Brumen Bridge, 15 years for the South Bank Road sections and the Bund Road, and only 10 years for the Banjul streets. In addition to the project investment costs, this table shows for year 2000 the cost of patching and resealing of the two sections of the South Bank Road, that is urgently required to stop functional failure. On these assumptions, and on the basis of the data presented in Annexes 4 and 5, it is estimated that the project yields a rate of return of 12.4% which is higher than the normal cut off rate of 10.0%.

4.4 Institutional and Social Performance

Institutional Development

4.4.1 The Department of Technical Services (DTS) was the Executing Agency. However, the unit directly dealing with the project comprised the Principal Roads Engineer, a Project Co-ordinator, assisted by the Project Implementation Unit (PIU) and the Resident Engineer with his staff supplied by supervising consultants.

4.4.2 This unit was set up by the Consultant and handed over to the DTS. It was headed by the Project Coordinator and adequately staffed with a Project Accountant and a Secretary. The PIU performed satisfactorily as far as supervision of the project execution was concerned. Monthly progress reports were regularly issued but no quarterly supervision reports were prepared. Four different engineers of the DTS were appointed as project coordinators. Together with counterparts assigned to the Resident Engineer's team they received valuable training. Some of them now integrate the managerial staff of DTS.

4.4.3 At the beginning of project implementation, the Department of Technical Services was facing serious staffing problems that delayed loan effectiveness. Qualified staff shortage is still an outstanding problem for the Department. Under Bank funding, a technical assistance team has been operating the Department for years, but this came to an end in December 1998.

4.4.4. The Government is facing difficulties in keeping technical staff, as a result of better remuneration in the private sector. This problem cannot be settled without an appropriate motivation policy. In the Department of Technical Services, one of the most critical problems is the capability of Government to attract and retain national staff. This capability determines institutional continuity and safeguarding of the benefits of the technical assistance.

4.4.5 The experience of this project also indicates that other problems such as inadequate internal and inter-departmental communication, inefficient performance in administration and management and protracted reaction to contractor's submissions and invoices, also require to be positively addressed by the Department of Technical Services.

4.4.6 The Government of The Gambia is proceeding with the establishment of a Road Fund and a Road Authority and is taking positive steps towards the implementation of both institutions. Based on positive experience of other countries, it can be predicted that the establishment of a dedicated road fund and an autonomous road management agency will create optimum conditions for the solution of main problems still pending, the development of the road sector and sustained benefits from the Roads Rehabilitation Project. However road funds and road authorities should not be considered as panaceas and success will depend on a careful implementation and organisational policy.

Socio-economic Impact

4.4.7 The project is important for the rural inhabitants of the South Western Bank and those of urban centres near Banjul. Its components include an important main road and bridge whose impact on the South Western Bank reaches far to the east of the Brumen Bridge. Combined with the Banjul - Serrekunda Highway, the other project component, the Bund road extends the project impact to the Port of Banjul and the commercial centre of Banjul. Thus the project has an indirect impact in crop production ensuring commercialisation and export as well as import of inputs.

4.4.8 The combined South Bank Road, Banjul - Serrekunda Highway and Bund Road constitute the primary trunk road of the South Bank. This trunk road is critical for the existing and planned feeder road networks, which are intended to improve marketing with increased farm production and food security.

4.4.9 The rehabilitation and maintenance of this road is essential to the social-economic development of the South Bank area. However, detailed statistical information is not available and the social-economic benefits for the rural areas of the project impact area cannot be easily quantified.

4.4.10 The Banjul streets component had a positive impact on sanitation for the urban population and created better conditions for education, commercial activities and the country's re-export business.

4.4.11 Project implementation provided additional benefits in the form of direct and indirect jobs and salaries during the construction period.

4.5 Impact on Women

4.5.1 Women constitute 51 % of the population of The Gambia and produce 70 % of the food. Women farmers constitute an important proportion of people taking benefit from the project. The Brumen Bridge and the South Bank Road are essential for helping women farmers to enter the market economy.

4.5.2 In Banjul women are most active in the market place. The reconstruction of the Banjul streets provided better circulation in town and access to dwellings. The improvement of the drainage system and sidewalks was also of great benefit for house keeping women in Banjul and helped them improving their sanitation and living conditions.

4.6 Environmental Performance

4.6.1 There was no environmental impact assessment study for the project road but environmental considerations played an important role in design and negative impacts on soils and water were carefully minimised during construction and for the design life of the road.

4.6.2 The bridge, road, and streets did not vary much from already demarcated alignments; encroachment on existing agricultural land or traverse virgin lands was minimised.

4.6.3 Reconstruction of the Brumen Bridge was carefully planned in order to avoid water pollution and the river bed was not modified. Presently a rich ecological system comprising molluscs and fishes may be observed under the bridge.

4.6.4 The negative impacts on social communities were also minimised and no reimbursement for private land, constructions or crops were required. Traffic flow was maintained during construction and traffic disturbance was kept to a minimum.

4.6.5 The road and street alignments do not exhibit safety hazards. Appropriate safety equipment including bridge guard rails, road markings and traffic signs have been comprehensively provided.

4.6.6 The rehabilitation of the Banjul streets eliminated dust production by traffic during the dry season and stagnant water and mud during the rainy season, which was an important contribution to a more healthy urban environment.

4.6.7 Borrow pits were rehabilitated after use and sand extraction sites were submitted for approval to environmental authorities.

4.6.8 Culvert outlets and embankment slopes were protected against scour. The layout of the South Bank Road closely follows the flat to undulating terrain without important cuts.

4.6.9 Erosion that could occur along the South Bank Road and is already damaging the embankments of the Brumen Bridge (section 4.1.4 above) may cause environmental hazards if not timely repaired.

4.7 Performance of Contractor, Consultant and Borrower

Contractor

4.7.1 The Contractor finished the works of the Brumen Bridge 8 months later than the agreed schedule but was not penalised in view of the fact that some unforeseen difficulties with installing steel tube piles over the existing concrete piles were the reason for this delay. The works on the South Bank Road were completed one month in advance of the 24 month time set in the contract. The Bund Road was completed 2 months later than the limit of the agreed schedule. The substantial completion of Phase I of Banjul streets was delayed by 31 months and Phase II of Banjul streets was delayed by 19 months.

4.7.2 The Contractor did not submit formal claims for additional payment since all potential disputes mostly concerning measurement of work items were settled on site. Towards the close of Phase II of Banjul streets works, the Contractor submitted a claim for compensation of surcharge on subcontracted works that was rejected because the Contractor had not applied for any subcontract approval.

4.7.3 The Contractor was concerned with financial benefits and was often admonished by the Resident Engineer to enforce quality control. The concrete and bituminous mix work was satisfactory but the surface dressing work was very poor. The Contractor was experienced in rural road construction but appeared to be ill-prepared to handle city street construction. The Resident Engineer had carefully inspected and re-inspected the completed Phase I Banjul Streets and, prior to issuing the certificate of substantial completion, a 72 page list of defects and repairs comprising 1,148 items (as compared to the list for the two sections of the South Bank Road which only comprised 29 items) was prepared and issued to the Contractor.

4.7.4 As far as the South Bank Road is concerned, the Contractor failed to deliver a good product. On the Bund Road, patches carried out during the maintenance period represent 1 % of the total surface. The Brumen Bridge can be considered as a satisfactory product as well as the Phase I Banjul streets but the phase II Banjul streets represent a poor product. Overall, the Contractor's performance was not satisfactory.

Consultant

4.7.5 The performance of the Consultant was satisfactory and improved from design review to construction supervision. The Consultant kept the Executing Agency informed and involved with implementation problems and suggested solutions. The Consultant displayed high professional standards in the supervision of works, in dealing with unpredictable technical problems and settling Contractor's claims.

4.7.6 The Consultant was particularly effective in the construction supervision of the bridge, the streets of phase I and the Bund road, but failed to enforce good workmanship in surface dressing works of the two South Bank Road sections. At the time the Consultant demobilised, the streets of phase II were not completed and the Gambian Consultant's partner proceeded with construction supervision of phase II and this perhaps explains the less satisfactory condition of the Banjul streets of Phase II.

4.7.7 The financial management of the Contract by the Consultant was satisfactory with no cost overrun of the contract price in spite of many changes in design and scope of the works.

Borrower

4.7.8 With regard to the overall administration of the project, the Borrower and Executing Agency were not as effective as could have been expected; they were slow in fulfilling the loan conditions and had difficulties in providing project staff on a regular basis.

4.7.9 The Executing Agency in particular was not effective in dealing with design issues and directing Consultant's activities. No appropriate guidance was provided to the Consultants and design orientations and details were modified several times in a contradictory manner.

4.7.10 The Borrower did not always provide finance to meet its share of project costs in a timely fashion but satisfactorily performed his duties under procurement of services and disbursement applications. However, he did not fulfil his duties under financial auditing.

4.7.11 In spite of the organisation and staffing of the PIU by the Consultant, the Borrower was often late in forwarding monthly reports to the Bank and did not prepare quarterly supervision reports.

4.7.12 The Contractor incurred penalties for failure to complete the project within the approved time frame and the Borrower waived the penalties but did not substantiate this decision and the Bank was not informed.

4.8 Bank Group Performance

4.8.1 The performance of the Bank was satisfactory in so far as project preparation and appraisal were concerned. The Bank reacted expeditiously to the Borrower submissions. However, the Bank did not pay sufficient attention to the fact that a design review was included in the terms of reference for consultancy services contrary to the conclusions of the appraisal report.

4.8.2 The Bank appears to have lost control of technical issues and did not react to the obvious weakness of the Executing Agency in providing technical guidance to the Consultant. It can be noted that during the construction works, which took more than six years, the Bank only organised three supervision missions. The Bank organised its last mission in February 1998 following which a Project Completion Report was prepared.

5. PROJECT SUSTAINABILITY

5.1 The benefits from the Roads Rehabilitation Project can only be sustained if appropriate routine and periodic maintenance is provided. Conditions for Project sustainability have not been met to this date. Financial resources have not been provided and no maintenance has been carried out in the project components except perhaps cleaning of the drainage system of Banjul streets once a year.

5.2 The delay in providing an appropriate sealing to the defective surface dressing of the two sections of the South Bank Road is resulting in extensive functional failure and the sustainability of these sections is not certain. Project design was technically sound but poor construction of road components is jeopardising its economic viability and curtailing project benefits. Project sustainability is therefore dependent on appropriate and timely rehabilitation of the South Bank Road sections.

5.3 The DTS is the agency responsible for road maintenance in The Gambia including Banjul streets. However, its current effort is limited by inappropriate financial resources and also by limited equipment and qualified manpower.

5.4 However, the whole road maintenance system of The Gambia is expected to undergo deep changes. Private contractors are being involved in maintenance works and competition between private contractors and force account gangs could be stimulating for both, ameliorate workmanship and improve management efficiency.

5.5 The implementation of the road fund and road authority have already been mentioned as important steps towards an efficient and cost effective road network management in The Gambia. Government commitment on this implementation is an assurance that future prospects for institutional sustainability are more favourable.

6. PERFORMANCE RATING

6.1 The project achieved its major goals and was consistent with the Bank's mission goals and the economic development strategy of The Gambia.

6.2 The project was accorded priority by the IDA's Second Highway Maintenance Project and was an important contribution to the Programme for Sustainable Development.

6.3 The efficacy of the project in achieving its economic and social objectives can be rated as positive. The institutional efficacy of the project was low. Institutional strengthening of the transport sector still require sustained efforts by the Government and the Bank. The physical efficacy of the project was impaired by poor construction of the road components.

6.4 The project was cost efficient and generated acceptable internal rates of return. However, early failure of the road components is also impairing the overall cost efficiency of the project.

6.5 The project was characterised by very low time efficiency and the Contractor carries the main responsibility for time inefficiency.

6.6 The Implementation Performance has a score of 1.8 which is short of satisfactory because adherence to time schedule is rated highly unsatisfactory following the construction delays of almost four years.

6.7 The Bank's performance was also short of satisfactory with a score of 1.8. The Bank participated in project identification and 2 marks are given. However, project preparation did not include detailed designs for the road components and only 1 mark is given. For the appraisal, 3 marks are given because the project was a good selection; it was a national priority strongly supported by both the Government and the Bank and its economic analysis indicated a satisfactory economic rate of return. Only 1 mark is given for supervision because of the above mentioned shortcomings (sections 4.8.3 to 4.8.5).

6.8 The assessment of the project shows an overall project outcome which is short of satisfactory, with a general rating of 1.82. The detailed ratings are shown in Annex 8.

7. CONCLUSIONS, FEEDBACK AND RECOMMENDATIONS

7.1 Conclusions

The present report accepts the conclusions of the PCR (section 9.1. of this report) with the additions stated below:

- (i) The project was relevant and consistent with the economic development strategy of the Gambia, the Bank's strategy for the country and the Bank's missions and goals.
- (ii) The project has not met all its main objectives. Objective (ii) on improving access to and circulation within the capital city and primary commercial centre of Banjul in order to support continued economic development can be considered to have been attained. However, objective (i) on improvement and protection of the vital primary road link between the south-western agricultural areas of the country and the main marketing and population centres in the west near Banjul, and objective (iii) on enhancing the economic recovery programme of the country by reducing vehicle operating costs have not been entirely met.
- (iii) In spite of changes and additions made during implementation, the actual project cost was slightly lower, or 99.8% of its appraised cost estimate but the EIRR decreased from 16.9% at appraisal to 12.4 % at post-evaluation as a result of more realistic traffic forecasts and early functional failure of the South Bank Road sections as well as incipient functional failure of the Bund Road.
- (iv) In spite of the design changes during construction, the project components were generally completed according to the required technical standards and main design characteristics. However, poor workmanship resulted in many repairs during the maintenance period particularly along the Bund road and in early functional failure of the South Bank Road.
- (v) The implementation of the project experienced considerable delays which caused a time overrun of 40 months. The length of the construction phase was 31 instead of 24 months for Phase I and an additional 16 months for Phase II works of Banjul streets.
- (vi) The Department of Technical Services as the Executing Agency for the Project performed satisfactorily in overseeing project execution with the assistance of the PIU.
- (vii) The Bank's performance is on the whole rated as short of satisfactory, because the Bank should have been more effective and active during the preparation and supervision stages.
- (viii) The reconstruction of Banjul streets certainly had a positive impact in the living conditions and the commercial activities of the city. The reconstruction and widening of the Brumen Bridge improved the road link between the southern agricultural areas of the country and the great Banjul urban area and the rehabilitation and widening of the Bund Road also improved the connection of that link with the Banjul Port. However, the project failed to improve the link itself. Only two sections of the South Bank Road were rehabilitated and widened. The rehabilitated sections underwent premature deterioration following poor workmanship of the seal coat and vehicle operating costs are very high along this road.
- (ix) The roads, bridge and streets have not received adequate routine maintenance and the South Bank Road displays extensive functional failure.
- (x) The overall assessment shows unsatisfactory project outcome.

7.2 Lessons

The following lessons can be drawn out of the project:

- (i) Implementation schedules do not appear to be monitored step by step and target dates are hardly respected. The parties, namely the Borrower and the Bank do not appear to be very concerned by time effectiveness (section 3.3 of this report).
- (ii) Economic and engineering feasibility studies cannot replace the detailed engineering design which is an essential phase for preparing appropriate tender documents: construction works cannot be tendered on the basis of feasibility studies because at this level of project investigation design assumptions cannot be based on substantial evidence and costs cannot be evaluated with satisfactory accuracy. Updating of cost estimates when required often results in unnecessary design review. (section 3.2 of this report).
- (iii) Inappropriate, unrealistic, or onerous conditions, when established as conditions precedent to first disbursement, can lead to delays in declaring a loan effective. Once again in this project, procurement of technical assistance by the Borrower was the cause of delays in loan effectiveness (sections 3.1 and 3.8 of this report).
- (iv) Unnecessary design reviews, additional studies and design changes reflect professional staff weakness of the Executing Agency and poor supervision by the Bank (section 3.2 of this report).
- (v) Poor workmanship may result in extra maintenance costs and curtailed project benefits (sections 4.1 and 4.3 of this report).

7.3 Recommendations

The following recommendations are formulated for the consideration of the Government and the Bank:

For the Government

- (i) The Government should intensify its efforts in acquainting itself with and enforcing Bank's Rules of Procedure for Procurement and also with some standard loan conditions such as the provision of legal opinion and annual audited financial reports. In any case, the Government should be required to respect the target dates now in force concerning loan signature and loan effectiveness (section 3.1 of this report).
- (ii) In order to avoid or minimise design modifications during construction, sufficient time and resources should be allowed for detailed engineering design and senior engineers should be assigned to supervise and scrutinise the work of design consultants (section 3.2 of this report).
- (iii) The Government should strive to reduce delays in processing disbursement applications through its own administration (section 4.7 of this report).
- (iv) The Department of Technical Services should ensure that routine maintenance of the project components is undertaken as soon as possible (chapter 5 of this report).
- (v) Routine maintenance programmes for the Banjul streets should include provision for adequate cleaning of the drainage system (section 4.1.8 of this report).

- (vi) The Department of Technical Services should ensure that patching and appropriate resealing of the two sections of the South Bank Road be programmed not later than year 2000 (section 4.1.3 of this report).
- (vii) Maintenance engineers should regularly inspect and timely repair any erosion damage that could occur along the South Bank Road and the embankments of the Brumen Bridge (section 4.1.4 of this report).

For the Bank

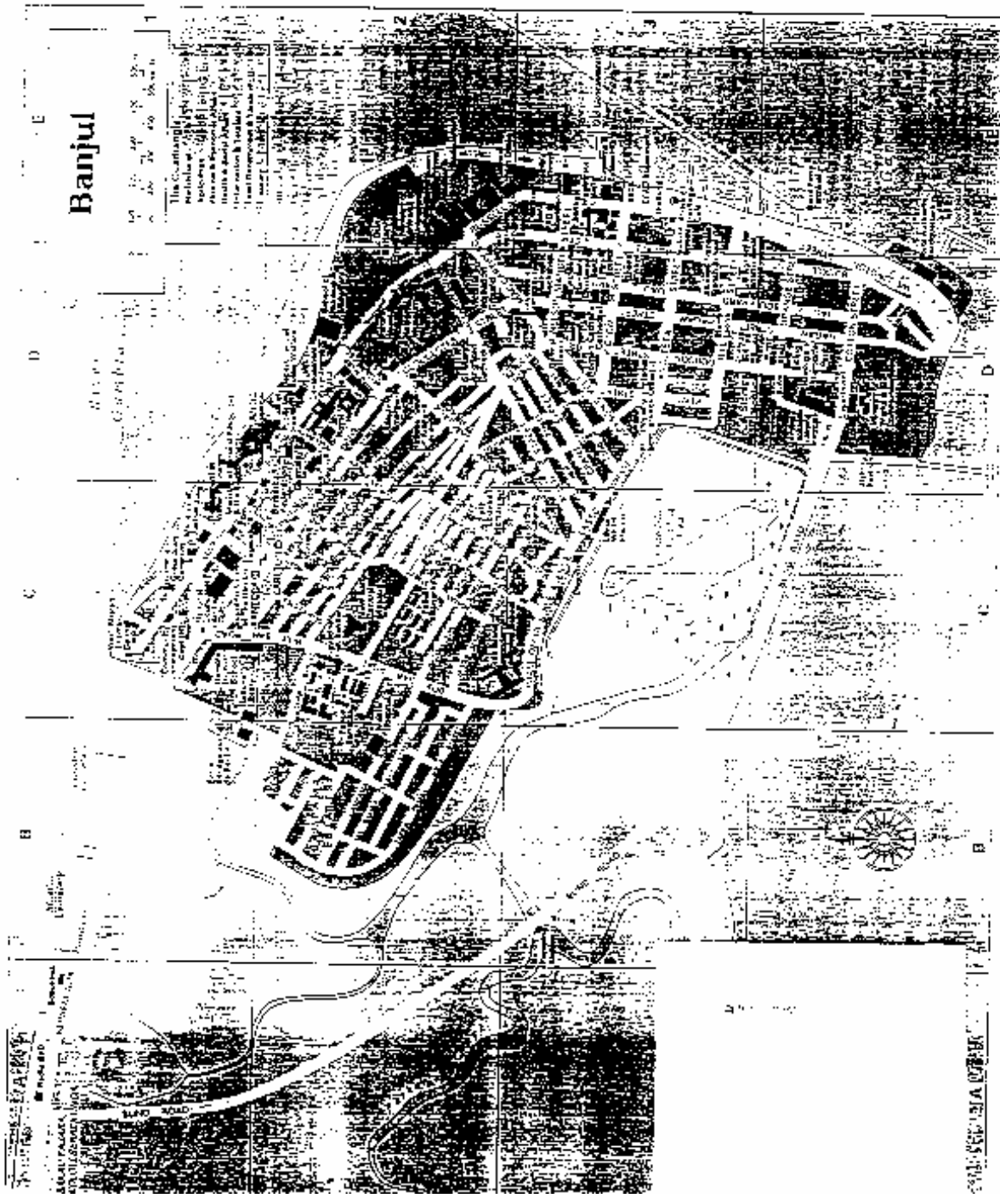
- (i) The Bank should always be satisfied with project identification and preparation before deciding to appraise a project in order to avoid duplication of design resources and hesitancy on basic concepts and important details (section 3.2 of this report).
- (ii) Technical issues should always be resolved and clarified at preparation, before appraisal rather than having additional investigations and design reviews carried out by consultants selected for construction supervision (section 3.2 of this report).
- (iii) During the project preparation stage, the Bank should always allocate sufficient time and resources for engineering detailed design and should not accept tendering of construction works based on economic and engineering feasibility studies. Cost evaluation updating should not be considered as a sound basis for tendering if the engineering investigations and studies were not detailed and comprehensive (section 3.2 of this report).
- (iv) The Bank should closely supervise and/or check the adequacy of project preparation so that design reviews and changes in design during project execution can be avoided as far as possible (section 3.2 of this report).
- (v) The most realistic unit price rates, physical and price contingency allowances should be studied and adopted during project preparation (section 3.6 of this report).
- (vii) Disbursement schedules based on detailed and realistic project execution schedules should be included in project appraisal reports. In this regard, guidelines on preparation of disbursement schedules should be developed to assist project officers (section 3.7 of this report).
- (viii) During physical implementation the Bank should closely monitor construction and send periodic supervision missions to the site in order to assist in taking well funded decisions on technical issues and solutions as submitted by the Borrower (section 4.8 of this report).
- (ix) The Bank should follow-up the routine maintenance of the project components (section 4.1 of this report).
- (x) The Bank has to ensure that as from 1999, the Department of Technical Services will forward to the Bank, the original audited financial statements and signed copies of the Auditor's reports on all on-going road projects (section 3.8.5 of this report).

7.4 Follow-up Action Matrix

A summary of the follow-up actions is presented in Annex 7 of this report.

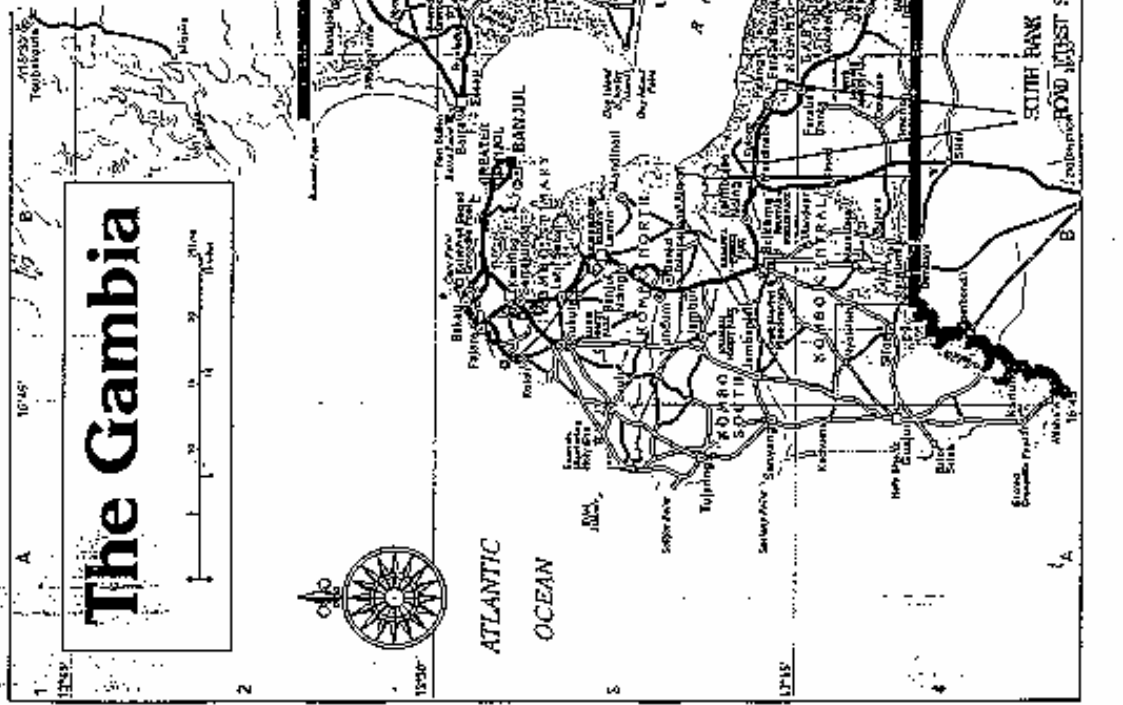
The Gambia
Roads Rehabilitation Project
Project Performance Evaluation Report

Map of Banjul City



The Gambia
 Roads Rehabilitation Project
 Project Performance Evaluation Report

Map of Western Gambia



SOUTH BANK ROAD WEST SECTION

SOUTH BANK ROAD SECOND SECTION

Brumen
 Bridge

Annex 1.1

The Gambia
Roads Rehabilitation Project
Project Performance Evaluation Report

Road Network of The Gambia
Road Network Length, 1995

	Paved Length		Gravel Length		Total Length	
	1,000 km	Percent (%)	1,000 km	percent (%)	1,000 km	Percent (%)
Western Division	215	40	317	60	532	100
Easter Division	266	27	708	73	974	100
The Gambia	481	32	1 025	68	1 506	100

Source: DoSWCI - DHV Consultants BV, Sept. 1997, National Transport Plan, 1997 – 2006

The Gambia
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Project Performance Evaluation Report

Road Network of The Gambia
Condition of the Road Network
Length % of total

Overall Condition of Carriageway	Paved Roads		Unpaved Roads		Whole Network	
	1996	1998	1996	1998	1996	1998
Excellent	27	8	3	5	12	6
Good	44	23	35	11	38	15
Fair	21	40	24	30	22	33
Critical	7	23	16	24	13	24
Failed	1	6	22	30	15	22
Total	100	100	100	100	100	100

Source: DHV Consultants BV, Technical Assistance for Institutional Support to the DoSWCI, Final Report Phase II, August 1997 – September 1998

The Gambia
Roads Rehabilitation Project
Project Performance Evaluation Report

Traffic Forecasts
Average Daily Number of Vehicles

South Bank Road
design life = 15 years

Year	Cars	Light Goods Vehicles	Buses	Trucks	Total
1989	349	27	21	35	432
1993	467	36	28	47	578
2002	756	59	45	76	936
2007	876	68	52	88	1 084

Bund Road
design life = 15 years

Year	Cars	Light Goods Vehicles	Buses	Trucks	Total
1989	1 687	147	24	587	2 445
1993	2 256	196	33	785	3 270
2002	3 649	317	53	1 269	5 288
2007	4 230	368	61	1 471	6 130

Banjul Streets
design life = 10 years

Year	Cars	Light Goods Vehicles	Buses	Trucks	Total
1989	4 125	298	427	114	4 964
1993	5 515	398	571	153	6 637
2002	8 922	644	923	247	10 736

Brumen Bridge
design life = 20 years

Year	Cars	Light Goods Vehicles	Buses	Trucks	Total
1989	101	8	6	10	125
1993	135	11	8	14	168
2002	219	17	13	22	271
2007	254	20	15	25	314
2012	295	23	18	29	365

Source: Project Completion Report

The Gambia
Roads Rehabilitation Project
Project Performance Evaluation Report

Summary of Project Benefits
 Million Dalasi

Year	South Bank Road (35.6 km)			Bund Road (3.5 km)			Banjul Streets (16.0 km)			Brumen Bridge	Roads Rehabilitation Project
	maintenance + veh. op. costs		net benefit	maintenance + veh. op. Costs		net benefit	Maintenance + veh. op. Costs		net benefit	net benefit	project net benefits
	without	with		without	With		without	with			
1991	13,16	13,16	0,00	5,04	5,04	0,00	25,38	25,38	0,00	0,00	0,00
1992	17,85	14,10	3,75	5,26	5,26	0,00	27,30	26,32	0,98	0,00	4,73
1993	14,90	14,59	0,31	5,49	5,42	0,07	26,87	26,68	0,19	0,00	0,57
1994	15,85	11,26	4,59	5,75	3,60	2,15	27,65	27,47	0,18	0,00	6,92
1995	16,86	9,23	7,63	6,15	3,72	2,43	28,45	13,33	15,12	2,45	27,63
1996	17,93	11,08	6,85	6,45	3,86	2,59	29,27	13,66	15,61	2,60	27,65
1997	19,08	13,29	5,79	6,78	4,00	2,78	30,13	14,00	16,13	2,76	27,46
1998	20,33	15,95	4,38	7,11	4,14	2,97	31,01	14,35	16,66	2,93	26,94
1999	21,81	19,14	2,67	7,46	4,28	3,18	31,91	14,71	17,20	3,11	26,16
2000	23,23	22,97	0,26	7,84	4,88	2,96	32,83	15,08	17,75	3,30	24,27
2001	28,77	11,94	16,83	8,61	5,05	3,56	33,80	16,53	17,27	3,50	41,16
2002	26,38	12,59	13,79	8,64	5,21	3,43	36,13	15,93	20,20	3,72	41,14
2003	28,18	13,96	14,22	9,07	5,92	3,15	35,97	16,23	19,74	3,95	41,06
2004	30,02	14,70	15,32	9,53	6,12	3,41	37,02	16,63	20,39	4,20	43,32
2005	31,98	15,48	16,50	10,01	6,86	3,15				4,45	24,10
2006	34,05	16,30	17,75	10,51	7,10	3,41				4,73	25,89
2007	36,27	17,18	19,09	11,05	7,92	3,13				5,03	27,25
2008	38,67	18,09	20,58	11,61	8,19	3,42				5,33	29,33
2009	41,20	19,05	22,15	12,19	9,09	3,10				5,66	30,91
2010										6,01	6,01
2011										6,34	6,34
2012										6,72	6,72
2013										7,13	7,13
2014										7,56	7,56

Source: modified from Project Completion Report

The Gambia
Roads Rehabilitation Project
Project Performance Evaluation Report

Streams of Costs and Benefits
Dalasi

Year	Investment Costs	Project Benefits	Net Benefits
1991	2 420 000	0	-2 420 000
1992	68 750 000	4 730 000	-64 020 000
1993	50 420 000	570 000	-49 850 000
1994	33 960 000	6 920 000	-27 040 000
1995	12 010 000	27 630 000	15 620 000
1996	16 170 000	27 654 000	11 484 000
1997	210 000	27 458 800	27 248 800
1998	1 340 000	26 940 560	25 600 560
1999		26 160 672	26 160 672
2000	28 296 660	24 268 806	-4 027 854
2001		41 161 000	41 161 000
2002		41 136 000	41 136 000
2003		41 064 000	41 064 000
2004		43 320 000	43 320 000
2005		24 096 000	24 096 000
2006		25 892 000	25 892 000
2007		27 246 000	27 246 000
2008		29 330 000	29 330 000
2009		30 910 000	30 910 000
2010		6 010 000	6 010 000
2011		6 340 000	6 340 000
2012		6 720 000	6 720 000
2013		7 130 000	7 130 000
2014		7 560 000	7 560 000
Economic Internal Rate of Return (%)			12,38

Source: modified from P. C. R.

THE GAMBIA
ROADS REHABILITATION PROJECT
PROJECT PERFORMANCE EVALUATION REPORT

RECOMMENDATIONS AND FOLLOW-UP ACTION MATRIX

MAIN FINDINGS & CONCLUSIONS	RECOMMENDATIONS	FOLLOW-UP ACTIONS	RESPONSIBILITY
<p><u>Project formulation and rationale</u></p> <p>The Bank was not involved in project identification but actively participated in project preparation.</p>	<p>The Bank should always be satisfied with project identification and preparation before deciding to appraise a project. In so doing, the appraisal team will avoid overlooking or oversimplifying some crucial issues.</p>	<p>Project officers should check that the project is adequately processed through identification and preparation stages before appraisal</p>	<p>Operations Departments</p>
<p><u>Project Implementation</u> A) <u>Implementation Schedule</u></p> <p>The project implementation schedule was realistic and covered the main project activities. The schedule was relatively detailed and indicated target dates to be observed by both the Bank and the Borrower.</p>	<p>Project officers should always give proper consideration to project implementation schedule at project feasibility and / or preparation stage.</p>	<p>A standard and detailed project implementation schedule should be designed and included in the guidelines for project preparation</p>	<p>Operations Departments</p>
<p>B) <u>Loan Effectiveness</u></p> <p>Conditions precedent to first disbursement were fulfilled with delays and difficulties which had adverse effect on project implementation.</p>	<p>a) Whenever feasible, crucial issues should be resolved at preparation, appraisal, or negotiation stage rather than being established as conditions precedent to first disbursement.</p> <p>b) Conditions of Loan effectiveness which are unrealistic or inappropriate or which may block project implementation should be avoided or reformulated.</p> <p>c) The Bank should introduce a "Launching Mission" as a normal regular function after a loan is signed in order to assist borrowers in the fulfilment of conditions of loan effectiveness.</p>	<p>a) Crucial project issues should be highlighted in the project preparation report and should be made known to the borrower as early as possible.</p> <p>b) The Bank should always scrutinise loan conditions critically.</p> <p>c) Define the functions and composition of a Launching Mission and take action to introduce it as a normal Bank procedure</p>	<p>Operations Departments</p>
<p>C) <u>Other Conditions</u></p> <p>"Other Conditions" and Covenants are often not fulfilled</p>	<p>Follow-up on the fulfilment of "Other Conditions" and covenants should be always undertaken.</p>	<p>Supervision and Launching Missions should ensure that the conditions and covenants are fulfilled.</p>	<p>Operations Departments</p>
<p>D) <u>Procurement</u></p> <p>Wrong applications of Bank's rules of procedure for procurement cause considerable delays in project implementation.</p>	<p>a) Procurement issues should be given careful consideration at project preparation stage and be resolved at project appraisal or at the loan negotiations stage.</p> <p>b) Launching missions should assist borrowers in procurement activities.</p> <p>c) Frequent procurement seminars should be provided to staff of executing agencies.</p>	<p>TORs for project preparation and appraisal should include detailed procurement considerations.</p> <p>TORs of Launching missions should include procurement activities.</p> <p>Design seminars programme.</p>	<p>Operations Departments</p>

<p>E) <u>Project Cost</u></p> <p>In spite of uncontrolled modifications of design and scope of works there was no cost overrun.</p>	<p>a) Updating of project cost estimates when necessary should not be confounded with design review.</p> <p>b) The Bank should only contemplate a design review if the existing detailed design is technically inadequate or when the scope of the project has been modified.</p> <p>c) The Bank should carefully monitor the implementation of any design review in order to avoid uncontrolled departures from the agreed design scope and standards and avoid unnecessary changes and increased costs.</p>	<p>Guidelines on the preparation and updating of cost estimates should be provided in order to assist project officers.</p> <p>Guidelines on design review should be prepared and the situations where a design review is necessary or justified should be strictly identified.</p> <p>The TOR of a design review should always include analysis and reappraisal of economic indicators.</p>	<p>Operations Departments</p>
<p>F) <u>Disbursement</u></p> <p>There was marked slowness in the processing of disbursement applications within both the Borrower's administration and in the Bank.</p>	<p>a) Disbursement schedules based on detailed and realistic project implementation schedules should be included in project appraisal reports.</p> <p>b) Launching and supervision missions should always deal with this subject.</p>	<p>Guidelines on the preparation of disbursement schedules should be provided to assist project officers.</p> <p>Launching and Supervision missions should deal with this issue.</p>	<p>Operations Departments</p>
<p>G) <u>Contract Management</u></p> <p>Dozens of variation orders were issued to modify quantities and scope of works, change design and deal with unforeseen problems.</p>	<p>Variation orders should not modify quantities by more than 20 % and unforeseen works should not exceed the amount set for contingencies. Contract addenda should be negotiated to deal with modifications exceeding these limits.</p>	<p>Large variations and modifications of design and scope during construction should be avoided at the preparation stage by careful planning and evaluation. If they cannot be avoided then contract extensions should be contemplated rather than variation orders.</p>	<p>Borrowers and Bank Departments</p>
<p>H) <u>Changes in design</u></p> <p>Changes in design during construction can affect the progress of project implementation and cause additional cost.</p>	<p>As far as possible, changes in design should be avoided by appropriate investigations, studies and planning during the phase of detailed design.</p> <p>The contract clauses and technical specifications should be carefully scrutinised to make sure that they provide a sound basis for design and standards enforcement.</p>	<p>The borrower and the Bank should closely supervise project preparation and be satisfied that type and scope of investigations and specifications are well adapted to site conditions.</p>	<p>Borrowers and Bank</p>
<p>I) <u>Sustainability</u></p> <p>The roads, streets and bridge were not adequately maintained.</p>	<p>The Bank should always monitor maintenance activities on completed road projects.</p>	<p>Future supervision missions should ensure that the roads, streets and bridge have been maintained and rehabilitated to agreed standards.</p>	<p>Borrowers, Operations Departments</p>
<p>J) <u>Early failure</u></p> <p>Poor workmanship of the surface dressing resulted in early functional failure of the South Bank Road.</p>	<p>Resident Engineers should take adequate steps to stop poor and restore good workmanship. Appropriate repair of construction defects should be carried out during the maintenance period at Contractor's costs.</p>	<p>The Bank should monitor project implementation with closely spaced supervision missions and take appropriate action in order to avoid this kind of situation.</p>	<p>Borrowers, Operations Departments</p>

THE GAMBIA
ROADS REHABILITATION PROJECT
PROJECT PERFORMANCE EVALUATION REPORT

Performance Rating
Implementation Performance

COMPONENT INDICATORS	SCORE (1-4)	REMARKS
1. Adherence to Time Schedule	1	The implementation schedule was not adhered to; there was a 56 months delay representing 150% of the original time span.
2. Adherence to Cost Schedule	3	In spite of additional works, actual cost was 98% of the appraisal estimate, but some design modifications resulted in unnecessary extra costs.
3. Compliance with Covenants	2	There was substantial compliance with the loan conditions. With regard to road maintenance, traffic counts, and some other aspects loan conditions could not be enforced or were only partially fulfilled.
4. Adequacy of Supervision and Reporting	2	The works were adequately supervised and progress reports prepared; neither supervision nor audit reports were prepared.
5. Satisfactory Operations (if applicable)	1	The roads, streets and bridge are not being adequately maintained. The South Bank Road displays extensive functional failure and the Bund Road shows incipient structural failure.
Overall assessment of Implementation Performance	1.8	Unsatisfactory

Bank Performance

COMPONENT INDICATORS	SCORE (1-4)	REMARKS
1. At Identification	2	The Project was accorded priority by the IDA-financed Second Highway Maintenance Project; a feasibility study was available. No identification mission was undertaken.
2. At Preparation	1	Desk review led to few recommendations. The Bank undertook funding of detailed design of the bridge and Banjul streets but detailed design of the two road components was not undertaken before Project appraisal
3. At Appraisal	3	The appraisal report was satisfactory; basic assumptions were properly analysed. A realistic and detailed time schedule with target dates was provided. No design review was required.
4. At Supervision	1	A design review was included in the terms of reference for consultancy services that resulted in uncontrolled, sometimes unnecessary and costly modifications. The scope of the works went out of control. There were only three supervision missions in almost six years. The Bank did not provide proper support to the Executing Agency.
Overall Assessment of Bank Performance	1.8	Unsatisfactory

Project Outcome

COMPONENT INDICATORS		SCORE (1-4)	REMARKS
1.	Relevance of Achievement of Objectives	2.17	Project was relevant but objectives were not entirely met.
i)	Macro-economic Policy	3	The Second Highway Maintenance Project in which the project was accorded priority took into account macro-economic setting.
ii)	Sector Policy	3	Project was in line with sectoral policy of improving the condition of the road network and facilitating transit traffic.
iii)	Physical (including production)	3	Construction of the road to an improved standard removed a major transport constraint in the Project area.
iv)	Financial	N/A	
v)	Poverty alleviation, social and gender	1	Project brought benefits to urban and rural population and industrial poles. It promoted commercialisation of crops and livestock of its impact area. But project benefits are being impaired by the bad condition of the South Bank Road.
vi)	Environment	1	Negative short and long term environmental impacts were minimised. However, lack of maintenance of the drainage system in Banjul is resulting in health hazards. Also lack of routine maintenance is causing further negative impacts on soils, water and vegetation along the roads and bridge embankments.
vii)	Private Sector Development	2	Rehabilitation of the roads, streets and bridges has been beneficial for private economic operators in agriculture and urban centres.
viii)	Other (Specify)	N/A	
2	Institutional Development	1.25	Institutional Development was not satisfactory and had negative impact on the Project.
i)	Institutional Framework, including restructuring	1	Institutional weaknesses adversely affected Project implementation and caused time overrun. .
ii)	Financial and Management Information Systems, including Audit Systems	2	Project accounts were kept but no audit reports were prepared.
iii)	Transfer of Technology	1	There were some weaknesses in project design. Design changes did not always result in technical improvement. Construction was often not satisfactory.

iv)	Staffing by qualified persons (including turnover), training and counterpart staff	1	Senior and qualified staff are departing from the Department of Technical Services and Government service for better pays in the private sector. Major reorganisation and staff motivation plans are needed for sustainable development and for retaining benefits from the TA.
3	Sustainability	1.87	Project achievements and benefits will be sustained when routine maintenance and periodic resealing are insured.
i)	Continued Borrower commitment	3	GoTG is committed to the proper functioning of the roads sector. The road fund and the road authority are scheduled for implementation within the next three years.
ii)	Environmental Policy	2	The Department of Technical Services will incorporate environmental concerns into project studies and designs, and ensure their implementation.
iii)	Institutional Framework	1	Institutional framework is currently weak, but has recently been strengthened with support from the Bank.
iv)	Technical viability and staffing	2	Project was executed to an improved technical standard. Staff of the Department of Technical Services need to be concerned with adherence to agreed technical standards and specifications.
v)	Financial viability, including cost recovery systems	N/A	
vi)	Economic viability	2	The ERR at re-evaluation is decreasing to 12.4%.
vii)	Environmental viability	2	The maintenance plans for the roads, streets and bridge should include provision for periodic cleaning of drainage structures, repair of erosion damage in order to avoid health hazards and long term environmental damage.
viii)	Operating and Maintenance facilities (availability of recurrent funding, foreign exchange, spare parts, workshop facilities etc.)	1	Fund allocation for road maintenance is inadequate but this situation is expected to improve in the medium term thanks to the implementation of a maintenance management system and the creation of a road fund and road authority.
4	Economic Internal Rate of Return	2	The EIRR at re-evaluation is satisfactory but lower than that at appraisal.
	Total	7.29	
	Overall Assessment of Outcome	1.82	Project Performance is not satisfactory.

RETROSPECTIVE LOGICAL FRAMEWORK MATRIX

Project : Roads Rehabilitation Project
 Completion Date : October, 1997
 PCR Date : February, 1998
 Date of Audit : April, 1999
 Post-Evaluation Team : William Byaruhanga, Jose Carlos de O. S. Horta

Hierarchy of Objectives	Objectively Verifiable Indicators		Means of Verification	Assumptions/Risks
	At Appraisal	At Evaluation		
<u>Development Goal</u> 1. Enhance economic recovery programme by reducing vehicle operating costs.	1. Economic growth rates	1 Economic growth rates	1.1. Economic statistics 1.2. Roughness measurements 2. Traffic Statistics	
<u>Project Objectives</u> 1. Improve and protect primary road link between SW agricultural areas and main urban centres near Banjul. 2. Improve access to and circulation within Banjul in order to support continued economic development.	1.1. Vehicle operating costs 1.2. Traffic growth rates 1.3. Statistics of agricultural production 2. Travel times, traffic flow analysis	1.1. Vehicle operating costs Roughness measurements 1.2. Annual traffic counts 1.3. Statistics of agricultural production. 2. Improved access to Banjul; traffic planning in Banjul	1.1. Roughness improved except South Bank Road 1.2. Annual traffic counts are not available. 2. Improved access to Banjul port unanimously recognised.	1.1. Appropriate routine and periodic maintenance. 1.2. Rural development projects. 2. Appropriate traffic planning in Banjul

<p><u>Outputs</u> 1. Two sections of the South Bank Road rehabilitated (35.6 km) 2. Bund Road rehabilitated (3.5 km) 3. Banjul streets rehabilitated (16.0 km) 4. Brumen Bridge widened and rehabilitated</p>	<p>All four project components completed in February 1993</p>	<p>All four project components completed in October 1997</p>	<p>Completion certificates issued at different dates</p>	<p>External factors were favourable.</p>																																																																
<p><u>Activities / Components</u> 1. Procurement of consultancy services for supervision 2. Procurement of contractor for construction works 3. Actual construction of the Project components and supervision</p>	<p>Inputs/Resources: <u>Appraisal Cost Estimate (UA million)</u> <table border="1"> <thead> <tr> <th><u>Component</u></th> <th><u>FE</u></th> <th><u>LC</u></th> <th><u>Total</u></th> </tr> </thead> <tbody> <tr> <td>Works</td> <td>13.57</td> <td>1.67</td> <td>15.24</td> </tr> <tr> <td>Supervision</td> <td>0.79</td> <td>0.08</td> <td>0.87</td> </tr> <tr> <td>Total</td> <td>14.36</td> <td>1.75</td> <td>16.11</td> </tr> </tbody> </table> <u>Appraisal Financing Plan</u> <table border="1"> <thead> <tr> <th><u>Source</u></th> <th><u>FE</u></th> <th><u>LC</u></th> <th><u>Total</u></th> </tr> </thead> <tbody> <tr> <td>ADF</td> <td>14.36</td> <td>0.15</td> <td>14.51</td> </tr> <tr> <td>GoTG</td> <td>-</td> <td>1.60</td> <td>1.60</td> </tr> <tr> <td>Total</td> <td>14.36</td> <td>1.75</td> <td>16.11</td> </tr> </tbody> </table> </p>	<u>Component</u>	<u>FE</u>	<u>LC</u>	<u>Total</u>	Works	13.57	1.67	15.24	Supervision	0.79	0.08	0.87	Total	14.36	1.75	16.11	<u>Source</u>	<u>FE</u>	<u>LC</u>	<u>Total</u>	ADF	14.36	0.15	14.51	GoTG	-	1.60	1.60	Total	14.36	1.75	16.11	<p><u>Actual Project Costs</u> <table border="1"> <thead> <tr> <th><u>Component</u></th> <th><u>FE</u></th> <th><u>LC</u></th> <th><u>Total</u></th> </tr> </thead> <tbody> <tr> <td>Works</td> <td>12.74</td> <td>1.87</td> <td>14.61</td> </tr> <tr> <td>Supervision</td> <td>1.18</td> <td>0.27</td> <td>1.45</td> </tr> <tr> <td>Total</td> <td>14.47</td> <td>1.61</td> <td>16.08</td> </tr> </tbody> </table> <u>Actual Financing Plan</u> <table border="1"> <thead> <tr> <th><u>Source</u></th> <th><u>FE</u></th> <th><u>LC</u></th> <th><u>Total</u></th> </tr> </thead> <tbody> <tr> <td>ADF</td> <td>14.47</td> <td>0.01</td> <td>14.48</td> </tr> <tr> <td>GoTG</td> <td>-</td> <td>1.61</td> <td>1.61</td> </tr> <tr> <td>Total</td> <td>14.47</td> <td>1.61</td> <td>16.08</td> </tr> </tbody> </table> </p>	<u>Component</u>	<u>FE</u>	<u>LC</u>	<u>Total</u>	Works	12.74	1.87	14.61	Supervision	1.18	0.27	1.45	Total	14.47	1.61	16.08	<u>Source</u>	<u>FE</u>	<u>LC</u>	<u>Total</u>	ADF	14.47	0.01	14.48	GoTG	-	1.61	1.61	Total	14.47	1.61	16.08	<p>Project completion reports and disbursement schedules.</p>	<p>Selected contractor did not perform as expected.</p>
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