

AFRICAN DEVELOPMENT BANK GROUP



SWAZILAND

TELECOMMUNICATIONS III PROJECTI

Project Performance Evaluation Report (PPER)

**OPERATIONS EVALUATION DEPARTMENT
(OPEV)**

21 January 2000

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This report was prepared by Mrs. Z. Khorsi, OPEV post-evaluation expert, following a mission to Swaziland in December 1998. Any further matters relating to this report should be referred to Mr. G.M.B. KARIISA, Director, OPEV, Extension 4052.

EQUIVALENTS, ACRONYMS AND ABBREVIATIONS**CURRENCY EQUIVALENTS**

Currency Unit:			Lilangeni, Emalengis (E)
1 Lilangeni:	= 100 cents	=	1 South African Rand
At Appraisal (July 1981)	UA 1	=	E 1.01976
PCR (March 1995)	UA 1	=	E 5.21940
PPER December 1998	UA 1	=	E 7.84834
December 1999	UA 1	=	E 8.45404

WEIGHTS AND MEASURES

Hertz (Hz)	:	frequency unit
Giga hertz (GHz)	:	10 ¹² Hz
1 tonne (t)	=	2 205 pounds (lbs)
1 kilogramme (kg)	=	2.205 pounds (lbs)
1 kilometre (km)	=	0.612 mile
1 metre (m)	=	3.29 feet (ft)
1 square kilometre (km ²)	=	0.3861 sq. mile
1 hectare (ha)	=	2.471 acres

FINANCIAL YEAR

1 April - 31 March

ACRONYMS AND ABBREVIATIONS

ADB	:	African Development Bank
ADF	:	African Development Fund
DL	:	Direct Line
ERR	:	Economic Rate of Return
FRR	:	Financial Rate of Return
ITU	:	International Telecommunication Union
MUA	:	Million Units of Account
NA	:	Not Applicable
ND	:	Not Determined
NE	:	Nonexistent
PCR	:	Project Completion Report
SPTC	:	Swaziland Posts and Telecommunications Corporation
UA	:	Unit of Account

PREFACE

1. This Project Performance Evaluation Report (PPER) concerns the Telecommunications III Project in Swaziland, financed from a Bank loan of MUA 7.821 in November 1981. The Loan Agreement was signed on 5/5/82 and became effective on 3/12/82. Swaziland's telecommunication services are the responsibility of SPTC (Swaziland Posts and Telecommunications Corporation), which is a public enterprise, the loan beneficiary and executing agency.
2. To consolidate the achievements of the two previous projects initiated and financed with Bank assistance, the Swaziland Posts and Telecommunications Corporation (SPTC), a public enterprise, defined a sectoral development programme to improve internal communications (urban and rural) and to set up direct and independent external links. The Telecommunications III Project is one of the Programme's three components and aims to improve telecommunication services in urban areas.
3. There was 5-year's slippage on project implementation, as a result of changes made during implementation, and the non-availability of certain skills at SPTC following its reorganization. The project was completed with an undrawn balance of UA 79,894 on the loan, which was subsequently cancelled. While the conditions of loan effectiveness were fulfilled in a satisfactory time, there was considerable slippage on the fulfillment of the two other conditions. In the case of the condition concerning the need to reduce "accounts receivable from subscribers", the enterprise's cashflow was affected. The urban telecommunications' development objective was partially attained with the development of local networks while the switching objective was briefly attained, since the equipment was replaced due to obsolescence. The project economic and financial justifications were, however, confirmed, despite the impact on project sustainability of the obsolescence of part of the equipment.
4. The Project Completion Report (PCR) distributed in January 1996 (ref : ADB/BD/IF/96/28) is considered satisfactory in terms of quality, but the lack of information, especially on the status of the sectoral restructuring, justified a performance evaluation mission to complement the findings of the PCR.
5. This report was prepared on the basis of the findings of the post-evaluation mission conducted in December 1998 and refers to the project appraisal and completion reports. It concerns the assessment of project performances, especially with regard to attainment of project objectives, the operating and institutional performance, as well as sustainability of project impacts. It draws lessons and formulates recommendations to the Borrower and the Bank Group for the consolidation of the project benefits and for the development of the sector. The post-evaluation involved a comparison between the actual project outcomes and resources made available, and those estimated at appraisal.
6. An addendum to this report will be issued following the submission of comments on it from SPTC and the Bank Departments concerned.

BASIC PROJECT DATA**Preliminary Data**

1.	Country	:	Swaziland
2.	Project	:	Telecommunications III
3.	Loan Number	:	ADB: CS/SWZ/TL/81/010
4.	Borrower	:	Government of Swaziland
5.	Beneficiary	:	Swaziland Posts and Telecommunications Corporation (SPTC)
6.	Executing Agency	:	Swaziland Posts and Telecommunications Corporation (SPTC) PO Box 125 Mbabane, Swaziland
	Telex	:	2033/2019
	Telephone	:	268 - 43 131
	Fax	:	268 - 43 130/46 133

A – Loan Basic Data

	<u>DESCRIPTION</u>		<u>ESTIMATE</u>		<u>ACTUAL</u>
1.	Financing Request	:			1980
2.	Amount (MUA)	:	7.82		7.74
3.	Interest Rate (%)	:	7		7
4.	Commitment Charge (%)	:	1		1 on the undisbursed amount
5.	Repayment Period (yr.)	:	16		16
6.	Grace Period (yr.)	:	4		4
7.	Loan Negotiation	:			22/11/81
8.	Loan Approval	:			24/11/81
9.	Loan Signature	:			05/5/82
10.	Loan Effectiveness	:	04/11/82		03/12/82

B – Project Data

	<u>DESCRIPTION</u>		<u>ESTIMATE</u>			<u>ACTUAL</u>		
1.	Total Cost (MUA)	:	9.847			8.500		
2.	Financing Plan (MUA)	:	<u>F.E.</u>	<u>L.C.</u>	<u>Total</u>	<u>F.E.</u>	<u>L.C.</u>	<u>Total</u>
	- ADB	:	7.821	-	7.821	7.740	-	7.740
	- <u>Government</u>	:	-	<u>2.026</u>	<u>2.026</u>	-	<u>0.760</u>	<u>0.760</u>
	- Total	:	7.821	2.026	9.847	7.740	0.760	8.500
3.	Project Preparation	:	ND			early 1981		
4.	Project Appraisal	:	ND			7/81		
5.	Deadline for First Disbursement	:				31/12/82		
6.	Effective Date of First Disbursement	:				17/4/83		
7.	Deadline for Last Disbursement	:				31/12/86		
8.	Effective Date of Last Disbursement	:				04/12/91		
9.	Actual Works Start-Up Date	:				mid-1983		
10.	Actual Works Completion Date	:				December 91		

C – Performance Indicators

1.	Cost Overestimation (in UA)	:	+ 14 % at appraisal
2.	Project Implementation Period	:	4 years
3.	Slippage on Effectiveness	:	1 month
4.	Slippage on First Disbursement	:	3.5 months
5.	Number of Extensions of the Deadline for the Last Disbursement	:	2
6.	Slippage on Works Start-up Date	:	30 months
7.	Slippage on Works' Completion Date	:	+ 5 years
8.	Project Implementation Status	:	Completed

9. Implementation Performance : Unsatisfactory
 10. Bank Performance : Unsatisfactory
 11. Operating Performance : Satisfactory

D - **Missions**

N°	Type of Mission	No. of Missions	Date	Number of Persons	Staff/Days
1	Identification	1	1980	During a Telecom II Supervision Mission	
2	Appraisal	1	7/81	2	30
3	Supervision	5		2	100
4	Completion	1	02/95	3	45
5	Post-Evaluation	1	12/98	1	8

E – **Loan Disbursements (million UAs)**

1. Total Disbursed : 7.740
 2. Amount Cancelled : 0.080
 3. Yearly Disbursements (in MUA equivalent)

	<u>Estimate</u>		<u>Actual</u>	
	MUAs	cumulative %	MUAs	cumulative %
1982	0.782	10	-	0
1983	5.475	80	2.456	32
1984	0.782	90	0.377	37
1985	0.782	100	0.899	48
1986	-		1.357	66
1987	-		0.857	77
1988	-		0.205	79
1989	-		0.076	80
1990	-		0.365	85
<u>1991</u>	-		<u>0.148</u>	100
Total	7.821		7.740	

F – **Principal Contractors and Works Implemented**

Ref. PCR, pages (iii) to (vi)

G – **Other Bank Group-financed Projects in the Telecommunications Sector**

<u>Name of Project</u>	<u>Year of Approval</u>	<u>Loan Amount (MUAs)</u>	<u>Project</u>	<u>Status of</u>	
				<u>PCR</u>	<u>PPER</u>
1. Telecommunications I	11/72 and 6/75	1.50 + 0.70	completed	NE	NE
2. Telecommunications II	20/12/76	5.00	completed	NE	NE
3. Master Plan	10/5/93	0.55	completed	NA	NA

I. EVALUATION SUMMARY

1.1 Objectives and Scope

1.1.1 This Project Performance Evaluation Report (PPER) concerns the Telecommunications III Project in Swaziland, financed in November 1981 from a Bank loan of MUA 7.82. In 1980, Swaziland, a landlocked country dependent on South Africa for its external communications, requested and obtained financial support for its Telecommunications Development Programme. This Programme, for an estimated cost of MUA 25.22, aimed to improve the quality of urban and rural internal communications and to ensure independent direct external links.

1.1.2 The Bank-financed Telecommunications III Project, at an estimated cost of MUA 9.847, is one of three components defined within the Programme; its specific objective is to improve urban telecommunication services, and its sector goal is to improve access to basic telecommunication services through their expansion, and to improve their quality.

1.1.3 The project was appraised in July 1981 and the corresponding ADB loan, of UA 7.821 million (MUA), was approved on 24 November 1981 and signed on 5 May 1982. It covered 79% of the project costs (MUA 9.847), and 100% of the foreign exchange expenditure. The Government of Swaziland financed all the local costs, i.e. MUA 2.026. The estimated implementation period was 57 months.

1.1.4 The project comprised the extension of the three principal automatic telephone exchanges, the procurement of subscribers' apparatus and the extension of local distribution networks, as well as institutional support in the form of technical assistance and training. On the assumption of an annual increase of 20% in telecommunications revenue (increase in communications and rates), the project's financial rate of return at appraisal was satisfactory, since it exceeded 20%, while the actual rate for the consolidated programme was 18%.

1.2 Implementation Performance

1.2.1 Although there was no slippage on loan effectiveness, the implementation performance is considered unsatisfactory. The performance was seriously affected by considerable slippage (5 years) on implementation and the delay in fulfilling one condition concerning the enterprise's financial soundness (reduction in accounts receivable from subscribers). Satisfactory quarterly activity reports were not submitted regularly to the Bank and no audit of project accounts was carried out.

1.2.2 Since the project costs were overestimated, the list of goods and services was modified seven years after loan effectiveness in order to provide more subscribers' apparatus and equipment for the local networks, thus utilizing the available funds. There was 4-years' slippage on the implementation of the project in its original formulation, two of which concerned the installation of the telex exchange; its modification led to further slippage of approximately one year. These delays and the overestimation of costs (ref. §1.2.3) reflect unsatisfactory project management and shortcomings at appraisal.

1.2.3 Cost savings of approximately 14% were made despite the additional procurements made during implementation, thus indicating a substantial overestimation of costs at appraisal. Overall, the procurement provisions were complied with, and no major loan disbursement problems were raised apart from adjustments to the estimated schedule subsequent to the slippage on implementation. The Bank Group financed the project to the tune of MUA 7.74, covering all foreign exchange expenditure, and the Government to the tune of the local currency equivalent of MUA 0.76, instead of the MUA 2.026 estimated at appraisal, i.e. 91% and 9% of project costs respectively. The undrawn loan balance of UA 79.894 was cancelled in December 1992. All the

components were completed satisfactorily, and despite considerable slippage, the project was completed satisfactorily.

1.3 Institutional Performance

The project contained a few fairly limited training and technical assistance activities intended for the accounting services, which were carried out satisfactorily. SPTC's institutional performance is, moreover, satisfactory, and its capacity has considerably improved, both from the standpoint of human resources and the establishment of management systems and tools under the subsequent sectoral restructuring.

1.4 Outcomes and Performance

1.4.1 The equipment installed, which was considered to be of satisfactory quality and in compliance with the project specifications, has made it possible to double connection capacity, and consequently improve the country's telecommunications coverage and telephone density, which rose from 1 to 1.6 DLs/100 inhabitants between 1981 and 1988.

1.4.2 The equipment installed operates satisfactorily and there has been a sharp increase in the use, leading to saturation of telephone exchanges, since demand in the areas concerned has outstripped the estimates at appraisal. The obsolescence of the latter, which were taken out of service early, affected the overall performance. However, the project financial and economic rates of return are satisfactory and above the estimated rate at appraisal.

1.4.3 Furthermore, the post-project network extension and modernization investments, and the gradual strengthening of the enterprise's institutional capacity have significantly improved SPTC's operating performance and quality of service. Thus, between 1991 and 1998, the annual number of faults noted per 100 DLs fell from 256 to 177 and the number of faults cleared per 72 hours rose from 82 to 87 and in 24 hours from 41 to 56. Productivity gains were spectacular, with the number of employees falling from 40 to 21 per 1000 DLs.

1.4.4 SPTC's operating performance and financial balance gradually improved with (i) the operating ratio falling from 90% to 74% between 1981 and 1998, (ii) a steadily rising net margin except for 1994 and 1996, (iii) a debt to equity ratio of 0.28 in 1998, compared with 1.42 in 1990, and (iv) a return on investment, which, while insufficient, rose from 4.52 to 7.1% over the same period. These outcomes were, however, affected by the lack of an effective tariff readjustment policy and instruments. A comprehensive tariff study is required, which will take real costs into consideration as well as the constraints on, and development of, the domestic and international markets

1.5 Sustainability

Apart from the switching equipment whose lifetime and impacts were sharply curtailed by technological advances, the likelihood of the project impacts being sustained has been enhanced by investments for the modernization of the networks, and from the institutional standpoint, by the present internal restructuring measures, and the Government's commitment to sectoral restructuring. The financial prospects are sound since financial equilibrium has now been attained, a situation which is unlikely to change given the Government's commitment to restructure the sector on the basis of separate postal and telecommunication activities, private sector intervention and consequently a shift towards greater liberalization in respect of tariff, wage and investment policies (diversification).

1.6 Project Impact

The project, which covered the country's three largest urban and economic centres, has directly contributed to the development of economic activities by improving the efficiency and competitiveness of economic operators; it has also partially removed the constraints relating to the country's landlocked position. The restoration of a satisfactory level of service has, moreover, helped to improve the quality of life and the environment of the urban population concerned. No major gender or environmental impacts were noted.

1.7 Conclusions

On the basis of all the scores of the individual indicators, the Telecommunications III Project has a rating of 2.82 and is classified in Category S (satisfactory). However, this overall performance is not solely due to the project, but also to subsequent network extension and modernization projects, initiated and financed by SPTC. The overall project performance would probably be unsatisfactory on the basis of the unsustainability of the switching network, the saturation of most of the equipment on its entry into service and its failure to provide a satisfactory rate of return on investment. The prospects for the sustainability of the project impacts are sound as a result of the investments made and internal restructuring activities carried out by SPTC, and are enhanced by the Government's commitment to sectoral restructuring.

1.8 Feedback and Recommendations

1.8.1 Lessons

The following lessons have been drawn from the performance evaluation of the Telecommunications III Project:

- (i) considerable slippage on implementation of a project in a capital intensive sector where the introduction of state of the art technology may partly, or totally, call into question the relevance of its design and the sustainability of its impacts. (ref. § 2.3.3, 3.3, 4.1.2);
- (ii) project risks may be concealed by the failure to conduct, or shortcomings in, detailed project feasibility studies, thus affecting the financial results, as well as the sustainability of project impacts (ref. § 2.3.1, 2.3.3);
- (iii) the vagueness of its objectives, the failure to provide performance criteria and indicators may affect the quality of the project supervision process, and limit the impact of corrective measures (ref. § 2.5.2, 4.7) ;
- (iv) significant slippage on project implementation may result in the rapid obsolescence of equipment, its saturation on entry into service and postponed financial benefits (ref. § 2.3.3, 4.1.6, 4.1.8).

1.8.2 Recommendations

In light of the foregoing, it is recommended:

To the Bank to:

- (i) include the conditions precedent to appraisal of a project, to the loan negotiations and its presentation to the Board, in the preparation report, in particular in relation to the availability of adequate studies (ref. § 2.3.2, 2.3.3);
- (ii) ensure stricter compliance with the preparation of the logical framework matrix, which should be extended to the PCRs of ongoing projects (ref. § 2.5.2 , 4.1.1);
- (iii) strengthen and develop evaluation operational guidelines by incorporating specific economic forecasting instruments (market etc) as well as risk analysis and sustainability (ref. .§ 4.1.6, 4.1.8);

- (iv) identify and assess risk factors and incorporate their impact on the project, as well as mitigative measures and actions and possible conditions of the Loan Agreement (cf.§ 2.3.3);
- (v) when financing infrastructure or capital-intensive projects, add conditions covering tariffing aspects, as well as the institutional strengthening or establishment of management systems and procedures (ref. 4.2.8, 4.2.10);
- (vi) enforce the strict implementation of guidelines concerning the frequency, objectives and content of supervision missions, as well as close monitoring and systematic reminders of the need to fulfill the conditions of the Loan Agreement, especially in the case of specific conditions relating to the restoration of the financial balance of the enterprise, and sustainability of the project impacts (ref.§ 3.8.3, 4.7) ;
- (vii) conduct a detailed reappraisal and, if necessary, review of a project design subsequent to any significant slippage on implementation, especially in a capital intensive, or advanced technology sector (ref. § 3.3); and
- (viii) participate in the ongoing restructuring process in Swaziland (cf.§ 5.4).

To the Borrower to:

- (ix) pursue its restructuring and institution building efforts, alongside its ongoing infrastructure programme in order to improve its return on investment, consolidate its financial structure and ensure the sustainability of the project impacts (ref .§ 4.2.9, 4.4.5, 5.3);
- (x) conduct a tariff study on the basis of reliable cost accounting, a comprehensive market study and current market and international competition trends in order to define a cohesive tariff policy and establish suitable tariff, billing and collection systems (ref.§ 4.2.8); and
- (xi) pursue and speed up the sectoral restructuring process (ref. § 5.4).

1.9 **Follow-up Action**

The measures relating to those recommendations are set out in detail in the matrix in Annex 1 of this report. In addition to those common to all projects which concern the strengthening of operational guidelines with regard to the study, appraisal and monitoring of projects including the fulfillment of loan conditions, the post- evaluation recommends the following principal measures:

For the Bank, the review and strengthening of operational guidelines in order to: (i) define a methodology for the evaluation and integration of risk factors relating to performance and the sustainability of project impacts, (ii) develop specific economic forecasting instruments (market.), (iii) participate in the sectoral restructuring process in Swaziland, the broadlines of which are the separation of postal and telecommunication activities, the participation of a key private sector partner in telecommunications, and the establishment of a regulatory body.

For the Borrower and SPTC, the definition and establishment of a tariff and wages policy in keeping with market trends, and the speeding up of the sectoral restructuring process.

II. BACKGROUND

2.1 **Country Economic Context**

2.1.1 The economy of the Kingdom of Swaziland, a middle-income country, is highly dependent on regional and international trade, and on South Africa, which provides it with outlets for virtually all its agricultural produce, employs many of its migratory workers and provides it with about 90%

of its imports. Customs revenue from trading with South Africa is the Government's principal source of income.

2.1.2 Economic growth was very strong in the 1980s, with an average annual growth rate of 6.4%, backed by rising foreign investment, especially in the manufacturing sector, which recorded an average growth rate of 28.7% in real terms over the period. After 1991, economic growth slowed down, and the real GDP annual average growth rate was 2.8% between 1991 and 1998, while the demographic growth rate was 3.4%. This was the result of two periods of drought, which led to a steady decline in agricultural production, as well as a slowing down of the manufacturing sector subsequent to a decline in foreign direct investment.

2.1.3 The balance of payments and public budgetary transactions also deteriorated and the budget deficit has steadily widened, from 1.5% of GDP in 1993 to 5.2% in 1998. Inflation has been contained at approximately 12%, and the debt and debt service levels are bearable at 20.27% and 4.2% respectively of GDP in 1997.

2.1.4 The Swaziland Posts and Telecommunications Corporation (SPTC), under the supervision of the Ministry of Transport and Communications (MTC), has been an autonomous public enterprise since 1986, with a monopoly on postal and telecommunication services. It also operates in a regulatory capacity within the parameters defined in the policy guidelines of MTC, which retains the right to vet large-scale investments as well as major tariff changes and salaries.

2.1.5 The different development projects concerning the Swaziland telecommunication network, which was in its infancy in 1973, have created internal momentum in the sector and a subsequent surge in demand from 9% per year in 1973 to 16% in 1979, as well as a sharp increase in domestic and international traffic; this momentum was boosted by a sustained annual economic growth rate of 7% since 1978. As in most sub-Saharan African countries, the telecommunications sector was characterized by:

- i/ considerable unsatisfied demand with waiting lists as long as subscriber lists,
- ii/ a very low, unevenly distributed regional penetration rate,
- iii/ poor quality of service to subscribers both in respect of successful connections, the number of faults detected and the time taken to repair them, as well as billing errors.
- iv/ ineffective management with a low rate of return on investment, high operating costs and a large portfolio of subscriber arrears.

2.1.6 From 1980, to accompany the Third Five-Year Plan (79/83) and to ease the constraints of network saturation, to open up rural areas and improve international links, a sectoral development programme, estimated at UA 25 million, was defined and proposed to the Bank and the Canadian International Development Agency for financing. SPTC was to be responsible for its implementation and this project, one of its components, was to cover all the urban network aspects. Despite the subsequent telecommunication investment programmes, which improved the situation (capacity of 38,958 lines with a utilization rate of 64%), and just as the new sectoral programme (1999/2004) is launched, the network remains inadequate and unable to meet ever rising demand (15% per year) or shorten the waiting list (15,000 applications) and connection time (10 years) despite the advent of the mobile phone.

2.2 History of Operations

2.2.1 Since the start-up of its activities in Swaziland, the Bank has approved 36 operations, in respect of projects, studies, as well as sectoral and technical assistance programmes, representing total commitments of MUA 166.71, net of cancellations, comprising MUA 116.53 in respect of ADB, MUA 48.46 in respect of ADF, and 1.73 in respect of NTF. All sources taken together, the

communications sector is ranked third among the beneficiary sectors with 8.2% of operations, preceded by the transport and agricultural sectors with 61.6% and 9% respectively.

2.2.2 In the telecommunications sector, five operations, representing a total amount of MUA 15.57 (MUA 15.02 from ADB resources and MUA 0.52 from ADF resources), have been approved for the financing of three projects and the sector master plan study, all of which have been completed. However, no post-evaluations of those projects were carried out, but the 1998 Portfolio Review reports an overall satisfactory performance of Bank operations, while indicating (i) communication weaknesses between the different Ministerial Departments and Executing Agencies, as well as with the Bank, (ii) a lack of centralized coordination and control mechanisms, and (iii) insufficient human resources for project management, leading to slippage on loan effectiveness and project implementation, failure to comply with procedures concerning procurement, disbursements and the submission of financial and audit reports.

2.3. Project Formulation

2.3.1 Paragraphs 3.1 and 3.2 clearly describe the origin and formulation of the project, which is presented as a logical follow-up to the first two Bank-financed telecommunications projects. The project, identified and prepared in 1980 during different Telecommunications II supervision missions, was appraised in 1981. It was financed to the tune of UA 7.82 million from ADB resources and was approved on 24/11/91. The project cost was estimated at MUA 9.847 and the implementation period at 4 years; SPTC was the executing agency.

2.3.2 The project design does not appear to have stemmed from any structured development studies of the system, but rather from successive empirical approaches, in reaction to system failures (saturation of the subsystems) following the underestimation, at the design stage, of demand trends.

2.3.3 No project risks were identified at appraisal, and, consequently, no parallel mitigative measures identified. However, there was slippage on implementation and underestimation of future demand at appraisal, risks, similar to those of the previous two projects, and which, in the case of this project, led to rapid saturation of the facilities and obsolescence of equipment.

2.4 Project Rationale

2.4.1 The project consolidated the achievements of the first two Bank-financed projects and lifted the constraints stemming from the saturation of the recently installed networks due to the underestimation of demand. Indeed, from an embryonic infrastructure, the previous two telecommunications projects permitted the establishment or extension of local switching and communications networks, which unfortunately reached saturation point, almost immediately on entry into service, as a result of stronger than estimated demand. This situation was, moreover, exacerbated by the non-existence of an independent international communications network. This project was therefore intended to ease traffic-related constraints and thus improve the quality of service.

2.4.2 The project objectives are fully in keeping with the national priorities of the Third Five-Year Development Plan (79-83), which aimed, among others, to reduce the country's dependence on imports of goods and services and to strengthen public finances. For its part, the Bank has no specific telecommunications policy but the project was in keeping with the Bank's support for the development of profitable, autonomous public sector enterprises (PSE), in order to contribute to economic growth.

2.4.3 This project, promoted by SPTC, a parastatal body, was justified from a technical and economical standpoint (ref. paragraph 4.1), and meets the profitability criterion, with a financial rate of return of 20% calculated at appraisal. The autonomy criterion was not applicable at the time of appraisal, but the legal framework was being modified and, in 1986, the postal and telecommunication services were formed into an autonomous public enterprise.

2.5. Objectives and Scope at Appraisal

2.5.1 The Programme of which the Bank project is part, was to intended to contribute to the attainment of the objectives of the Third Five-Year Plan which aimed to improve the employment situation, reduce the country's dependence on external trade flows, and to strengthen public finances. The objectives of the Bank project were: (i) at sector level, to expand basic telecommunication services thus improving access, and to enhance their quality, (ii) the specific objective was to extend and improve urban telecommunication services.

2.5.2 The Logical Framework Approach (LFA) did not exist at project appraisal, thus the objectives formulated at appraisal lacked definition and did not contain quantifiable indicators which would make it possible to measure their implementation rates. The PCR did not contain a retrospective project matrix and the statistics on the Swaziland Telecommunication Network in Annex 4 of the PCR were global and did not contain specific project performance indicators, thus weakening the project performance assessment. The post-evaluation matrix, presented in Annex 2 of this report, was prepared to more clearly determine the project's contribution to the specific and sectoral objectives, and to identify the relevant performance indicators.

2.5.3 The project components, details of which are set out in Annex 4, comprise:

- a) the supply of subscribers' apparatus (8,000 telephone sets, 100 coinboxes, 300 teleprinters and manual telephone exchange units with a total of 1000 lines),
- b) the supply and installation of different materials for the partial rehabilitation of local networks (cables, input and steel/copper wiring),
- c) the supply and installation of the necessary equipment for the extensions to the telephone and telex exchanges of Mbabane, Manzini and Lobamba,
- d) technical assistance for accounting and technical management,
- e) 24 person/months of staff training (accounting and technical), and
- f) the procurement of vehicles, spare parts, tools and small items of equipment for installation and maintenance purposes.

2.6 Financing Arrangements

At an estimated cost of MUA 25.22, the entire programme was financed by the Bank, the Canadian International Development Agency (CIDA) and the Government of Swaziland to the tune of 31%, 10% and 59% respectively. Of the 59% representing the Government's contribution, 72% was to be secured from export credits. With regard to the financing of the project, the total cost of which was estimated at MUA 9.847, the Bank's contribution was MUA 7.821 intended to cover 100% of foreign exchange expenditure, while the Government's contribution of MUA 2.026 was to cover all local currency expenditure. The loan was subject to two conditions concerning the financial reorganization of SPTC: one concerned the certification of annual accounts and the other the reduction in accounts receivable from subscribers.

2.7 Methodology and Approach at Appraisal

2.7.1 The quality of the PCR, considered satisfactory, was diminished by the lack of information and analysis of specific project outcomes, including the negative impact, combined with slippage on implementation and the rapid development of technology in the sector, on the sustainability of the project outcomes and the rate of return on investment. In view of the rapid global development of the sector both from the institutional and technological standpoints, it was recommended that a comprehensive audit be carried out in order to update the institutional aspects of the SPTC and the existing sectoral policy in Swaziland, and to complement, as far as possible, information on specific project achievements and its operating performances in the short space of time since the entry into service of the facilities.

2.7.2 This report, prepared following the audit mission, refers to the project appraisal and completion reports and is based on (i) information available in the Bank's project files, (ii) documentation and statistics collected by the mission, (iii) discussions and meetings held by the mission with SPTC executives and management and the Head of the Public Enterprises Unit (PEU) at the Ministry of Finance. It concerns the project post-evaluation, draws conclusions and lessons, and formulates recommendations to the Borrower and the Bank Group.

III. PROJECT IMPLEMENTATION

3.1 Loan Effectiveness

The loan was effective seven (7) months after the signing of the Loan Agreement, i.e. acceptable slippage of one month on the maximum recommended time frame.

3.2 Changes to Project Design

Some changes were made to the project during implementation. The planned extensions to the buildings of the Manzini and Lobamba switchboards were not carried out, for the latter were considered adequate for the equipment to be installed; the savings made as a result of the changes were used to increase the quantity of materials to be supplied under components a, b and f, as described in 2.5.3. These changes led to further slippage on implementation related to the supply of additional materials, but did not affect the project objectives.

3.3 Implementation Schedule

In its modified version, the project was completed 5 years behind the original schedule. There was little slippage (less than 6 months) on the extension of the telephone exchanges, but the component relating to the supply of materials for local networks and subscribers' apparatus was completed five years behind schedule as a result of the additional order. The extension to the telex centre was also completed five years behind schedule, with the result that the equipment became obsolete, and the investment unproductive owing to the advent of the fax which rapidly conquered the telex market. It will be noted that the components which adhered to the implementation schedule at appraisal were the telephone exchanges, on which there was virtually no slippage, while in the case of all the other equipment, the deadlines were only vaguely determined (ref. 3.7.1 of the Appraisal Report).

3.4 Reporting

The quality of the Project Completion Report submitted by SPTC, as well as that of the quarterly activity reports, is satisfactory, although submission of the latter was irregular (1 out of 2), as was that of the enterprise's certified financial statements. No audit of the project accounts was submitted to the Bank.

3.5 Procurement of Goods and Services

Overall, the procurement provisions stipulated at appraisal were complied with, and the use of international competitive bidding had a positive impact on project costs, on which substantial savings were made. Paragraph 4.5 of the PCR provided details of the implementation of this phase of the project.

3.6 Project Costs

3.6.1 The final project cost was MUA 8.5, which represented a total cost underrun of 13.7%, primarily due to significant savings on local expenditure (62%), since there were only marginal savings on foreign exchange expenditure (1%). The balance on the Bank's Loan (UA 79.894) was cancelled in February 1992, 3 months after the final project disbursement. The accounting of local currency expenditure is not reliable (ref. PCR § 4.6.4 and 6.7.5), and any savings in that area are doubtful. However, the evaluation mission was unable to clarify the uncertainties relating to project data any better than the completion mission had because of the time which had lapsed since completion of the project, and the major changes to the enterprise which was embarking upon its restructuring process.

3.6.2 The underrun on foreign exchange expenditure was primarily due to (i) changes to the switching component (buildings), and (ii) the use of international competitive bidding for the supply of equipment and other materials, which made it possible to obtain lower-than-estimated prices. Table 3.1 below gives the trend of those costs by component, inclusive of price and physical contingencies:

Table 3.1 – Estimated and Actual Project Costs (in '000 UAs)

	<u>Appraisal</u>			<u>Actual</u>		<u>Difference (%)</u>		
	<u>F.E.</u>	<u>L.C.</u>	<u>Total</u>	<u>F.E.</u>	<u>L.C.</u>	<u>Total</u>	<u>F.E.</u>	<u>Total</u>
Subscriber Apparatus	1451	153	1604	1620	-	1620	+ 11.7	+ 1.0
Local Networks	2098	1139	3237	2131	-	2131	+ 1.6	- 34.2
Switching	3307	338	4841	3032	760	3792	- 8.3	- 21.7
Technical Assistance	270	139	409	585	-	585	+116.7	+43.0
Professional Training	324	187	511	131	-	131	- 59.6	- 74.4
Equipment and Tools	371	-	920	241	-	241	- 35.0	- 73.8
Consulting Engineer	-	70	70	-	-	-	-	-
Total	7821	2026	9847	7740	760	8500	- 1.0	- 13.7

Sources: Bank PCR

3.7 Sources of Financing and Disbursements

3.7.1 The Bank was to finance 79.4% of the total project amount, i.e. the totality of the foreign exchange costs (MUA 7.821), and the Government of Swaziland 20.6% the totality of the estimated local costs (MUA 2.026). Finally, in view of the changes to the project and the uncertainty surrounding actual local expenditure, the Bank financed 91.1% of the project costs and the Government 8.9%. It is, however, likely that the part financed by SPTC is higher, especially as, in Table 3.1, spending on installation and rehabilitation work on the local networks has not been entered. Table 3.2 below summarizes the project-financing trend.

Table 3.2 – Trend of Project Financing (in million UAs)

<u>Financing</u>	<----- <u>Appraisal</u> ----->				<----- <u>Actual</u> ----->			
	<u>F.E.</u>	<u>L.C.</u>	<u>Total</u>	<u>%</u>	<u>F.E.</u>	<u>L.C.</u>	<u>Total</u>	<u>%</u>
ADB	7.821	0	7.821	79.4	7.740	0	7.740	91.1
<u>GSW</u>	0	2.026	2.026	20.6	0	0.760	0.760	8.9
Total Exclusive of Taxes	7.821	2.026	9.847	100.0	7.740	0.760	8.500	100.0

Sources: Bank PCR

3.7.2 The disbursement method retained for the loan was that of direct payment. The disbursement period, on which there was approximately one year's slippage on release of the first disbursement, was 9 years, instead of the initially estimated 4 years, owing to slippage of 2 to 5 years on the implementation of the switching, local networks, other equipment and professional training components. In the disbursements schedule in Table 3.3 below, it will be noted that the 80% loan disbursement rate, expected over two years, was only attained after 6 years.

Table 3.3 – Trend of Loan Disbursements (in MUAs)

	<u>Appraisal</u>		<u>Actual</u>	
	<u>MUA</u>	<u>cumulative %</u>	<u>MUA</u>	<u>cumulative %</u>
1982	0.782	10	0	0
1983	5.475	80	2.456	32
1984	0.782	90	0.377	37
1985	0.782	100	0.899	48
1986			1.357	66
1987			0.857	77
1988			0.205	80
1989			0.076	81
1990			0.365	85
1991			1.148	100

Sources: Disbursement Statements and Bank PCR

3.8. Compliance with Loan Conditions and Covenants.

3.8.1 The post-evaluation agrees with paragraphs 4.1.2, 4.1.3 and 7.4 of the Completion Report on fulfillment of the conditions of loan effectiveness within the deadlines, as well as of the three other conditions, despite some slippage on the approved schedule.

3.8.2 Two of the three conditions precedent were, as in most projects, identical to those stipulated in the General Conditions applicable to loan and guarantee agreements (commitments to secure counterpart funds and the financing of additional costs by the Borrower). The third was also an undertaking relating to external auditing of the beneficiary's annual financial statements. The latter was intended to strengthen the control system in place since 1977, which, between 1979 and 1981, did not apply the provision requiring the auditing of accounts by an external firm.

3.8.3 Two of the other conditions dealt with the financial reorganization of the enterprise. One set out the timetable and made concrete provision for the audit of accounts, while the second set the minimum level of subscribers' arrears to be settled by a given time; the third condition specified that the loan could not be used for the payment of taxes and customs duties. Fulfillment of the audit provision was one year behind schedule and the settlement of arrears 4 years. While the delay in the audit of the project accounts did not impact on the implementation and performance of the project, the slippage on the settlement of arrears undoubtedly had negative spin-off on the enterprise's cash-flow and its financial results. The Bank's supervision missions should have been more vigilant regarding the rapid fulfillment of the final condition; this type of condition should, in future, be the subject of an accurate and detailed plan of action at appraisal, which will be binding on the Borrower, and followed up by the Bank.

IV. PERFORMANCE ASSESSMENT

4.1. Operating Performance

4.1.1 The failure to prepare a Logical Framework at project appraisal, interference from SPTC self-financed projects to replace part of the equipment which had become obsolescent, the length of time between project completion and the completion and post-evaluation missions, have made it difficult to assess the level of attainment of objectives, the project impacts, and, consequently, performance.

4.1.2 The considerable slippage on the overall implementation of the project, combined with the rapid technological development of communications, led to the swift obsolescence of the Bank-financed switching system, and its withdrawal from service six years after the installation of the equipment. With a view to modernizing its telecommunication network through the procurement of digital technology, SPTC replaced (self-financing) its analog exchanges between 1993 and 1994.

4.1.3 While the impact of the switching component clear, that of the other project-financed components (local networks, subscribers' apparatus' and training) is more difficult to pinpoint, and of a more general nature on the other network equipment, and on the administrative and financial management of the enterprise. In view of all the network modernization investments subsequent to the Telecommunications III Project, it would be unreasonable to credit the project under consideration with the present performance level (quality of service and country coverage) of the telecommunication network. The problem of attributing those performances remains unresolved in view of the definition at appraisal of quantified objectives as well as appropriate performance criteria and indicators

4.1.4 The components have all been completed. Their quality is considered satisfactory, and in conformity with the characteristics defined at appraisal, or in changes to the project; the quality of their implementation is considered satisfactory apart from the slippage noted. The project equipment has made it possible to double the country's telecommunications coverage (from 5600 to 11200 DLs including telex), and by increasing telephone density from 1 to 1.7 DLs per 100 inhabitants, between 1981 and 1988. The project attained its objectives but only briefly owing to the withdrawal of the telephone exchanges from service owing to technological advances.

4.1.5 The telephone switching component was completed within the deadline and the equipment was operational in 1989. Modernization of the network and its conversion to digital technology did, however, lead to the replacement of such equipment between 1993 and 1994, but made it possible to immediately address the problem of saturation of the Lobamba and Manzini telephone exchanges, and of the Mbabane exchange in 1998.

4.1.6 Table 4.1 below, shows the trend of the capacity utilization rates for the project's telephone exchanges as well as of the connection rates in the urban areas concerned. It is thus noted that the new facilities rapidly reached saturation point and that those exchanges should have been extended when the equipment for the Telecommunications III Project became operational. Indeed, by 1991 the Manzini exchange was already saturated, the Lobamba exchange would be one year later, and the Mbabane exchange still had sufficient connections for another three/four years, provided the growth in demand remained steady. The technological advances and the saturation of the principal exchanges are undoubtedly the causes of the withdrawal from service of the analog exchanges installed under Bank-financed projects before they had been fully amortized and their replacement by modern digital exchanges, with higher capacity.

Table 4.1 - **Trend in Capacities and Utilization of Project Telephone Exchanges (DLs)**

<u>EXCHANGE</u>	<u>Capacity (DLs)</u>		<u>Connections (DLs) in</u>					<u>Rate (%) of</u>	
	initial	supple.	1987	1988	1989	1990	1991	saturation total capacity	growth demand
Lobamba	400	600	455	482	571	659	779	78	14.39
Manzini	2,000	1,500	2,139	2,327	2,638	2,902	3,325	95	11.66
<u>Mbabane</u>	<u>3,200</u>	<u>3,200</u>	<u>2,811</u>	<u>3,049</u>	<u>3,436</u>	<u>3,849</u>	<u>4,003</u>	<u>63</u>	<u>9.25</u>
Total	5,600	5,300	5,405	5,858	6,645	7,410	8,107	74	10.67

Sources: Bank PCR and AR, SPTC statistics

4.1.7 SPTC rehabilitated its local networks two years behind the original schedule, without external assistance; modernization of the network on technical grounds did not lead to withdrawal of the equipment from service, but to minor modifications.

4.1.8 The telex exchange, which was completed considerably behind schedule, is now little used since the advent on the information communication market of highly competitive substitute products (fax, data transmission). By 1998, the utilization rate of the telex network had slumped to only 11% (112 subscribers). Unlike the switching component, where the rapid saturation of equipment did permit its financial amortization, the investment (12% of the project amount) on the telex exchange may be considered unproductive.

4.1.9 The technical upgrading of the SPTC telecommunication network in the nineties permitted a considerable improvement in its overall performance. At the end of 1998, the country's communication capacity was 38,352 DLs, 25,073 connections, and the telephone density rose from 0.92 to 3.90 DLs/100 inhabitants between 1981 and 1998, which is above the average for sub-Saharan Africa (0.4 DLs %) and comparable to those observed in the subregion (4-7%) with the exception of South Africa which attained 12.5%. The waiting list remains long and there are approximately 15,000 applications pending (14,946 in 1998). The distribution of connection capacity and telephone density is, however, very uneven and considerable effort must be made to improve rural penetration (732 subscribers countrywide in 1998), especially through the installation of public phone booths. SPTC incorporated this aspect in its 1999-2004 Development Plan STPC. Table 4.2 below shows SPTC's overall performance trend, for all projects, since 1981, the non-project benchmark year.

Table 4.2 – SPTC Overall Performance Trend

	1991	1995	1998	SPTC's Objectives for 1998	
a/ Network Capacity (DLs)	17420	31890	38352	-	
b/ Number of connections (DLs)	13600	18180	25073	-	
c/ Telephone Density (DLs/100 inhab.)	1.9	2.4	2.7	2.6	
d/ Capacity Utilization Rate (%)	78.7	57.0	65.4	-	
e/ Personnel (telecom) /1000 DLs	39.9	29.7	21.5	25	
f/ Telex Capacity Utilization Rate (%)	27.6	22.7	11.3	-	
g/ Number of Faults/100 DLs/ yr.	256	189	177	150	
h/ Number of Faults cleared(%)	24h	41.3	53.3	56.4	70
	48h	66.7	77.4	78.2	85
	72h	81.8	86.5	87.0	NA
	7 days	93.4	96.0	95.0	95.0 (5 days)

Sources: SPTC Statistics

4.1.10 The rate of digitalization of the switching system, which was zero in 1981, attained 95% following the technological upgrade investments. The quality of service, though better than before 1981, did not improve further for many years owing to the condition of the local networks which were not rehabilitated or extended until after 1995. The number of faults per line also fell from 2.56 to 1.77 per year between 1990 and 1998 but remains above the target of 1.5 faults/year/LP stipulated in the enterprise's Performance Contract for 1998. The same applies to the number of faults cleared, which is steadily improving, but remains below the target set in the Performance Contract. (ref. Table 4.1). Staff productivity (21.5/1000 DLs) was, however, highly satisfactory in 1998 and exceeded the 1998 objectives.

4.1.11 The proportion of professional subscribers has fallen slightly recently and represents about 30% of the total, due to (i) the relative saturation of this group of subscribers owing to its prioritization in allocating connections in previous years, (ii) the emergence of considerable demand in value-added services and (iii) economic stagnation. About 60% of demand has been satisfied, but the waiting list for connections remains high (approx. 15,000). SPTC hopes to reduce it following implementation of the new 1999-2004 Five-Year Plan.

4.2 Financial performance

4.2.1 Table 4.2 below shows that SPTC's operating income covered most of the expenditure and that the operating ratio improved during the last three years to reach 73.8%. The net margin also improved during the decade, representing on average, 20% of the overall revenues, except in 1994 and 1996 when they were burdened by a significant provision for bad debts and considerable fines on loans reimbursed prior to maturity (1996). The average annual growth rate of the turnover for telecommunications during the 1989-1998 period was 15.5%, much lower than the 20% projected at appraisal. This difference from the project's financial objectives was due mainly to SPTC's delay or failure to adjust tariffs; expressed in real terms, this growth rate was around 5%, justifying fully a more frequent tariff adjustment which takes into account the inflation rate and the capital required for replacing equipment.

4.2.2 The average annual growth rate of SPTC's activity measured by the increase in its turnover was high, i.e. around 19.7% during the 1981-1998 period, with a more rapid growth during the 80s (23.8%), that dropped to 15.4% between 1990 and 1998; this growth ran parallel to that of telecommunications activity which was 20.5% between 1981 and 1989, and 15% between 1990 and 1998. During the period, investments in telecommunications featured a high and constant growth of 22.2% per annum and consequently cash flow and SPTC's net income improved significantly. The

results shown in Annex 7 on overall activity and on telecommunications proper illustrate that the latter subsidises the losses incurred by the enterprise's "postal" activities.

Table 4.3 – Profit and Loss Accounts (in million Emalengi)

<u>Entire SPTC</u>	<u>1981</u>	<u>1985</u>	<u>1990</u>	<u>1992</u>	<u>1994</u>	<u>1996</u>	<u>1998</u>
Total revenues	6.159	16.505	44.694	59.904	72.864	86.452	133.771
Net income for FY	640	1.835	8.470	11.192	6.357	5.245	37.049
Net cash flow	1.211	4.275	12.694	17.670	16.381	22.839	57.043
Net margin (%)	10,4	11,1	19,0	18,7	8,7	6,1	27,7
Operating ratio (%)	89,6	88,9	86,1	86,5	93,7	75,1	73,8
<u>Telephone activity</u>							
Net income	635	13.608	8.357	9.714	8.820	32.033	38.713
Investments	7.008	20.608	42.737	59.898	109.362	137.674	213.085
Rate of return on inv. (%)	10,0	NA	8,0	6,2	4,6	7,4	6,8

4.2.3 Starting 1990, SPTC's financial structure was balanced, on the whole, as shown by the financial aggregates and ratios of Table 4.4 below. The long-term debt ratio which was unbearable at the start of the 80s regained a more reasonable level with the consolidation of the company's equity, attendant on its change of status and autonomy in 1983. The financial balance was satisfactory and its downward trend of 1994 was reverted as of 1997.

Table 4.4 – SPTC Summarised Balance Sheets (in million Emalengi)

<u>Entire SPTC</u>	<u>1981</u>	<u>1985</u>	<u>1990</u>	<u>1992</u>	<u>1994</u>	<u>1996</u>	<u>1998</u>
Fixed assets	10.327	27.903	54.120	74.334	134.406	208.352	266.363
MLT debts	5.143	25.482	43.026	42.279	36.648	40.142	40.855
Accumulated funds (Capital)	707	707	30.311	46.806	63.344	85.451	154.804
Equity	3.518	1.435	30.311	46.806	71.333	136.619	201.480
<u>Ratios</u>							
Net income/equity	18,19	127,87	27,94	23,91	8,91	3,84	18,39
LT debts/equity	1,46	17,76	1,42	0,90	0,74	0,41	0,28
Immediate liquidity	0,78	0,87	1,91	1,64	0,70	0,64	0,80
Financial balance	0,84	0,96	1,36	1,20	0,92	0,93	0,97
Rate of return invest. (%)	-	2,40	4,52	4,33	2,39	1,28	7,09
Inflation rate	18,3	ND	11,0	8,2	13,9	10,9	8,0

Sources Tables 4.3 and 4.4: Statistics and SPTC Annual Statements

4.2.4 The rate of return of SPTC's equity capital has been satisfactory except in 1994 and 1996 when the net income had been burdened by exceptional expenditure. Conversely, the rate of return of investments into the telecommunications activity was unsatisfactory; it was uneven and lower than the actual cost of capital, and at the minimum rate of 10% usually expected of this highly profitable sector. With an inflation rate higher than 10%, this return on the telecommunications activity although higher than the overall rate of return on SPTC's investments, does not allow for the replacement of equipment in the long term.

4.2.5 Although higher investments as of 1994 for technological upgrading and more equipment was followed by better revenues and net income, it meant on the other hand:

- the deterioration of ratios such as immediate liquidity and return on investments;
- calling on the company's self-financing capacity and drawing on the turnover which was negative then.

Return on Investments

4.2.6 The project's financial rate of return as calculated in the PCR (para.7.3 and Annex 1) stood at 25% i.e. higher than the 18% calculated at appraisal and the opportunity cost of capital (7%). The project's performance rating reflected this result, the methodology and calculation assumptions on which this result was based, which in turn reflects well, how the Bank's project performed. This performance is very satisfactory in comparison with that projected at appraisal and with similar projects (10 to 15%), especially as the service life of these switching installations has been reduced by half.

Accounting and Audit

4.2.7 The accounting and audit system was explained in paragraph 6.6 of the PCR. Strengthening the accounting services and procedures and computerising the accounting and financial systems have improved considerably the quality and regularity of the various statements and financial reports. The annual accounting and financial statements are audited regularly by an external firm of international repute.

Billing

4.2.8 There is no formal structured tariff policy and tariff adjustments are regulated and submitted to the supervisory authority for approval when they are higher than the inflation rate. This procedure causes delays in the application of the proposed tariff increases which in turn lead to tariff adjustments that are often higher than the inflation rate, and to additional red tape. Despite the provisions of the programme contract signed by the Government and SPTC in 1994 enabling an annual tariff increase of 2% in real terms until 1998, only the 1995 tariff adjustment was possible with an increase (23.5%) that was higher than the inflation rate (12.3%) as illustrated in Table 4.4 below. This tariff adjustment mechanism is detrimental to the enterprise's good financial results.

Table 4.5 – Trend of Tariffs and other Connection Charges (in L)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	%yr.
Connection rate (base)	60	60	66	76	84	150	150	150	150	12.4
Unit cost of call (mn.)	0.14	0.14	0.14	0.16	0.17	0.21	0.23	0.25	0.27	8.6
<u>Inflation rate</u> (%)	-	11.0	8.2	11.2	13.9	12.3	10.9	9.6	8.0	10.61

Sources: SPTC

4.2.9 With the prospect of the sector's restructuring and privatisation, it is vital that the tariff system be reviewed in a stricter light. The tariff system reform will step up transparency in the management of the sector's various activities, especially that of telecommunications, and enable a more rational approach to the search for better productivity and a more efficient SPTC.

Billing and Collection

4.2.10 Billing and collection have been well explained in paragraph 6.4 of the PCR. Billing improved with the establishment of a computerised system. Billing also benefited from the positive effects of the digitalisation of the telephone exchanges. Billing errors, one of the biggest problems mentioned at project appraisal, have reduced considerably as has the time frame for meter reading, billing and collection. The average duration for collection which was 8 months in 1981 dropped to 62 days in 1994 (PCR) and has settled at 55 days since 1996. The collection rate which was around 94% between 1995 and 1997 reached a record 97.9% in 1998. Non-government unpaid bills which

had reached a record 70% of the telecommunications turnover in 1981, declined gradually and settled at around 15%. The disconnection of subscribers for non-payment of bills is still high and represented 44% of new connections in 1998.

4.3 Economic Performance

4.3.1 Telecommunication services have a considerable impact on economic development. The availability of modern and reliable means of communication is vital and unavoidable for Swaziland if its economy is to maintain competitiveness and if the effects of its landlocked position are to be countered. Currently, the percentage of professional subscribers is low and represents about 35% of the clientele, against an average of 50% in sub-Saharan Africa. This level has tended to stabilise in recent times as a result of a slowdown in economic activity and investments, but more so as a result of saturation in basic telecommunication products compensated by an expressed and latent demand for new high value added products (data and mobile transmission).

4.3.2 As explained in paragraph 8.1 of the PCR, the project has improved the comparative advantage of telephone communication as opposed to communication by post and road, from the standpoint of cost and time, and therefore of efficiency. The project's economic rate of return as calculated in the PCR is very satisfactory at 27%, and the retrospective evaluation concurs with this result.

4.4 Institutional and Social Performance

A – Institutional Development

4.4.1 The institutional, legal and organisational framework of SPTC is well explained in paragraph 6.1 of the PCR. In April 1986, the Post and Telecommunications service of Swaziland was established to operate as an autonomous public enterprise under the direct supervision of the Ministry of Communications. This operating and financial autonomy was limited however, since the internal general policy decisions relative to salary increases, tariffs higher than the inflation rate and to investment expenditure higher than 1 million Emalengi (US\$ 20,000) must be submitted to the supervisory authority for endorsement.

4.4.2 A performance contract defining the contractual relations between the Government and SPTC, fixing the objectives SPTC was to attain by the end of 1998, as well as the criteria and indicators for operating and financial performance was established in March 1994 for the 1994-98 period. The overriding objective of this performance contract which was linked directly to the company's strategic plan (93-98) was to improve the quality of customer services. Measures from the standpoint of equipment (technological upgrading), organisation (computerised management systems and procedures), operating (maintenance) and human resources (training) have been part and parcel of the programme.

4.4.3 Apart from the fact that the objectives lack incentive, the application of the contract, designed initially as an instrument to improve the company's performance was hindered by the following weaknesses:

- the imbalance caused by the lack of explanation on the Government's obligations;
- the lack of measures and actions retroactive to counter-performance.

Besides, the performance contract expired at the end of March 1998 without any proposals for its renewal and during its implementation no attempt was made to revise the initial objectives. This apparent lack of interest in an instrument to improve management can no doubt be explained by the imminent restructuring of the sector.

4.4.4 No sectoral or regulatory reform objective was provided for; this is characteristic of Bank operations in the sector¹, even though the Bank has financed virtually all telecommunications infrastructure and networks in most countries. However, following a seminar held in 1995 that was financed by the World Bank, various alternatives for the sector's restructuring were identified and proposed for consideration by the authorities concerned. In December 1998, a telecommunications sector integrated restructuring programme was to be submitted to the Government and its objectives were:

- meeting the demand for telecommunication services and for basic services throughout the network;
- a more efficient supply of these services;
- a rapid introduction of value added services (data transmission, mobile transmission), and competition in this activity area; and
- a significant increase in the Government's revenues.

The main programme proposals consisted in:

- separating the telecommunications activity from the post with the participation of a few strategic private partners in the newly-established company with a view to helping improve its operating and financial performance (quality, productivity and equipment);
- pursuing the management of the postal activity under the same public status bearing in mind that a restructuring would be possible later;
- the Government's temporary take-over of the regulatory function pending the creation and introduction of an independent body;
- the creation of a Basic Services Agency (ASB) within the regulatory structure which will play a role in developing access to basic telecommunications services in under-equipped regions and among the under-privileged;
- supporting the use of cordless communication technologies to step up access to the network;
- resorting to open competition for developing value added services and speeding up the participation of the private sector in the development of telecommunications.

4.4.5 The authorities seem highly motivated to restructure the sector and to open it up to private operators; SPTC had already invited tenders for a licence to operate the mobile network; although this latter initiative is premature without the relevant regulations and in view of the sector's final restructuring; it will however help to speed up the process. A set of internal restructuring exercises was launched in anticipation of the major changes and to lay the groundwork for a smooth transition.

¹ Except in Morocco for the recently appraised project the purpose of which was primarily the sector's restructuring and in Chad where institutional support from the study to restructure the ONPT, was used by the World Bank to launch the sector's restructuring process.

B – Management and Organisational Effectiveness

4.4.6 The authorities of SPTC are competent and motivated to implement the various reforms geared towards a more rational and rigorous management of equipment and towards greater efficiency of the enterprise; paragraph 6.2 of the PCR clearly explains all the measures aimed at restructuring and human resource development, professional training in particular. Table 4.6 below updates the points raised in the PCR.

Table 4.6 – Staffing Trend

	1991	1992	1993	1994	1995	1996	1997	1998	%an.
Total permanent staff	922	1035	941	923	874	869	844	826	- 1.6
Include.Post	282	303	283	282	262	261	241	227	- 3.1
Telecommunications	398	477	467	456	432	432	445	451	+ 1.8
Common services	242	255	191	185	180	176	158	148	- 6.8
Deaths	-	-	-	-	10	NA	11	15	+ 10.7
Retirees	-	-	-	-	26	NA	24	20	- 6.4
Resignations	-	-	-	-	7	NA	5	21	+ 31.6

Sources: SPTC

4.4.7 As pointed out in the PCR, management is not efficient as a result of salary constraints which have meant high staff mobility and in particular, the departure of qualified professionals and technicians for private companies offering more attractive salaries and benefits. The spread of AIDS, the latest phenomenon, may have a negative effect on the productivity of enterprises. Aware of the problem, SPTC has submitted for Board approval, an employee assistance programme including an AIDS/HIV sensitisation and advice component.

C – Socio-economic Impact

4.4.8 Through the project, the communications capacity of the three largest urban centres and of the country's economic activity poles has doubled and the competitiveness and effectiveness of the economic operators have improved, facilitating thus the expansion of their activities and the creation of more jobs. Alongside the international transmission project, this project also contributed to opening up the country and to a better integration of the country into the economy of the sub-region.

4.4.9 With the subsequent phase of upgrading the service to an adequate level, SPTC has contributed to a better standard of living and to a better environment for urban dwellers. The recent phases of development of the network particularly in the rural areas will allow for a wider distribution of these economic and social benefits among rural dwellers and thus for their stability.

4.5 Gender and Environmental Impacts

Impact on Women

4.5.1 There was no specific impact of this project or of telecommunications projects in general on women; they benefit from the socio-economic advantages mentioned earlier. The status of women in SPTC is in line with world trends in the sector, i.e. a concentration of women in administrative positions, generally on lower scales (24% of professionals and 63% of support staff are women) and carry the heavy burden of so-called cultural traditions peculiar to the country and to the continent at large. According to detailed statistics available for 1996, women workers represented

34% of SPTC's total permanent staff and the related breakdown by category and by activity is illustrated in Table 4.7 below:

Table 4.7 – Breakdown of Female versus Total Staff in 1996

		Profess/Management	Line	Total
<u>Telecommunications</u>	(No.)	85	185	270
incl. women	(%)	11	22	19
<u>Common Services</u>	(No.)	47	120	167
incl. women	(%)	49	70	63
<u>Total</u>	(No.)	143	358	501
incl. women	(%)	24	38	34

Sources SPTC

Environmental Impact

4.5.2 In terms of the environment, the telecommunications sector is generally considered safe. Furthermore, as the project comprised actions for institution building and cabling works for the rehabilitation and extension of local networks and existing telephone exchanges, there were no serious negative impacts on the environment. The only negative impacts expected when the installation is in operation could be high paper consumption (directories, etc) and petrol-operated vehicles used by workers clearing faults and maintaining the networks. These secondary effects are countered by the benefits of telephone communication which help to reduce vehicles on the road transport and hence pollution; moreover, through the development of data transmission techniques less paper will be necessary.

4.6 Performance of Consultants, Contractors, Suppliers and the Borrower

4.6.1 The performance of the enterprises (suppliers, consultants) was satisfactory (cf. § 6.7 of the PCR) except for the enterprise that supplied and installed the telex exchange roughly two years behind schedule.

4.6.2 The performance of the Borrower and the Executing Agency was satisfactory despite the four-year delay and poorly kept project accounts on works and on equipment financed by the Government.

4.7 Bank Group Performance

The Bank Group's performance was unsatisfactory. The quality of project appraisal was poor in light of the previous sectoral projects; supervision missions were infrequent (5 in 9 years) and unsatisfactory since the problem of obsolescence and rapid growth in demand were not detected and addressed during implementation. The Bank was poor in its role as adviser, maintaining its position concerning the extension of the telex exchange which was becoming limited as a result of the delay in its implementation.

V. PROJECT SUSTAINABILITY

5.1 The sustainability of project effects depends on the quality of the equipment installed and related technology, the capacity of SPTC to appropriately run and maintain this equipment, as well as its capacity to generate profits that will cover its charges and enable the renewal of the equipment.

5.2 The investment made on the switching component (45% of the project amount) was a loss; the equipment became outdated and was replaced by a more modern and reliable digital system only eight years after installation. These funds as well as those relative to the local networks were profitable in the short term as a result of the enthusiastic demand brought on by these extensions. The investments made by SPTC following project implementation to meet this accelerated demand also made it possible to improve the service and in particular to maintain the network.

5.3 Institutionally and financially, SPTC's situation improved considerably during the last decade auguring a better capacity to generate the funds necessary to cover operating, maintenance and renewal expenses. Continued actions to restructure the enterprise with the prospect of restructuring the sector and the introduction of a rigorous and adequate billing system are the conditions for a stabilising its financial system and consequently of sustaining the effects of other on-going projects to extend and modernise.

5.4 The Government has undertaken to restructure the sector and the related studies are well underway, guided by the separation of the postal from the telecommunications services, the separation of the commercial and operating functions from those of regulation, the development of value added services, the participation of the private sector in these activities and lastly, access to these basic services by the underprivileged areas and people. Accordingly, the telecommunication activity will gain a more efficient and transparent management and the range of its services will widen the new and more profitable products.

VI. PERFORMANCE RATING

The ratings summarised below are detailed in Annexes 3,4 and 5.

6.1 Implementation Performance

Implementation performance was not satisfactory; the deadlines and conditions relative to the loan were not respected.

6.2 Bank Performance

The Bank's performance was not satisfactory; project appraisal was poor, as was the quality and frequency of supervision missions, and project implementation fell far behind schedule.

6.3 Outcomes

Project outcomes were satisfactory, the components were all implemented and the institutional capacity of the executing agency improved considerably as the programme progressed. The prospects for the sustainability of project effects, with the exception of the telephone exchanges which were obsolete in less than no time, are bright given the actions taken subsequently by SPTC and the restoration of the financial balance ratios.

VII. CONCLUSIONS AND RECOMMENDATIONS

7.1 Overall Assessment

On the basis of all the scores of the individual indicators, the Telecommunications III Project has a rating of 2.82 and is classified in Category S (satisfactory). However, this overall performance is not solely due to the project, but also to subsequent network extension and modernisation projects, initiated and financed by SPTC. The overall project performance would probably be unsatisfactory on the basis of the unsustainability of the switching network, the saturation of most of the equipment on its entry into service and its failure to provide a satisfactory rate of return on investment. The prospects for the sustainability of the project impacts are sound as a result of the

investments made and internal restructuring activities carried out by SPTC, and are enhanced by the Government's commitment to sectoral restructuring.

7.2 Feedback and Recommendations

7.2.1 Lessons

The following lessons have been drawn from the performance evaluation of the Telecommunications III Project:

- (i) considerable slippage on implementation of a project in a capital intensive sector where the introduction of state of the art technology may partly, or totally, call into question the relevance of its design and the sustainability of its impacts. (ref. § 2.3.3, 3.3, 4.1.2);
- (ii) project risks may be concealed by the failure to conduct, or shortcomings in, detailed project feasibility studies, thus affecting the financial results, as well as the sustainability of project impacts (ref. § 2.3.1, 2.3.3);
- (iii) the vagueness of its objectives, the failure to provide performance criteria and indicators may affect the quality of the project supervision process, and limit the impact of corrective measures (ref. § 2.5.2, 4.7);
- (iv) significant slippage on project implementation may result in the rapid obsolescence of equipment, its saturation on entry into service and postponed financial benefits (ref. § 2.3.3, 4.1.6, 4.1.8).

7.2.2 Recommendations

In light of the foregoing, it is recommended:

To the Bank to:

- (i) include the conditions precedent to appraisal of a project, to the loan negotiations and its presentation to the Board, in the preparation report, in particular in relation to the availability of adequate studies (ref. § 2.3.2, 2.3.3);
- (ii) ensure stricter compliance with the preparation of the logical framework matrix, which should be extended to the PCRs of ongoing projects (ref. § 2.5.2, 4.1.1);
- (iii) strengthen and develop evaluation operational guidelines by incorporating specific economic forecasting instruments (market etc) as well as risk analysis and sustainability (ref. § 4.1.6, 4.1.8);
- (iv) identify and assess risk factors and incorporate their impact on the project, as well as mitigative measures and actions and possible conditions of the Loan Agreement (cf. § 2.3.3);
- (v) when financing infrastructure or capital-intensive projects, add conditions covering tariffing aspects, as well as the institutional strengthening or establishment of management systems and procedures (ref. 4.2.8, 4.2.10);
- (vi) enforce the strict implementation of guidelines concerning the frequency, objectives and content of supervision missions, as well as close monitoring and systematic reminders of the need to fulfill the conditions of the Loan Agreement, especially in the case of specific conditions relating to the restoration of the financial balance of the enterprise, and sustainability of the project impacts (ref. § 3.8.3, 4.7);
- (vii) conduct a detailed reappraisal and, if necessary, review of a project design subsequent to any significant slippage on implementation, especially in a capital intensive, or advanced technology sector (ref. § 3.3); and

(viii) participate in the ongoing restructuring process in Swaziland (cf. § 5.4).

To the Borrower to:

- (ix) pursue its restructuring and institution building efforts, alongside its ongoing infrastructure programme in order to improve its return on investment, consolidate its financial structure and ensure the sustainability of the project impacts (ref. § 4.2.9, 4.4.5, 5.3);
- (x) conduct a tariff study on the basis of reliable cost accounting, a comprehensive market study and current market and international competition trends in order to define a cohesive tariff policy and establish suitable tariff, billing and collection systems (ref. § 4.2.8); and
- (xi) pursue and speed up the sectoral restructuring process (ref. § 5.4).

7.3 Follow-up Action

The measures relating to those recommendations are set out in detail in the matrix in Annex 1 of this report. In addition to those common to all projects which concern the strengthening of operational guidelines with regard to the study, appraisal and monitoring of projects including the fulfillment of loan conditions, the post- evaluation recommends the following principal measures:

For the Bank, the review and strengthening of operational guidelines in order to:

- (i) define a methodology for the evaluation and integration of risk factors relating to performance and the sustainability of project impacts,
- (ii) (ii) develop specific economic forecasting instruments (market.),
- (iii) (iii) participate in the sectoral restructuring process in Swaziland, the broad lines of which are the separation of postal and telecommunication activities, the participation of a key private sector partner in telecommunications, and the establishment of a regulatory body.

For the Borrower and SPTC,

- (iv) continuation of internal restructuring actions and institutional strengthening ;
- (v) definition and establishment of a tariff and wages policy in keeping with market trends and the speeding up of the sectoral restructuring process.

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Annex 1

PERFORMANCE EVALUATION REPORT

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Follow-up Action Matrix

Findings – Conclusions	Recommendations	Follow-up	Responsibility
<p><u>Project Formulation and Relevance</u></p> <p>1. The project was not adequately prepared or appraised. The designs were inadequate and therefore the cost estimate was inaccurate and progress delayed.</p> <p>2. The project objectives were relevant but not very precise; performance criteria and indicators were not defined.</p> <p>3. Project risks were not identified at appraisal and the delay in implementation jeopardised net income and sustainability.</p>	<p>1. The conditions for project appraisal must be stated in the preparation report. The need for thorough and precise technical and economic studies must be strengthened.</p> <p>2. The need to prepare the logical framework matrix must be stressed further and extended to PCRs of on-going projects.</p> <p>3. Risk factors must be identified and evaluated and their impact integrated into the project with a definition of measures and actions to attenuate them and/or conditions given in the loan agreement to prevent them.</p>	<p>1. Strengthen the operating guidelines relative to preparation and appraisal; draw up a detailed list of performance indicators for telecommunications.</p> <p>2. Stress further the need to prepare the matrix at all levels of project preparation and implementation.</p> <p>3. Define a method for evaluation and integration of risk factors relative to project performance and sustainability of project effects.</p>	<p>1. <u>ADB</u> OPVP OCOD</p> <p>2. <u>ADB</u> OPVP OCD countries</p> <p>3. <u>ADB</u> OPVP OCOD</p>
<p><u>Project Implementation</u></p> <p>4. Supervision missions were poor in quality and infrequent: no step was taken to limit implementation and review the relevance of extending the telex exchange.</p> <p>5. The switching and extension equipment for the telex exchange was not modified given the major implementation delay.</p>	<p>4. Guidelines concerning the frequency, objectives and contents of supervision missions must be strictly applied.</p> <p>5. Any major delay in start-up or during project implementation especially where high tech is concerned, must be followed by a detailed reappraisal; if need be the project should be redesigned.</p>	<p>4. Spell out and stress the need to apply guidelines relative to supervision and midterm review.</p> <p>5. Establish or make more effective the procedure(s) for modifying the design of on-going projects.</p>	<p>4. & 5. <u>ADB</u>: OPVP OCOD OCD countries</p>

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Follow-up Action Matrix

<p>Compliance with loan agreement provisions</p> <p>6. The conditions for auditing accounts and settling debts were carried out 1 and 4 years behind schedule.</p> <p>7. Project accounts not audited and quarterly activity reports not regular.</p>	<p>6 & 7. Closer monitoring and systematic follow-up action by the Bank of the fulfilment of loan conditions particularly with regard to conditions for the restoration of the enterprise's financial balance and the sustainability of project impacts.</p>	<p>6 & 7. Strengthen operating guidelines for project monitoring and fulfilment of loan conditions. Strengthen the application of operating guidelines for unavoidable sustainability factors.</p>	<p>6& 7: <u>ADB</u>: OPVP OCOD OCD countries</p>
<p><u>Project Performance</u></p> <p>8. Most installations are saturated when commissioned and need to be extended.</p> <p>9. Switching equipment obsolete after a short period of time and need to be replaced before the end of the capital cost allowance period.</p> <p>10. Financial performance hindered by the lack of a structured tariff policy but more so by supervisory control over tariff, salary and equipment policies.</p>	<p>8. Strict, precise and full economic studies (market) must be demanded before project appraisal especially concerning capital intensive projects.</p> <p>9.1 All sustainability factors especially those relative to the change in technology must be the subject of far-reaching risk assessment accompanied by a programme of mitigative actions.</p> <p>9.2 See (5).</p> <p>10 The funding of infrastructure or capital intensive projects must be tied to conditions concerning tariffs and the establishment or strengthening of institutions (management systems, procedures).</p>	<p>8.1 Strengthen the evaluation operating guideline ; and</p> <p>8.2 develop instruments for economic projections (market.)</p> <p>9.1 define specific risk analysis and sustainability instruments.</p> <p>9.2 See (5)</p> <p>10.1 See 8 et</p> <p>10.2 Accelerate the sector restructuring process with the separation of postal from telecommunications activities, participation of a strategic private partner in telecommunications, creation of a regulatory body.</p>	<p>8.1 <u>ADB</u> OPVP OCOD OCD pays</p> <p>8.2 /9.1 <u>SPTC</u> <u>ADB</u> OPVP OCOD</p> <p>9.2 See 8.1</p> <p>10.1 & 10.2 <u>SPTC</u> <u>ADB</u> OPVP OCD countries</p>
<p><u>Sustainability</u></p> <p>11. Project sustainability may be jeopardised by the low rate of return of the investments and SPTC's dependence on its supervisory authority for tariff, salary and investment policies.</p>	<p>11. Actions to build the institutional capacity of the enterprise and especially of its accounting, financial and commercial functions must be pursued and the sectoral restructuring process accelerated.</p>	<p>11. A tariff and salary policy in line with the market trend must be introduced, privatisation of the sector must be favoured and its establishment accelerated.</p>	<p>11. <u>SPTC</u> <u>ADB</u> OPVP OCD countries</p>

SWAZILAND - TELECOMMUNICATIONS III PROJECT

Annex 2

PERFORMANCE EVALUATION REPORT

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Retrospective Logical Framework Matrix

Description	Verifiable Indicators	Means of Verification	Assumptions/Risks																																																																	
Sector Objectives: Contribute to: 1. a wide country coverage in view of a wider access of the people. 2. a better quality of services.	<table border="0"> <tr> <td></td> <td align="center"><u>1981</u></td> <td align="center"><u>1991</u></td> <td align="center"><u>1995</u></td> <td align="center"><u>1998</u></td> </tr> <tr> <td>Aut exchange capacity (DL)</td> <td align="center">7700</td> <td align="center">17420</td> <td align="center">31890</td> <td align="center">38542</td> </tr> <tr> <td>Connections (DL)</td> <td></td> <td align="center">6000</td> <td align="center">13878</td> <td align="center">16582 25185</td> </tr> <tr> <td>Rate of prof. Connections</td> <td align="center">NA</td> <td align="center">NA</td> <td align="center">35.1</td> <td align="center">30.6</td> </tr> <tr> <td>Telephone density (DL/100)</td> <td align="center">1.1</td> <td align="center">1.9</td> <td align="center">2.4</td> <td align="center">2.7</td> </tr> <tr> <td>Breakdowns/DL/yr.</td> <td align="center">NA</td> <td align="center">2.56</td> <td align="center">1.89</td> <td align="center">1.77</td> </tr> <tr> <td>Fault clearance rate 72h (%)</td> <td align="center">NA</td> <td align="center">81.8</td> <td align="center">86.5</td> <td align="center">87.0</td> </tr> <tr> <td>24h (%)</td> <td align="center">NA</td> <td align="center">41.3</td> <td align="center">53.3</td> <td align="center">56.4</td> </tr> <tr> <td>Customer debts</td> <td align="center">8.6 mo</td> <td align="center">101 d</td> <td align="center">55 d</td> <td align="center">54 d</td> </tr> <tr> <td>Bill recovery rate (%)</td> <td align="center">NA</td> <td align="center">NA</td> <td align="center">93.6</td> <td align="center">97.9</td> </tr> <tr> <td>Personnel/1000DL</td> <td align="center">NA</td> <td align="center">39.9</td> <td align="center">29.7</td> <td align="center">21.5</td> </tr> </table>		<u>1981</u>	<u>1991</u>	<u>1995</u>	<u>1998</u>	Aut exchange capacity (DL)	7700	17420	31890	38542	Connections (DL)		6000	13878	16582 25185	Rate of prof. Connections	NA	NA	35.1	30.6	Telephone density (DL/100)	1.1	1.9	2.4	2.7	Breakdowns/DL/yr.	NA	2.56	1.89	1.77	Fault clearance rate 72h (%)	NA	81.8	86.5	87.0	24h (%)	NA	41.3	53.3	56.4	Customer debts	8.6 mo	101 d	55 d	54 d	Bill recovery rate (%)	NA	NA	93.6	97.9	Personnel/1000DL	NA	39.9	29.7	21.5	A.Statistics B.SPTC programme contract											
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Retrospective Logical Framework Matrix

<p>Achievements</p> <p>A - supply of equipment for subscribers</p> <ul style="list-style-type: none"> - 8,500 telephones - PMBX units for 1,000 lines - 100 coinboxes - 300 teleprinters <p>B – Extension of local networks</p> <ul style="list-style-type: none"> - 45,000 km of pairs of cables - 400 km of lead-in wire - 1,500 km of steel/copper <p>C – Extension of the switching system</p> <ul style="list-style-type: none"> - extension of 5300 DL of the Mbabane, Manzini and Lobamba stations - 250 additional lines for the Mbabane telex centre <p>D – technical assistance</p> <ul style="list-style-type: none"> - 1 accountant - 1 data controller - 1 telecommunications engineers <p>E – training of 3 accountants and three engineers (24 man-years)</p> <p>F – instruments, test equipment and vehicles</p>	<p>Achievements</p> <p>A – Equipment for subscribers</p> <ul style="list-style-type: none"> - telephones acquired - PMBX units for 1000 lines - 100 coinboxes - teleprinters <p>B – Extension of local networks</p> <ul style="list-style-type: none"> - 61,200 km of pairs of cables acquired, installed - 400 km of lead-in wire - 1,500 km of steel/copper wire <p>C – Extension of the switching system</p> <ul style="list-style-type: none"> - full extension of 5300 DL of the Mbabane, Manzini and Lobamba exchanges - 250 additional lines for the Mbabane telex exchange <p>D – Technical assistants recruited</p> <ul style="list-style-type: none"> - 1 accountant - 1 data controller - 1 telecommunications engineer <p>E - 3 accountants and three engineers trained (24 man-years)</p> <p>F – instruments, test equipment and vehicles.</p>	<p><u>For all these achievements:</u></p> <p>A – quarterly activity reports and SPTC completion reports.</p> <p>B – Back-to-office, supervision and completion reports.</p>	<p>* the project fell 5 years behind schedule;</p> <p>* net income improvement with the increase in activity.</p>																																			
<p>Activities</p> <p>1. Acquisition of equipment, cables, spare parts, instruments, equipment and vehicles.</p> <p>2. Award of contracts for construction and installations works.</p> <p>3. Training.</p>	<p><u>Financing</u> (in UA million)</p> <table border="0"> <thead> <tr> <th></th> <th colspan="3">appraisal</th> <th colspan="3">achievements</th> </tr> <tr> <th></th> <th><u>F.E.</u></th> <th><u>L.C.</u></th> <th><u>Total</u></th> <th><u>F.E.</u></th> <th><u>L.C.</u></th> <th><u>Total</u></th> </tr> </thead> <tbody> <tr> <td><u>ADB</u></td> <td>7.821</td> <td>-</td> <td>7.821</td> <td>7.740</td> <td>-</td> <td>7.740</td> </tr> <tr> <td><u>Gvnt</u></td> <td>-</td> <td>2.026</td> <td>2.026</td> <td>-</td> <td>0.760</td> <td>0.760</td> </tr> <tr> <td>Total</td> <td>7.821</td> <td>2.026</td> <td>9.847</td> <td>7.740</td> <td>0.760</td> <td>8.500</td> </tr> </tbody> </table>		appraisal			achievements				<u>F.E.</u>	<u>L.C.</u>	<u>Total</u>	<u>F.E.</u>	<u>L.C.</u>	<u>Total</u>	<u>ADB</u>	7.821	-	7.821	7.740	-	7.740	<u>Gvnt</u>	-	2.026	2.026	-	0.760	0.760	Total	7.821	2.026	9.847	7.740	0.760	8.500	<p>A – quarterly activity reports.</p> <p>B – back-to-office reports.</p>	<p>* financing put in place.</p> <p>* Performance of suppliers and enterprises satisfactory.</p>
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PERFORMANCE EVALUATION REPORTIMPLEMENTATION PERFORMANCE

Indicators	Rating	Comments
1. Compliance with implementation schedule.	1	Project implementation was delayed by 5 years of which one was due to modifications to the project's design.
2. No cost overrun.	2	The overall project cost slippage is 14% and on the loan 1%. These variances, seemingly marginal reflect inadequate appraisal since during implementation the project had to cover a major extension of the switching and local network components.
3. Compliance with the loan agreement conditions.	3	The loan conditions were complied with except for that relative to the audit of project accounts which was not fulfilled. In addition, a one-year delay was registered in the customer debt settlement conditions which had a negative influence on the enterprise's cash situation.
4. Consistency of follow-up evaluation and quarterly progress reports.	3	Activity reports were not sent regularly but their quality was satisfactory and follow-up of sites adequate.
5. Satisfactory running.	3	Operating performance was satisfactory and the utilisation rate of the equipment was high in the first years; the ageing of the switching equipment led to their rapid change.
Overall evaluation of implementation performance.	2.4	Implementation performance was not satisfactory because of a lack of control of deadlines and costs and particularly the non-compliance with loan conditions.

PERFORMANCE EVALUATION REPORTBANK PERFORMANCE

<u>Indicators</u>	<u>Rating</u>	<u>Comments</u>
1. At identification	SO	The project was identified during implementation of the Telecoms II project financed by the Bank.
2. At project preparation.	2	The project was prepared also during the supervision of the Telecoms II project. This preparation was insufficient to define satisfactorily the project whose design has been changing between its identification, appraisal and even during its implementation.
3. At appraisal.	2	The quality of the project's appraisal was not satisfactory; the project was defined by its inputs (Km of cables, number of telephone sets etc) rather than by its effects and exact results. No risk was identified for this project.
4. At supervision	2	One supervision mission was organised every two years which is rather insufficient given the implementation delays, and the arrival of state of the art into the market. This was not taken into account during project implementation and it had a negative effect on the sustainability of effects.
<u>Overall evaluation of Bank performance</u>	2	Bank performance was judged unsatisfactory and the quality and frequency of supervision missions inadequate.

PERFORMANCE EVALUATION REPORTPROJECT OUTCOMES

N ^o	Indicators	Rating	Comments
1	Relevance, attainment of objectives	2.33	Relevant objectives attained overall.
i)	Macroeconomic policy.	3	The macroeconomic context was favourable during project implementation and the average annual growth was 6.8%. Starting 1991 the trend reverted and growth slowed down, but inflation was contained and the debt level and service were bearable.
ii)	Sectoral policy.	2	The sector's development policy is in keeping with technological developments and the trends of the domestic market. International integration, private sector participation and competition are slow.
iii)	Achievements.	2	The network equipment is in satisfactory working order, with the exception of the switching equipment replaced before schedule as it had become obsolete.
iv)	Net income.	3	Income improved and SPTC registers regularly positive income despite an ill adapted billing system and the subsidisation of postal activities by those of telecommunications.
v)	Poverty reduction, social aspects and women in development.	2	The project's impact on poverty and women marginal. It contributed to improving the quality of life and the environment of urban dwellers.
vi)	Environment	N.A.	---
vii)	Private sector development.	2	SPTC called upon the private sector only for the supply of equipment and implementation of works.
viii)	Other	N.A.	---
2	Institutional development	2.50	Performance is satisfactory.
i)	Institutional framework including restructuring.	2	SPTC's status has been modified in view of greater operating, legal and financial autonomy; internal restructuring measures have been launched. However, sectoral restructuring is yet to be undertaken.
ii)	Financial information and management system including the audit system.	3	The systems in place are adequate or else are being revised with a view to the sector's restructuring and the separation of postal from telecommunications activities.
iii)	Technology transfer.	3	The project did not introduce new technologies but the modernisation of the network self-financed by SPTC, has helped the staff to adapt to the new technology through training provided for under the supply contracts and in-house.
iv)	Recruitment of qualified staff, training and appointment of counterpart staff.	2	SPTC has a well-equipped training centre that is used satisfactorily. The enterprise suffers from the high mobility of qualified staff who cannot settle down as a result of a rigid salary scale and delays in its review.
3	Sustainability	2.43	Prospects for sustainability are satisfactory.
i)	Continued Borrower commitment.	2	The sector's development is a source of constant concern to the Government and SPTC; guidelines for the sector's restructuring are being adopted.

PERFORMANCE EVALUATION REPORT

PROJECT OUTCOMES

ii)	Environmental policy.	3	Despite a drop in economic growth, the economic environment and policy are still promising and benefit from openings to private capital, privileged relations with South Africa and more recently from the prospects for sector restructuring with the privatisation of the basic and specialised services.
iii)	Institutional framework.	2	SPTC's institutional capacity is improving gradually with the current actions but its margin for manoeuvre is limited by a supervisory control over its tariff and salary policies. A rapid restructuring could rectify the situation.
iv)	Technical viability and staff upgrading.	2	The consolidation and modernisation of the networks are a support to project achievements and sustainability. The adaptation of staff to these technological changes is under control.
v)	Financial viability including the cost recovery system.	2	Operating and net incomes may be difficult to improve because SPTC lacks control over tariffs and wages; although the rate of return on investments has improved it is still inadequate. Rapid sectoral restructuring would be favourable to financial viability.
vi)	Economic viability.	3	Economic performance is satisfactory and the development of a reliable network will contribute to the consolidation of the economy and the opening up of the country. The economic viability of SPTC's investments will be consolidated by elated development of activities, rigorous management factors that will be helped by the sector's liberalisation and privatisation.
vii)	Environmental viability.	N.A.	---
viii)	Operating and maintenance mechanisms.	3	The operating statements are improving, as is the service quality. The projected sectoral restructuring can only improve profit.
4	Financial rate of return.	4	The financial rate of return of 25% is higher than that projected at appraisal i.e. 18%, despite the replacement of the equipment before schedule.
5	<u>Overall evaluation of income.</u>	2.82	Overall project performance was satisfactory despite the replacement of out-of-date switching equipment before schedule.

SWAZILAND - TELECOMMUNICATIONS III PROJECT

Annex 6

PERFORMANCE EVALUATION REPORT

OPERATING RESULTS (in million Emalengi)

Overall SPTC activity	1981	1985	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total revenues	6.159	16.505	39.383	44.694	51.666	59.904	58.780	72.864	89.180	86.452	122.790	133.771
Operating expenses	5.519	14.670	29.869	36.224	46.363	48.712	52.725	66.507	72.319	81.207	90.485	96.722
Net income for the financial yr.	640	1.835	9.514	8.470	5.303	11.192	6.055	6.357	16.861	5.245	32.305	37.049
Net cash flow	1.211	4.275	9.826	12.694	10.620	17.670	14.082	16.381	30.083	22.839	51.073	57.043
Operating ratio (%)	89.6	88.9	75.8	86.1	94.0	86.5	94.1	93.7	83.0	75.1	75.2	73.8
Net margin (%)	10.39	11.12	24.16	18.95	10.26	18.68	10.30	8.72	18.91	6.07	26.31	27.70
Telecommunications activity												
Production	5.037	13.608	33.060	39.413	42.734	50.483	50.897	64.703	79.534	97.553	110.794	120.623
Consumption	4.337			26.794	33.850	37.072	41.241	47.565	50.483	55.001	66.964	68.315
Direct income from activity	700	13.608	33.060	12.619	8.884	13.411	9.656	17.138	29.051	42.552	43.830	52.308
Other indirect expenses (AC)	81			5.328	6.175	4.621	4.589	10.397	12.421	13.149	12.339	16.994
Net income from activity	635	13.608	33.060	8.357	3.944	9.714	5.985	8.820	19.114	32.033	33.959	38.713
Investments	7.008	20.608	36.489	42.737	48.359	59.898	75.595	109.362	151.249	137.674	171.510	213.085
Relative net income (%)	99.25	741.58	347.49	98.66	74.37	86.80	98.84	138.75	113.36	610.73	105.12	104.49
Relative investment (%)	67.9	73.9	85.8	83.7	82.8	84.4	81.3	82.4	78.6	67.0	75.1	81.5
Investment return (%)	10.0			8.0	4.9	6.2	3.6	4.6	5.6	7.4	7.1	6.8

Sources: SPTC's audited financial statements

SWAZILAND – TELECOMMUNICATIONS III PROJECT

PERFORMANCE EVALUATION REPORT

OPERATING PERFORMANCE INDICATORS

	1981	1989	1991	1992	1993	1994	1995	1996	1997	1998
<u>EQUIPMENT</u>										
Installed capacity (DL)	5,600	12,200	17,420	17,420	19,185	31,890	31,890	31,890	35,604	38,352
Connections (DL)	na	6645	14461	15418	16958	18376	20705	21130	22602	25073
Rate of utilisation of network (%)	n/a	54.47	83.01	88.51	88.39	57.62	64.93	66.26	63.48	65.38
Telex subscribers	n/a	n/a	278	260	243	242	177	153	116	112
Telephone density (DL/100 inhab)	n/a	1.0	1.9	2.0	2.1	2.2	2.4	2.4	2.5	2.7
<u>SERVICE QUALITY</u>										
Annual breakdown rate l/100 DL	n/a	n/a	n/a	2.56	2.31	2.06	1.89	1.97	1.91	1.77
Breakdown registration rate (%) 24h	n/a	n/a	n/a	41.3	38.8	47.2	53.3	78.6	62.71	56.4
48h	n/a	n/a	n/a	66.7	62.2	61.9	77.4	85.4	84.4	78.17
72h	n/a	n/a	n/a	81.8	77.1	73.1	86.5	91.8	89.1	87.00
7 d	n/a	n/a	n/a	93.4	89.7	89.4	96.0	95.7	93.5	95.00
<u>BILLING</u>										
Customers' debts (days) *1981 in months	8.6*	n/a	101	121	74	62	55	48	56	54
Amount billed (E million)	5.058	n/a	n/a	n/a	n/a	n/a	73.955	93.376	103.942	114.264
Amount cashed (E million)	1.392	n/a	n/a	n/a	n/a	n/a	69.197	87.757	98.413	111.851
Rate of bill recovery (%)	27.5	n/a	n/a	n/a	n/a	n/a	93.6	94.0	94.7	97.9
<u>FINANCIAL PERFORMANCE</u>										
Cost /mn call unit (L)	n/a	n/a	0.14	0.14	0.16	0.17	0.21	0.23	0.25	0.27
Charges / DL operating (E)	n/a	n/a	2.68	2.64	2.65	3.04	2.92	3.10	3.40	3.27
Revenues/ DL operating (E)	n/a	n/a	2.96	3.27	3.00	3.52	3.84	4.62	4.90	4.81
Net margin / DL operating (%)	n/a	n/a	10.17	23.83	13.33	15.78	31.64	48.89	44.20	47.26
Investment/ DL installed (E 000)	n/a	n/a	2.78	3.44	3.94	3.43	4.74	4.32	4.82	5.56
Investment return /DL inst.(%)	n/a	n/a	n/a	5.07	2.39	3.26	5.65	8.37	8.22	7.44
Telephone operating ratio (%)	n/a	n/a	0.94	0.83	0.90	0.90	0.79	0.70	0.72	0.71
Financial liquidity ratio	0.8	2.6	1.9	1.6	1.0	0.7	0.7	0.6	0.8	0.8
Investment return (%)	6.2	6.8	2.4	4.3	1.9	2.4	4.4	1.3	7.1	7.1
<u>OTHER</u>										
Personnel telecom	n/a	n/a	398	477	467	456	432	432	490	451
Personnel common services	n/a	n/a	242	255	191	185	180	176	161	148
Total SPTC Personnel	n/a	n/a	922	1.035	941	923	874	869	895	826
Telecom. Personnel/1000 DL on duty	n/a	n/a	37.6	40.9	34.3	30.9	26.1	25.4	26.0	21.5

Sources: SPTC's audited financial statements

SWAZILAND – TELECOMMUNICATIONS III PROJECT**PERFORMANCE EVALUATION REPORT****SPTC BALANCE SHEETS (in million Emalengi)**

	1981	1985	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
<u>ASSET</u>												
FIXED ASSETS	10.327	27.903	44.080	54.120	61.851	74.334	94.705	134.406	194.088	208.352	232.179	266.363
Including net assets	10.327	27.903	42.538	51.078	58.434	70.934	93.023	132.724	192.406	205.546	228.371	261.300
ENCASHABLE SHORT TERM	5.842	6.599	32.664	40.446	39.061	37.978	25.653	23.780	25.663	27.456	39.730	33.000
Incl.operating assets	790	627	1.061	1.999	1.708	1.022	1.758	1.838	2.324	2.644	2.643	2.470
Customers (subscribers)	3.644	4.006	5.688	8.162	11.873	16.745	10.284	11.045	12.075	12.940	15.693	17.282
encashable and available	1.371	1.651	21.437	27.207	19.710	12.998	7.524	2.984	3.192	3.392	13.907	4.236
Sundry debtors	37	315	4.478	3.078	5.770	7.213	6.087	7.913	8.072	8.480	7.487	9.012
TOTAL ASSET	16.169	34.502	76.744	94.566	100.912	112.312	120.358	158.186	219.751	235.808	271.909	299.363
<u>LIABILITIES</u>												
<u>EQUITY</u>	3.518	1.435	20.835	30.311	35.613	46.806	56.987	71.333	133.476	136.619	166.625	201.480
Include. Capital (accumulated funds)	707	707	20.835	30.311	35.613	46.806	56.987	63.344	80.205	85.451	117.755	154.804
General reserve	747	680	0	0	0	0	0	7.989	36.772	32.157	29.859	27.665
Cash on hand	2.064	48	0	0	0	0	0	0	16.499	19.011	19.011	19.011
MLT loans	5.143	25.482	43.259	43.026	44.225	42.279	38.001	36.648	33.066	40.142	39.714	40.855
LIABILITIES	0	0	0	0	0	0	0	16.000	16.000	16.000	16.000	16.000
<u>CAPITAL</u>	8.661	26.917	64.094	73.337	79.838	89.085	94.988	123.981	182.542	192.761	222.339	258.335
<u>PAYABLE SHORT TERM</u>	7.508	7.585	12.650	21.229	21.074	23.227	25.370	34.204	37.208	43.047	49.570	41.028
Include. Short term debts	0	2.085	5.367	5.730	4.428	5.023	4.716	12.196	6.355	7.235	13.425	12.270
Sundry loans	4.826	4.295	7.283	7.008	10.367	11.980	20.654	17.740	22.262	29.556	34.701	27.513
TOTAL LIABILITIES	16.169	34.502	76.744	94.566	100.912	112.312	120.358	158.185	219.750	235.808	271.909	299.363

Sources: SPTC audited accounts

SWAZILAND – TELECOMMUNICATIONS III PROJECT**PERFORMANCE EVALUATION REPORT****FINANCING RATIOS**

LT Debts/equity	1.46	17.76	2.08	1.42	1.24	0.90	0.67	0.74	0.37	0.41	0.33	0.28
Financial balance ratio	0.84	0.96	1.45	1.36	1.29	1.20	1.00	0.92	0.94	0.93	0.96	0.97
Immediate liquidity ratio	0.78	0.87	2.58	1.91	1.85	1.64	1.01	0.70	0.69	0.64	0.80	0.80
Rate of return of equity (%)	18.19	127.87	45.66	27.94	14.89	23.91	10.63	8.91	12.63	3.84	19.39	18.39
Rate of return investments (%)	6.20	2.40	6.75	4.52	2.42	4.33	1.85	2.39	4.38	1.28	7.07	7.09
Revolving fund (E million)	(1.666)	(986)	20.014	19.217	17.987	14.751	283	(10.424)	(11.545)	(15.591)	(9.840)	(8.028)
Cash flow (E million)	1.211	4.275	9.826	12.694	10.620	17.670	14.082	16.381	30.083	22.839	51.073	57.043

Sources: SPTC