

Document of  
**The World Bank**

**Report No. 12753-SW**

**STAFF APPRAISAL REPORT**

**SWAZILAND**

**URBAN DEVELOPMENT PROJECT**

**October 21, 1994**

**Infrastructure Operations Division  
Southern Africa Department**

## CURRENCY EQUIVALENT

(as of December 31st 1993)

Currency Unit = Emalangani  
US\$1.00 = E 3.2

## FISCAL YEAR

April 1 to March 31

## WEIGHTS AND MEASURES

1 meter (m) = 3.281 feet (ft)  
kilometer (km) = 0.621 miles (mi)  
1 square kilometer (km<sup>2</sup>) = 0.386 square miles(sq mi)  
1 cubic meter (m<sup>3</sup>) = 264.2 U.S. gallons

## GLOSSARY OF ABBREVIATIONS

CMA = Common Monetary Area  
GOS = Government of Swaziland  
ICB = International Competitive Bidding  
ICMA = International City/County Managers Association  
IHC = Industrial Housing Company  
KfW = Kreditanstalt fur Wiederaufbau (Germany)  
LCB = Local Competitive Bidding  
MBCC = Mbabane City Council  
MCI = Ministry of Commerce and Industry  
MHUD = Ministry of Housing and Urban Development  
MZCC = Manzini City Council  
ODA = Overseas Development Administration (U.K.)  
O&M = Operation and Maintenance  
PCU = Project Coordination Unit  
PPF = Project Preparation Facility  
PSC = Project Steering Committee  
SACU = Southern African Customs Union  
SBS = Swaziland Building Society  
SEA = Swaziland Electricity Authority  
SEB = Swaziland Electricity Board  
SNHB = Swaziland National Housing Board  
SNL = Swazi Nation Land  
SOE = Statement of Expenditure  
SWSB = Swaziland Water and Sewerage Board  
SWSC = Swaziland Water Services Corporation  
TA = Technical Assistance  
TOR = Terms of Reference  
TSU = Technical Support Unit  
UDP = Urban Development Project  
UNDP = United Nations Development Program  
USAID = United States Agency for International Development

**SWAZILAND  
URBAN DEVELOPMENT PROJECT**

**STAFF APPRAISAL REPORT**

**Table of Contents**

	<b>Page No.</b>
LOAN AND PROJECT SUMMARY .....	i - ii
CHAPTER 1: THE URBAN SECTOR .....	1
A. Country Context .....	1
B. Urban Sector Growth and Development .....	1
C. Policy and Legislative Framework .....	2
D. Land Management .....	3
E. Institutional Framework .....	4
F. Previous Bank Involvement And Lessons Learned .....	6
CHAPTER 2: THE PROJECT .....	7
A. Strategy for Urban Development .....	7
B. Project Origin and Strategy .....	7
C. Rationale for Bank Involvement .....	8
D. Objectives .....	9
E. Status of Preparation .....	9
F. Description .....	9
Policy and Institutional Reform .....	9
Policy Development and Review of Legislation .....	10
Institutional Support and Development .....	11
Rehabilitation and Expansion of City Roads and Services .....	12
Rehabilitation and Expansion of Water and Sewerage Services .....	12
Residential Housing Sites Including On-Site Infrastructure .....	13
Project Implementation Assistance .....	14
G. Activities Complementary to the Project .....	14
Community Facilities .....	14
Housing Finance .....	14
H. Project Cost .....	14
I. Financing Plan .....	15
J. Flow of Funds and On-Lending Terms .....	16
K. Procurement .....	17
L. Project Management .....	19
M. Project Implementation .....	20
N. Disbursement .....	21

---

This report is based on the findings of a Bank mission which visited Swaziland in June 1993, comprising Cecile Ramsay (Task Manager/Senior Financial Analyst), Ebenezer Aikins-Aful (Sanitary Engineer), Dave De Groot (Urban Specialist), R. Gopalkrishnan (Procurement Specialist), Mutumwa Mawere (Financial Analyst), Rudi Murapa (Institutional Specialist), Maria Kiwanuka (Economist) and Asamanetch Fantaye (Operations Analyst). Cynthia Cook (Sociologist/Environmental Specialist) provided input in the appraisal process. Peer reviewers are Thomas Zearley (EA11N) - Urban; Randolph Andersen (ACTCO) - financial; Jean-Marie Lantran (AF5IN) - technical. Robin Harris provided secretarial support. The Director and Division Chief are Stephen Denning and Phyllis Pomerantz respectively.

O.	Accounting and Auditing . . . . .	22
P.	Bank Supervision and Reporting Requirements . . . . .	23
<b>CHAPTER 3: INSTITUTIONAL PERFORMANCE AND SUSTAINABILITY OF PROJECT INITIATIVES . . . . .</b>		<b>24</b>
A.	Swaziland Water and Sewerage Board . . . . .	24
	Operations and Maintenance Capacity . . . . .	24
	Financial Performance . . . . .	24
	Institutional Action Plans and Performance Targets . . . . .	25
B.	Mbabane and Manzini City Councils . . . . .	26
	Operations and Maintenance Capacity . . . . .	26
	Financial Performance . . . . .	26
	Institutional Action Plans and Performance Targets . . . . .	27
C.	Swaziland National Housing Board . . . . .	28
	Financial Performance . . . . .	28
	Institutional Action Plan and Performance Targets . . . . .	29
D.	Sources of Financing for Project Beneficiaries . . . . .	29
	Swaziland Building Society . . . . .	29
	Non-Conventional Financing . . . . .	30
E.	Cost Recovery and Affordability . . . . .	31
<b>CHAPTER 4: THE PROJECT'S BENEFITS AND IMPACTS . . . . .</b>		<b>32</b>
A.	Project Benefits . . . . .	32
B.	Environmental Impact . . . . .	32
C.	Resettlement and Compensation . . . . .	33
D.	Economic Analysis . . . . .	33
E.	Poverty Impact . . . . .	34
F.	Project Risks . . . . .	34
<b>CHAPTER 5: AGREEMENTS TO BE REACHED AND RECOMMENDATIONS . . . . .</b>		<b>36</b>
A.	Conditions of Board Presentation . . . . .	36
B.	Conditions of Loan Effectiveness . . . . .	36
C.	Conditions of Disbursement . . . . .	36
D.	Agreements reached during Loan Negotiations . . . . .	36
E.	Recommendation . . . . .	37

## **Annexes**

### Annex 1

- 1.1 Statement of Sectoral Policy

### Annex 2

- 2.1 Detailed Project Description
- 2.2 Project Cost Estimates
- 2.3 Financing Plan
- 2.4 Contract Packages and Implementation Schedule
- 2.5 Table of Contents of Project Implementation Manual
- 2.6 Forecast Disbursement Schedule
- 2.7 Supervision Plan

### Annex 3

- 3.1 Project Monitoring Indicators
- 3.2 Forecast Financial Performance SWSC
- 3.3 Forecast Financial Performance City Councils

### Annex 4

- 4.1 Summary of Environmental Assessment of Project Components
- 4.2 Economic Analysis of Project Components
- 4.3 Documents in Project Files

Maps: IBRD No. 25603-Mb  
IBRD No. 25604-Mz



**SWAZILAND**  
**URBAN DEVELOPMENT PROJECT**  
**LOAN AND PROJECT SUMMARY**

<b>Borrower:</b>	Kingdom of Swaziland
<b>Beneficiary:</b>	Ministry of Housing and Urban Development (MHUD), Swaziland Water Services Corporation (SWSC), Swaziland National Housing Board (SNHB), and the Mbabane and Manzini City Councils.
<b>Poverty:</b>	Not applicable.
<b>Amount:</b>	US\$29 million equivalent.
<b>Terms:</b>	Bank standard variable interest rate, 20 year maturity with a 5-year grace period.
<b>Commitment Fee:</b>	0.75% on undisbursed loan balances beginning 60 days after signing, less any waiver.
<b>On-Lending Terms:</b>	US\$24.6 million of loan proceeds would be on-lent to SWSC, SNHB and the Mbabane and Manzini City Councils at a variable interest rate (inflation plus two percentage points) for 6-18 years depending on the component being financed. Government would bear the foreign exchange risk. US\$4.4 million would be provided to SWSC and Mbabane City Council as grants to assist with funding of sewage treatment and solid waste disposal facilities.
<b>Financing Plan:</b>	See para. 2.4.
<b>Economic Rate of Return:</b>	Weighted average 27% for 55% of total project cost.
<b>Staff Appraisal Report:</b>	No. 12753-SW
<b>Maps:</b>	IBRD Nos. 25603 and 25604

**Estimated Project Costs:**

	(US\$ million)		TOTAL
	LOCAL	FOREIGN	
<b>A. POLICY &amp; INST. REFORM</b>			
Policy Dev./Legislation Rev.	0.1	0.3	0.4
Institutional Support	1.1	2.7	3.8
Sub-Total	1.2	3.0	4.2
<b>B. REHAB. &amp; EXP. OF RDS &amp; SVC.</b>			
Rds & Drainage	0.6	1.3	1.9
Rds Maintenance	0.8	0.8	1.6
Solid Waste Disposal sites	2.2	1.4	3.6
Solid Waste Disposal Equipment		1.5	1.5
Electrical Reticulation	0.2	0.4	0.6
Land Compensation	0.1	0.0	0.1
Sub-total	3.9	5.4	9.3
<b>C. REHAB. &amp; EXP. WTR. &amp; SEW. SVC.</b>			
Water Service	0.8	4.0	4.8
Sewer Service	2.6	11.0	13.6
Water Loss Reduction	0.1	0.5	0.6
Land Compensation	0.1	0.0	0.1
Sub-total	3.6	15.5	19.1
<b>D. RES. HSG. SITES &amp; ON-SITE INF.</b>			
On-Site Infrastructure	3.4	3.0	6.4
Land Compensation	1.2	0.0	1.2
Sub-total	4.6	3.0	7.6
<b>E. PROJECT PREPARATION</b>			
Project Supervision	0.6	1.4	2.0
Other	0.1	0.4	0.5
Sub-total	0.7	1.8	2.5
<b>F. PPF Refinancing</b>	0.0	1.5	1.5
<b>TOTAL BASE COST</b>	14.0	30.2	44.2
Physical Contingencies	1.1	2.4	3.5
Price Contingencies	1.2	2.6	3.8
<b>TOTAL PROJECT COST</b>	16.3	35.2	51.5

**Estimated Financing Plan:**

	USSM	%
IBRD	29.0	56.3
Implementing Agencies	6.6	12.8
Government	14.7	28.5
UNDP	0.3	0.6
ODA	0.6	1.2
Other (Cofinancing)	0.3	0.6
<b>TOTAL</b>	51.5	100.0

**Estimated Bank Disbursements:**

**Fiscal Year Ending June 30 (US\$ million)**

Year	1995	1996	1997	1998	1999	2000	2001	2002
Annual	1.9	2.7	3.5	5.2	5.0	5.2	4.0	1.5
Cumulative	1.9	4.6	8.1	13.3	18.3	23.5	27.5	29.0
% of Loan	6.6	16.0	28.0	46.0	63.0	81.0	95.0	100

**Economic Rate of Return:** Weighted average 27% for 55% of total project costs.

# SWAZILAND

## URBAN DEVELOPMENT PROJECT

### CHAPTER 1: THE URBAN SECTOR

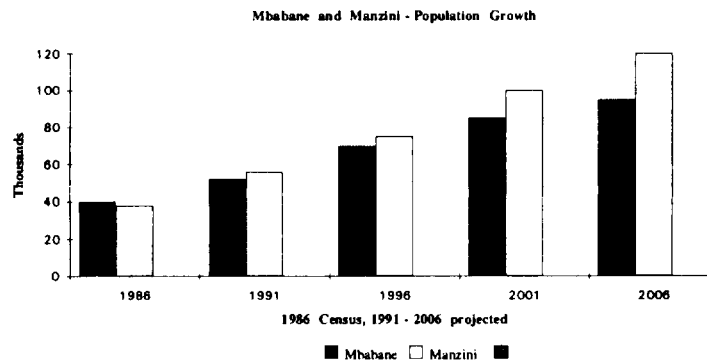
#### A. Country Context

1.1 Swaziland, a small landlocked country bordered mainly by South Africa, has a population of about 0.9 million and a per capita GNP of US\$1090(1992). Its strong economic links with South Africa are due not only to geographical proximity but also to its membership in the Southern African Customs Union (SACU) and the Common Monetary Area (CMA). South Africa accounts for 80% of merchandise imports and 30% of merchandise exports. SACU receipts contribute about half the fiscal revenues. In addition, workers' remittances, mostly from Swazis employed in South African mines, account for over 15% of GNP.

1.2 Albeit with wide fluctuation, Swaziland's economy grew during the 1980s. International sanctions against South Africa and a market oriented policy environment with limited government intervention in setting prices and wages were contributing factors. Since 1990, with the onset of the recession in South Africa, economic growth has slowed. The situation was exacerbated by the severe drought that affected the region in 1992. As a result, real GDP declined by 2% in 1992. Budgetary deficits have reemerged because of recent increases in personnel and large capital expenditures in FY93, with only moderate increase in revenue. More important is the change in the economic outlook for exports. With the gradual opening up of the South African economy, Swazi exports will need to be more competitive than before and investment incentives will have to remain competitive given the likely improvement in the investment climate in the sub-region. Swaziland's main development priorities are: (i) sound macroeconomic management, particularly fiscal prudence; (ii) improvement of the export orientation of current investment incentives, given the changing political and economic climate in the sub-region; (iii) poverty alleviation through emphasis on rural development and creating urban income/employment opportunities; and (iv) human resource development.

#### B. Urban Sector Growth and Development

1.3 Providing employment opportunities for, and improving living standards of, a rapidly growing population are major challenges facing Swaziland. An urban base with an efficient and well maintained infrastructure will be essential for future growth. Compared to other middle income countries, Swaziland has a relatively low level of urbanization. In 1992, an estimated 25% of the population lived in urban and peri-urban areas.



1.4 Mbabane and Manzini form dual urban growth points in the core region centered on the Matsapha industrial estate in the west-central part of the country. The population in the Mbabane-Manzini corridor is growing at between 5% and 6% per annum. Approximately 108,000 people, 13% of Swaziland's population (roughly 50% of the total urban population) currently live in Mbabane and Manzini or in the immediate peri-urban fringes surrounding these two cities. It is estimated that the population of the two cities will total 215,000 by the year 2006.

1.5 Urban growth is largely unplanned. More than 60% of the population in the Mbabane-Manzini corridor live in informal, unplanned communities in substandard structures on unsurveyed land without legal title; less than 50% of the urban population have access to safe water; fewer than 20% are connected to the sewerage network. Service utility operating systems, at primary, secondary and tertiary levels, have also reached capacity. Water treatment installations for both urban centers are poorly maintained. Sewage treatment plants are handling loads well in excess of original design capacity. Uncontrolled and rapid development on steep land, together with widespread use of soil and timber resources for the construction of temporary dwellings, are resulting in considerable environmental degradation. Low levels of piped water supply and pollution of natural water sources contribute to a child mortality rate that is significantly higher than per capita income would indicate.

1.6 Effective management of the urbanization process in Swaziland has been constrained by the absence of clear sector policies, difficulties in obtaining land for urban development, a pervasive lack of institutional capacity, jurisdictional overlap among a multiplicity of agencies, and inconsistencies or conflicts among relevant national legislation and policies. Private and public sector developers provide housing affordable to only high and upper middle income households. Given the lack of experience with low cost housing and existing building standards, a major challenge for sector entities has been to develop an institutional perspective that takes into account the income of target groups.

1.7 In late 1991, the establishment of the Ministry of Housing and Urban Development (MHUD) resolved many of the central agency jurisdictional issues with the transfer to the new Ministry of urban management functions previously carried out by four other ministries. However, difficulties still remain with regard to regional and local government units and parastatals playing key roles in urban management. Financial management and operations and maintenance capacity are of particular concern. In addition, antiquated and inconsistent legislation require revision. Availability of land for urban development is a critical issue.

### **C. Policy and Legislative Framework**

1.8 The Urban Government Act of 1969 provides the basis for the establishment of local authorities in Swaziland and is the primary legal instrument defining their powers and functions. The Act broadly defines the role of a local authority as being the administration of the municipality and the general promotion of public health, welfare, and convenience. In practice, however, the local government system in Swaziland is characterized by a high degree of central government control over local affairs, particularly with regard to policy making, planning, regulatory control and revenue generation. There are currently two city councils, three town councils and five town boards established under the terms of the Act. At the same time there are 55 Tinkhundla -- quasi-traditional local councils -- established under the 1979 Regional Council's Order. The extent to which the 10 urban governments that report to the MHUD are subject to the provisions of the Regional Councils' Order is unclear.

1.9 Other existing legislation critical to successful urban management in Swaziland need review and/or modification. These include: (i) the 1988 Human Settlements Act that created the Human Settlements Authority as a national development regulatory body - the functions of the Authority, which has never been fully operational, are currently under review; (ii) the 1961 Town Planning Act that requires authorizations from up to nine different agencies in order to obtain approval for township development plans; (iii) the 1968 Building Act that establishes inappropriately high standards of construction and has been the object of numerous recommendations for revision; and (iv) the 1967 Rating Act that allows strict control of rates by central Government - failure to increase rates to generate adequate revenue severely limit the ability of city and town councils to deliver services. Affiliated legislation such as the 1964 Crown Lands Act as well as the Urban Government Act also require review and possible amendment.

1.10 The Government recently adopted a comprehensive National Housing Policy for Urban areas. The MHUD has also prepared a summary statement of Urban Sector Policy (Annex 1.1) which was endorsed by Cabinet in September 1993. The National Housing Policy and the summary statement of Sectoral Policy clearly define objectives and steps to be taken in several key areas, including housing markets, housing finance, institutional development and land. Sector policies as summarized in these documents emphasize cost recovery, Government's role as a facilitator of private sector housing delivery and its intention to (i) ensure an adequate supply of land for housing with secure tenure and with access to employment and services; (ii) take steps to increase access by low and moderate income urban households to formal housing finance; (iii) improve land delivery systems; and (iv) develop appropriate, bankable building standards.

#### **D. Land Management**

1.11 The historical loss of land during the colonial period has heightened sensitivities to changes in land tenure and has led to a complex mosaic of land holding arrangements. Of the three forms of land tenure in Swaziland, Freehold, Crown Grant and Swazi Nation Land (SNL), SNL is the most common form of tenure. About 60% of rural and peri-urban land is classified as SNL, i.e., land held in trust by the King for the Swazi Nation and includes previously alienated land that was returned to the Swazi Nation. Land classified as SNL is normally allocated by traditional chiefs on behalf of the King to Swazi nationals. This allocation does not confer permanent rights. Thus the land, which is generally unsurveyed and unregistered, cannot be used as security for raising capital. As a result, the SNL form of land tenure has severely curtailed development of formal housing and the extension of urban services.

1.12 With land one of the most sensitive issues in Swaziland, building consensus on mechanisms to secure land for urban development has been a delicate and protracted process. In 1992, MHUD obtained the agreement and support of the King for allocation of SNL for urban development, an important first step in the process. However, securing the agreement of community leaders and chiefs to proposals for transfer and allocation of land is equally critical, and requires extensive collaboration with the chiefs, the regional administrators to whom the chiefs report, local communities and other interest groups. In addition a new system of 99 year leases is necessary which requires approval of a variety of Government agencies as well as the King. Finally, both the Deeds Registry and the Surveyor General's office lack the capacity to deal with a large volume of new leases and titles. While all of these issues are being resolved, most development on SNL, in particular upgrading of more densely settled areas, have been deferred to a later phase of the Government's urban development program. Two pilot areas on SNL are included in the proposed project. The development of a systematic approach to inclusion of SNL in urban areas will be an important output of the project.

## **E. Institutional Framework**

1.13 Sector institutions important to urban development include MHUD, the Swaziland Water and Sewerage Board (SWSB), the Swaziland National Housing Board (SNHB), and the Mbabane and Manzini City Councils. Supporting institutions important to housing delivery include the Surveyor General's office, responsible for cadastral surveys, the Deeds Registry, responsible for registration of deeds, the Swaziland Building Society (SBS), the primary source of mortgage finance, and the Swaziland Electricity Board (SEB).

1.14 MHUD has overall responsibility for housing, human settlements, urban government, physical and town planning, urban land and fire and emergency services. Since its establishment, the Ministry has focused on developing its mission statement, finalizing its organizational structure, developing supervisory arrangements for the many departments and agencies under its jurisdiction, and preparing an urban development program. The Ministry has had difficulty securing and filling staff positions. Since April 1993, advisors funded by Australian bilateral aid have been helping the Ministry to establish the departments of Urban Government and Urban Land Valuation. Assistance is also being provided to the Department of Housing and Human settlements.

1.15 SWSB established in 1974, under the provisions of the Administration of the Water and Sewerage Special Fund Regulations of the same year was recently (August 1, 1994) restructured and vested as the Swaziland Water Services (SWSC), a new more autonomous, and commercially oriented parastatal organization which has now taken over the functions of SWSB. Until this recent change, SWSB was responsible for developing, operating, and maintaining public water supplies and water-borne sewerage facilities in urban areas. The Board operated twenty water supply systems and eight sewerage systems/treatment facilities nationwide. It generally contracted private firms to design and construct new capital works while operation and maintenance of existing facilities was typically done through force account. SWSB operated as a department of MHUD, but with separate funding provided under the national budget. Its operations were guided by a seven member Board of Directors and managed on a day-to-day basis by a Board-appointed Director. In 1993, SWSB had about 384 permanent and an additional 400 temporary staff.

1.16 SWSB's operations were characterized by subsidized provision of services and little emphasis on internal efficiency. Lack of access to capital to replace and upgrade assets and poor operations and maintenance contributed to severe deterioration in existing infrastructure. In Mbabane and Manzini unaccounted-for water on average, is estimated at about 45% of that produced, the result of system losses and illegal connections. The Board's performance was affected by an excess of unskilled workers and many temporary vacancies in professional positions as staff are sent overseas for training. SWSB's financial performance was a major concern --the Board had operating losses over the past five years and was a recipient of Government subsidies. Government has provided financial support through debt service and salary support loans.

1.17 A 1989 organization and management study funded by the Overseas Development Agency (ODA) concluded that many of the chronic problems of the SWSB stemmed from its position as a dependent arm of the Government of Swaziland (GOS). The study recommended SWSB's transformation into the more autonomous and commercially oriented structure represented by the SWSC. Establishment of the SWSC was facilitated by the Water Services Corporation Act, approved by Cabinet in 1991. As part of the transformation into a more independent authority, the study identified substantial institutional support requirements, including a "twinning" arrangements. These capacity building measures were adopted and

implemented with funding from ODA. In addition, the study identified the need for substantial institutional support to enable the recommendations to be implemented and proposed a "twinning" arrangement. In 1991, Cabinet approved the Water Services Corporation Bill that provided for the creation of a new parastatal organization, the Swaziland Water and Services Corporation (SWSC) to take over the current functions of SWSB. The new corporation was recently vested, more than a year later than originally planned.

1.18 SNHB was established as a parastatal organization by an act of Parliament in 1988. The Board's establishment was one of the recommendations of a 1987 technical assistance project funded by the United Nations Development Program (UNDP) and executed by the Bank that provided experts to help draft a housing policy paper and a housing implementation plan. Its defined functions were to develop affordable housing on a financially self-sustaining basis; manage existing public housing schemes as required by Government; and implement, shelter-related policies of Government.

1.19 SNHB's operations are guided by a 9-member Board of Directors. A total staff complement of 90, organized into estate management, project development, administration, and finance divisions, report to a Board-appointed General Manager (GM), who directs the SNHB's day-to-day operations. SNHB manages a portfolio of about 1,050 middle income rental units transferred to it from its predecessors, and has initiated construction of 300 middle income housing units.

1.20 SNHB has been profitable since its establishment. However, its financial position could deteriorate if close attention is not paid to cost recovery and monitoring and control of costs. Rent controls and falling profit margins on middle income housing projects are factors constraining SNHB's profitability. Institutional priorities for SNHB are to develop systems and procedures for low income housing delivery, improve administrative and financial management, establish manpower development policies and develop staff training programs.

1.21 Mbabane and Manzini City Councils. Each has a 15-member Government appointed Council that is responsible for local policy setting functions, with the support of a Management Committee. Day-to-day operations are directed by a Chief Executive Officer, and four line departments (Clerk to Council, City Engineer, City Treasurer and Directorate of Health). While the pensionable staff establishments of the Mbabane and Manzini City Councils total 56 and 100, respectively, each city also employs approximately 300 daily paid workers. Because the wages of council workers are generally higher than for similar positions in central government, staff turnover and vacancies are not as serious a problem for the councils as for national-level institutions. However, growth in the number of employees (in particular the number of daily paid workers) and salaries, without a corresponding increase in the level of operations, is of concern. For both councils, the personnel management function needs to be strengthened.

1.22 The operations of the councils are deficient in several areas. Both councils lack experienced community relations staff. Cleansing departments (responsible for pit latrines and septic tanks) as well as Building Regulations and Health Inspectorates need strengthening. The Councils have not placed sufficient emphasis on maintenance due to antiquated equipment and a lack of resources for planned maintenance programs.

1.23 The financial performance of both councils is constrained, to varying degrees, by poor financial systems and procedures, an inadequate revenue base and poor fiscal management. Mbabane's financial performance is the more critical. A recent review revealed significant cash flow problems. Mbabane's

financial management is characterized by: (i) reluctance of Council members to propose adequate annual increases in rates and charges; (ii) inadequate recovery of rates earned; and (iii) expenditure growth well in excess of inflation, without compensating growth in Council activity. Manzini City Council has a somewhat better financial performance although it has a proportionally smaller revenue base compared to its level of operations because the Matsapha industrial estate, the largest source of employment for its residential population, is outside its jurisdiction.

1.24 The Construction Industry. The proposed urban development project, with its large housing component, will provide unprecedented opportunities for the construction industry in general and small contractors in particular. Major constraints identified in the industry which might limit its participation in the project include: (i) lack of capital, hence the inability to purchase or hire basic equipment and materials; (ii) unavailability of credit; (iii) an open tendering process which makes tendering both costly and time consuming; (iv) long payment delays due to GOS budgetary and payment procedures; (v) difficulty obtaining performance bonds; (vi) shortage of indigenous skilled labor; and (vii) weaknesses in contract management.

1.25 An on-going USAID-funded program is attempting to address these constraints by providing assistance to Swazi builders utilizing building contractors and professionals with construction management skills. The program, which emphasizes on the job training to improve technical and management skills, has been one of the more successful support programs. Based on the recommendations of a construction industry review by Bank consultants, the program has been expanded to increase the number of building contractors supported from 12 to 28.

## **F. Previous Bank Involvement And Lessons Learned**

1.26 Bank lending to Swaziland. Between 1962 (when the Bank began operations in Swaziland) and 1985, the Bank provided loans for 13 projects - one water supply and sewerage project, three road projects, three education projects, three power projects, one rural development project, a development finance company project, and a cyclone rehabilitation Project.

1.27 A US \$2.7 million loan for the Swaziland Water Supply and Sewerage Project was approved in 1974. Project objectives were to provide improved water supply and sewerage facilities Mbabane, Manzini and Kwaluseni, as well as a new source of water for Nhlanguano. The project also aimed to improve management of water supply and sewerage services by strengthening the then newly formed SWSB. While the physical objectives of the project were met, the institutional and financial objectives were not. The project failed to improve institutional effectiveness due to continued Government control, particularly of personnel and financial management functions, despite SWSB's change to Board status. The design of the proposed project reflects the lessons learnt from the previous project; in particular the need for (i) greater managerial autonomy for the Board, (ii) more emphasis on cost recovery and (iii) increased internal efficiency.

1.28 Bank lending for Urban Sector Projects. Bank experience with urban projects shows that (i) Borrower support and commitment is critical to project success (especially for complex projects) and to achievement of institutional development objectives; (ii) cost recovery is key to project sustainability and (iii) beneficiary involvement is essential for successful upgrading of informal housing settlements. These lessons have been taken into account in project preparation and design.

## **CHAPTER 2: THE PROJECT**

### **A. Strategy for Urban Development**

2.1 Swaziland's urban development strategy reflects policies laid out in the National Housing Policy and MHUD's Statement of Sectoral Policy. It emphasizes: (a) an integrated city-wide approach to urban housing and infrastructure that stresses cost recovery and affordability and alleviating constraints on sector efficiency; (b) employment generation, particularly for the urban poor; (c) improved access to basic infrastructure and social services, taking particular account of women, children and the poor; (d) increased understanding and contribution to the satisfactory resolution of urban issues by community and national groups; and (e) improvements in urban environmental problems.

2.2 In implementing its strategy in the short to medium term, the Government, through MHUD, has given and will continue to give priority to:

- (a) strengthening and improving the efficiency and effectiveness of sector agencies, including MHUD, and clarifying the expected role of each agency through policy statements and legislative changes;
- (b) developing mechanisms to make land available for urban development and to provide secure tenure for individual residents, moderate and low income groups in particular;
- (c) increasing community participation in urban development to ensure beneficiary support for development proposals;
- (d) reviewing design standards and monitoring more effectively the scope and pace of development to ensure that urban infrastructure can be maintained by sector agencies and that development is affordable to affected communities;
- (e) ensuring cost recovery and prudent fiscal management by sector entities in particular for the currently heavily subsidized water sector;
- (f) adopting appropriate environmental policies and selecting the best practicable environmental options in project planning and implementation;
- (g) supporting, where feasible, efforts to strengthen local industries, for example, by providing opportunities for growth of the construction industry through appropriate packaging of construction contracts and by providing facilities to support the informal sector; and
- (h) developing mechanisms to make housing finance available to all income groups.

### **B. Project Origin and Strategy**

2.3 The project was initially identified in 1987 following a UNDP-funded project to prepare a National Housing Policy, National Housing Implementation Plan and a National Industrial Estate

**Development and Management Strategy.** During project preparation, several diagnostic studies were carried out to help identify constraints to urban sector growth and development. Areas reviewed included the policy and institutional framework, institutional capacity, supply and demand for housing, and the performance of the existing infrastructure. The capacity of industries, such as the local construction industry and the financial sector, to support housing and infrastructure development was also examined.

2.4 Issues identified during project preparation have helped to shape the Government's medium and long-term development strategy for the urban sector. Institutional and policy reform have already been initiated to address problems identified. Initiatives include the adoption of the National Housing Policy for urban areas, the establishment of MHUD, and the restructuring of SWSB. Other policy reform and development actions necessary to achieve a well functioning urban sector over the medium term will be supported by the proposed project. The recommendations of diagnostic studies of key implementing agencies have been incorporated in the design of assistance programs, several of which have already been initiated. Since November 1992, the ODA-funded "twinning" arrangement, has been helping SWSB to tackle operational, financial, and organizational problems and to plan its restructuring into the newly established SWSB. A follow-up UNDP technical assistance program has also assisted with the establishment of SNHB. In light of the institutional development needs identified during project preparation, the urban development program was restructured to implement infrastructure and housing development in three phases, and to place major emphasis on continued capacity building in the first phase, the proposed project. Achievement of performance targets during the proposed project will determine the scope and timing of the second phase of the Government's long term urban development program.

2.5 Environmental considerations are an integral part of infrastructure design (para. 4.5). Contract packaging will facilitate participation of the local construction industry and increase local employment opportunities.

2.6 Beneficiary involvement. Key project beneficiaries, i.e. current residents of informal settlements to be upgraded under the project, have been closely involved in project design. Socioeconomic information about the beneficiaries, obtained through a Land and Housing Market Study was used to structure the participation process to ensure equitable representation of all groups. A Community Liaison Task Force was established. The Task Force is chaired by a Community Liaison Officer in the Project Coordination Unit in MHUD whose sole task is to promote beneficiary involvement in the project. A series of meetings, convened by community leaders were held prior to and during preliminary engineering design to engage residents in discussions of service options and costs and placement of roads, services, community facilities. In depth consultations with beneficiaries were also initiated through the use of focus groups. The participating communities have since appointed Project Steering Committees who are working with the implementing agencies and design engineers in the detailed design phase. This arrangement will continue through project implementation.

### **C. Rationale for Bank Involvement**

2.7 Bank support to Swaziland has been relatively limited; the last Bank loan was in 1985. A 1993 Public Expenditure Review, focused on the Government's role in promoting private sector development, confirmed that poor physical infrastructure and a shortage of skilled manpower, particularly in the public sector, are increasingly constraining private sector growth. These issues are of particular concern in urban areas. The Government has specifically requested Bank support for preparation and implementation of the proposed project and has taken steps to deal with the politically sensitive land issue. During project

preparation, the Bank, based on its substantial experience with similar issues in other countries, has been able to assist the Government in identifying sector issues and constraints and initiating actions, such as institutional strengthening and policy development, to address areas of concern. By supporting the implementation effort, the Bank will be in a position to further assist the Government in carrying out its long-term strategy for development of private sector led urban housing and infrastructure which emphasizes sustainability, cost recovery and affordability.

#### **D. Objectives**

2.8 The proposed project represents the first phase of a long term urban development program aimed at increasing the delivery and effectiveness of urban management services and improving living conditions of low income urban households. The project, to be implemented FY 94/95- 97/98, would: (a) provide a basis for sustainable urban development through emphasis on policy reform, institutional development, pilot land reform, participatory development, and housing solutions for moderate and low income urban households; and (b) address critical infrastructure needs (water, sanitation, waste disposal and roads).

#### **E. Status of Preparation**

2.9 The first phase of project preparation was initiated under a Bank-administered Japanese grant which financed feasibility studies for the physical project components. Other studies included a preliminary assessment of the institutional capacity of all implementing agencies and government departments that would be involved in the project as well as an organizational review of the city councils. The second phase of project preparation has been partially financed by the Bank through two PPFs. It involved (i) finalizing the physical investment program through to preparation of bidding documents; (ii) in-depth assessment of the capacity of implementing and supporting institutions; and (iii) helping implementing agencies to prepare institutional action plans. Detailed design of infrastructure and preparation of bidding documents are substantially completed with the exception of contracts for on-site infrastructure and for facilities where land acquisition is still pending.

#### **F. Description**

2.10 Project components would include: (1) policy and institutional reform (US\$4.2 million, 10% of total project base cost); (2) rehabilitation and expansion of city roads and services including relocation of power lines, and development of solid waste facilities (US\$9.3 million, 21 % of total project base cost); (3) rehabilitation and expansion of the water and sewerage services (US\$19.1 million, 43% of total project base cost); (4) residential housing sites including on-site infrastructure (US\$7.6 million, 17% of total project base cost); and (5) project implementation assistance (US\$2.5 million, 6% of total project base cost). The project also includes US\$1.5 million to refinance two Bank PPFs. The total cost of technical assistance included in the project excluding contingencies is US\$7.3 million. This includes US\$0.4 million for policy support, US\$3.8 million for institutional development, US\$2 million for implementation assistance, US\$0.6 million for a water loss reduction program for SWSC and US\$0.5 million for preliminary design of the next phase of the urban development program. Activities complementary to the project include the provision of land for community facilities and housing finance. A detailed project description, including an elaboration of the technical assistance and training component, is provided in **Annex 2.1** and summarized below.

2.11 Policy and Institutional Reform (US\$4.2 million). This component would continue efforts initiated during the course of project preparation to improve the policy and institutional framework.

2.12 Policy Development and Review of Legislation. Government's Housing Policy document and its statement of Urban Sector Policy, outline existing sector policies and areas where action is required. MHUD is tackling some of the outstanding policy issues prior to the start of project implementation with emphasis on issues critical to the success of other project components. Ongoing policy and legislative activities include:

- (a) definition of policies and procedures to govern community liaison, allocation of land in informal settlements, design and pricing of plots for sale on the basis of full cost recovery, and relocation and compensation policies and procedures.
- (b) revision of the Rating Act. The new Act allows for regular updating of valuation rolls by the City Councils, facilitates collection of property taxes and allows for rating of government property. Enactment of the new Rating Act is a condition of loan effectiveness (para. 5.2); and
- (c) preparation of a long term leasehold agreement for SNL to be incorporated in Urban areas. GOS approval of the leasehold agreement for SNL is a condition of loan effectiveness (para.5.2).

2.13 During project implementation, this sub-component of the project would support further policy and legislative reform required to achieve a well functioning urban sector in the medium term. Funding would be provided for short term assignments by appropriate specialists where required to carry out the following:

- (a) definition of an Urban Government Policy which, building on the new Rating Act, will clearly define the framework within which local authorities will operate particularly with regard to central government subventions and commercialization of operations (para 3.13);
- (b) review and modification of sector legislation/regulations governing physical planning and development control, including the Building, Human Settlements Authority, Urban Government, Town Planning, and Crown Land Acts;
- (c) building on experience with the pilot projects on SNL included in the proposed project, development of urban and peri-urban land policies including definition of a systematic process by which SNL can be efficiently and equitably incorporated into urban areas;
- (d) assessment of the feasibility of establishing a secondary mortgage market to increase funds available for housing finance and to encourage commercial banks to diversify into mortgage lending; and
- (e) developing a housing policy implementation plan.

Terms of reference (TORs) for the studies referenced above that will be implemented during the first year of project implementation were discussed during loan negotiations and will be included in the project implementation manual.

2.14 Institutional Support and Development. This sub-component of the project aims to increase the long-term effectiveness and efficiency of sector institutions, in particular financial management and operations and maintenance capacity. In addition, where gaps have been identified, it would help to build the project implementation capacity of key executing agencies and other supporting institutions. All training and technical assistance (TA) have been designed to maximize utilization of local and regional human and institutional resources. TORs for technical assistance and training programs will be included in the project implementation manual. Over the four year project implementation period an estimated 215 person-months of long-term technical assistance will be provided of which about 90 person-months would be intermittent input by local and regional specialists and about 40 person-months would be foreign technical assistance. (Annex 2.1, Attachment A). The total costs of long term TA is equivalent to about US\$1.3 million or 30% of the total TA cost for the institutional and policy component; TORs for long term positions will emphasize skills transfer. Assistance programs for specific agencies are as follows:

- (a) MHUD. To help build a cadre of trained/experienced planning professionals in Swaziland and support long term capacity building, this sub-component will fund degree training for two planners in the physical planning department of MHUD (already underway), regional workshops and study tours. This component would also fund project workshops and a Technical Support Unit (TSU), that will help build project coordination and management capacity of MHUD's Project Coordination Unit (PCU) and assist with the capacity building efforts of project implementation agencies. The unit will be staffed primarily with part-time local and regionally-based specialists and will include a project management specialist, an infrastructure engineer, an institutional/training specialist, financial management specialists, a sociologist and an urban specialist.
- (b) Mbabane and Manzini City Councils. Assistance will be provided through the International City/County Managers Association (ICMA) to strengthen management capabilities and decision making processes in the City Councils. The ICMA will also help the councils to identify twinning associations to provide support to the councils in operations and maintenance, planning and building control, landfill management, and manpower development and to help develop comprehensive training programs. Areas to be covered by annual training programs include job cost control, planned maintenance, equipment maintenance, management skills and personnel management.
- (c) SNHB. A continuing program of technical assistance to improve project and financial management, human resources development and business administration will be funded by UNDP. Funding for staff training, including regional workshops and study tours will be provided by SNHB.
- (d) SWSC. As a follow up to the current ODA funded twinning arrangement, short term experts and overseas attachments would be provided for SWSC staff. This sub-component of the proposed project also includes regionally-sourced supervisory/technical training for SWSC staff and automation of accounting/MIS systems.
- (e) Supporting Agencies. With the increase in the annual number of cadastral surveys and deeds registration envisaged as a result of the urban project, the Surveyor General's office and the Registrar General's office both need to increase their capacity. A qualified surveyor would be contracted to help the Surveyor General's office co-ordinate land survey activities and train counterpart staff. Local and regionally-sourced technical

assistance would be provided for the Registrar of Deeds to assist with project-related deeds examination and registration. An Environmental Management Advisor would also be funded for the Swaziland Environmental Authority (SEA) to help build its capacity to carry out environmental monitoring.

**2.15 Rehabilitation and Expansion of City Roads and Services ( US\$9.3 million equivalent).** Both City Councils have underfunded road maintenance; equipment for solid waste and road maintenance is also inadequate and unsanitary operations are resulting in considerable pollution in the vicinity of existing solid waste sites. This component therefore aims to rehabilitate existing city roads, develop new solid waste sites in Mbabane and Manzini and provide vehicles and equipment to improve operations and maintenance. Specific sub-components include the following:

- (a) roads and drainage - rehabilitation, upgrading and extension of roads - about 4.8 km (Mbabane) and about 6.3 km (Manzini) together with improved drainage and a road maintenance program to increase carrying capacity and service life. The road network will be expanded to provide access to new solid waste disposal sites and housing settlements to be upgraded under the project;
- (b) solid waste disposal - new waste disposal sites will be developed away from residential areas and the existing tipping sites refurbished. In addition, vehicles and equipment will be provided for both Mbabane and Manzini to improve operational efficiency. The proposed solid waste disposal site in Manzini is on SNL. Acquisition of land required is a condition of disbursement for the solid waste disposal civil works contract for Manzini and for solid waste equipment contracts (para. 5.3);
- (c) power supply - relocation of about 15 km of power lines and upgrading of about 4 km of 11 Kv feeders (Mbabane) and relocation of about 7 km of power lines and upgrading of about 4 km of 11 Kv feeders (Manzini). This will provide lighting to all major citywide roads to be upgraded under the project and extend service to upgraded housing settlements.

**2.16 Rehabilitation and Expansion of Water and Sewerage Services (US\$19.1 million).** Inadequate sewerage facilities in Swaziland are a major source of environmental and health problems. Waste loads to the existing treatment works in both Mbabane and Manzini are 10 or more times higher than the design capacities of these works. To reduce the negative environmental impacts of the discharge of barely treated effluent into waterways and contribute to raising health standards, this project component would fund the rehabilitation of existing sewage treatment plants and the construction of new facilities in Mbabane and Manzini. The water supply network would also be rehabilitated and the existing leak detection program expanded. The network would also be expanded to accommodate the requirements of low income housing sites to be upgraded under the project and to accommodate overall growth in demand. Specific project components include the following:

- (a) Water Supply: to provide for the projected increased water requirements, a new raw water intake and pumping station will be built together with about 6.8 km rising mains from the intake to the treatment works, extensions to the Woodlands water treatment plant, a new booster pump station at Checkers, a 3.2 Ml service reservoir in Mahwalala and about 4.5 km distribution mains (Mbabane). A 3 Ml reservoir coupled with about 6 km reticulation will be provided for Manzini and a water loss reduction program (leak

detection and mains replacement) implemented in the two cities to reduce system losses. A parallel KfW-funded project for the Matsapha Industrial estate, will also rehabilitate and expand water supply for project areas in Manzini (Annex 2.1).

- (b) Sewerage and Sewage Treatment: to relieve the serious overload on and enhance the level of treatment in some of the existing waste water treatment plants, facilities will be refurbished and new facilities together with sewage outfalls funded under the project. In Mbabane, the facilities will include the construction of new sewage treatment works, rehabilitation of the Ghobolo ponds for treatment of waste water from Msunduzi, construction of about 7.2 km of outfall (Southern outfall) and about 2.5 km of sewers. Manzini will be provided with new sewage treatment works-- about 12.5 km of outfall (9 km Southern outfall and 3.5 km Western outfall) and about 2 km of sewers. The existing Quarantine and Zakhele ponds will be decommissioned and the sites rehabilitated once the new works have been constructed and commissioned. The proposed sites for the two new sewage treatment facilities for both Mbabane and Manzini are on SNL. Acquisition of required land for sewage treatment facilities in Mbabane and Manzini is a condition of loan effectiveness (para 5.3).

2.17 Residential Housing Sites Including On-Site Infrastructure (US\$7.6 million). This component would upgrade on-site infrastructure consisting of roads, footpaths, drainage, water supply, sanitation (including sewers), communal structures such as water points, wash areas, refuse collection points, street lighting and landscape works for about 5000 informal urban housing sites including about:

- 1350 existing homesteads, 430 in-fill residential and 80 non-residential plots in Msunduzi, Mbabane;
- 730 existing homesteads, 1050 in-fill residential and 50 non-residential plots in Nkwalini, Mbabane;
- 160 existing homesteads, 310 in-fill residential and 30 non-residential plots in Moneni, Manzini;
- Provision for the servicing of 500 plots in the remaining section of Nkwalini, Mbabane and 300 plots in a portion of Mhobodleni, a "greenfield" site on Swazi Nation land, Manzini.

2.18 Plot sizes in upgrading areas vary considerably, from a minimum of 200 to a maximum of 750 square meters, because of differences in terrain and patterns of existing settlements. Every effort has been made to accommodate existing settlements and to ensure through adjustment in service standards that plot costs are affordable to existing households. Plot allocation criteria, plot pricing policies, and resettlement and compensation policies have been developed that reflect (i) the concerns of affected communities; (ii) the need to minimize resettlement; and (iii) the need to ensure cost recovery and profitability for the implementing agency, SNHB. Community ownership and commitment is crucial to successful implementation; SNHB will mobilize at each upgrading site only after it has received firm commitment (deposits) for 80% of available plots. Plot allocation criteria give priority to existing owner/occupiers and households to be relocated to facilitate construction of on-site facilities while taking into account the extended family structures prevailing in the project areas. A house-to-house survey will be carried out prior to completion of final design to determine the affordability of actual plots for existing residents and

to adjust plot sizes to the extent feasible. In-fill plots will be assigned to existing residents according to priority pools and affordability criteria. Plots not allocated to existing residents would be sold through public tender. Limited resettlement outside the project area is expected. During negotiations it was agreed that GOS would ensure that the project is carried out in accordance with its resettlement and compensation policy (para. 5.4). Submission of resettlement and compensation plans satisfactory to the Bank is a condition of disbursement for each upgrading site to be financed by the Bank (para. 5.3). During negotiations it was agreed that, prior to the start of construction, resettlement and compensation plans satisfactory to the Bank would be prepared for each upgrading site including those where SNHB will mobilize after the completion of disbursement of Bank funds (para. 5.4).

2.19 Project Implementation Assistance (US\$2 million). This component will fund local and regionally-sourced engineers and technicians to assist with supervision of investment contracts. It also includes provisions for preliminary layout of areas to be included in the next phase of the Government's urban development program.

### **G. Activities Complementary to the Project**

2.20 Activities complementary to the project include construction of community facilities and provision of financing by private banking institutions to project beneficiaries for plot purchase and home improvements.

2.21 Community Facilities. An estimated E 10 million (US\$3.0 million equivalent) will be required for community facilities in FY 97/98 and FY 98/99. The facilities envisaged comprise buildings such as schools, clinics, police posts, post offices and community halls. While sites have been designed for these community facilities, no buildings have been designed or identified. This will be the responsibility of the relevant Government agencies. The PCU and the City Councils will liaise with relevant Government agencies during project implementation to ensure construction of site specific infrastructure and communities facilities are co-ordinated.

2.22 Housing Finance. Financing of about E 43 million (US\$13 M equivalent) would be provided by the private sector for plot purchase, home improvements and construction of new housing in low-income settlements. SBS will provide both traditional mortgage financing, estimated at about E 38 million, as well as smaller non-conventional loans for existing households in the project area who would not normally qualify under traditional banking standards due mainly to the informal nature of their income (see para. 3.20).

### **H. Project Cost**

2.23 The total project cost is estimated at E186 million (US\$51.5 million equivalent), including physical and price contingencies, but net of duties and taxes and with foreign exchange comprising 68%. A summary of estimated project costs is provided in Table 2.1 and a detailed cost table in **Annex 2.2**. Cost estimates are based in part on detailed and partly on preliminary designs of facilities, local and regional construction experience, and recent quotations for equipment and vehicles. Base prices are based on current prices as of December 1993. Physical contingencies are estimated at US\$3.5 million or about 8% of base costs. Price contingencies are estimated at US\$3.8 million or about 8% of baseline costs plus physical contingencies. Price contingencies were estimated in US dollar terms, based on international inflation rates estimated at 2.5% for 1994 through 1998.

**Table 2.1 Project Cost Estimates**

	(US\$ million)		TOTAL
	LOCAL	FOREIGN	
<b>A. POLICY &amp; INST. REFORM</b>			
Policy Dev./Legislation Rev.	0.1	0.3	0.4
Institutional Support	1.1	2.7	3.8
Sub-Total	1.2	3.0	4.2
<b>B. REHAB. &amp; EXP. OF RDS &amp; SVC.</b>			
Rds & Drainage	0.6	1.3	1.9
Rds Maintenance	0.8	0.8	1.6
Solid Waste Disposal sites	2.2	1.4	3.6
Solid Waste Disposal Equipment		1.5	1.5
Electrical Reticulation	0.2	0.4	0.6
Land Compensation	0.1	0.0	0.1
Sub-total	3.9	5.4	9.3
<b>C. REHAB. &amp; EXP. WTR. &amp; SEW. SVC.</b>			
Water Service	0.8	4.0	4.8
Sewer Service	2.6	11.0	13.6
Water Loss Reduction	0.1	0.5	0.6
Land Compensation	0.1	0.0	0.1
Sub-total	3.6	15.5	19.1
<b>D. RES. HSG. SITES &amp; ON-SITE INF.</b>			
On-Site Infrastructure	3.4	3.0	6.4
Land Compensation	1.2	0.0	1.2
Sub-total	4.6	3.0	7.6
<b>E. PROJECT PREPARATION</b>			
Project Supervision	0.6	1.4	2.0
Other	0.1	0.4	0.5
Sub-total	0.7	1.8	2.5
<b>F. PPF Refinancing</b>			
	0.0	1.5	1.5
<b>TOTAL BASE COST</b>			
	14.0	30.2	44.2
Physical Contingencies	1.1	2.4	3.5
Price Contingencies	1.2	2.6	3.8
<b>TOTAL PROJECT COST</b>	<b>16.3</b>	<b>35.2</b>	<b>51.5</b>

## **I. Financing Plan**

2.24 The project financing plan is presented in **Annex 2.3**. The proposed Bank loan of US\$29 million would finance about 56.3% of the total project cost, net of taxes or the equivalent of 82% of the estimated foreign exchange cost of the project. Financing for the remaining 43.7% of total project cost would be provided by GOS (28.5%), ODA/UNDP (1.8%), implementing agencies (12.8%) and other cofinanciers to be identified (0.5%). In the event that co-financing is not identified, GOS will finance the additional cost. During negotiations assurances were obtained that GOS and implementing agencies will make adequate budgetary provisions for their share of project costs (para. 5.4).

**J. Flow of Funds and On-Lending Terms**

2.25 The proceeds of the IBRD loan will be made available to GOS for a period of 20 years, including 5 years grace, at the standard variable Bank interest rate. US\$24.6 million or about 85% of the loan would be passed on to the implementing agencies on the following terms and conditions:

- (a) US\$17.1 million equivalent would be passed on to SWSC; US\$11.8 million as a loan for a period of 18 years with 5 years grace and US\$5.4 million as a grant to assist with funding of sewage treatment facilities.
- (b) US\$3.6 million equivalent would be provided to the Mbabane City Council for the purchase of solid waste equipment and development of a new solid waste disposal site; US\$2.2 million equivalent as a loan for a period of 18 years with 5 years grace and US\$1.4 million as a grant.
- (c) US\$1.9 million equivalent would be on-lent for a period of 18 years with 5 years grace to Manzini City Councils for the purchase of solid waste equipment and development of solid waste disposal sites.
- (d) US\$2.0 million of the Bank loan would be on-lent to SNHB for a period of six years with 3 years grace. Financing provided would be used for on-site infrastructure for upgrading sites. Funds recovered from sale of plots would be used to finance subsequent upgrading contracts.

2.26 In all cases the foreign exchange risk would be borne by GOS. Subsidiary loans would have a variable interest rate, equivalent to inflation plus two percentage points. The signing of subsidiary loan agreements between GOS and SWSC, SNHB, and Mbabane and Manzini City Councils is a condition of loan effectiveness (para. 5.2). GOS would provide counterpart financing for SWSC: US\$5.7 million equivalent as a mix of loan and grant funds, and US\$4.4 million of grant and loan financing to the Mbabane and Manzini City Councils for rehabilitation and expansion of city roads and counterpart financing for construction of solid waste facilities.

**K. Procurement**

2.27 A summary of project procurement arrangements is provided in Table 2.2 below:

**Table 2.2 Project Procurement Arrangements (US\$ '000)**

Project Element	Procurement Method				Total
	International Competitive Bidding	Local Competitive Bidding	Other	N.B.F.	
<b>1. Civil Works</b>					
(a) Citywide					
-Mbabane	17,813.7 (11,121.3)	1,205.3 (857.8)		717.4	19,736.4 (11,979.1)
-Manzini	11,162.5 (7,791.2)	369.6 (314.2)			11,532.1 (8,105.4)
(b) Site Specific					
-Mbabane	3,089.4 (2,018.4)	1,972.1		1,210.5	6,272.0 (2,018.4)
-Manzini	365.7	572.9		365.7	1,304.3
<b>2. Goods (Equipment)</b>					
(a) Mbabane	797.7 (797.7)				797.7 (797.7)
(b) Manzini	1,030.7 (1,030.7)				1,030.7 (1,030.7)
<b>3. Consultants' services, &amp; trng.</b>					
(a) Policy & Inst. Reform					
-Policy Support			403.6		403.6
-Inst. Strengthening			4,043.5 (1,684.7)		4,043.5 (1,684.7)
(b) Water loss reduction Program					
-Mbabane			389.1 (330.7)		389.1 (330.7)
-Manzini			389.1 (330.7)		389.1 (330.7)
(c) Project Supervision			2,152.2 (743.1)		2,152.2 (743.1)
(d) Phase II Preparation			564.1 (479.5)		564.1 (479.5)
(e) Project Preparation -PPF Refinancing			1,500.0 (1,500.0)		1,500.0 (1,500.0)
<b>4. Miscellaneous</b>					
- Land Compensation				1,417.6	1,417.6
<b>TOTAL COST</b>	<b>34,259.7 (22,759.3)</b>	<b>4,119.9 (1,172.0)</b>	<b>9,441.6 (5,068.7)</b>	<b>3,711.2</b>	<b>51,532.4 (29,000.0)</b>

Note: All figures include contingencies, and figures in parentheses are amounts to be financed by the Bank.  
N.B. F. (Not Bank Financed)

2.28 During negotiations agreement was reached that procurement under the project will be carried out in accordance with the arrangements summarized below (para 5.4).

2.29 Goods and Works. Procurement under the proposed project for goods and works will be in accordance with the Guidelines under IBRD loans and IDA credits (May 1992). During preparation, and confirmed during negotiations, it was agreed that all procurement of goods and civil works (except for those noted below), whether subject to international competitive bidding (ICB) or to locally advertised competitive bidding (LCB), shall be done using the Bank's standardized bidding documents. Goods and works planned for procurement under the project have been grouped into 24 bid packages including 7 smaller civil works contracts (below US\$800,000), one design and construct package using the Institute of Civil Engineers conditions of contract to be financed by GOS, 12 large civil works contracts (above US\$800,000), one goods contract for solid waste equipment (US\$1.8M), and three procurement packages for small labor-based works (para. 2.31) to be undertaken on site specific projects. As detailed in Annex 2.4, Bank financing will be provided for 13 of the 24 discrete contract packages, equivalent to 58% of the total value of goods and works. Electrical works, which will not be financed from the loan, will be carried out by SEB using force account.

2.30 LCB procedures in Swaziland were reviewed during appraisal and found to be inconsistent in the area of length of the bidding period, preferences, bracketing, registration requirements, insurance requirements, etc. Agreement was reached during negotiations that LCB procedures will be carried out in accordance with Bank guidelines (para. 5.4) which include public advertisement with adequate time frame provided for bidders to respond, public bid opening, clearly stated evaluation criteria and award to the lowest evaluated bidder.

2.31 Labor-based Contracts. Site specific areas to be upgraded include portions that are very steep and densely populated making the use of normal heavy construction machinery unsuitable. In addition, the service levels are comparatively low, resulting in small service pipe sizes, etc. It will, therefore, be appropriate to use a combination of conventional and labor/community based methods of construction for this category of development in order to (i) maximize the participation of, and thus benefit to local communities that are paying for the upgraded and new plots; and (ii) develop local contracting skills by providing opportunities for small contractors and entrepreneurs. A small labor-based works form of contract, referred to as "Small Works Contract" has been developed for provision of minor works (footpaths, pit latrines, fencing, tree planting and community structures) in the site specific development projects. This would be utilized for contracts below US\$50,000 up to an aggregate amount of US\$1.6M to be financed by SNHB. Community involvement in the construction of these structures is proposed; the limited size of the intended contracts makes them unlikely to interest large contractors because of high mobilization costs and lends them to construction by the informal sector. The risk of employing small contractors is mitigated by the simplicity of the work, the simplified nature of the proposed contract form and the fact that payment would only become due on the satisfactory completion of a unit of work, the rates for which are fixed by an independent consultant. The proposed labor-based contracting will involve competitive bidding using the proposed small works form of contract. The procurement process was discussed during project preparation and found to be satisfactory.

2.32 Consultant Services. Consultant services will be procured in accordance with the Bank's guidelines in "Use of Consultants by World Bank Borrowers and by the World Bank as an Executing Agency", August 1981. Such services will be procured for policy review and institutional strengthening including workshops and training as detailed in Annex 2.1, undertaking a water loss reduction program for SWSC, and to assist with implementation.

2.33 Threshold and prior review procedures for Bank financed contracts would be as follows:

- (a) Bid packages or contracts for civil works estimated to cost more than US\$800,000 equivalent and all bid packages for goods, would be procured following International Competitive Bidding procedures in accordance with the Bank's guidelines. These would include most citywide infrastructure bid packages and the contract for vehicles and equipment for solid waste management.
- (b) Civil works contracts of US\$800,000 equivalent or less, up to an aggregate amount of US\$1.2 million equivalent, would be awarded through local competitive bidding procedures. Foreign bidders would have the opportunity to compete.
- (c) Bank financed contracts for works estimated to cost the equivalent of US\$100,000 or more, and contracts for goods estimated to cost the equivalent of US\$100,000 or more, representing all Bank- financed goods and civil works, would be subject to the Bank's prior review in accordance with paras. 2 and 4 of Appendix 1 of the Bank's Procurement Guidelines.
- (d) Contracts for consulting services exceeding US\$100,000 equivalent for consulting firms and US\$50,000 equivalent for individuals would be subject to the Bank's prior review.

Procurement information will be collected and recorded in quarterly progress reports (para. 2.45).

#### **L. Project Management**

2.34 Project preparation is currently managed by the PSC comprised of representatives from all agencies and Government departments involved in the project and chaired by the Principal Secretary of MHUD. The PSC is supported by a PCU within MHUD; reporting directly to the Principal Secretary. Sub-Committees of the PSC have been established to address specific aspects of project preparation. These arrangements will continue during project implementation. The PCU, to be established as a department within the Ministry, will coordinate and supervise project implementation. Its responsibilities would include:

- (a) coordination of implementation by other executing agencies, monitoring key targets and indicators and evaluation of overall project performance;
- (b) management and coordination of institutional strengthening (training and technical assistance), resettlement and compensation, review of environmental monitoring; community participation, and monitoring project impacts;
- (c) identification of implementation gaps and ensuring that appropriate action is taken; confirmation of the availability of counterpart project funding; and
- (d) coordination of procurement, preparation of consolidated project accounts, management of the special account and disbursement of funds, preparation of quarterly progress reports to be submitted to the Bank.

2.35 Agreement was reached during appraisal on the need to strengthen the PCU to enable it to discharge the above-mentioned responsibilities. It was agreed that the PCU should, at a minimum, have a full time project coordinator with a rank equivalent to that of an under secretary, a senior planning officer a community liaison officer and an accountant. The TSU (para. 2.14) would support the PCU, placing emphasis on capacity building of the PCU as well as of the implementing agencies. Terms of reference for the TSU and for construction supervision engineers will be included in the project implementation manual. Appointment of key staff of the PCU and the TSU with experience, qualifications and terms of reference satisfactory to the Bank is a condition of loan effectiveness (para. 5.2). During negotiations agreement was reached that GOS would maintain the PSC and the organizational structures, functions and staffing of the PCU and TSU in a manner satisfactory to the Bank throughout project implementation (para 5.4).

#### **M. Project Implementation**

2.36 Project preparation is well advanced and detailed designs and bidding documents are available for most of the civil works components. Special attention has been given during project preparation to the implementation, operations and maintenance and financial capacity of implementing agencies. Several assistance programs will be in place prior to loan effectiveness. A project launch workshop, as well as annual and a mid-term review will further enhance project implementation. Annual reviews, with participants from implementing agencies, supporting institutions, including SBS and SEB, central government agencies represented on the PSC and/or responsible for construction of community facilities, and community representatives will assess (i) implementation status of the policy, institutional and physical investment components of the project -- detailed follow up action plans will be prepared for the next year of project implementation; (ii) the effectiveness of project implementation arrangements, agreeing changes where required; and (iii) actual performance compared to project and institutional targets and institutional action plans. The required Government budgetary commitment for the following year, including funding for community facilities, and the status of (i) implementation of community facilities; and (ii) provision of mortgage and home improvement loans for project beneficiaries will also be assessed. Follow-up action plans will include measures to implement the agreed recommendations arising from the policy and legislative review. In addition to the above, the mid-term review will assess the appropriateness of project objectives and components and make adjustments where necessary to ensure project sustainability. During negotiations agreement was reached that (i) the project launch workshop would be held within two months of loan effectiveness; (ii) thereafter, GOS together with the Bank will carry out annual project reviews by July 31st of each fiscal year and a comprehensive midterm review by December 31, 1996; (iii) GOS and project executing agencies will implement the recommendations of these reviews as agreed with the Bank (para. 5.4).

2.37 Details of contract packages and their implementation schedules are provided in **Annex 2.4**. Implementation of the policy and institutional component of the project will be managed and/or coordinated by the PCU. Specific support for executing agencies will be managed by the agencies. The policy component will be managed by MHUD. Implementation of citywide infrastructure components of the proposed project will be undertaken by the agencies that will operate and maintain the completed infrastructure works. Site specific development which involves a wide range of infrastructure service provision as well as estate development and community liaison skills, will be implemented by the SNHB with the support of the City Councils and the Community Liaison Task force. Completed infrastructure will be "handed over" by SNHB to the operating and maintaining agency in accordance with guidelines, agreed with each agency, that will be included in the project implementation manual.

2.38 The five implementing agencies with support from consultants as required, will have lead responsibility for the following individual construction contracts:

- SNHB: site specific development projects - 8 bid packages;
- SWSB: citywide water and sewerage - 7 bid packages;
- Mbabane City Council: citywide roads, road maintenance, drainage, streetlighting and solid waste - 5 bid packages;
- Manzini City Council: citywide roads, road maintenance, drainage, streetlighting and solid waste - 4 bid packages; and
- SEB: electricity upgrading and relocation projects - 1 bid package as designed by SEB.

2.39 The responsibilities of project staff within each agency and of the supervisory engineers will be specified in the project implementation manual. The table of contents of the project implementation manual is provided in Annex 2.5. Completion of a project implementation manual satisfactory to the Bank, is a condition of loan effectiveness (para. 5.2). Supervisory engineers together with implementing agency staff would be responsible inter alia for ensuring compliance with specifications for works and goods, adhering to construction schedules, maintaining project accounts and an accurate records of activities, advising on training of staff to operate completed facilities, testing and commissioning of completed works and preparing progress and other required reports.

#### N. Disbursement

2.40 The proceeds of the proposed loan would be disbursed in accordance with the allocation by category shown in Table 2.3 over a period of six years although implementation is expected to be completed in four years. The longer disbursement period is consistent with Bank experience with other urban projects in Africa.

**Table 2.3 Disbursement Allocation**

CATEGORY	LOAN AMOUNT	% EXPENDITURE TO BE FINANCED
1. Civil Works		
a) Solid Waste Disposal Sites		
(i) Mbabane	2.3	85%
(ii) Manzini	0.7	85%
b) Water and Sewage	14.3	85%
c) On-Site Infrastructure	1.7	85%
2. Equipment	1.5	100% of foreign costs
3. Consultants, TA, Training, Supervision of Works	2.7	85%
4. PPF Refund	1.5	As disbursed
5. Unallocated	4.3	As disbursed
<b>TOTAL</b>	<b>29.0</b>	

2.41 For civil works contracts valued at less than US\$50,000 equivalent and for goods and services valued at less than US\$50,000 equivalent, disbursement would be made against statement of expenditures (SOEs). Supporting documentation for these expenditures would be retained by the implementing agencies and made available for review as requested by Bank supervision missions. To facilitate disbursements, a special account will be opened in a commercial bank acceptable to the Bank with an initial deposit of US\$800,000 representing an estimated average of four months' disbursements. The closing date for disbursements will be December 30, 2001. A detailed disbursement schedule is provided in Annex 2.6. Specific conditions of loan disbursement include the following:

- (a) For the solid waste disposal civil works contract for Manzini and solid waste equipment contracts - MHUD's acquisition of land required for the Manzini solid waste disposal site (paras 2.15 and 5.3); and
- (b) For on-site infrastructure for housing sites - submission of specific resettlement and compensation plans (paras 2.18 and 5.3). Disbursements would be made against 85% of eligible expenditures up to a ceiling of US\$2 million.

#### **O. Accounting and Auditing**

2.42 Private sector external auditors carry out comprehensive audits of the four key implementing agencies, SWSB, SNHB and the Mbabane and Manzini City Councils. This arrangement is satisfactory to the Bank and will continue during project implementation. In response to the findings of various diagnostic studies during project preparation, efforts have been made by Finance Department staff, with some success, to improve the accuracy of financial statements and the timeliness of audit reports. With the exception of Mbabane City Council, recent audit reports have been unqualified and have been available within six months of the close of the fiscal year.

2.43 Among the key implementing agencies, Mbabane City Council needs to make the most improvement in financial management. The audited report of the Council's FY92 financial statements was completed ten months after the end of the fiscal year and the external auditor's opinion was qualified. Assistance of accounting specialists has been provided to the Council to address issues raised by the auditors. By the first year of project implementation, all agencies, including Mbabane, are expected to be able to meet the Bank's audit requirements.

2.44 Consolidated project accounts will be prepared by the PCU for the overall project and by each of the four principal implementing agencies for their component of the project. The project accounts would identify all sources and uses of funds used to carry out project activities, including a detailed account of the use of the proceeds of the Bank loan. During negotiations agreement was reached that two copies of the audit reports of the consolidated project accounts, the special account and the financial statements of SNHB, SWSC, and the Mbabane and Manzini City Councils would be submitted to the Bank within six months of the close of the fiscal year. The audit report of the consolidated project account would also contain a separate opinion on the SOE procedure (para. 5.4).

**P. Bank Supervision and Reporting Requirements**

2.45 Reports detailing the progress of project implementation will be submitted to the Bank quarterly: the agreed reporting formats will be included in the project implementation manual. During negotiations agreement was reached that GOS will adopt project reporting procedures satisfactory to the Bank (para. 5.4). The project will require close supervision particularly in the first two years of implementation. A schedule of supervision missions and indication of expertise required for each mission is provided in Annex 2.7. An estimated 16 staff weeks per annum would be required for field missions in FY 94/95 and FY 96/97. In addition to field supervision, about 3 staff weeks per annum would be required for review of procurement documents in FY 94/95 and FY 95/96. A further 3 staff weeks would be required per annum over the course of project execution for review of progress reports, financial reports and for Bank support for project implementation.



### **CHAPTER 3: INSTITUTIONAL PERFORMANCE AND SUSTAINABILITY OF PROJECT INITIATIVES**

3.1 Strengthening institutional capacity, in particular, operations and maintenance and financial management, is critical to project sustainability as well as to further urban sector development. The capacity building initiated during preparation will be continued during project implementation. This chapter discusses key problem areas, proposed action plans and expected performance targets during the period of project implementation. During negotiations agreement was reached that agreed institutional action plans and performance targets would be reflected in the subsidiary loan agreements between GOS and each project implementing agency. The agencies would implement these institutional action plans in accordance with agreed schedules making adjustments where necessary in line with recommendations arising from the project launch workshop, annual project reviews and the mid term review (para. 5.4).

3.2 An important objective of the project is to ensure that the serviced plots delivered and services provided are affordable to low and moderate income groups; the intended project beneficiaries. At the same time mechanisms need to be in place to allow sector institutions to recover the costs of provision of services. Beneficiaries also need access to financing for purchase of plots and home improvements construction. Affordability, mechanisms for cost recovery and sources of financing for target beneficiaries are discussed further in this chapter.

#### **A. Swaziland Water and Sewerage Board**

3.3 Operations and Maintenance Capacity. Lack of access to capital to upgrade and replace assets and poor operations and maintenance have contributed to high levels of unaccounted for water, a contributing factor to the poor financial performance discussed below. Problem areas such as (i) faulty customer meters; (ii) defective equipment at sewage treatment and water treatment plants; and (iii) poor vehicle availability are the result of a lack of systematic maintenance and little or no investment in recent years in replacement and upgrading of the network. SWSB has already started to address problem areas with the assistance of the twinning organization. A draft corporate plan prepared with their assistance contains programs for upgrading, maintaining and improving the performance of SWSB's assets.

3.4 Financial Performance. Details of SWSB's historical and projected financial performance are provided in Annex 3.2. For the past five years the Board has operated at a loss due mainly to:

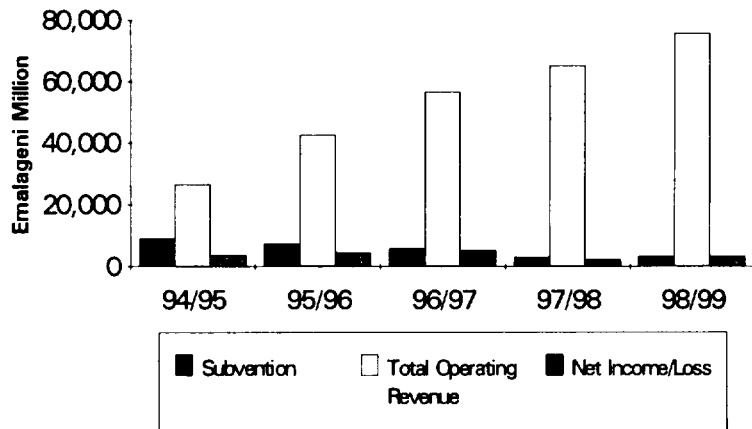
- (a) its inability to levy tariffs in line with inflation. Tariff increases have neither been approved in full nor timely. With the resulting deterioration in its cash flow and financial position, SWSB has been unable to repay debt or pay salaries without Government assistance. By end FY 92/93, SWSB owed Government more than E 30.4 million (US\$9.2 million equivalent) for debt servicing and salary support;
- (b) inadequate subvention from Government to cover recurrent and capital expenditures for non-viable areas. SWSB cannot recover the cost of provision of service to most of the smaller urban areas;
- (c) poor billing and collection procedures. This has contributed to SWSB's poor cash flow position. There are a considerable number of faulty meters that are billed at the

minimum charge with no system in place for timely repair or replacement of these meters. The billing system is also unreliable such that large corrections to recorded revenue are frequently required and SWSB is unable to track and collect bad debts. There has been some improvements as a result of intensive efforts by the Board to collect rates. Outstanding debt fell from a high of 71 % of sales in FY87/88 to 59% in 1992, and receivables outstanding from 275 to 185 days. However, more needs to be done;

- (d) inability to bill all water produced due to excessive water loss through the system. Water is lost through leakage and illegal connections, the result of aged pipes and inefficient operational procedures; and
- (e) lack of adequate internal controls over expenditure and over-staffing at lower levels in the organization due to external control of personnel functions.

3.5 The experience of the last Bank project as well as the several diagnostic studies carried out during project preparation have made it clear that the Board needs greater autonomy if it is to function efficiently. At the same time it needs to be held accountable for sector performance, i.e., it should have clear, easily monitored operational and financial performance targets to ensure greater emphasis on operational efficiency and cost recovery.

3.6 Institutional Action Plans and Performance Targets. SWSB's future performance is expected to be significantly different with its transformation to an autonomous parastatal organization, financial restructuring, greater emphasis on cost recovery, improved internal efficiency and clear policies governing investment decisions. The capital structure of the new corporation reflects a write-off of E30.4 million of debt and accumulated arrears an on-going tariff study is reviewing options to revise the structure and levels of tariffs for the new corporation (SWSC). Cabinet approval of a 50% increase in average tariff levels effective 1st April 1995 was a condition of Board presentation (para. 5.1). During negotiations agreement was reached that for (i) FY 95/96 and FY 96/97, GOS would provide a mix of real tariff increases and subventions to allow SWSC to cover all operating costs and interest expense for the fiscal year and to achieve this target from FY 97/98 onwards without real tariff increases or subventions (with the exception of subventions for the direct recurrent expenses of the water supply schemes in Siteki and Nhlango); (ii) from FY 95/96 onwards, SWSC would submit to the Bank by July 31st of the previous fiscal year, its updated five year financial forecasts and its budget estimate and tariff and subvention proposal for the fiscal year, and (iii) for FY 95/96 and FY 96/97, SWSC would consult with GOS and the Bank prior to incurring any new long-term debt. From FY 97/98 onwards, SWSC would maintain a minimum debt service coverage ratio of 1.5 (para. 5.4).



3.7 A draft corporate plan detailing action plans and performance targets has been developed for the new corporation. A summary of key institutional actions and performance targets, were reviewed and confirmed during loan negotiations. These key targets for expansion of service, internal efficiency and financial performance are summarized in the Project Monitoring Indicators table provided in Annex 3.1. Critical actions planned include reduction of staff per 1000 connections by at least 25%, further increases in collection efficiency and reducing unaccounted-for water by an additional 20% by FY97/98.

## **B. Mbabane and Manzini City Councils**

3.8 Operations and Maintenance Capacity. The two city councils have similar operational problems, though to varying degrees:

- (a) antiquated equipment fleets and inadequate maintenance capacity e.g. shortage of workshop equipment and lack of staff trained in heavy vehicle maintenance. This results in long repair delays, suboptimal maintenance and low plant and equipment availability;
- (b) unsanitary operation of solid waste disposal sites. This is resulting in considerable pollution in the site vicinities.
- (c) inadequate internal administrative and management systems. Ordering processes have inadequate expenditure controls and do not facilitate accountability by department heads. Job costing methods also need to be improved; and
- (d) Need to upgrade staff skills. This reflects the institution-wide need to review and enhance the human resources base; both technical skills and supervisory capacity need strengthening.

3.9 Financial Performance. In recent years, Mbabane City Council has reported persistent operating deficits due mostly to:

- (a) inadequate rate revenues as a result of outdated valuation rolls. Estimated market values, particularly for upper income areas, range between 600 - 1000% of existing rateable values;
- (b) the council's lack of autonomy and insufficient emphasis on increasing rates to compensate for inflation, or adjusting specific charges to cover the cost of services provided;
- (c) exemption of GOS land in exchange for annual subventions. GOS subventions account for only 4% of 1991/92 revenues although Government owned land represents 20% of total land in Mbabane. Rates account for 78% of Mbabane's revenues;
- (d) lack of internal controls over expenditure growth mostly composed of staff emoluments (83% of FY 91/92 recurrent expenditure). Expenditure has grown faster (20% p.a.) than total revenues (18% p.a.) or inflation (12-15% p.a.). At the same time, maintenance needs of existing infrastructure are underfunded; and

- (e) significant debt service commitments as a result of increased use of borrowing (Mbabane's FY 92/93 overdraft stood at over 50% of rate revenues) and late loan payments.

3.10 Although Manzini City Council has managed to post modest operating surpluses in all but one of the past five years, this has been achieved by reducing expenditures rather than through revenue growth. For instance, reviews indicate that road maintenance alone in Manzini is under-funded by about E 600,000 p.a. In comparison to its level of operations, it has a relatively smaller revenue base than Mbabane since the Matsapha industrial estate (the location of the largest employers) is outside its boundaries. To a lesser extent, Manzini has the same problems highlighted for Mbabane. The issue of inadequate revenue is compounded by:

- (a) outdated valuation rolls; market values are estimated as 300% - 600% greater than current rateable value;
- (b) lack of autonomy and little emphasis on revising and adjusting rates and other charges;
- (c) exclusion of GOS property from rate charges. However, the potential income is moderate, since GOS does not have extensive holdings in Manzini; and
- (d) internal controls that, although adequate for current purposes, require enhancement and reinforcement to ensure continued cost control.

3.11 Recent reviews have shown that if the Town Councils are to generate enough cash flow to support routine operations and maintenance and debt service requirements, they will require: (i) greater autonomy and increased emphasis on adjusting rates and charges to ensure financially sustainable operations; (ii) greater emphasis on the cost-effectiveness of their operations; and (iii) improved accounting and management information systems. Short term assistance has been provided to the councils to strengthen accounting, budget preparation, and financial control systems and procedures. Appointing local accounting specialists to provide the assistance outlined above was a prerequisite for project appraisal.

3.12 Institutional Action Plans and Performance Targets. The councils have developed detailed action plans and performance targets that were reviewed and confirmed during loan negotiations. Operational indicators reflecting performance efficiency of road maintenance, workshop activities and solid waste disposal, and financial performance indicators are included in the Project Monitoring Indicators table in **Annex 3.1.** Areas covered in the institutional action plans include:

- (a) Revenue enhancement -- regular review and revision of rates and charges, inclusion of GOS and parastatals property in the valuation rolls, improved billing and collection efficiency. Changes in the Rating Act have been drafted to facilitate rating of Government property and collection of overdue accounts by the city councils.
- (b) Accounting systems -- overhaul and improvement of financial information and control systems. Areas to be strengthened include revenue collection controls, billing procedures, internal audit procedures, data processing and management information systems;

- (c) Internal Efficiency -- development and implementation of new personnel management policies, restructuring of unprofitable services, establishment of road management and maintenance systems;
- (d) Increased Autonomy -- The City Councils and GOS will agree an Urban Government Policy Framework as the governing instrument of their relationship (para. 2.13); and
- (e) Strengthening management and upgrading staff skills --- Assistance will be provided through the International City/County Managers Association (ICMA) (para. 2.14).

3.13 The forecast financial performance of Mbabane and Manzini City Councils are provided in **Annex 3.2**. As a result of the revenue enhancement and expenditure control measures to be implemented as outlined above, both councils are expected to generate sufficient internal cash to cover operations and maintenance costs and debt service by the end of the project period. A critical assumption is that the amendments to the Rating Act will be ratified to allow (i) inclusion of GOS properties in the valuation rolls by FY95/96; (ii) strengthening of rates collection remedies to allow collection efficiencies of 75%; and (iii) increased autonomy for the councils in setting rates. Other major assumptions are (i) rates and fees will be increased regularly in line with inflation at a minimum; (ii) the Councils, through on-going and planned assistance will establish financial and budgetary control procedures (overdraft facilities would be limited to not more than four months average revenues); and (iii) the Councils would allocate most of their annual capital grants between FY 95/96 and FY 98/99 to funding the investments included in the proposed project. The above assumptions are consistent with detailed action plans developed by the councils (para. 3.12); the underlying principles will be agreed between GOS and the Councils and reflected in an Urban Government Policy framework (para 3.12). During negotiations agreement was reached that (i) GOS and the Councils would agree an Urban Government Policy framework by February 1st 1995; (ii) the Councils would consult with the Government and the Bank prior to incurring any new long-term debt obligation, and (iii) from FY 95/96 onwards GOS would ensure adequate adjustments to solid waste disposal user charges to enable Mbabane and Manzini City Councils to cover operating costs, including depreciation and interest expense. (para. 5.4).

### C. Swaziland National Housing Board

3.14 Since its establishment, SNHB has received considerable technical assistance and staff training through a UNDP-financed Bank -executed technical assistance program designed to strengthen its operational capacity. The program funded financial and technical advisors and training for SNHB staff. This assistance helped SNHB to establish its project management unit but was less successful in building its capacity to implement low income housing projects and to manage the larger volume of transactions that would result from the proposed urban development project.

3.15 Financial Performance. SNHB is currently operating at a surplus. In 1992 a write-off of substantial loans undertaken by its predecessor, the Industrial Housing Company resulted in a net loss. Despite its profitability, SNHB's financial performance four years after its establishment appears to be worsening. Return on capital employed declined from 4.1% in 1991 to 1.3% in 1992 reflecting lower profits and a revaluation of assets. Return on rental assets, about 3%, has been poor; the result of rent increases well below the rate of inflation. Profits from new developments fell from 20% in 1991 to 10% in 1992. In 1993, SNHB experienced its first trading loss on property development; the result of (i) inadequate throughput of development properties due to conveyancing delays; and (ii) a property pricing

system which did not accurately reflect costs and market prices. Internal inefficiencies such as weaknesses in cost accounting systems and contract management were also contributing factors.

3.16 Institutional Action Plan and Performance Targets. SNHB has prepared a draft corporate plan reflecting planned institutional strengthening and proposed performance targets. Key actions relate to delivery of low income housing sites, staff training, development of internal systems and financial performance. Institutional action plans and performance targets were reviewed and confirmed at loan negotiations. A second institutional support program, to be partially funded by UNDP, will assist SNHB by funding periodic follow-up support and short term specialist assistance. Local and regionally-sourced staff training, to be funded by SNHB, will emphasize financial management, cost control, sales & marketing, computer skills, and project management. A GOS approved project document, addressing SNHB's institutional support requirements was brought to loan negotiations. During negotiations agreement was reached that SNHB would implement the Institutional Support program utilizing technical specialists, satisfactory to the Bank and in accordance with the agreed schedule and would make adjustments where necessary in line with recommendations arising from the project launch workshop, annual project reviews and the midterm review (para. 5.4).

#### **D. Sources of Financing for Project Beneficiaries**

3.17 Swaziland Building Society (SBS). SBS, the primary source of conventional housing finance in Swaziland, was established in 1962 under the Building Society Act of the same year. Its activities are controlled by the Governor of the Central Bank of Swaziland (CBS). The society employs 84 staff members and is well managed and profitable. Over the past five years, SBS has had impressive growth. Total assets increased from about E 39 million in FY 89 to E 138 million in FY 92/93; an annual average growth rate of about 29%, considerably above inflation. At the same time SBS maintained sound portfolio quality, high liquidity and high net income. Since the introduction of new capital adequacy requirements in 1993, SBS has taken measures to improve capitalization through slower asset growth and to improve profitability by accessing lower cost short-term funding.

3.18 SBS is interested in and committed to providing mortgage financing for project beneficiaries despite its limited experience with processing high volume low value mortgages <sup>1/</sup>. In anticipation of the project, it has increased its mortgage handling capacity by introducing a computerized system, streamlining application procedures, increasing the number of qualified staff and expanding its physical premises. Its Board of Directors has agreed to a proposal to approve mortgage loans below E 50,000 on a no objection basis which is expected to significantly reduce loan processing time. Under a USAID sponsored technical assistance, a Mortgage Portfolio Manager from the Central African Building Society (Zimbabwe) visited Swaziland to provide input on the design of systems and procedures for high volume low value mortgage lending. SBS staff have also visited Zimbabwe and South Africa to review similar systems.

3.19 Given its current strong financial position and the on-going and planned changes in its mortgage handling facilities, SBS is expected to be able to provide the conventional mortgage financing required by project beneficiaries. Mortgage loan requirements (for purchase of serviced sites and housing

---

<sup>1/</sup> The average mortgage debt of the 1300 outstanding mortgages was equivalent to E 77,000, well above the average loan size expected under the Urban Development Project (UDP).

construction) is estimated at E 43 million (US\$13 million) or an average of E 11 million annually. Funding required by project beneficiaries is expected to range between E 2500 - E 22,000 , for purchase of serviced plots and home improvements. SBS has indicated that it is prepared to lower mortgage size to E 5,000 and to commit E 10 million annually to financing for UDP project beneficiaries. In addition it would also fund the proposed non-conventional loan scheme discussed below.

**3.20 Non-Conventional Financing.** Several recent studies of the financial sector in Swaziland have found that (a) low income groups have very limited access to formal sector finance - while 75% of low income households have Bank accounts only 19% have ever secured formal credit; and (b) banks (other than SBS and the Swaziland Development and Savings Bank) have a very low proportion of their assets in housing finance. Of particular importance in the proposed project are the approximately 40% of households on plots to be upgraded who would not qualify for conventional mortgages, due mainly to the informal nature of employment of household members. SBS has determined that it can profitably lend to this potential market given 99 year leaseholds as collateral and a commitment from Government to guarantee 20% of any losses which might occur on resale of foreclosed properties. Government has indicated its preliminary willingness to accept this limited risk sharing formula. The commercial banks have also proposed a similar risk sharing arrangement which would allow them to enter the low income housing market. While mobilization of commercial bank financing for low income housing will be pursued during project implementation, SBS's commitment will be sufficient to ensure that adequate financing will be available for all project beneficiaries. A letter of commitment from SBS to provide E 38 million (US\$11.9 million equivalent) of conventional and E 5 million (US\$1.6 million equivalent) of non-conventional financing for project beneficiaries over the four year project implementation period was brought to loan negotiations.

**Table 3.1 Cost Recovery Arrangements**

Institution	Medium-High Income	Low Income
National Housing Board - land - on-site infrastructure * capital * O & M	plot cost  plot cost see below	plot cost  plot cost see below
Water & Sewerage Board - water * capital (off-site) * O & M - sewerage * capital (off-site) * O & M	tariff tariff  tariff tariff	tariff (standpipes) tariff (standpipes)  plot cost (pit latrine) fee (desludging/disposal)
Councils - roads/drains * capital (off-site) * O & M - solid waste * capital * O & M - sewerage (desludging)	rates rates  fee (SWSC) fee (SWSC) fee(SWSC)	rates rates  rates rates fee
Swaziland Electricity Board - electricity * capital (on-site) * capital (off-site) * O & M	plot cost tariff tariff	plot cost tariff tariff

## **E. Cost Recovery and Affordability**

3.21 The project has been designed for full cost recovery. Rehabilitation and expansion of city-wide infrastructure will be recovered through user charges and property taxes. The costs of on-site infrastructure for upgrading sites will be recovered through plot pricing. Table 3.1 summarizes cost recovery arrangements for each project component. In the design of the site specific infrastructure a key objective has been to ensure plot costs would be affordable to project beneficiaries. Baseline data on household income from a 1992 survey was used to establish limits on infrastructure costs. Infrastructure standards and plot size have been reduced in line with the income levels of target beneficiaries. The plot pricing policy, included in the draft project implementation manual, provides for full cost recovery, including the costs of construction finance and supervision and SNHB overhead costs and profit. Given appropriate financing mechanisms as outlined in para. 3.20, upgrading plots are affordable to 90% of households in the project area. Plots being upgraded, but occupied by existing residents, as well as those plots on which existing residents are to be resettled will be priced as indicated above. Plots not allocated to existing residents would be sold through public tender.

## CHAPTER 4: THE PROJECT'S BENEFITS AND IMPACTS

### A. Project Benefits

4.1 The proposed project is a key element in the implementation of the Government's urban development strategy aimed at providing planned maintenance, upgrading and gradual least-cost expansion of the urban infrastructure within the overall macroeconomic context. The program will favor the lower income groups in that the site-specific works are located in lower income areas. About five thousand new property owners will be created thus stimulating the development of the housing market in Swaziland. City-wide investments will provide access to services for the beneficiary communities and help improve Swaziland's investment climate by relieving water and sanitation supply constraints.

4.2 Rehabilitation of targeted major transport routes and drainage systems in both cities will result in improved road surfaces leading to better traffic flows, reduced damage to vehicles and reduced environmental degradation caused by uncontrolled surface water flows. A total of about 11 km will be upgraded to bitumen standard. In addition, access to the upgraded informal housing sites included in the project will be much improved. The road maintenance sub-component will seek to alleviate the current backlog in road maintenance and establish a basis for revitalization of municipal programs for routine maintenance of infrastructure and equipment.

4.3 The city-wide water and sewerage infrastructure investments proposed under the project will yield large social benefits to the residents of Mbabane and Manzini in general and improve the operational efficiency of the existing systems. The anticipated increase in piped water available for end use will reach about 1,400 megalitres per annum representing an increase of about 70% over present levels. New sewerage treatment works to be constructed in both cities will address the urgent need to increase sewer capacity. It is estimated that present sewage treatment capacity is less than 25% of present demand. The project will also support the acquisition of new disposal sites and purchase of collection equipment for both Mbabane and Manzini to alleviate the ongoing solid waste disposal crisis.

4.4 Upgrading of four low-income residential areas (two in Mbabane and two in Manzini) will provide a comprehensive package of communal facilities, potable water supply and sanitation, solid waste disposal, improved road access and lighting for the residents of the communities targeted for upgrading. In particular, the piped water supply will replace existing source and quality of water, i.e. untreated and unreliable water from wells and springs located within the beneficiary communities. A significant unquantifiable benefit will be the security of tenure that will be conferred on the residents through purchase or lease of serviced plots.

### B. Environmental Impact

4.5 The project, an EA category B, is designed to alleviate environmental degradation in urban and peri-urban areas by improving and expanding access to sanitation and upgrading informal settlements. Environmental planning and assessment of environmental impacts have been an integral part of project design. In the early stages of project preparation, environmental specialists collected baseline environmental data for alternative project sites, outlined strategic planning issues and prepared environmental management guidelines for the design team. Environmental evaluations were carried out of alternative locations for the water supply, the sewage treatment and solid waste disposal components

of the city-wide infrastructure. As a result, changes were made in the design criteria (particularly for the sewage treatment component), options were eliminated because they were environmentally unacceptable and further alternatives were investigated. The environmental evaluation of site specific housing sites, resulted in the elimination of one proposed project site. In addition, the most sensitive areas of individual sites were excluded from development and reserved for conservation areas.

4.6 The constant interaction between environmental and planning teams resulted in the development of conceptual and preliminary design options with a lower level of negative environmental impact. Environmental assessment reports for site specific and bulk infrastructure are provided in the project implementation manual; a summary is provided in Annex 4.1 <sup>2/</sup>. While the overall environmental impact is positive, the EAs detail the unavoidable negative impacts of each project component during construction and subsequent operation. Environmental mitigation plans specify management and control, site supervision requirements and rehabilitation standards. Mitigation actions required during construction have been incorporated into draft contract documents. Technical assistance will be provided to the SEA to build their capacity to carry out environmental monitoring over the medium term as recommended in the mitigation plans.

### **C. Resettlement and Compensation**

4.7 Planning for site specific infrastructure has aimed to minimize compensation and resettlement costs by accommodating existing structures and land usage and adjusting service standards to ensure plot costs are affordable to existing households (para. 2.18). To further minimize the need for resettlement where large plots with multiple structures/households have been sub-divided, in situ households will be given priority in the allocation of plots. An estimated 300 households may need to be relocated to allow for the construction of on-site facilities and to prevent environmental degradation on steep slopes. The draft plot allocation policy included in the project implementation manual assigns the highest priority to these households for allocation of in-fill plots within their current housing settlements. They will also be separately compensated for existing structures and assisted with relocation. The number of households to be resettled outside the project area based on affordability, is expected to be minimal as a result of the availability of non-conventional housing finance and financial support from extended families.

### **D. Economic Analysis**

4.8 Details of the economic rate of return calculations are shown in Annex 4.2. Only those components with quantifiable benefits have been evaluated i.e. (i) urban roads and drainage; (ii) water supply and sewerage; (iii) housing upgrades. Among expected benefits, only measurable benefit have been estimated. Cost streams include civil works, equipment and machinery, engineering design, supervision, physical contingencies and operation and maintenance costs. The ERRs of project components are discussed below.

4.9 Urban Roads and Drainage. Benefits have been measured as savings in vehicle operating costs arising from less wear and tear and lower fuel consumption on the improved road surfaces. It was conservatively assumed that passenger time savings would be of minor importance and that road

---

2/ Volumes seven and eight of Technical Report 2; John Burrow; May, 1993.

maintenance costs would not change significantly. ERRs on four of the five project roads were above 10% and rose as high as 60% on one congested road.

4.10 Water Supply and Sewerage. Economic benefits were computed as the value placed on the net incremental volume of water produced and sewage treated under the project. Assuming that the incremental water was supplied to already existing consumers the imputed value was the additional water available and the sewage treated based on the average financial water and sewerage tariffs<sup>3/</sup>. No separate analysis was undertaken for sewerage costs and benefits because the most important benefits from sewerage services, improved public health and environmental conservation, cannot be quantified. These unquantifiable benefits are significant given present under-capacity (para 2.16). The base ERRs obtained are 46% in Manzini and 18% in Mbabane. Sensitivity analyses indicated that with a combined 10% increase in capital costs and a 10% reduction in benefits, the ERRs would reduce to 14% in Mbabane and 36% in Manzini.

4.11 Community upgrading. Benefits have been quantified in terms of property value increases. Based on sample surveys in the four target communities, and in comparable areas already provided with proper infrastructure and security of tenure, the property values would increase by over 50% with the project. Significant value was attached to the anticipated security of tenure that will be conferred by the leasehold agreement.

#### **E. Poverty Impact**

4.12 The proposed project would have a significant poverty impact -- improving health, hygiene and general living conditions in the two cities through provision of potable piped water supply, waste-water disposal, solid waste disposal and improved road access to the target communities, in particular, and to the urban population as whole. The project would allow 4000 low and moderate income households to become property owners; providing them with secure tenure on real property. Employment opportunities would be created through the construction of roads, buildings and other infrastructure, most of which will be undertaken by local contractors and/or subcontractors.

#### **F. Project Risks**

4.13 Project processing has been delayed due to turnover of key decision makers and lengthy decision making processes in Swaziland. A major project risk, is that these factors could also delay project implementation. This risk has been minimized by ensuring that most actions essential to project success and sustainability, in particular those that require approval by Cabinet and/or Parliament, are taken prior to loan effectiveness. Loan covenants require timely initiation of remaining actions (e.g. approval of tariff increases and subventions for SWSB in subsequent years) to allow sufficient lead time for the approval process. A second risk is that capacity building objectives may not be achieved. To minimize this risk, the investment component of the project has been reduced to allow for modest/phased improvements in institutional capacity, institution building programs have been initiated during project preparation, and institutional action plans have been prepared for key implementing agencies. The status of implementation of capacity building programs and action plans will be reviewed in detail during annual and the mid term

---

<sup>3/</sup> Whether paid for or not, availability of clean water has an important benefit as compared to untreated water from unprotected sources. Therefore, billing and collection efficiency was assumed at 100% for economic valuation purposes.

review. A third risk is that upgrading sites may not be affordable or communities may be unwilling to participate in the project. This risk has been minimized by taking into account the income of target groups in all aspects of project design and ensuring close involvement and participation of project beneficiaries throughout project preparation and implementation. Finally, there is the risk of slow implementation of project components. This risk has been minimized through detailed planning and preparation for implementation by the executing agencies and the design consultants (on-going) and up front action on procurement. Technical support to the project coordination unit, establishment of implementation units by each of the executing agencies and annual project reviews will further minimize this risk.

## **CHAPTER 5: AGREEMENTS REACHED AND RECOMMENDATIONS**

### **A. Conditions of Board Presentation**

5.1 The following conditions of Board presentation have been met:

- (a) Vesting of SWSC (para. 3.6); and
- (b) GOS approval of an increase of 50% in SWSC's tariffs to be effected 1st April 1995 (para. 3.6).

### **B. Conditions of Loan Effectiveness**

5.2 The conditions of Loan effectiveness are as follows:

- (a) Enactment of the new Rating Act (para. 2.12);
- (b) GOS approval of the Leasehold agreement for SNL (para. 2.12);
- (c) Acquisition of required land for sewage treatment facilities in Mbabane and Manzini (para. 2.16);
- (d) Signing of subsidiary loan agreements between GOS, SWSC, SNHB, and Mbabane and Manzini City Councils (para. 2.26);
- (e) Appointment of key staff of the PCU and the TSU with experience, qualifications and terms of reference satisfactory to the Bank (para. 2.35); and
- (f) Completion of the project implementation manual (para. 2.39).

### **C. Conditions of Disbursement**

5.3 The following are the conditions of loan disbursement:

- (a) For on-site infrastructure for housing sites - submission of specific resettlement and compensation plans, satisfactory to the Bank, for each housing site (para. 2.18); and
- (b) For solid waste disposal civil works contracts for Manzini and for solid waste equipment contracts - Acquisition of land required for the Manzini solid waste disposal site (para. 2.41).

### **D. Agreements reached during Loan Negotiations**

5.4 During loan negotiations agreement was reached on the following:

- (a) GOS shall ensure that the project is carried out in accordance with its resettlement and compensation policy. Prior to the start of construction, resettlement and compensation plans satisfactory to the Bank will also be prepared for each upgrading site where SNHB will mobilize after the completion of disbursement of Bank funds (para. 2.18);
- (b) GOS and implementing agencies will make adequate budgetary provisions for their share of project costs (para. 2.24);
- (c) Procurement under the project will be carried out in accordance with the arrangements summarized in para. 2.29 - 2.33. LCB procedures will be carried out in accordance with Bank guidelines (para. 2.30);

- (d) GOS will maintain the PSC and the organizational structures, functions and staffing of the PCU and TSU in a manner satisfactory to the Bank throughout project implementation (para. 2.35);
- (e) A project launch workshop will be held within two months of loan effectiveness. Thereafter, GOS together with the Bank will carry out annual project reviews by July 31st of each fiscal year and a comprehensive midterm review by December 31, 1996. GOS and project implementing agencies will implement the recommendations of these reviews as agreed with the Bank including measures to implement the agreed recommendations arising from the policy and legislative review (para. 2.36);
- (f) Two copies of the audit reports of the consolidated project account, the special account and the financial statements of SNHB, SWSC, and the Mbabane and Manzini City Councils will be submitted to the Bank within six months of the close of the fiscal year. The audit report of the consolidated project account would also contain a separate opinion on the statement of expenditure (SOE) procedure (para. 2.44);
- (g) GOS to adopt project reporting procedures satisfactory to the Bank (para. 2.45);
- (h) Agreed institutional action plans and performance targets would be reflected in the subsidiary loan agreement between GOS and each implementing agency. The agencies would implement these action plans in accordance with agreed schedules making adjustments where necessary in line with recommendations arising from the project launch workshop, annual project reviews and the midterm review (para. 3.1);
- (i) For FY95/96 and FY96/97, GOS to provide a mix of real tariff increases and subventions to allow SWSC to cover all operating costs and interest expense and to achieve this target from FY97/98 onwards without subventions or real tariff increases (with the exception of subventions for the direct recurrent expenses of the water supply schemes in Siteki and Nhlanguano). From FY95/96 onwards, SWSC would submit to the Bank by July 31st of the previous fiscal year, its updated five year financial forecasts, and its budget estimate and tariff and subvention proposals for the fiscal year (para. 3.6);
- (j) For FY 95/96 and FY 96/97, SWSC would consult with GOS and the Bank prior to incurring any new long-term debt. From FY 97/98 onwards, SWSC would maintain a minimum debt service coverage ratio of 1.5 (para. 3.6);
- (k) GOS and the City Councils will agree an Urban Government Policy framework satisfactory to the Bank by February 1st 1995. In addition (i) the Councils would consult with the Government and the Bank prior to incurring any new long-term debt obligation, and (ii) from FY 95/96 onwards GOS would ensure adequate adjustments to solid waste disposal user charges to enable Mbabane and Manzini City Councils to cover operating costs, including depreciation and interest expense. (para. 3.13); and
- (l) SNHB will implement the Institutional Support program utilizing technical specialists, satisfactory to the Bank, and in accordance with the agreed schedule and will make adjustments where necessary in line with recommendations arising from the project launch workshop, annual project reviews and the midterm review (para. 3.16).

## **E. Recommendation**

5.5 Subject to the above, the proposed project is suitable for a loan from the International Bank for Reconstruction and Development to the Kingdom of Swaziland in the amount of US\$29 million.

## **SWAZILAND**

### **URBAN DEVELOPMENT PROJECT**

#### **MINISTRY OF HOUSING AND URBAN DEVELOPMENT** **STATEMENT OF SECTORAL POLICY** September 1993

##### **I. Background**

Since its establishment in late 1991, Swaziland's Ministry of Housing and Urban Development (MHUD) has been pursuing a deliberate program of sectoral policy reform. Indeed, the establishment of the Ministry itself represents a substantial step forward on the part of the Government of Swaziland in its continuing efforts to deal with the Kingdom's urbanization process.

MHUD seeks to establish a sectoral policy which will support sustainable, equitable housing delivery and urban development systems and processes. In pursuit of this overarching goal, the Ministry is actively facilitating policy and legislative reform in three key sub-sectors: a) housing; b) urban governance and development; and, c) land and physical development. Activities, planned and underway, in each policy sub-sector are briefly discussed below.

##### **II. Housing**

After several years of preparatory work, Cabinet approved in May 1993 "A Housing Policy for the Urban Areas of the Kingdom of Swaziland". This policy document recognizes that a number of interactive elements must be in place to achieve a sustainable and equitable housing delivery system in the Kingdom within a free market context, as summarized below.

First, Government will facilitate the improved functioning of the private sector housing market to the greatest degree possible. Government will, over the medium term, phase out of the direct provision of housing and will promote private sector housing provision by facilitating land availability, provision of bulk infrastructure and community participation in the design and implementation of appropriate schemes.

Second, Government will assist the mobilization of adequate housing finance from the private sector. This assistance should include a supportive regulatory environment for building societies and other housing finance institutions, promotion of alternative financial systems tailored to the needs of the low income urban majority, and mobilization of alternative sources of finance including pension funds. Third, Government will promote the institutional development of key organizations in the sector. These organizations include the Ministry itself, local authorities, the National Housing Board, the Water and Sewerage Board, the Surveyor General and the Deeds Registry, and housing finance institutions.

Fourth, Government will ensure an adequate supply of well placed land with secure tenure for housing development. Market allocation of land for housing is the preferred mechanism in all cases except those involving relocation of residents for the greater public good. Progress is being made in this very sensitive area with the recent approval in principle by the King of 99 year leases for Swazi Nation Land (SNL) involved in the first phase of the Urban Development Project (UDP).

Fifth, Government will promote appropriate housing development through a suitable, streamlined system of controls. These controls must take into account appropriate construction standards, materials and techniques; and, must ensure that formally and informally produced housing, particularly of the low cost variety, are both durable and bankable.

Sixth, and finally, Government will ensure that its Housing Policy is fully integrated within its Urban Development Policy (which will be completed by June 1994) and that, in turn, both policies are in harmony with the National Physical Development Plan (which will be completed by June 1994). Particularly in a time of scarce Government resources, this will require effective integration of land delivery, infrastructure provision, finance and full cost recovery.

### **III. Urban Governance and Development**

The Urban Government Act of 1969 provides the basis for the establishment of cities and towns in Swaziland. Under the Act, the Ministry is legally mandated to assist and supervise the two cities of Manzini and Mbabane and the seven towns of Nhlanguano, Siteki, Hlatikulu, Lavumisa, Pigg's Peak, Vuvulane and Mankayane. Only Mbabane and Manzini function as true local authorities in terms of possessing their own sources of revenue, setting budgets, providing basic services, and employing staff. The smaller towns do not control financial resources, employ staff or provide services.

Prior to the establishment of MHUD in late 1991, the local authorities in Manzini and Mbabane had received little support, other than subventions, from Government. Local governments have been operating in a virtual policy vacuum. Beyond the Rating Act of 1967 as amended in 1971, local governments have been provided with very few tools with which to achieve their mandate and the development, sanitation and amenities of the municipality". Locally generated revenues from rates have never been adequate to meet local service and maintenance demands. As a result, the two city governments have come to rely upon an ad hoc system of central government subventions.

In the near term, the key issue to be addressed is reformation of local government finance. Two immediate steps are being taken. First, amendments to the Rating Act are being drafted for submission to Cabinet, or the new Parliament depending upon the timing of national elections. This submission will take place no later than July 1994, prior to effectiveness of the proposed World Bank loan. The main intent of these revisions is to establish a regular system of property rates valuations which will enable local governments to more systematically match revenues with service demands. In addition, property owned by Government would be valued and rated, an area of particular concern for the capital city of Mbabane. Next, and for the first time, a Local Government Finance Policy is being delineated under the guidance of the Ministry's Dept. of Local Government. The objective of this policy, a full draft of which is expected by the end of August 1993, is to establish the respective financial responsibilities of

national and local governments in meeting the costs of key local services. The principle upon which this policy will be based is that subventions from central government should be limited to those services which cannot be run by local government on a self-financing basis (eg, infrastructure developments such as major roads, community and recreational facilities that serve a population beyond the city boundaries). This would exclude local services which are essentially public enterprises--including abattoirs, solid waste disposal, markets, terminals, etc., for which privatization options will be explored, and where feasible, implemented during the Urban 1 project period--and operations and maintenance activities which should be financed from rates collections.

Over the medium term, the Ministry is committed to assisting local governments to implement the DEVCO recommendations in five key areas: organizational strengthening, financial management, rating and revenue, engineering management, and legal issues. In addition, a key area of concern, both for the UDP and beyond, is the development of local governments' capacity to involve communities in the planning and development process.

These activities will culminate in a thorough revision of the Urban Government Act and promulgation of a comprehensive Local Government Development Policy. It must be recognized, however, that the process of reorganizing local governments will take time. The human resources of both the Ministry and the City Councils are very limited. The UDP consultants have identified substantial training and technical assistance for both the Ministry and the City Councils which will be required to bring these sub-sectoral policy reform goals to fruition in the medium term (i.e., during the next 18 to 24 months).

#### **IV. Land and Physical Development**

The Ministry is fully committed to facilitating the emergence of a well-functioning urban land market in the Kingdom. Achievement of this goal is the most complex of the sub-sectoral policy activities being addressed by MHUD, interweaving cultural, technical and institutional concerns of the broadest scope.

A very significant first step has been taken in the King's approval in principle of 99 year leases for Swazi Nation Land involved in the first phase of the UDP. Financial institutions have indicated that such an arrangement will satisfy their banking criteria for lending, and a model lease agreement is nearing finalization. Final Government approval of the lease agreement will take place prior to effectiveness of the proposed World Bank loan; i.e., no later than July 1994. Proposals to include SNL to be developed under the UDP within municipal jurisdictions are also nearing completion.

It must be emphasized, however, that His Majesty's initial dispensation is specific to the first phase of the UDP. The Ministry will continue to work with community and traditional leaders over the course of Urban 1 implementation to ensure that this innovation gradually becomes the norm in urban areas.

With regard to the technical aspects of land and physical development, the Ministry fully endorses the basic principles of the DEVCO Physical Planning Study. This report, known as DEVCO 2, recommends the repeal of several anachronistic pieces of sectoral legislation (including the Building, Human Settlements Authority, Town Planning and Subdivision of Land Acts) to be replaced by a new piece of legislation to be called the Physical Planning and Development Control Act. It further recommends that a National Physical Planning Authority be established and that the two city councils be made planning authorities for the Greater Mbabane and Greater Manzini areas.

The report also recommends that the current Human Settlements Authority be disbanded to be replaced by a National Physical Planning Authority. The DEVCO 2 report was completed in April of this year. The recommendations it contains appear to be extremely well thought out, but are so sweeping that the Ministry and other involved Government agencies require time to review the report's contents. MHUD will, following thorough consultation, introduce the report itself and appropriate revised legislation to Cabinet and Parliament by early 1994.

In the meantime, the Ministry's Physical Planning Section is completing revision of the Standard Development Code which will introduce more appropriate development standards in terms of lot sizes, allowable residential densities, set back requirements, etc., taking into account the basic principle of affordability. A draft of this revised Code will be completed by January 1994.

Simultaneously, a terms of reference has been drawn up to review all land-related legislation in the Kingdom. Provided resources are available, it is anticipated that this review will be complete by January 1994. Immediately thereafter, Government would set in motion the steps for any required legislative reform.

An additional area of sub-sectoral concern relates to land information management systems (LIS). Installation of this basic tool in the Kingdom is critical to the interactive tasks of establishing an effective urban land market, reforming rating and collection systems, and monitoring sectoral performance. ODA is currently providing technical assistance to the Registrar of Deeds and the Surveyor General's office to establish a pilot LIS. MHUD and other relevant ministries will determine the appropriate institutional location for installation of a full scale LIS as a matter of urgency.

## **V. Summary**

As can be seen from the foregoing, a comprehensive program of sectoral policy reform is now underway. It is clearly the responsibility of the Ministry to coordinate this effort. To date, however, coordination has been hampered by delays in filling key appointments in the Ministry's Departments of Housing, Physical Planning, and Local Government. The Ministry has also recommended to the Ministry of Labour, as a matter of urgency, creation of the Department of Project Management and Planning (DPMP) which would regularize the current Project Coordination Unit within the MHUD establishment.

Given establishment of DPMP and filling of key positions in other Ministry Departments, coordination of sectoral policy activities will be greatly improved. Day to day sectoral coordination responsibility will be assigned to DPMP; a key aspect of this brief will be to ensure that individual policy revision activities are carried out in a consultative manner. When fully staffed, the Ministry's line departments will each be responsible for the coordination of activities in their specific sub-sectors.

However, even with full staffing of the Ministry, assistance, mostly of a short-term nature, from consultants will continue to be critical to accomplishment of this considerable task. Consultants have clearly identified and estimated costs of technical assistance and training required to support sectoral policy reform efforts have been clearly identified. MHUD will seek additional donor support for these technical assistance and training requirements. Given adequate human, technical, and financial resources the emergence of a fully articulated, appropriate sectoral policy framework by the end of 1995 is a reasonable goal to which Government is fully committed.

**SWAZILAND**  
**URBAN DEVELOPMENT PROJECT**  
**DETAILED PROJECT DESCRIPTION**

**A. Policy Reform and Development**

1. As is common in many developing countries which have only recently begun to experience high rates of urbanization, policies governing the Swazi urban sector have been fragmented, antiquated, and, in some cases, entirely absent. A major effort has been made during the project preparation phase, therefore, to identify and act upon required policy reforms.

2. Given the urgent need for urban infrastructure improvements and affordable housing development, the Government, through a series of workshops supported by the Bank, USAID, and UNDP during 1990-1992, prioritized urban sector policy reform and development requirements. In essence, actions were prioritized into two groups:

3. Immediate requirements- this grouping of required actions includes those reforms which are necessary prior to initiation of any sustainable urban investment program. Included in this high priority group were:

- a) creation of MHUD in order to resolve fractionation of authority and responsibility in the sector;
- b) delineation of a National Housing Policy for Urban Areas and a Sectoral Strategy;
- c) initiation of a process by which formal security of tenure can be instituted on SNL in urban areas;
- d) redefinition of local authority and key parastatal structures to improve financial capacity, autonomy and accountability including revision of the Rating Act; and
- e) definition of policies and procedures to govern community liaison, allocation of land in urban informal settlements, design and pricing of plots for sale on a fully cost recoverable basis, and relocation and compensation policies and procedures.

4. Medium Term Requirements- this grouping includes policy reform and development actions which are necessary to achieve a well functioning urban sector over the medium term, but which were not required to effectively deal with the most pressing urban needs in the Kingdom, including improvement of roads, water supply and sewers and upgrading of highest priority informal settlements. Work will continue throughout the implementation period of the proposed UDP project on:

- a) definition of an Urban Government Policy which, building from the Rating Act revision, will clearly define the framework within which local authorities will operate, particularly with regard to central government subventions and commercialization of operations as appropriate;
- b) revision of legislation governing physical planning and development control, including the Building, Human Settlements Authority, Town Planning and Subdivision of Land Acts, possibly to be subsumed under a unified Physical Planning and Development Control Act;
- c) building upon the UDP pilot projects involving SNL, definition of a systematic process by which SNL can be efficiently and equitably incorporated in urban areas;

- d) examining the feasibility of establishing a secondary market to increase funds available for housing finance and to encourage commercial banks to diversify into mortgage lending; and
- e) developing a Housing Policy implementation plan.

5. It is anticipated that basic studies required to underpin these fundamental reforms will be completed about a year into project implementation (see Attachment A), at which point action planning to achieve required reforms will be defined and implemented. It is anticipated that all fundamental sectoral policy reform and development actions will be completed within the implementation period of the proposed project.

### **B. Institutional Development**

6. Development of the institutional capacity to manage and sustain urban development is also essential. Ongoing and planned institutional strengthening activities in the sector, including those funded by other donors and Government, are summarized in Attachment A. Government's intention to build capacity in such a way as to maximize private sector involvement in urban development is well explicated in MHUD's Statement of Sectoral Policy provided in **Annex 1.1**. All training and technical assistance to promote the development of institutional capacity is being designed to maximize utilization of local and regional human and institutional resources.

## **CITYWIDE INFRASTRUCTURE**

### **A. Roads and Drainage**

#### **Mbabane Roads and Drainage**

- 7. a) Upgrading of Mahwalala collector road, from junction with MR19 at Hilltop towards Mpolongeni (3.6 km). The road is steep in places and is in a very poor condition. The collector will be upgraded to a bitumen standard to provide improved access to the upgrading and housing areas. It will also serve as an access road to the new Mbabane solid waste disposal site.
- b) Nkwalini Road - 0.6 km starts from Hilltop roundabout and terminates in Zone 4. The upgrading would be to bitumen standard and will provide improved access to the northwestern section of Nkwalini (Zone 4) housing and upgrading area.
- c) Corporation Road - The existing unsurfaced road functions as a collector road for the existing Msunduza and Corporation housing areas. The upgrading of Msunduza is one of the site specific development components included in the project. The road is steep with part of the drainage at present being carried in subsurface stormwater culverts. It is proposed to upgrade this road to a bitumen standard and to improve the existing surface water drainage associated with the road.

#### **Manzini Roads and Drainage**

D98 is a district road which runs from a junction with the main Mbabane - Manzini road west of the city centre, to the southern tip of the urban area, and on southward to Sidvokodvo. The road is

bitumen surfaced for the first kilometer, but the remaining length through the urban area, approximately 3 km, is gravel. The road is steep in sections, and carries heavy local and regional traffic. Problems with poor drainage, erosion and high maintenance costs place the road high on Manzini's priority list for upgrading to bitumen standard.

9. Main Road, Ngwane Park would link the southern end of the D98 approximately 1 km north of its exit from the urban area, with the existing main national road to the south, which passes to the west of the city. At present traffic on this main road use a local collector as a short cut to and from the city center causing serious damage to the local collector pavement. Construction of Main Road and the northern portion of D98 will provide a more direct link to the city, and relieve congestion on the collector road. Main road will also act as a distributor road to suburban traffic in the southern part of Manzini.

### **B. Road Maintenance**

10. A road inventory will be carried out following completion of detailed design. The completion of a road inventory will enable decisions to be made on a road maintenance and rehabilitation program for Mbabane that can be initiated as part of the proposed urban project. A provisional amount has been provided in the cost estimates for this package.

11. The Manzini road maintenance program is a combination of routine, recurrent and periodic maintenance and a range of pavement rehabilitation works. The rehabilitation of roads in Manzini was defined in a detailed study carried out in 1990 for a selection of paved roads. This study has been updated, excluding roads which have already been repaired, and an initial 12 month program of rehabilitation and maintenance has been included, which includes the resealing of 6 km of paved roads, and the regravelling of 9 km of unpaved roads in addition to the rehabilitation of specified roads.

### **C. Solid Wastes Disposal**

12. Municipal solid waste in Mbabane is disposed of at a temporary site immediately beneath the existing abattoir. It is a totally unsatisfactory site and is recognized as such by the City Council who are anxious to establish a new site. Apart from being close to the abattoir, it is also close to existing housing. Although compaction equipment has been obtained and a bulldozer is made available whenever needed, there is no cover material readily available enable fly, smell and wind blown waste nuisance to be avoided. Several other temporary sites are used for the disposal of inert waste. A new solid waste disposal site, located at the edge of the Mahwalala upgrading area, is included in the proposed project. The total area designated for the site is 23 ha and access to it would be provided by a bitumen standard road from the Mahwalala collector. In Manzini, solid waste is disposed of at a site about 0.5 km to the east of the town center and close to existing developments. It was sited in a donga a short distance from the Mzimene river and was intended to halt erosion as well as to provide a solid waste disposal site. It has been in use for over 20 years and cover material has been exhausted. Equipment for compacting and covering deposited material is not available. Solid wastes are simply dumped on the site and there is a danger that they may be blown by the wind and/or washed into the river during heavy rains. The proposed new solid waste disposal site is located about 2 km to the south of Mandisa hill in a developing donga formation. The access road to the site will be provided by upgrading the existing tract that runs along the low east/west ridge from the Nhlanguano road.

#### **D. Water Supply**

13. Raw water for Mbabane is drawn from the Polinjane stream and Mbabane river upstream of Mbabane, and from the Black Mbuluzi river. The flows from the Polinjane stream and the Mbabane river are taken by gravity to the Sidwashini treatment works and represent a small proportion of the overall requirements. Flows in the Black Mbuluzi river are regulated by the existing Hawane dam. A weir is located across the river at the Woodlands intake forming a storage pond from which raw water is pumped to the Woodlands Treatment Works.

14. The 1991 average raw water consumption was 11-8 Ml/d. The projected raw water requirements for 1996 and 2001 are, respectively, 18.8 Ml/d and 19.6 Ml/d. A new pumping station will be constructed at the existing intake site and a new 400 mm diameter pumping main laid to the Woodlands Water Treatment Works. A rising main of 160 mm diameter will be constructed from the Woodlands water treatment works to Thembelihle reservoir to strengthen supplies to the northern section of the Mbabane distribution system.

15. The capacity provided at the Woodlands Water Treatment Works will be doubled. This will involve a new inlet chamber, clarifiers, filters, chlorination plant and chlorine contact tank, office and laboratory buildings. Filter backwash water will be recycled and waste clarifier sludge discharged to the sewerage system. A new treated water reservoir of 3.5 Ml capacity will also be provided for flow balancing and to enable pressure zone within the distribution system. The new works will be treated within the existing treatment works site.

#### **E. Sewage Treatment**

16. Sewage collected in Mbabane is conveyed by gravity to waste stabilization ponds in Gobhlo valley. Inlet works consist of a stormwater overflow, manually raked screens, a grit chamber and are burnt when sufficiently dry. Seven ponds are provided in series. The existing ponds were designed for a population of 3,000. It is estimated that the present population equivalent served by the ponds is 38,000 and as a result the ponds operate in the anaerobic mode.

17. The existing Gobhlo sewage treatment works will be rehabilitated to serve a population in the Msunduza area that is within its design capacity. A new sewage treatment works will be constructed at the northern end of the Ezulwini Valley. The new works will be constructed in phases and will ultimately occupy an area of about 50 ha. The first phase will require about half of this area and will provide the following treatment units:

- inlet works consisting of manually operated screens, grit removal and flow measuring equipment;
- anaerobic waste stabilization ponds;
- biological filters;
- hopper-bottomed final settlement tanks (which do not require scraper mechanisms for desludging; and
- maturation ponds.

The works are designed to produce an effluent with the following characteristics:

fecal coliforms per 100ml (1,000); and  
Biochemical Oxygen Demand (BOD) 20 mg/l.

The new southern outfall will intercept sewage at Corporation and convey the flows to the new sewage works.

18. Sewage collected in Manzini is treated at the Quarantine pond system consists of inlet works and six ponds in series. A new pond has recently been constructed and the previous primary pond has been desludged. The Zakhele pond system consists of screens and five ponds comprising two primary ponds in parallel and three maturation ponds in series. The combined pond systems were designed for a population of about 6000 and are receiving flows from a population equivalent of about 40,000 including industrial wastes. As a result, the ponds provide a poor level of treatment.

19. It is proposed to construct a new sewage treatment works to the south of the Nhlambeni upgrading area. The new works, which will be constructed in phases will ultimately occupy an area of about 70 ha. The existing Zakhele and Quarantine sewage treatment works will no longer be required once this new works have been constructed and commissioned. The works will be decommissioned and the sites rehabilitated. The new sewer outfall pick up the western outfall sewer and traverse to the proposed new sewage treatment works.

#### **F. Concurrent Activities**

20. The **Matsapha Industrial estate** shares water supply and waste water disposal with, or provides service for some areas in Manzini, including some of the proposed project area. Within the estate, roads, surface drainage and solid waste disposal are administered by the Ministry of Commerce and Industry (MCI) while water supply and wastewater disposal are the responsibility of the Water and Sewerage Board. KfW is helping to fund an infrastructure project that aims to rehabilitate and expand specific infrastructure for the estate, namely, estate roads, surface water drainage, solid waste disposal, wastewater disposal and water supply.

21. The water treatment plant at Matsapha presently delivers approximately 280 l/s to the airport reservoirs, which service Matsapha as well as urban areas included in the proposed project. Under the KfW-financed project, the water treatment facilities will be rehabilitated and up-graded to achieve 400 l/s, which should be sufficient to meet projected requirements to about 1998. The existing sewage treatment plant at Matsapha serves both the industrial estate and Kwaluseni, which would be expanded under a subsequent phase of the urban development program. The new facility planned for Matsapha makes provision for the continued treatment of the anticipated larger waste water flows from a future expansion of Kwaluseni.



Details of Policy and Institutional Component  
(costs at December 1993)

Ministry of Housing & Urban Development

Policy Component	Timing	Cost (E)	Funding Source
Housing Policy Implementation Study (2 mths)	5/95-9/95	150,000	GOS
Urban Government Policy Study (2 mths)	8/94-11/94	150,000	GOS
Physical Planning & Development Control Review (8 mths)	10/94-02/95	285,000	GOS
Secondary Market Study (1 mth)	06/95-12/95	115,000	GOS
Land Legislation (4 mths)	6/94-12/94	250,000	ODA
Urban/Peri-Urban Land Management Study (6 mths)	02/95-9/97	250,000	GOS
<b>Total</b>		1,200,000	

Institutional Component	Timing	Cost (E)	Funding Source
Project Workshops	11/94-12/94	400,000	IBRD
Degree Training for 3 Physical Planners	9/93-6/96	300,000	ODA, USAID, AUSAID
Regional Workshops & Study Tours	01/95-12/98	100,000	GOS
Technical Support Unit			
- Team Leader/Project Management Specialist (15 mths) <sup>1/</sup>	11/94-12/98	667,500	IBRD
- Infrastructure Engineer (26 mths)	11/94-12/98	728,000	IBRD
- Institutional Training Specialist (6 mths)	01/95-12/96	210,000	IBRD
- Environmental Specialist (6 mths)	04/95-12/98	199,680	IBRD
- Financial Management Specialist/Accountant (15mths) (3 mths)	10/94-12/95	616,080	IBRD
	01/96-12/98	123,216	IBRD
- Local Finance Counterpart (24 mths) (6 mths)	01/95-12/96	360,000	IBRD
	01/97-12/98	90,000	IBRD
- Sociologist (15 mths)	10/94-12/98	404,250	IBRD
- Urban Specialist (10 mths)	08/94-12/96	300,000	IBRD
- Secretary (51 mths)	10/94-12/98	255,000	IBRD
<b>Subtotal</b>		3,953,726	
<b>Total</b>		4,753,726	

<sup>1/</sup> Intermittent

**Mbabane and Manzini City Councils**

Institutional Component	Timing	Cost (E)	Funding Source
Human Resources Review	07/94/12/94	230,000	GOS
UDP Community Liaison Equipment & Supplies: - Community liaison (2 positions) (96 mths) - Audio-visual supplies (lump sum Manzini)	throughout throughout	204,000 10,000	Mbcc/Mzcc Mzcc
Twinning Agreement: - Financial Management Specialists (2 @ 12 mths) - Engineering O&M Specialist (12 mths) - Planning/Building Control Specialist (4 mths) - Manpower Development Specialist (3 mths) - Mechanical Workshop Specialist (3 mths) - Landfill Specialist (2 mths) - Overseas Training Attachments	01/95-12/98	450,000 225,000 75,000 56,250 56,250 37,500 45,000	Cofinancing
Annual Staff Training Programme: - Training Delivery - Regional Workshops and Study Tours	01/95-12/98 throughout	150,000 100,000	Mbcc/Mzcc Mbcc/Mzcc
Automation of Accounting/MIS System Mbabane	7/94-6/96	430,000	Mbcc
<b>Total</b>		<b>2,069,000</b>	

### Swaziland Water Service Corporation

Institutional Component	Timing	Cost (E)	Funding Source
Intermittent Specialist Input (6 mths)	11/94-12/98	267,000	
Overseas Secondments	11/94-12/98	150,000	SWSC
Annual Programme of Regionally-Sourced Training: - Needs Assessment (in-house) - Training Delivery - Regional Workshops and Study Tours	4/94-3/96	500,000	SWSC
Automation of Accounting/MIS Systems: - Project Planning/Management. - Implementation/Training.	4/94-3/96	100,000 420,000	SWSC
<b>Total</b>		1,437,000	

### Swaziland National Housing Board

(as per January 1994 - "Proposal for Interim Institutional Strengthening of SNHB")

Institutional Component	Timing	Cost (E)	Funding Source
Interim Training Packages for SNHB personnel - Workshops	7/94/12/98	100,000	SNHB
Technical Advisory Support: - Project Management Engineer (4 mths)	10/94-1/95	122,000	UNDP
- Financial Advisor (6 mths)	7/94-8/97	326,000	UNDP
- Human Resources Advisor (3.0 mths)	7/94-4/97	162,700	UNDP
- Business Admin. Specialist		301,000	UNDP
- Housing Specialist		113,900	UNDP
Annual Staff Training Programme: - Training Delivery	7/94-12/98	132,000	SNHB
<b>Total</b>		1,257,600	

### Deeds Registry Office

Institutional Component	Timing	Cost (E)	Funding Source
UDP-Related Staffing: - Deputy Registrar (24 mths) - Deeds Examiner (24 mths)	10/94-9/96	360,000 24,000	IBRD GOS
Automation of DRO Data Storage and Retrieval Functions: - Needs Assessment/Planning - Implementation (equipment costs and installation)	10/94-11/95	480,000 (150,000)	GOS
Annual Programme of Regionally-Sourced Staff Training: - Annual Needs Assessment/Planning (in-house) - Training Delivery	10/94-6/97	40,000	GOS
<b>Total</b>		904,000	

**Surveyor General's Office**

Institutional Component	Timing	Cost (E)	Funding Source
Technical Assistance for UDP Survey Management and Staff Training (12 mths)	10/94-09/95	180,000	GOS
Acquisition of UDP-related Survey Equipment (Theodolite and Electronic Distance Measuring Device)	02/94	100,000	GOS
International Degree Training for 1 SGO Candidate Surveyor	95-98	390,000	ODA
<b>Total</b>		670,000	

**Swaziland Environmental Authority**

Institutional Component	Timing	Cost (E)	Funding Source
Technical Assistance: - Environmental Management Advisor (24 mths)	10/94-10/96	720,000	Cofinancing or GOS
<b>Total</b>		720,000	

**Summary - Institutional & Policy Components - Urban 1**

Implementing Institution	Cost (E)
Ministry of Housing and Urban Development	
- Policy Component	1,200,000
- Institutional Component excluding TSU	800,000
- TSU	3,953,726
Mbabane and Manzini City Councils	2,069,000
Swaziland Water and Sewerage Board	1,437,000
Swaziland National Housing Board	1,257,600
Deeds Registry Office	904,000
Surveyor General's Office	670,000
Swaziland Environmental Authority	720,000
<b>Total</b>	13,011,326

**SWAZILAND**  
**URBAN DEVELOPMENT PROJECT**  
**PROJECT COST ESTIMATES**

	(Emalangeni '000)					(US\$ '000)				
	Local	Foreign	Total	% Foreign Exchange	% Total Base Costs	Local	Foreign	Total	% Foreign Exchange	% Total Base Costs
<b>A. Policy and Institutional Ref</b>										
1. Strengthening Institutional C	3,543.4	8,267.9	11,811.3	70	9	1,135.0	2,648.3	3,783.3	70	9
2. Policy Formulation Support	240.0	960.0	1,200.0	80	1	76.9	307.5	384.4	80	1
<b>Subtotal Policy and Institution</b>	<b>3,783.4</b>	<b>9,227.9</b>	<b>13,011.3</b>	<b>71</b>	<b>9</b>	<b>1,211.9</b>	<b>2,955.8</b>	<b>4,167.7</b>	<b>71</b>	<b>9</b>
<b>B. Rehabilitation and Expand</b>										
1. Roads and Drainage	2,027.9	4,117.3	6,145.2	67	4	649.6	1,318.8	1,968.4	67	4
2. Roads and Maintenance	2,642.1	2,343.0	4,985.0	47	4	846.3	750.5	1,596.8	47	4
3. Solid Waste Disposal	6,967.7	8,894.9	15,862.6	56	11	2,231.8	2,849.1	5,081.0	56	12
4. Electrical Reticulation	474.5	1,423.4	1,897.8	75	1	152.0	455.9	607.9	75	1
5. Land Compensation	285.0	-	285.0	-	-	91.3	-	91.3	-	-
<b>Subtotal Rehabilitation and Ex</b>	<b>12,397.1</b>	<b>16,778.5</b>	<b>29,175.6</b>	<b>58</b>	<b>21</b>	<b>3,970.9</b>	<b>5,374.4</b>	<b>9,345.3</b>	<b>58</b>	<b>21</b>
<b>C. Rehab &amp; Expand Water/ Se</b>										
3. Water Service	2,572.3	12,559.0	15,131.3	83	11	823.9	4,022.8	4,846.7	83	11
4. Sewer Service	8,051.2	34,323.5	42,374.7	81	31	2,578.9	10,994.2	13,573.1	81	31
5. Water Loss Reduction	340.0	1,660.0	2,000.0	83	1	108.9	531.7	640.6	83	1
6. Land Compensation	215.0	-	215.0	-	-	68.9	-	68.9	-	-
<b>Subtotal Rehab &amp; Expand Wat</b>	<b>11,178.5</b>	<b>48,542.5</b>	<b>59,721.0</b>	<b>81</b>	<b>43</b>	<b>3,580.6</b>	<b>15,548.8</b>	<b>19,129.4</b>	<b>81</b>	<b>43</b>
<b>D. Res Housing Sites &amp; On-Sit</b>										
2. On-Site Infrastructure	10,560.1	9,364.6	19,924.7	47	14	3,382.5	2,999.6	6,382.1	47	14
3. Land Compensation	3,599.5	-	3,599.5	-	3	1,153.0	-	1,153.0	-	3
<b>Subtotal Res Housing Sites &amp;</b>	<b>14,159.6</b>	<b>9,364.6</b>	<b>23,524.2</b>	<b>40</b>	<b>17</b>	<b>4,535.5</b>	<b>2,999.6</b>	<b>7,535.1</b>	<b>40</b>	<b>17</b>
<b>E. Project Implementation Assi</b>										
1. Project Supervision	1,843.0	4,300.4	6,143.4	70	4	590.3	1,377.5	1,967.8	70	4
2. Other	478.6	1,116.6	1,595.2	70	1	153.3	357.7	511.0	70	1
<b>Subtotal Project Implementati</b>	<b>2,321.6</b>	<b>5,417.0</b>	<b>7,738.6</b>	<b>70</b>	<b>6</b>	<b>743.6</b>	<b>1,735.1</b>	<b>2,478.8</b>	<b>70</b>	<b>6</b>
<b>F. PPF Refinancing</b>	<b>-</b>	<b>4,800.0</b>	<b>4,800.0</b>	<b>100</b>	<b>3</b>	<b>-</b>	<b>1,500.0</b>	<b>1,500.0</b>	<b>100</b>	<b>3</b>
<b>Total BASELINE COSTS</b>	<b>43,840.2</b>	<b>94,130.5</b>	<b>137,970.6</b>	<b>68</b>	<b>100</b>	<b>14,042.6</b>	<b>30,113.7</b>	<b>44,156.2</b>	<b>68</b>	<b>100</b>
Physical Contingencies	3,363.6	7,468.6	10,832.1	69	8	1,077.4	2,392.3	3,469.7	69	8
Price Contingencies	11,681.0	25,932.8	37,613.8	69	27	1,236.8	2,669.7	3,906.6	68	9
<b>Total PROJECT COSTS</b>	<b>58,884.7</b>	<b>127,531.8</b>	<b>186,416.5</b>	<b>68</b>	<b>135</b>	<b>16,356.8</b>	<b>35,175.7</b>	<b>51,532.4</b>	<b>68</b>	<b>117</b>



**SWAZILAND**  
**URBAN DEVELOPMENT PROJECT**  
**FINANCING PLAN**

(US\$ '000)	IBRD	ODA	SNHB	Other	SWSB	MbCC	MzCC	SEB	UNDP	Cofinancing	Government	
											Swaziland	Total
	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount
<b>A. Civil Works</b>												
<b>1. City Wide</b>												
Mbabane City Wide Civil Work	12,309.8	-	-	-	-	270.3	-	35.9	-	-	7,509.5	20,125.5
Manzini Citywide Civil Works	8,436.1	-	-	-	-	-	149.7	-	-	-	3,335.4	11,921.2
<b>Subtotal City Wide</b>	<b>20,745.9</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>270.3</b>	<b>149.7</b>	<b>35.9</b>	<b>-</b>	<b>-</b>	<b>10,844.9</b>	<b>32,046.7</b>
<b>2. Site Specific Civil Works</b>												
Mbabane Site Specific Civil W	2,018.4	-	3,898.9	-	-	354.7	-	-	-	-	0.0	6,272.0
Manzini Site specific Civil Wor	-	-	1,304.3	-	-	-	-	-	-	-	-	1,304.3
<b>Subtotal Site Specific Civil Wo</b>	<b>2,018.4</b>	<b>-</b>	<b>5,203.2</b>	<b>-</b>	<b>-</b>	<b>354.7</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.0</b>	<b>7,576.3</b>
<b>Subtotal Civil Works</b>	<b>22,764.3</b>	<b>-</b>	<b>5,203.2</b>	<b>-</b>	<b>-</b>	<b>625.0</b>	<b>149.7</b>	<b>35.9</b>	<b>-</b>	<b>-</b>	<b>10,844.9</b>	<b>39,623.0</b>
<b>B. Equipment</b>												
1. Mbabane Equipment	797.7	-	-	-	-	-	-	-	-	-	-	797.7
2. Manzini Equipment	1,030.7	-	-	-	-	-	-	-	-	-	-	1,030.7
<b>Subtotal Equipment</b>	<b>1,828.4</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,828.4</b>
<b>C. Land Compensation</b>												
	-	-	-	-	-	-	-	-	-	-	1,417.6	1,417.6
<b>D. Consultancies</b>												
1. Project Preparation	1,500.0	-	-	-	-	-	-	-	-	-	-	1,500.0
2. Institutional Strengthening	2,427.8	510.5	80.5	-	175.0	221.3	81.7	-	340.9	344.6	2,013.4	6,195.7
3. Phase II Planning	479.5	-	-	-	-	-	-	-	-	-	84.6	564.1
5. Policy Support	-	83.1	-	-	-	-	-	-	-	-	320.5	403.6
<b>Subtotal Consultancies</b>	<b>4,407.3</b>	<b>593.6</b>	<b>80.5</b>	<b>-</b>	<b>175.0</b>	<b>221.3</b>	<b>81.7</b>	<b>-</b>	<b>340.9</b>	<b>344.6</b>	<b>2,418.5</b>	<b>8,663.4</b>
<b>Total</b>	<b>29,000.0</b>	<b>593.6</b>	<b>5,283.7</b>	<b>-</b>	<b>175.0</b>	<b>846.3</b>	<b>231.5</b>	<b>35.9</b>	<b>340.9</b>	<b>344.6</b>	<b>14,681.0</b>	<b>51,532.4</b>



**SWAZILAND  
PROPOSED URBAN DEVELOPMENT PROJECT  
CONTRACT PACKAGES IMPLEMENTATION SCHEDULE**

<b>A. CITYWIDE WORKS</b>							CONT. AMT *3 US\$ 000	IMP. AGENCY	PR. PRCS.
Contract #	Description	Duration (months)	Dates						
			Start	End					
1	Rds. & Drng. (MB)	15	Apr 95	Jun 96	1185	M&CC	ICB*1		
2	Rds. & Drng. (MB)	8	Apr 97	Sep 97	197	M&CC	LCB*1		
3	Rds. & Drng. (MZ)	21	Apr 95	Dec 96	950	MZCC	ICB*1		
4	Rd. Maint (MB)	36	Apr 95	Mar 98	832	M&CC	ICB*1		
5	Rd. Maint (MZ)	36	Apr 95	Mar 98	1046	MZCC	ICB*1		
6	Wtr. Supply (MB)	12	Oct 95	Sep 96	568	SWSB	LCB		
7	Wtr. Supply (MB)	18	Jan 95	Jun 96	1431	SWSB	ICB		
8	Wtr. Supply (MZ)	12	Apr 97	Mar 98	1040	SWSB	ICB		
9	Swr. Retc. (MB,MZ)	12	Apr 96	Mar 97	545	SWSB	LCB		
10	Swr. Retc. (MZ)	9	Jan 98	Sep 98	267	SWSB	LCB		
11	Sld. Wastes Dep. (MB)	18	Apr 95	Sep 96	3193	M&CC	ICB		
12	Sld. Wastes Dep. (MZ)	12	Jan 96	Dec 96	998	MZCC	ICB		
18	Swr. Trmt. Wks. & Otr. Swrs (MB,MZ)	39	Apr 95	Sep 98	15642	SWSB	ICB		
20	Extn. to Wldde. Trmt. Wks. (MB)	18	Apr 95	Sep 96	2659	SWSB	ICB*1		
<b>B. CITYWIDE GOODS</b>									
18	Sld. Waste Eq. (MB,MZ)	4	Apr 95	Aug 96	1828	M&CC & MZCC	ICB		
<b>C. SITE SPECIFIC WORKS</b>									
13	Site Sp. Dev., Maunduze (MB)	21	Apr 95	Dec 96	1572	SNHB	ICB*4		
14	Site Sp. Dev., Nkwalini Zone 4 (MB)	15	Jul 95	Sep 96	1008	SNHB	LCB*4		
15	Site Sp. Dev., Nkwalini Zones 2&6(MB)	15	Jul 95	Sep 96	1075	SNHB	ICB*4		
16	Site Sp. Dev., Moneni (MZ)	9	Jan 97	Sep 97	278	SNHB	ICB*4		
17	Site Sp. St. Lighting	21	Jan 96	Sep 97	530	SNHB	LCB*4		
24	Mhobodzeni/Zone 6 Ext. (MZ)	6	Apr 95	Sep 95	573	SNHB	LCB*4		
	Nkwalini Zone 6 Ext.	-	(part of packages 15 & 22)		964				
<b>D. LBR.-BASED SITE SP. WKS.</b>									
21	St. Sp. Dev., Maunduze (MB)*2	21	Apr 95	Dec 96	611	SNHB	LBR. BSD.*1		
22	St. Sp. Dev., Nkwalini (MB)*2	18	Jan 96	Jun 97	599	SNHB	LBR. BSD.*1		
23	St. Sp. Dev., Moneni (MZ)*2	12	Oct 96	Sep 97	366	SNHB	LBR. BSD.*1		
<b>E. SEB CMPT. (FRC. ACT.)</b>									
	Pwr. Relocation & Upgrading (MB,MZ)	12	Apr 95	Jun 96	717	SEB	FRC. ACT.*1		
*1 Not Bank Financed									
*2 Several small contracts									
*3 Includes physical and price contingencies									
*4 Bank financed contracts above threshold will be procured through ICB, SNHB financed contracts will be LCB.									



**SWAZILAND**

**URBAN DEVELOPMENT PROJECT**

**TABLE OF CONTENTS OF PROJECT IMPLEMENTATION MANUAL**

- 1 IMPLEMENTATION MANUAL TABLE OF CONTENTS**
- 2 EXECUTIVE SUMMARY**
- 3 PROJECT SCOPE AND OBJECTIVES**
  - 3.1 Detailed Project Description
  - 3.2 Project Organization
  - 3.3 Project Management System
  - 3.4 Roles, Objectives, Responsibilities, and TOR's: PCU & TSU
  - 3.5 Roles, Objectives, and Responsibilities: Implementing Agencies
  - 3.6 Cost Recovery Mechanisms
- 4 LOGISTICS AND COMMUNICATIONS**
  - 4.1 File Index/Filing/Library
  - 4.2 Protocol for Copy Distribution
  - 4.3 Computer Management and Operation
  - 4.4 Communication Protocol
- 5 POLICY FRAMEWORK**
  - 5.1 MHUD Statement of Sectoral Policy
  - 5.2 Housing Policy for Urban Areas
  - 5.3 Plot Allocation Procedures and Criteria
  - 5.4 Plot Pricing Policy
  - 5.5 Resettlement and Compensation Policy
  - 5.6 Policy for Treatment of Vulnerable Groups
  - 5.7 Rating Act
  - 5.8 Leasehold Agreement
  - 5.9 Standpipe Management Policy
- 6 IMPLEMENTATION GUIDELINES**
  - 6.1 Resettlement and Compensation Guidelines
  - 6.2 Guidelines for Allocation and Sale of Residential Sites
  - 6.3 Guidelines/Procedures for the Acquisition and Utilization of SNL
  - 6.4 Mechanisms for Providing Financing to UDP Beneficiaries
  - 6.5 Guidelines for Handover of Completed Works to the Implementing Agencies
  - 6.6 Guidelines for Labor Based Works

- 7 PROJECT PLANNING AND IMPLEMENTATION**
  - 7.1 Policy Reform Items, Schedules, and Budgets
    - 7.1a Terms of Reference for 7.1
  - 7.2 Institutional Strengthening Items, Schedules, and Budgets
    - 7.2a Terms of Reference for 7.2
    - 7.2b Institutional Action Plans for 7.2
  - 7.3 Implementation Schedule - Overall Project (physical, procurement, disbursement, finance, etc.)
    - 7.3.1 Implementation Schedule - Residential Sites
    - 7.3.2 Implementation Schedule - Infrastructure
    - 7.3.3 Implementation Schedule - Water and Sewerage
    - 7.3.4 Implementation Schedule - Mbabane City Council
    - 7.3.5 Implementation Schedule - Manzini City Council
    - 7.3.6 Implementation Schedule - Labor Based Contracts
  
- 8 HUMAN RESOURCE DEVELOPMENT**
  - 8.1 Training and associated TOR's
  - 8.2 Transfer of Expertise Guidelines
  - 8.3 Seminars and Workshops
  - 8.4 Implementation Review of Human Resource Development
  
- 9 ENVIRONMENTAL MITIGATION PLAN AND MONITORING ARRANGEMENTS**
  
- 10 ECONOMIC ANALYSIS OF PROJECT COMPONENTS**
  
- 11 COVENANTS AND TARGETS**
  
- 12 PROCUREMENT PROCEDURES, BIDDING DOCUMENTS, EVALUATION REPORT FORMAT & MONITORING SYSTEM**
  - 12.1 Procurement of Goods
  - 12.2 Procurement of Works
  - 12.3 Procurement of Services
  
- 13 DISBURSEMENT PROCEDURES**
  - 13.1 Special Account
  - 13.2 Statement of Expenditures
  - 13.3 Payment Procedures for: suppliers, contractors (payments, reimbursements, and advances)
  
- 14 ACCOUNTING AND AUDITING (functions, responsibilities, schedules, etc.)**

**15 REPORTING**

- 15.1 Reporting Schedule
- 15.2 Status of Accounts
- 15.3 Status of Major Problem Areas and Suggested Solutions
- 15.4 Activity Progress Reports
- 15.5 Contract Status and Payments for Works, Goods, & Services.  
Contracts Awarded, Signed Contracts, Disbursement
- 15.6 Audit Report Timing, Status, etc.

**16 PROJECT MONITORING**

- 16.1 Project Progress (responsibilities, timing, etc.)
- 16.2 Monitoring of Covenant Compliance
- 16.3 Monitoring of Performance
- 16.4 Monitoring of Project Impact on Beneficiaries

**17 MONITORING INDICATORS**

**18 PROJECT SUPERVISION**

- 18.1 Overall Supervision (schedules, staff, responsibilities, etc.)
- 18.2 Supervision of the Review Process
- 18.3 Mid-Term and Annual Reviews
- 18.4 Project Completion Report

**A ANNEX**

- A.1 World Bank Procurement Guidelines
- A.2 World Bank Consultancy Guidelines
- A.3 Standard Contract Documents for Goods, Works & Services
- A.4 Accounting and Auditing Guidelines
- A.5 Miscellaneous Terms of Reference



**SWAZILAND**  
**URBAN DEVELOPMENT PROJECT**  
**ESTIMATED LOAN DISBURSEMENT SCHEDULE**

Bank Fiscal Year and Quarter Ending	Quarterly Disbursement (US\$m)	Cumulative (US\$m)	Disbursement % of Total
FY 1995			6.6
31-Mar-95	1.5	1.5 *	
30-Jun-95	0.4	1.9	
FY 1996			16.0
30-Sep-95	0.8	2.7	
31-Dec-95	0.6	3.3	
31-Mar-96	0.6	3.9	
30-Jun-96	0.7	4.6	
FY 1997			28.0
30-Sep-96	0.7	5.3	
31-Dec-96	0.8	6.1	
31-Mar-97	0.9	7.0	
30-Jun-97	1.1	8.1	
4-Feb-00			
FY 1998			46.0
30-Sep-97	1.2	9.3	
31-Dec-97	1.2	10.5	
31-Mar-98	1.1	11.6	
30-Jun-98	1.7	13.3	
FY 1999			63.0
30-Sep-98	1.5	14.8	
31-Dec-98	1.3	16.1	
31-Mar-99	1.1	17.2	
30-Jun-99	1.1	18.3	
FY 2000			81.0
30-Sep-99	1.2	19.5	
31-Dec-99	1.4	20.9	
31-Mar-00	1.2	22.1	
30-Jun-00	1.4	23.5	
FY 2001			95.0
30-Sep-00	1.2	24.7	
31-Dec-00	1.0	25.7	
31-Mar-01	1.0	26.7	
30-Jun-01	0.8	27.5	
FY 2002			100
30-Sep-01	0.8	28.3	
30-Dec-01	0.7	29.0	

\* Refinancing of PPFs



**SWAZILAND**  
**URBAN DEVELOPMENT PROJECT**  
**SUPERVISION PLAN**

APPROXIMATE DATE	ACTIVITY	STAFFING	STAFF WEEKS
10/94	Pre-implementation Mission	Task Manager	1
01/95	Project Launch Workshop	Task Manager Engineer Financial Analyst Urban Planner (Housing Specialist) Sociologist/Environmental Specialist	8
05/95	Supervision	Task Manager Engineer Sociologist Procurement Specialist Urban Planner (Housing Specialist)	7
09/95	Supervision Mission	Task Manager Engineer Urban Planner (Housing Specialist)	4.5
01/96	Annual Review	Task Manager Engineer Financial Analyst Urban Planner Sociologist/Environmental Specialist	7
05/96	Supervision Mission	Task Manager Engineer Urban Planner (Housing Specialist)	5
10/96	Supervision Mission	Task Manager Engineer	3
01/97	Mid-Term Review	Task Manager Engineer Financial Analyst Urban Planner (Housing Specialist) Sociologist	8
06/97	Supervision Mission	Task Manager Engineer	3
01/98	Annual Review	Task Manager Engineer Financial Analyst Sociologist	7
06/98	Supervision Mission	Task Manager Engineer	3
01/99	Supervision Mission (PCR)	Task Manager Engineer Financial Analyst Sociologist	8



**SWAZILAND**  
**URBAN DEVELOPMENT PROJECT**  
**PROJECT MONITORING INDICATORS**

PROJECT OBJECTIVES	PERFORMANCE INDICATORS	BASE YEAR		TARGETS						
		MEASUREMENT	FY93	FY 94	FY 95	FY 96	FY97	FY98	FY 99	FY 2000
<b>A. REHABILITATION AND EXPANSION OF INFRASTRUCTURE SERVICES</b>										
- expand water and sewerage network	Metered water connections	number	16446	17195	18915	21190	23670	24658	26256	27669
	sewerage connections	number	4028	4411	4744	5089	5426	5774	6134	6425
- improve quality of road network	Length of roads rehabilitated/maintained									
	Mbabane	km/yr			9.9	10	10	13	13	13
	Manzini	km/yr			13	13	13	13	13	13
- improve solid waste collection	Refuse collected									
	Mbabane	tons/week	92	92	100	120	124	128	132	132
	Manzini	tons/week								
	Total area covered:									
	Mbabane	% of population	46	46	50	60	62	64	66	66
	Manzini	% of population			60	65	68	68	68	68
<b>B. SUSTAINABLE URBAN DEVELOPMENT</b>										
<b>1. INSTITUTIONAL DEVELOPMENT SWSC</b>										
- improve internal efficiency	Employees/1000 connections	number	53	41	36	31	23	20	17	17
	O and M ratio	%	33	38	38	38	38	38	38	38
	Decrease unaccounted for water	%	47	47	43	38	35	30	28	27
- improve financial performance	Defective meters	% of Total	7	5	5	5	4	4	3	3
	Net income	ES'000			3.7	4.6	5.5	2.3	3.4	2.6
	Debt Service Coverage	%						2.6	2.7	2.7
	Bad Debt/Sales	%			24	21	20	20.0	19	18
	Average Collection Period	days				150	150	150.0	150	150
<b>MANZINI CITY COUNCIL</b>										
- improve internal efficiency	Equipment availability	%			60	70	75	75	75	75
	Vehicle availability	%			60	70	75	75	75	75
	Refuse collected/SWD employee	tons		3.4	3.4	4.0	4.1	4.1	4.1	4.1
	Length of roads maintained/maintenance employee	km	3.5	3.5	3.5	3.7	3.7	3.7	3.7	3.7
- improve financial performance	Rates collected	%	65	65	70	75	75	75	75	75
	Increase in rates payable	%			20	20	15	15	15	15
	Arrears Collected	%				50	50	50	50	50
<b>MBABANE CITY COUNCIL</b>										
- improve internal efficiency	Equipment availability	%			60	70	75	75	75	75
	Vehicle availability	%			60	70	75	75	75	75
	Refuse collected/SWD employee	tons		3.4	3.4	4.0	4.1	4.1	4.1	4.1
	Length of road maintained/maintenance employee	km	3.5	3.5	3.5	3.7	3.7	3.9	3.9	3.9
- improve financial performance	Rates collected	%	65	65	70	75	75	75	75	75
	Increase in rates payable	%			20	35	23	13	13	12
	Arrears Collected	%				50	50	50	50	50
<b>2. LOW INCOME HOUSING/LAND REFORM</b>										
- develop low income housing market	Number of serviced plots delivered	number				1445	1783	825		
	Number of title/leases issued	number				1027	899	825	1282	
	Number of leases on former SNL	number						300		



**SWAZILAND**  
**URBAN DEVELOPMENT PROJECT**  
**FORECAST FINANCIAL PERFORMANCE SWSC**

1. The financial forecast for fiscal years 1993/94 to 1998/99 and the assumptions on which they are based are shown below.

**KEY ASSUMPTIONS**

2. The following rates of inflation were assumed in the financial projections.

Year	Local
1993/94	12
1994/95	11
1995/96	10
1996/97	10
1997/98	10

3. The forecasts assume that tariffs would increase by 50% on April 1, 1995, 35% on April 1, 1996, and with inflation for the remaining period. Miscellaneous income is assumed to increase with local inflation. Government subvention of E 8.7 million in FY94/95, E 7.0 million in FY95/96, and E 6.5 million in FY96/97 is included. The projected increase in the number of new customers includes revenues from standpipes and from the additional new customers that would be buying serviced plots with water connections under the Urban Development Project.

4. Connection charges are assumed to grow by the local inflation rate. Revenues from connections have been calculated by multiplying connection charges by the number of connections projected each year.

5. The forecasts have taken revenue enhancement program in to consideration through: (i) improved billing and collection efficiency, (ii) reduction in unaccounted for water, and (iii) reduction in expenditure through efficiency improvements, as discussed below.

Item	Efficiency Factor (%)				
	1993/94	1994/95	1995/96	1996/97	1997/98
1. Salaries and Wages	-2	-2	-2	-2	-2
2. Maintenance & Services	-3	-3	-3	-3	-3
3. Transport	-3	-3	-3	-3	-3

6. Salaries and wages are assumed, subject to efficiency savings, to increase with local inflation rate. The savings are assumed to be 2% per annum in real terms from 1994/95 onwards. Chemical and power costs have been projected on the basis of increased water production and adjusted for inflation. Maintenance and transportation costs have been projected to increase, subject to efficiency savings, by

the local inflation rate. Depreciation has been calculated on a current cost accounting basis. Bad debt is assumed to reduce to seventy days of sales by FY99. All short-term loans are assumed to be written off. The existing IBRD loan would be taken on by the SWSC. KfW financing for the Matsapha project is assumed to be a grant to the SWSC. Loan funding is assumed for the Urban Development project, except for capital expenditures for sewerage treatment facilities, which is assumed to be 50% grant funded. It is assumed that the new IBRD loan will be on-lent to SWSC for 18 years with 5 year grace period on principal repayments. The interest rate is assumed to be local inflation plus two percentage points. A 0.25 percent commitment charge is assumed on the undisbursed portion of the loan.

**SWAZILAND WATER SERVICES CORPORATION**  
**PROJECTED INCOME STATEMENTS: 1994/95 TO 2003/04**  
**(E 000)**

Item	Ref	1994/95 Forecast	1995/96 Forecast	1996/97 Forecast	1997/98 Forecast	1998/99 Forecast	1999/20 Forecast	2000/01 Forecast	2001/02 Forecast	2002/03 Forecast	2003/04 Forecast
<b>TURNOVER</b>											
Water Supply		25,728	41,625	55,374	64,102	74,394	85,183	96,172	111,841	127,318	145,527
Connection Fees		599	842	1,135	981	1,194	1,284	1,229	1,379	1,335	1,494
Other Charges		0	0	0	0	0	0	0	0	0	0
Borehole License Fees		50	56	89	78	87	98	109	122	137	154
Other		0	0	0	0	0	0	0	0	0	0
Other		0	0	0	0	0	0	0	0	0	0
<b>Total Operating Turnover</b>		<b>26,377</b>	<b>42,524</b>	<b>56,578</b>	<b>65,161</b>	<b>75,675</b>	<b>86,545</b>	<b>99,511</b>	<b>113,342</b>	<b>128,790</b>	<b>147,174</b>
<b>OPERATING EXPENSES</b>											
Salaries		4,173	5,217	5,738	6,312	6,943	7,638	8,402	9,242	10,166	11,182
Chemicals		1,168	1,207	1,309	1,372	1,413	1,447	1,480	1,510	1,559	1,610
Office		795	859	961	1,065	1,181	1,309	1,452	1,610	1,785	1,979
Power		2,674	2,971	3,392	3,819	4,318	4,879	5,577	6,458	7,283	8,341
Materials/Services/Transport		7,894	9,248	10,516	11,746	13,029	14,332	15,765	17,423	19,166	21,082
Other		0	0	0	0	0	0	0	0	0	0
<b>Total Operating Expenses</b>		<b>16,705</b>	<b>19,513</b>	<b>21,916</b>	<b>24,314</b>	<b>26,885</b>	<b>29,606</b>	<b>32,678</b>	<b>36,243</b>	<b>39,959</b>	<b>44,195</b>
<b>OPERATING SURPLUS (DEFICIT)</b>		<b>9,672</b>	<b>23,011</b>	<b>34,662</b>	<b>40,847</b>	<b>48,790</b>	<b>56,939</b>	<b>66,835</b>	<b>77,099</b>	<b>88,831</b>	<b>102,979</b>
<b>NON-OPERATING INCOME</b>											
Interest Income		3,333	175	0	206	611	1,042	1,323	1,723	1,441	2,188
Miscellaneous Income		297	332	372	417	487	523	566	658	735	823
Amortised Capital Grant		0	0	0	0	0	0	0	0	0	0
Government Subvention		9,300	7,440	5,952	3,192	3,395	3,741	3,835	3,943	3,892	3,645
<b>Total Non-Operating Income</b>		<b>12,929</b>	<b>7,948</b>	<b>6,324</b>	<b>3,814</b>	<b>4,476</b>	<b>5,306</b>	<b>5,744</b>	<b>6,322</b>	<b>6,068</b>	<b>6,654</b>
<b>NON-OPERATING EXPENSES</b>											
Depreciation		6,151	7,795	9,823	11,381	13,178	15,636	17,999	20,309	23,288	26,472
Bad Debts		6,425	9,085	11,574	13,123	14,572	16,562	18,438	21,093	24,058	27,672
Interest on Existing Loans		608	544	480	418	352	288	224	160	96	32
Interest on New Loans		630	2,901	7,037	10,251	13,833	18,338	22,100	24,655	25,807	26,777
Commitment Charges		0	0	0	0	0	0	0	0	0	0
Allocated Overheads - Employees		4,754	5,942	6,536	7,190	7,908	8,700	9,670	10,527	11,579	12,737
Allocated Overheads - Non-Employee Costs		67	64	64	63	63	63	63	63	63	63
<b>Total Non-Operating Expenses</b>		<b>18,635</b>	<b>26,331</b>	<b>35,514</b>	<b>42,424</b>	<b>49,907</b>	<b>59,585</b>	<b>69,991</b>	<b>78,807</b>	<b>84,887</b>	<b>93,654</b>
<b>NET PROFIT (LOSS) FOR THE YEAR</b>		<b>3,767</b>	<b>4,627</b>	<b>5,472</b>	<b>2,237</b>	<b>3,358</b>	<b>2,660</b>	<b>4,187</b>	<b>6,018</b>	<b>10,012</b>	<b>16,881</b>
<b>DIVIDENDS PAID</b>											
Ordinary											
Preference											
<b>ACCUMULATED SURPLUS (DEFICIT) BEGIN OF YEAR</b>			<b>3,767</b>	<b>6,994</b>	<b>13,888</b>	<b>16,102</b>	<b>19,481</b>	<b>22,121</b>	<b>28,309</b>	<b>32,823</b>	<b>42,636</b>
<b>ACCUMULATED SURPLUS (DEFICIT) END OF YEAR</b>		<b>3,767</b>	<b>6,994</b>	<b>13,888</b>	<b>16,102</b>	<b>19,481</b>	<b>22,121</b>	<b>28,309</b>	<b>32,823</b>	<b>47,235</b>	<b>59,818</b>

**SWAZILAND WATER SERVICES CORPORATION**  
**PROJECTED CASHFLOW: 1994/95 TO 2003/04**  
**(E 000)**

Item	Ref	1994/95 Forecast	1995/96 Forecast	1996/97 Forecast	1997/98 Forecast	1998/99 Forecast	1999/20 Forecast	2000/01 Forecast	2001/02 Forecast	2002/03 Forecast	2003/04 Forecast
<b>OPERATING PROFIT</b>		3,767	4,627	5,472	2,237	3,359	2,680	4,167	6,616	10,012	16,961
<b>NON CASH ITEMS</b>											
American Capital Grant Credits		0	0	0	0	0	0	0	0	0	0
Depreciation		6,151	7,795	9,623	11,361	13,176	15,636	17,869	20,309	23,266	26,472
Capitalised loan interest											
Currency translation loss/gain unrealised											
<b>CASH RETAINED FOR WORKING CAPITAL</b>		9,918	12,422	15,295	13,618	16,537	16,396	22,166	26,924	33,298	42,463
<b>CHANGES IN WORKING CAPITAL</b>											
Stock		1,510	(229)	(225)	(212)	(216)	(220)	(241)	(278)	(294)	(323)
Debtors		(605)	(6,636)	(5,776)	(3,527)	(4,321)	(4,467)	(5,328)	(5,664)	(6,348)	(7,555)
Creditors		(2,060)	278	294	283	300	312	356	422	430	467
Deposits		24	25	23	26	27	26	29	30	30	31
Subtotal		6,787	5,860	9,614	10,187	12,325	13,949	17,001	21,414	27,116	35,103
<b>PAYMENTS TO SHAREHOLDERS</b>											
Dividends		0	0	0	0	0	0	0	0	0	0
<b>CASH GENERATED BY OPERATIONS</b>		6,787	5,860	9,614	10,187	12,325	13,949	17,001	21,414	27,116	35,103
<b>CAPITAL MOVEMENTS</b>											
Recurring Additions/Other		4,783	4,912	7,140	6,634	23,644	16,793	3,636	3,167	6,660	17,656
UDP		8,352	22,306	26,460	7,643	17,409	10,368	24,003	6,493	1,546	(8,641)
Grants Received		2,704	7,800	6,453	1,175	12	0	0	0	0	0
Matsapha		0	0	0	0	0	0	0	0	0	0
L-T GOs		(800)	(800)	(800)	(800)	(800)	(800)	(800)	(800)	(800)	(800)
Terminal Benefits		60	67	75	64	64	106	116	133	149	166
		10,109	34,265	39,329	14,737	40,559	28,467	27,160	6,993	7,554	6,481
Capital works & f.ass. expenditure (nva)		(27,961)	(47,405)	(41,078)	(16,874)	(44,332)	(36,810)	(36,326)	(36,326)	(20,174)	(23,309)
Capital Projects In Progress		1,600	0	0	0	0	0	0	0	0	0
Capital works & f.ass. expenditure (non-UDP)											
Capital works & f.ass. expenditure (UDP)		(26,491)	(47,405)	(41,078)	(16,874)	(44,332)	(36,810)	(36,326)	(36,326)	(20,174)	(23,309)
<b>CASHFLOW SURPLUS (deficit)</b>		(7,895)	(7,260)	7,967	6,049	6,552	5,506	7,635	(5,919)	14,466	20,276
Bank Balance or overdraft b/f		11,100	3,505	(3,753)	4,112	12,160	20,713	26,219	34,054	28,135	42,630
<b>NET CASH &amp; BANK END OF YEAR</b>		3,505	(3,755)	4,112	12,160	20,713	26,219	34,054	28,135	42,630	62,906

**SWAZILAND WATER SERVICES CORPORATION**  
**PROJECTED BALANCE SHEET: 1994/95 TO 2003/04**  
**(E 000)**

Item	1993/94 Forecast	1994/95 Forecast	1995/96 Forecast	1996/97 Forecast	1997/98 Forecast	1998/99 Forecast	1999/20 Forecast	2000/01 Forecast	2001/02 Forecast	2002/03 Forecast	2003/04 Forecast
<b>CAPITAL EMPLOYED</b>											
<b>CAPITAL FUND/EQUITY</b>	26,540	26,540	26,540	26,540	26,540	26,540	26,540	26,540	26,540	26,540	26,540
<b>RESERVES</b>											
Capital (Revaluation Surplus)	63,615	110,014	125,131	144,036	169,723	203,272	242,651	290,467	346,453	411,549	484,412
<b>ACCUMULATED SURPLUS (DEFICIT)</b>	0	3,767	8,394	13,866	18,102	19,461	22,121	26,308	32,923	42,935	56,916
<b>LONG TERM LOANS – GOS</b>	8,000	7,200	6,400	5,600	4,800	4,000	3,200	2,400	1,600	800	0
<b>LONG TERM LOANS – UDP/BRD</b>		5,332	23,658	52,118	59,761	77,170	87,536	111,841	116,034	119,560	111,036
<b>LONG TERM LOANS – MATSAPHA</b>		0	0	0	0	0	0	0	0	0	0
<b>LONG TERM LOANS – OTHER</b>		4,793	9,705	16,846	23,480	47,324	66,117	69,955	73,123	79,783	97,439
<b>BRD GRANT</b>	0	2,704	10,504	16,957	18,132	18,144	18,144	18,144	18,144	18,144	18,144
<b>TERMINAL BENEFITS</b>	500	560	627	702	787	861	967	1,105	1,238	1,387	1,553
	<b>129,655</b>	<b>159,929</b>	<b>212,959</b>	<b>276,964</b>	<b>319,325</b>	<b>399,792</b>	<b>497,299</b>	<b>546,461</b>	<b>618,055</b>	<b>709,717</b>	<b>798,042</b>
<b>EMPLOYMENT OF CAPITAL</b>											
<b>FIXED ASSETS</b>	108,620	146,659	201,566	251,744	282,924	347,627	406,281	474,423	546,426	606,411	678,111
<b>CAPITAL PROJECTS IN PROGRESS</b>	1,500	0	0	0	0	0	0	0	0	0	0
<b>CURRENT ASSETS</b>											
Debtors	10,235	10,840	17,475	23,251	26,778	31,099	35,567	40,895	46,579	52,927	60,482
Bank and Cash	11,100	3,505	0	4,112	12,160	20,713	26,219	34,054	28,135	42,630	62,905
Inventory	3,000	1,490	1,719	1,944	2,158	2,374	2,594	2,835	3,112	3,407	3,730
	<b>24,335</b>	<b>15,834</b>	<b>19,194</b>	<b>29,307</b>	<b>41,095</b>	<b>54,186</b>	<b>64,379</b>	<b>77,764</b>	<b>77,826</b>	<b>98,964</b>	<b>127,118</b>
<b>CURRENT LIABILITIES</b>											
Bank Overdraft		0	3,755	0	0	0	0	0	0	0	0
Creditors and Accounts	4,000	1,940	2,218	2,512	2,795	3,094	3,406	3,762	4,184	4,614	5,112
Current Portion – Long Term Loans		0									
Pension and Gratuity Provisions	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Deposits	800	824	849	874	900	927	955	984	1,013	1,044	1,075
	<b>5,800</b>	<b>3,764</b>	<b>7,822</b>	<b>4,386</b>	<b>4,695</b>	<b>5,022</b>	<b>5,362</b>	<b>5,746</b>	<b>6,198</b>	<b>6,658</b>	<b>7,187</b>
<b>NET CURRENT ASSETS (LIABILITIES)</b>	<b>18,535</b>	<b>12,070</b>	<b>11,373</b>	<b>24,920</b>	<b>36,400</b>	<b>49,165</b>	<b>59,018</b>	<b>72,036</b>	<b>71,626</b>	<b>92,306</b>	<b>119,931</b>
	<b>129,655</b>	<b>159,929</b>	<b>212,959</b>	<b>276,964</b>	<b>319,325</b>	<b>399,792</b>	<b>497,299</b>	<b>546,461</b>	<b>618,055</b>	<b>709,717</b>	<b>798,042</b>
	0	0	(0)	(0)	(0)	0	0	0	(0)	(0)	(0)
<b>PERFORMANCE INDICATORS</b>											
Current Ratio		4.21	2.45	6.66	6.75	10.79	12.01	13.54	12.58	14.86	17.69
Return on NFA		2.37%	2.17%	1.96%	0.70%	0.85%	0.57%	0.77%	1.07%	1.43%	2.00%
Return on MA (as per Water Act)		6.1%	10.6%	12.5%	12.8%	12.5%	12.2%	12.2%	12.8%	12.7%	12.6%
Target Return (Water Act)											



**SWAZILAND**  
**URBAN DEVELOPMENT PROJECT**  
**FORECAST FINANCIAL PERFORMANCE CITY COUNCILS**

**Key Assumptions**

**Income**

1. Base estimates were based on 1993/94 budgets. Thereafter revaluation of the rating base is assumed in FY95/96 and annual rating increases in line with inflation as a minimum, thereafter.
2. Fees and charges on SWD and abattoirs will be adjusted to allow break even by FY98/99. After FY97/98, they will be increased in line with inflation (10%). Overall, fees and charges will be increased in line with inflation as a minimum.
3. Rates collection efficiency is assumed to improve to 75% of billings due to improved administration and establishment of accurate debtor database.
4. No provision has been made for revenue from new sources due to lack of information as to potential scope.
5. Costs of implementation of systems required to effect rating and valuation improvements will be met through the resulting increase in revenues.
6. Government subvention to the City Councils will be gradually phased out.

**Expenditure**

7. Recurrent expenditure is based on the FY93/94 budgets and projected to increase overall at a lower rate than recurrent revenues as a cost control measure.
8. Depreciation has been introduced for the existing asset base as well as for project assets: 4% p.a. for buildings; and 12.4% for equipment/vehicles.
9. Capital expenditure has a major assumption -- that the councils will use over 80% of their capital grants from GOS between FY95/96 - FY97/98 for the Urban Development Project.
10. Interest payments are calculated: IBRD loan @ 12% p.a. (inflation + 2%), 5 yrs. grace on principal and 20 years repayment period. Overdraft facility = (inflation = 4%), i.e. 16% p.a. This is a function of cashflow shortfalls which would be limited to 3 months of previous year's revenues.

Mbabane  
Projected Income Statement (E 000)

ITEM	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/2	2002/03
<b>REVENUES</b>											
<b>RATES</b>											
Residential	3822	5204	3135	4279	5289	5993	6790	7618	8548	9590	10760
Commercial	a/	a/	3422	4493	5500	6170	6923	7768	8630	9588	10652
Government	478	336	373	1114	1286	1486	1716	1982	2289	2644	3054
<b>SUBVENTION</b>	849	276	306	336	370	407	447	492	0	0	0
<b>FEES &amp; CHARGES</b>											
Refuse removal	422	528	659	1154	2019	2241	2488	2762	3065	3403	3777
Abattoir	7	7	14	28	56	112	124	138	153	170	189
Other recoverables	4	30	60	78	101	132	146	162	180	200	222
Other fees and charges	262	614	682	750	825	907	998	1098	1207	1328	1666
Other income a/	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL RECURRENT REVENUES</b>	5844	6995	8651	12232	15446	17449	19633	22020	24073	26923	30321
<b>EXPENDITURES</b>											
<b>GENERAL</b>											
Public works (roads & dr.)	2432	2276	2640	2904	3195	3514	3865	4252	4677	5145	5659
Workshop	398	790	877	965	1061	1167	1284	1412	1553	1709	1880
Refuse Removal	868	1085	1248	1385	1537	1706	1894	2103	2334	2591	2875
Abattoir	69	81	90	99	109	120	132	145	159	175	193
Other recoverables	-167	168	183	198	218	240	264	290	319	351	386
Other departments	3576	3765	4330	4893	5480	6137	6874	7699	8545	9485	10624
Extra Personnel recommended					286	315	346	381	893	983	1081
Project Road maint. costs		0	0	0	11	17	19	21	23	25	28
Project equipment op/maint	0	0	0	0	0	476	524	576	633	697	767
Project Depreciation	0	0	0	175	593	738	658	587	525	469	421
Other depreciation	0	0	427	386	349	316	287	262	239	218	200
<b>OPERATING INCOME</b>	-1666	-1171	-1144	1228	2608	2703	3486	4293	4172	5076	6207
<b>FINANCE</b>											
Bank interest and charges	130	247	437	560	1069	1069	1063	978	800	686	473
Longterm interest (other)	167	110	75	47	19	0	0	0	0	0	0
WB longterm interest	0	0	0	168	739	804	804	804	806	792	776
Capital (RCCO) b/	301	369	409	451	496	545	600	660	725	798	878
<b>RECURRENT SURPLUS</b>	-2264	-1896	-2064	2	285	285	1019	1851	1841	2800	4080

a/ Investment income etc..  
b/ revenue contribution to capital

**MBABANE**  
Sources and applications of Funds  
(E 000)

	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03
<b>SOURCE OF FUNDS</b>											
Recurrent surplus	-2264	-1896	-2064	2	285	285	1019	1851	1841	2800	4080
Depreciation	0	0	427	561	942	1054	945	849	764	687	621
RCCO	301	369	409	451	496	545	600	660	725	798	878
Grants (roads etc..)	3310	3000	2000	2200	248	1507	2928	3221	3543	3897	4287
Extra Grants needed	0	0	0	2172	1155	0	0	0	0	0	0
Grants (SMD)	0	0	0	6977	288	116	0	0	0	0	0
Loan Receipts (non-Urban I)	0	0	0	0	0	0	0	0	0	0	0
Loan Receipts (Urban I)	0	0	0	1397	4761	538	0	0	0	0	0
Earmarked Reserve	0	0	0	0	0	0	0	0	0	0	0
Other Cash Sources c/	0	0	0	0	0	0	0	0	0	0	0
Overdraft/deficit finance	1471	1665	2425	725	0	0	0	0	0	0	0
<b>TOTAL CASH SOURCES</b>	<b>2818</b>	<b>3138</b>	<b>3197</b>	<b>14485</b>	<b>8175</b>	<b>4046</b>	<b>5492</b>	<b>6581</b>	<b>6873</b>	<b>8182</b>	<b>9866</b>
<b>APPLICATIONS OF FUNDS</b>											
Property Adms.	2766	2969	2000	0	0	0	0	0	0	0	0
Road Works				4372	1403	1507	2928	3221	3543	3897	4287
SMD				8374	5049	654	0	0	0	0	0
Investments	0	0	0	0	0	0	0	0	0	0	0
Working Capital Increase	-14	-31	996	1544	1668	1770	2061	2311	2542	2895	3242
Loan Repayment (non-Urban)	66	200	200	195	55	83	0	0	0	0	0
Loan Repayment (Urban I)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	121	135	151
Earmarked Reserves	0	0	0	0	0	0	0	0	0	0	0
Repayment of overdraft	n/a	n/a			0	31	503	1049	667	1254	2186
Increase in bank balance							0	0	0	0	0
<b>TOTAL CASH APPLIED</b>	<b>2818</b>	<b>3138</b>	<b>3196</b>	<b>14485</b>	<b>8175</b>	<b>4046</b>	<b>5492</b>	<b>6581</b>	<b>6873</b>	<b>8182</b>	<b>9866</b>

**Manzini  
Projected Income Statement  
(E 000)**

ITEM	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/2	2002/03
<b>REVENUES</b>											
<b>RATES</b>											
Residential	1786	1853	2237	3054	3848	4558	5165	5795	6502	7295	8185
Commercial	3551	4100	4124	5415	6629	7699	8942	9935	12021	13224	14691
Government	334	382	583	654	705	775	853	938	1032	1136	1249
<b>SUBVENTION</b>	241	276	306	337	371	408	0	0	0	0	0
<b>FEES &amp; CHARGES</b>											
Refuse removal	508	607	759	986	1282	1667	1834	2017	2219	2441	2685
Abattoir	73	110	330	429	558	725	943	1225	1593	2071	2692
Other recoverables	228	292	365	475	617	802	882	970	1067	1174	1291
Other fees and charges	638	920	1058	1164	1280	1408	1549	1704	1874	2062	2268
Other income a/	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL RECURRENT REVENUES</b>	7359	8540	9763	12514	15290	18042	20167	22584	26308	29401	33061
<b>EXPENDITURES</b>											
<b>GENERAL</b>											
Public works (roads & dr.)	897	1004	1155	1316	1487	1681	1882	2089	2298	2528	2781
Workshop	1012	1175	1304	1487	1695	1915	2164	2424	2691	2960	3256
Refuse Removal	639	795	914	1033	1157	1296	1451	1626	1821	2039	2284
Abattoir	255	318	366	417	471	532	596	668	735	808	889
Other recoverables	289	425	508	591	681	802	882	970	1067	1174	1291
Other departments	3775	4278	4984	5731	6419	7190	8052	9019	10011	11112	12445
Project Road o/m costs b/	0	0	0	0	10	15	25	27	30	33	36
Project equipment o/m cost	0	0	0	0	0	293	322	355	390	429	472
Project Depreciation a/	0	0	0	0	910	869	767	677	598	527	467
Other depreciation a/	0	0	427	385	349	316	287	261	238	218	198
	6867	7995	9658	10961	13180	14909	16430	18116	19878	21828	24119
<b>OPERATING INCOME</b>	492	545	105	1554	2110	3134	3737	4468	6430	7573	8942
<b>FINANCE</b>											
Bank interest and charges	58	72	205	319	334	334	23	25	26	28	29
Longterm interest (other)	135	226	266	236	206	176	146	116	86	65	43
WB longterm interest	0	0	0	294	787	808	808	808	808	793	777
Capital (RCCO) b/	207	317	352	387	426	469	516	567	624	686	755
<b>RECURRENT SURPLUS</b>	92	-70	-718	318	357	1347	2245	2953	4886	6001	7338

a/ Investment income etc..  
b/ revenue contribution to capital

MANZINI  
Sources and Applications of Funds  
(E 000)

	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03
<b>SOURCE OF FUNDS</b>											
Recurrent surplus	92	-70	-718	318	357	1347	2245	2953	4886	6001	7338
Depreciation	0	0	427	385	1259	1185	1054	938	836	745	665
RCCO	207	317	352	387	426	469	516	567	624	686	755
Grants (roads etc..)	5382	1505	2000	2200	2420	925	1191	3221	3543	3897	4287
Extra Road Grant	0	0	0	3474	0	0	0	0	0	0	0
Loan Receipts (non-Urban I)	1001	712	0	0	0	0	0	0	0	0	0
Loan Receipts (Urban I)	0	0	0	2452	4106	173	0	0	0	0	0
Earmarked Reserve	552	335	0	0	0	0	0	0	0	0	0
Other Cash Sources c/	-319	423	0	0	0	0	0	0	0	0	0
Addn. Overdraft			1077	601	79	0	0	0	0	0	0
<b>TOTAL CASH SOURCES</b>	<b>6915</b>	<b>3222</b>	<b>3138</b>	<b>9817</b>	<b>8647</b>	<b>4099</b>	<b>5006</b>	<b>7679</b>	<b>9889</b>	<b>11330</b>	<b>13045</b>
<b>APPLICATIONS OF FUNDS</b>											
Property Addns.	5689	2462	0	0	0	0	0	0	0	0	0
Road Works			2000	5674	2420	925	1191	3221	3543	3897	4287
SMD	0	0	0	2578	4493	203	0	0	0	0	0
Investments	584	190	0	0	0	0	0	0	0	0	0
Working Capital Increase	-82	-95	909	1336	1505	1750	2011	2186	2702	2844	3178
Loan Repayment (non-Urban)	399	338	229	229	229	229	229	229	164	164	164
Loan Repayment (Urban I)	0	0	0	0	0	0	0	0	121	135	151
Earmarked Reserves	325	325	0	0	0	0	0	0	0	0	0
Repayment of Overdraft	0	0	0	0	0	992	765	0	0	0	0
Increase in bank balance	n/a	n/a	n/a	0	0	0	810	2043	3360	4289	5265
<b>TOTAL APPLICATIONS</b>	<b>6915</b>	<b>3220</b>	<b>3138</b>	<b>9817</b>	<b>8647</b>	<b>4099</b>	<b>5006</b>	<b>7679</b>	<b>9889</b>	<b>11330</b>	<b>13045</b>



**Swaziland  
Urban Development Project**

**SUMMARY OF ENVIRONMENTAL ASSESSMENT OF PROJECT COMPONENTS**

<b>Table 1                      Citywide Infrastructure - Roads and Drains</b>	
<i>Permanent Positive Impacts</i>	
<ul style="list-style-type: none"> <li>o improved access to upgrading and development areas, resulting in reduced travel times and reduced costs</li> <li>o reduced levels of dust and mud for pedestrians and residents beside roads</li> <li>o reduction in incidence of flooding</li> </ul>	
<i>Permanent Potential Negative Impacts</i>	<i>Mitigation Measures</i>
<ul style="list-style-type: none"> <li>o erosion &amp; siltation</li> <li>o need for borrow or spoil material</li> <li>o loss of housing and agricultural land</li> <li>o loss of valuable habitats or cultural heritage sites</li> <li>o impairment of water quality</li> <li>o increased flow rates in natural water courses</li> <li>o adverse visual impact</li> <li>o increased accident risk</li> <li>o increased noise</li> <li>o increased air pollution from vehicle emissions</li> </ul>	<ul style="list-style-type: none"> <li>o topsoil and grassing provided; designed to reduce velocities, provide pipes, or lined drains</li> <li>o designed for balance of cut &amp; fill; used to reinstate solid waste site</li> <li>o designed to maintain original &amp; existing alignments</li> <li>o designed to maintain original &amp; existing alignments</li> <li>o topsoil &amp; grassing or hydro- seeding provided</li> <li>o designed for frequent discharges &amp; use of existing drainage</li> <li>o shade tree planting along road alignments provided</li> <li>o direct access limited and footpaths provided; speed bumps may be required - to be monitored</li> <li>o roadside trees provided; vehicle inspections advised</li> <li>o vehicle inspections advised</li> </ul>

<b>Table 2</b>		<b>Citywide Infrastructure - Water Supply</b>	
<i>Permanent Positive Impacts</i>			
o improved health as a result of improved quality and availability of water			
<i>Permanent Potential Negative Impacts</i>		<i>Mitigation Measures</i>	
o	reduced flows in rivers under low flow conditions	o	requirement for compensation flow detailed
o	transfer of flows between catchments	o	requires further study
o	potential risk of contamination of raw water supplies	o	police, city council health inspectors and SEA alerted to danger
o	erosion from pipeline routes	o	designed for appropriate reinstatement
o	loss of valuable habitats or cultural heritage sites as a result of pipelines and new works construction	o	avoided in design
o	impact of waterworks sludge on watercourses	o	alternatives considered in detailed design
o	visual impact of service reservoirs	o	sited away from hill and ridge crests
o	potential risk of delivery of unsafe water	o	laboratory to be provided at works
o	potential risks associated with use of chlorine gas	o	fail safe designs included
o	increased quantities of sewage generated	o	sewage treatment capacity increased

<b>Table 3 Citywide Infrastructure - Sewage Treatment &amp; Sewerage</b>	
<i>Permanent Positive Impacts</i>	
<ul style="list-style-type: none"> <li>o improved health as a result of improved access to sewerage systems</li> <li>o improved health of downstream river water users</li> <li>o reduction of nuisance to residents near existing works</li> <li>o improvement in river biology</li> <li>o increased potential for beneficial reuse of effluent and sludge</li> <li>o potential for improved river fisheries</li> </ul>	
<i>Permanent Potential Negative Impacts</i>	<i>Mitigation Measures</i>
<ul style="list-style-type: none"> <li>o degradation of receiving water quality because of stormwater overflows or treatment process failure</li> <li>o public health hazards in vicinity of discharges during normal operation</li> <li>o smell or fly nuisance in vicinity of new treatment works</li> <li>o groundwater contamination from maturation ponds</li> <li>o visual impact of new treatment works</li> <li>o potential health hazard from sludge disposal</li> <li>o loss of housing, agricultural or grazing land because of new works construction</li> <li>o loss of valuable habitats or cultural heritage sites as a result of pipeline and new works construction</li> <li>o erosion from pipeline routes</li> <li>o risks to works operators and sewer gangs from gas accumulating in confined spaces</li> <li>o risks to works operators and sewer gangs from toxic substances disposed of in sewers</li> <li>o public opposition to new treatment works sites</li> </ul>	<ul style="list-style-type: none"> <li>o overflows and simple treatment process designed</li> <li>o City Councils to carry out public awareness program</li> <li>o affected homesteads moved</li> <li>o none required</li> <li>o tree screen provided</li> <li>o sludge kept within treatment sites</li> <li>o homesteads moved, otherwise only grazing land affected</li> <li>o mature trees and wetlands retained at treatment sites; pipeline routes to be carefully reinstated</li> <li>o to be reinstated by contractor</li> <li>o operators to be trained in awareness of and dealing with risk</li> <li>o enforce industrial effluent controls and provide monitoring</li> <li>o community consultation and education systems and process established</li> </ul>

<b>Table 4 Citywide Infrastructure - Solid Waste Disposal</b>	
<b><i>Permanent Positive Impacts</i></b>	
<ul style="list-style-type: none"> <li>o improved health as a result of reduction in informal disposal of solid waste (on open plots or in on-site pits)</li> <li>o elimination of fly, smell and vermin nuisance from temporary disposal site (Mbabane)</li> <li>o reduction in pollution of watercourse from present disposal site (Manzini)</li> <li>o local elimination of erosion at new disposal site</li> <li>o improved local access as a result of new access road construction</li> </ul>	
<b><i>Permanent Potential Negative Impacts</i></b>	<b><i>Mitigation Measures</i></b>
<ul style="list-style-type: none"> <li>o contamination of groundwater at disposal sites</li> <li>o contamination of surface water at disposal sites</li> <li>o contamination of water supplies</li> <li>o soil contamination at disposal sites</li> <li>o loss of housing or agricultural land</li> <li>o loss of valuable habitats or cultural heritage sites as a result of new solid waste disposal sites</li> <li>o noise and dust nuisance from new disposal sites</li> <li>o vermin nuisance from new disposal sites</li> <li>o increased road traffic to new disposal sites</li> <li>o dust and litter on access roads</li> <li>o visual impact of new disposal sites</li> <li>o public opposition to new disposal sites</li> <li>o gas production at disposal sites</li> <li>o potential for adverse impact on recycling initiatives</li> </ul>	<ul style="list-style-type: none"> <li>o minimised through design measures - to be monitored</li> <li>o drainage provided and homestead (Manzini) to be relocated</li> <li>o new water supply provided</li> <li>o avoided in design</li> <li>o none required</li> <li>o none required</li> <li>o no housing near - 200m buffer zone provided</li> <li>o no housing near - proper site operation essential</li> <li>o paved and improved access provided</li> <li>o vehicle cleaning provided on-site</li> <li>o tree screen provided in buffer zone</li> <li>o public consultation process required (Manzini only)</li> <li>o none anticipated - to be monitored</li> <li>o incentives to recycling to be investigated</li> </ul>

<b>Table 5 Site Specific Development - Msunduzi, Nkwalini &amp; Moneni</b>	
<b><i>Permanent Positive Impacts</i></b>	
<ul style="list-style-type: none"> <li>o improved health and security as a result of improved roads, drainage, water supply, sanitation, solid waste removal, communal facilities and streetlighting</li> <li>o improved aesthetics due to planning, tree planting and provision for open space</li> <li>o improved security and mobility due to provision of secure tenure</li> <li>o improved potential to invest in housing through provision of secure tenure</li> <li>o improved local access as a result of improved roads and reduction in time/cost of pedestrian and vehicle access to other areas for work, recreation and other reasons</li> <li>o improved provision for community services</li> <li>o increased revenue to City Council from property taxes &amp; improved provision of City Council services to residents</li> </ul>	
<b><i>Permanent Potential Negative Impacts</i></b>	<b><i>Mitigation Measures</i></b>
<ul style="list-style-type: none"> <li>o loss of housing or agricultural land</li> <li>o resettlement required of homesteads affected by new services</li> <li>o loss of valuable habitats or cultural heritage sites as a result of new solid waste disposal sites</li> <li>o need for borrow or spoil material for road building</li> <li>o public opposition to project resulting from capital cost recovery and new recurrent cost charges</li> <li>o increased accident risk from road traffic</li> <li>o increased noise</li> <li>o increased air pollution from vehicle emissions</li> <li>o increased quantities of sewage generated</li> <li>o erosion from pipeline routes</li> <li>o erosion from roads on steep slopes</li> <li>o smell or fly nuisance from pit latrines</li> <li>o groundwater contamination from pit latrines &amp; septic tanks</li> <li>o erosion from development of steep &amp; fragile slopes</li> </ul>	<ul style="list-style-type: none"> <li>o designed to maintain original alignments</li> <li>o resettlement plan to be implemented</li> <li>o vulnerable habitats excluded from development area &amp; protected</li> <li>o designed for balance of cut &amp; fill</li> <li>o affordable service costs designed, community consultation &amp; approval incorporated in design</li> <li>o road widths reduced, signage &amp; speed bumps provided</li> <li>o roadside trees provided</li> <li>o vehicle inspections advised</li> <li>o sewage treatment capacity increased</li> <li>o designed for suitable reinstatement</li> <li>o road surfacing &amp; drains provided</li> <li>o pit latrine design minimises impact</li> <li>o increased sewerage provided - City Council to monitor</li> <li>o development excluded on slopes greater than 25%</li> </ul>

<b>Table 6 Citywide Infrastructure and Site Specific Development Temporary Impacts during Implementation (Construction) Phase</b>	
<i>Temporary Potential Negative Impacts</i>	<i>Mitigation Measures</i>
<i>Contractor's Temporary Facilities:</i>	
o siting of contractor's facilities	o only permitted on demarcated land
o temporary water supplies	o to be to potable standard only
o temporary sanitation	o no pollution permitted
o fuel spill containment	o spill containment to be provided
o waste disposal	o permitted at authorised location only
o workers safety	o safety training to be provided
o import of workforce	o to be minimised
<i>Site Clearance &amp; Construction activities:</i>	
o flora conservation	o areas protected as identified
o tree cutting	o only permitted by approval
o topsoil removal	o to be set aside for reuse
o noise control	o within stated limits - monitoring equipment provided
o dust & vehicle emission control	o water to be used, monitoring equipment provided
o safety of public	o site fencing to be provided
o pollution of streams	o filter fences to be used
o use of explosives	o approved procedures to be used
o traffic disruption	o signs and temporary controls to be provided
o pedestrian disruption	o temporary footpaths to be provided
o borrow pit & spoil areas	o to be specified, approved & reinstated
o protection of slopes	o temporary drainage to be provided, program to avoid rains
o protection of private property	o temporary fencing provided, work-force control required
o specific disruption (eg. schools)	o contractor to program to minimise

**SWAZILAND**  
**URBAN DEVELOPMENT PROJECT**  
**ECONOMIC ANALYSIS OF PROJECT COMPONENTS**

1. Economic rate of return (ERR) calculations have been carried out for those project components where the associated benefits can be quantified in a meaningful way. In total, ERR was calculated for two of the project components, totalling E 80.0 million of investments, or about 55% of total project base costs plus physical contingencies. The project components are: (i) urban roads and drainage; (ii) water supply and sanitation.
2. Project cost streams are based on the cost estimates provided in Annex 2.2 and include civil works, equipment and machines, operating and maintenance cost provisions, engineering design and physical contingencies. Economic costs and benefits are calculated net of taxes and duties. Economic costs are expressed in December 1993 prices, adjusted to remove taxes and duties, with a conversion factor of 1.0, given the relative openness of the Swazi economy. A brief summary of economic rate of return analysis of each component is presented below.
3. Benefits were measured in terms of property value increases realized on plot delivery. Based on sample surveys in the target communities and in comparable areas with infrastructure levels similar to project targets, property values were expected to increase from about E15/square meter to E25-27/square meter on plot delivery. ERR calculated for the community of Msunduzi is more than 70%. This would decrease to about 50% with a 10% reduction in benefits (property values); and 46% with a 10% increase in capital costs. The relatively high ERRs obtained indicate the significant value attached not only to improved access to potable water and clean surroundings, but also to the security of tenure that will be conferred by the Leasehold Agreement.
4. **Water supply and sanitation.** Benefits calculated are only meant to be illustrative of the general magnitude of the economic benefits; financial revenues represent only the minimum amount that consumers are willing to pay for clean, potable water which also has significant qualitative advantages over free water from unprotected sources. Benefits were measured as: the (i) incremental water supplies available for end consumption as a result of increased treatment and delivery capacity as well as reduction of unaccounted-for water through the leak detection and repair provision; and (ii) increased capacity for sewerage treatment. No separate evaluation was done for sewage, since most of its benefits are qualitative, rather than quantitative. Therefore, sewage benefits were added to water revenues and sewage costs were added to water project costs. Without the project, it was estimated that continued deterioration of the water system would reduce water availability by about 2% p.a. With the project, total treated water availability would increase to about 14.0 million megalitres/day in Mbabane and 25.0 million megalitres/day in Manzini as the physical system leakages reduce from 45% to about 25% in both systems. Billing and collection efficiency was assumed at 100% for economic valuation purposes.

5. The adjusted financial rate of return was estimated at 18% in the Mbabane system and 46% in the Manzini system. Sensitivity analyses indicate that a 10% increase in capital costs would reduce ERR to 16% (Mbabane) and 42% (Manzini); and with a 10% reduction in end water available, ERR would be 15% (Mbabane) and 39% (Manzini). If both incidences happened at the same time, ERR would be 14% (Mbabane) and 36% (Manzini).

6. City Roads and Drainage Benefits have been measured as savings in vehicle operating costs arising from less wear and tear and lower fuel consumption on the improved road surfaces. It was conservatively assumed that passenger time savings would be of minor importance and that road maintenance costs would not change significantly. ERRs on four of the five project roads were above 10% and rose as high as 60% on one congested road.

**SWAZILAND**

**URBAN DEVELOPMENT PROJECT**

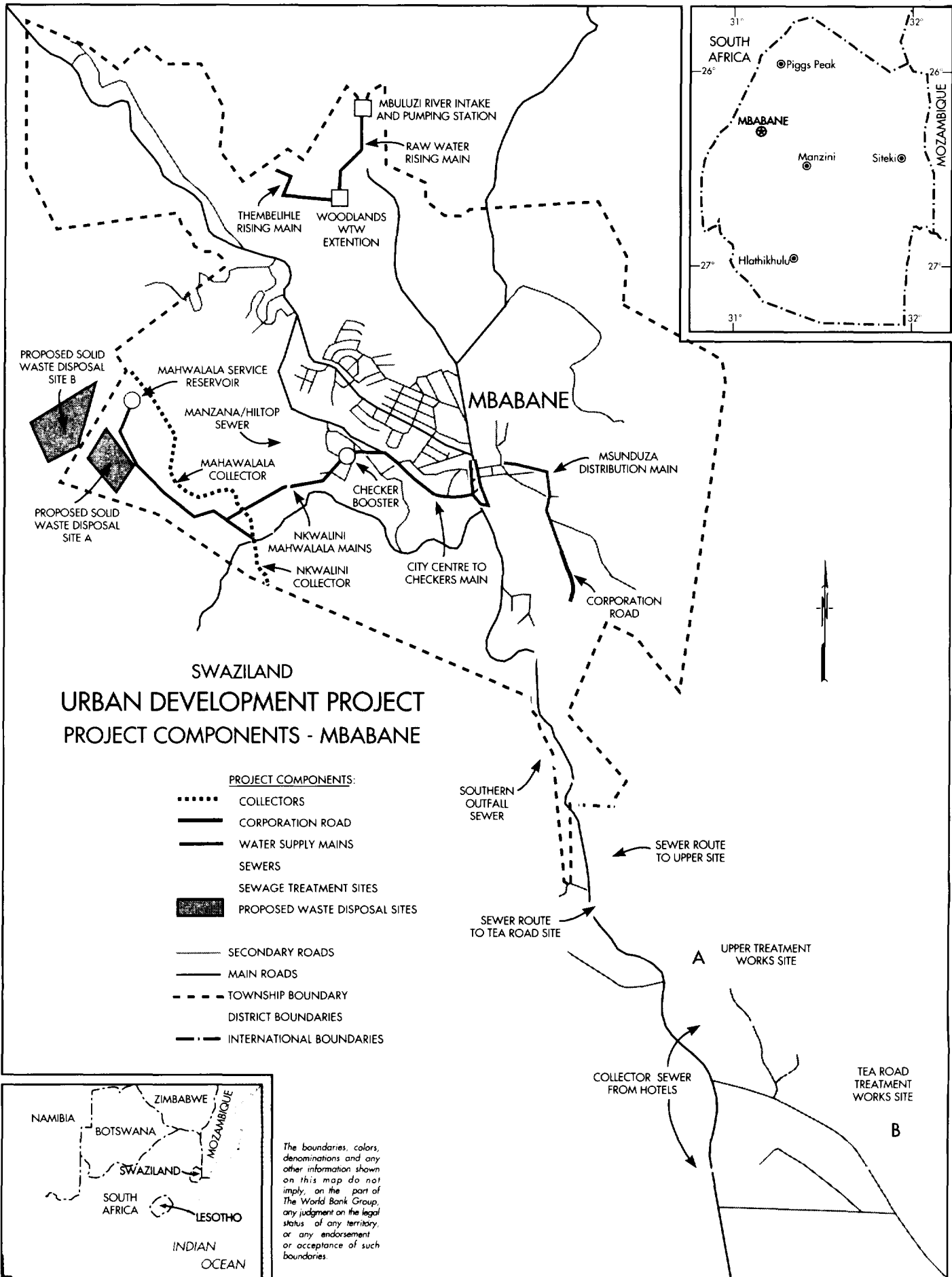
**DOCUMENTS IN PROJECT FILES**

1. Report on Infrastructure, Human Settlements Upgrading and Serviced Sites for Housing, Industrial Estate Expansion (3 Volumes), DHV, January 1990.
2. Review of Township Administration and Town Councils (3 Volumes), DEVCO, September 1992.
3. Swaziland Water and Sewerage Board Organization and Management Study (7 Volumes), Wessex , May 1990.
4. Ministry of Natural Resources and National Housing Board: Manpower and Training Needs Assessment by Rens de Groot, January 1990.
5. Construction Industry Report, Iain L. Ross Steve Hall, April 1992.
6. Review of the Swaziland National Housing Board, Dr. Judith A. Hermanson, Cooperative Housing Foundation, October 1992.
7. Financial Sector and Housing Finance Report, Faillace, October 1992
8. Land and Housing Market Survey, M. Hoek-Smith, August 1992.
9. Land Use, Road Planning and Traffic Study, JBE<sup>1</sup>, January 1993.
10. Urban Development Project Overview, JBE, May 1993.
11. Citywide Infrastructure, JBE, May 1993.
12. Institutional Review, Land Management, Land Tenure and Survey, JBE, January 1993.
13. Report on Institutional Assessment and Framework, JBE, May 1993.

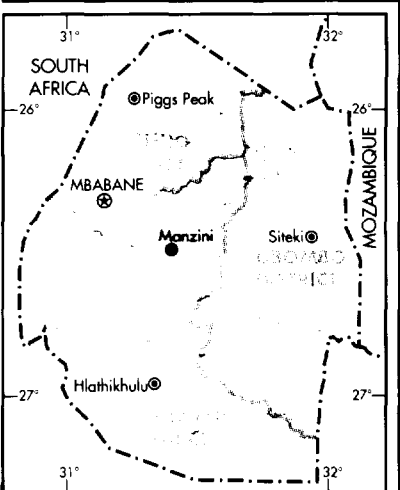
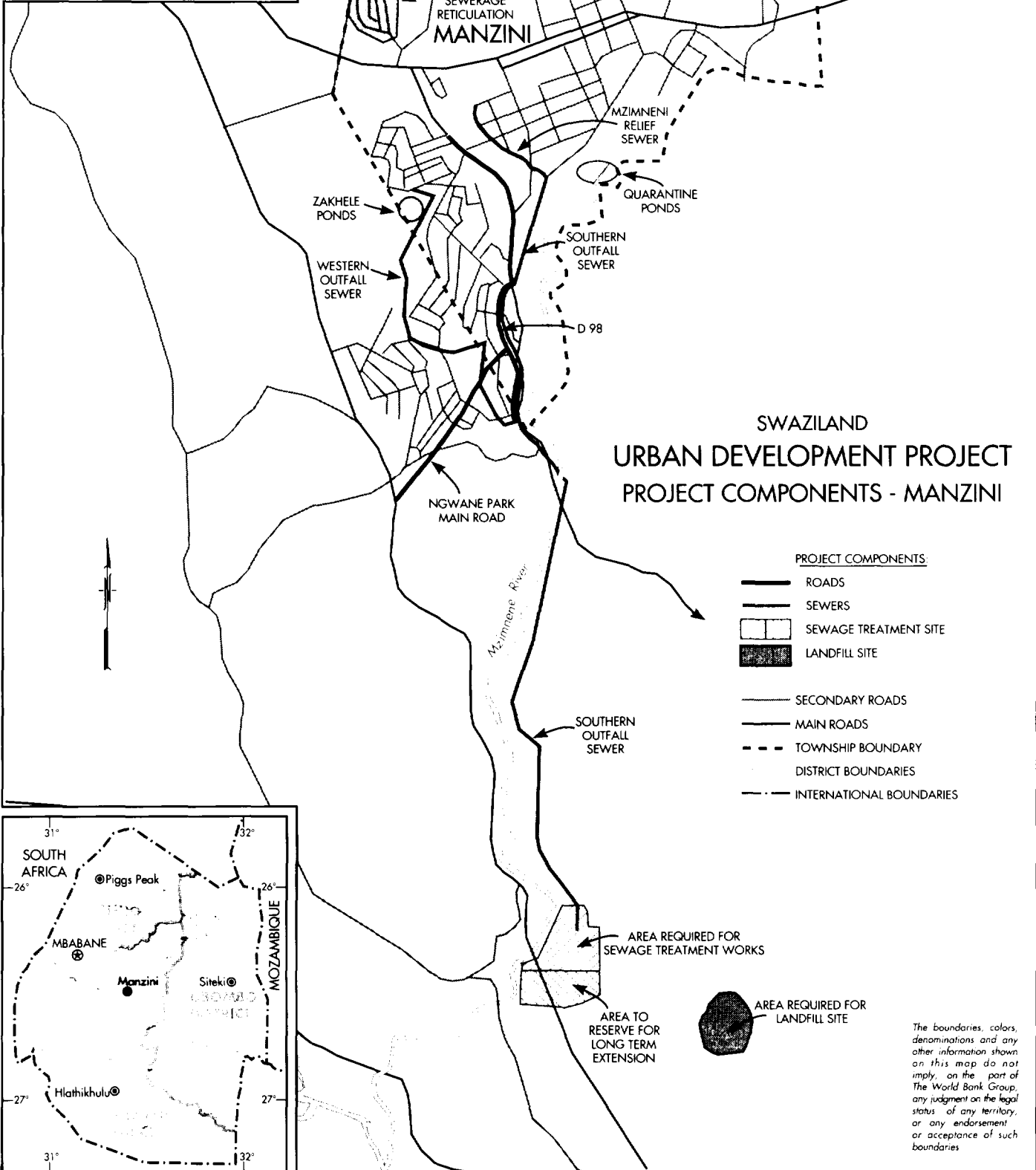
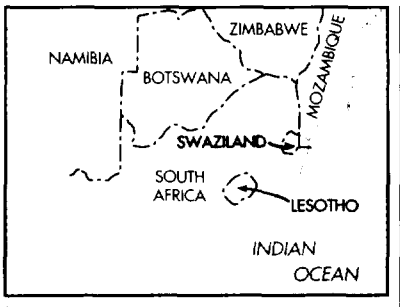
---

<sup>1</sup>John Burrow and Partners Swaziland in joint venture with Euroconsult.

14. Strategic Planning Framework and Project Definition, JBE, January 1993.
15. Environmental Impact Assessment, Site Specific Development, JBE, May 1993.
16. Environmental Impact Assessment Citywide Infrastructure, JBE, May 1993.
17. Economic and Financial Analysis, JBE, January 1993.
18. Community Development and Participation Report, JBE, January 1993.
19. Technical report 3, Urban Development Project Summary, JBE, November 1993.
20. Historical and Forecast Financial Performance, Swaziland Water and Sewerage Board, World Bank, January 1994.
21. Historical and Forecast Financial Performance, Mbabane and Manzini City Councils, World Bank, January 1994.
22. Economic Analysis of Project Components, World Bank, January 1994.
23. Project Implementation Manual (pending).







SWAZILAND  
URBAN DEVELOPMENT PROJECT  
PROJECT COMPONENTS - MANZINI

- PROJECT COMPONENTS:**
- ROADS
  - SEWERS
  - SEWAGE TREATMENT SITE
  - LANDFILL SITE
  - SECONDARY ROADS
  - MAIN ROADS
  - TOWNSHIP BOUNDARY
  - DISTRICT BOUNDARIES
  - INTERNATIONAL BOUNDARIES

AREA REQUIRED FOR SEWAGE TREATMENT WORKS

AREA TO RESERVE FOR LONG TERM EXTENSION

AREA REQUIRED FOR LANDFILL SITE

*The boundaries, colors, denominations and any other information shown on this map do not imply, on the part of The World Bank Group, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries*