

AFRICAN DEVELOPMENT BANK

**PROJECT COMPLETION REPORT**

**BOTSWANA**

**VETERINARY SERVICES DEVELOPMENT PROJECT**

**COUNTRY DEPARTMENT**  
**SOUTH REGION**

**OCDS**  
**APRIL 1999**



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BASIC PROJECT DATA

1.	Loan Number	:	CS/BSW/H-AGR/83/009
2.	Borrower	:	Government of Botswana
3.	Guarantor	:	Government of Botswana
4.	Beneficiary	:	Ministry of Agriculture
5.	Executing Agency	:	Ministry of Agriculture

A LOAN

	<u>APPRAISAL ESTIMATES</u>	<u>ACTUAL</u>
1. Amount (UA/ Million)	3.206	2.893
2. Interest Rate	4%/p.a	4% p.a
3.Repayment period	15 years	15 years
4.Grace Period	5 years	5 years
5. Loan negotiation date	May 1983	24/05/83
6. Loan Approval date	June 1983	21/06/83
7. Loan signature date	September 1983	08/10/83
8. Date of entry into force	November 1983	16/10/84

B PROJECT DATA

	<u>Appraisal Estimate</u>			<u>Actual</u>
1. Total cost (UA/Million)	3.562			3.830*
2. Financing plan (UA/Million)	<u>FC</u>	<u>LC</u>	Total	Total
ADB	-	-	-	-
ADF	-	-	-	-
NTF	2.590	0.616	3.206	3037455.86
Government	-	0.356	0.356	792425.68
3. Effective Date of First Disbursement				: 16/10/84
4. Effective Date of Last Disbursement				: 13/12/98
5. Commencement of Project Implementation Activities				: 1985
6. Date of Completion of Project Implementation Activities				: April 1997**

\* The amount of UA 1.880 million pertains to actual cost of the project as approved; the cost of UA 3.830 million includes the Extension works

\*\* The Project as appraised was completed in September 1986. The Extension Works were completed in April 1997

**C**      **PERFORMANCE INDICATORS**

1.	Cost underrun	:	47.21% (without Extension Works)
2.	Time overrun/underrun	:	0% (without Extension Works)
	- Slippage on effectiveness	:	N/A
	- Slippage on completion Date	:	0%
	- Slippage on Last Disbursement	:	0%
	-Number of extensions of last disbursement completion date		
	For main Works	:	0
	Including Extension	:	6
3.	Project Implementation Status	:	Completed
4.	List of verifiable indicators and levels of achievement (expressed as % of planned levels)		
		:	N/A
5.	Institutional Performance	:	Fair
6.	Contractor Performance	:	Satisfactory
7.	Consultant Performance	:	Satisfactory

		APPRAISAL	PCR
8.	IERR (%)	N/A	N/A
9.	IFRR (%)	N/A	N/A

**D**      **MISSIONS**

	No of Persons	Composition	Man-days
1. Identification	N/A	N/A	
2. Preparation	N/A	N/A	
3. Appraisal	3	Livestock Officer	17
		Agric. Economist	17
		Veterinary Consultant	17
4. Follow-Up	2	Loans Officer	N/A
		Division Chief	N/A
5. Supervision	1	Livestock Officer	N/A
	1	Livestock Officer	14
	1	Prin. Agric Economist	14
	2	Prin. Agric Economist	18
		Engineer/Consultant	18
6. Follow-Up	1	Country Prog. Officer	8
7. PCR	3	Prin. Agric. Economist	15
		Livestock Officer	15
		Engineer/Consultant	15

E **DISBURSEMENT (Annual)**

	<u>APPRAISAL</u> <u>ESTIMATES</u>	<u>ACTUAL</u>	<u>%</u>
	(Million UA)		
Total Disbursed	3.206	3037455.86	94.75
Amount Cancelled	0	168544.14	5.25
Unused Balance		168544.14	5.25

**Yearly Disbursements**

Total Disbursed 1985	1.367 UA	641781.79	20.04
Total Disbursed 1986	N/A	287090.79	8.95
Total Disbursed 1987	N/A	319797.22	9.97
Total Disbursed 1988	N/A	326753.44	10.19
Total Disbursed 1989	N/A	77847.30	2.43
Total Disbursed 1996	N/A	948975.64	29.60
Total Disbursed 1997	N/A	435209.76	13.57
<b>TOTAL DISBURSED</b>	<b><u>3.206</u></b>	<b><u>3037455.86</u></b>	<b><u>94.75</u></b>

F **CONTRACTORS/SUPPLIERS****MAIN WORKS**

Name	:	Wade Adams (Botswana) (PTY)Limited.
Responsibility	:	Erection and completion of Veterinary Diagnostic Laboratory at Sebele.
Date Contract Signed:	:	7 September 1984
Date Contract Terminated	:	May 1983
Contract Duration	:	9 Months
Amount	:	UA 1,249,354.20

**EXTENSION WORKS**

Name	:	Complant
Responsibility	:	Vet Laboratory Extension
Date Contract Sign	:	N/A
Date Contract Terminated	:	N/A
Amount	:	UA 1,239,711.04
Name	:	Supply of Laboratory Equipment
Responsibility	:	Supply of Laboratory Equipment
Date Contract Signed	:	N/A
Date Contract Terminated	:	N/A
Contract Duration	:	N/A
Amount	:	UA 43,925.33

Name	:	N/A
Responsibility	:	Supply of Mobile Laboratory Van
Date Contract Signed	:	N/A
Date Contract Terminated	:	N/A
Contract Duration	:	N/A
Amount	:	UA 77,847.30

**BOTSWANA**  
**VETERINARY SERVICES DEVELOPMENT PROJECT**

**EXECUTIVE SUMMARY**

1. The Veterinary Services Development Project (VSDP) was jointly financed by the Nigeria Trust Fund and the Government of Botswana. The ADB Board of Directors approved the loan of UA 3.206 million on 21<sup>st</sup> June 1983 for the project. The project consisted of the construction of a Central Veterinary Diagnostic Laboratory (CVDL); provision of equipment for the CVDL and 14 district laboratories (centres); and provision of a well equipped mobile laboratory van.

2. The main objectives of the project were:

- (i) To safeguard Botswana's lucrative export markets for meat and livestock products by developing its veterinary disease diagnostic capacity and capabilities in order to provide prompt services on livestock diseases, their control, and the maintenance of the quality of beef and meat products from the Botswana Meat Commission abattoir at Lobatse.
- (ii) Reduce over-reliance on South Africa for animal health services, and to serve other Southern African States.

3. The construction of the main laboratory building was completed on schedule with substantial amount of savings. The procurement of laboratory equipment was also completed on time. The fully equipped mobile laboratory van was procured and properly utilised for disease control and monitoring. The GoB requested and the Bank approved to utilise the loan savings for the construction and extension of the main laboratory building on 29<sup>th</sup> March 1991. It took GoB approximately four years to complete the building drawings, tender and award the contract for the construction works. The extension works were completed on 24<sup>th</sup> April 1997 and the certificate of practical completion was issued. The total project cost was **UA 3,829,881.54**. The total funds contributed by the NTF to the project was **UA 3,037,455.86** (79.31) while the GoB contributed **UA 792,425.68** (20.69%)

4. Since its completion the diagnostic capacity in the country through having a fully equipped international laboratory has facilitated complete control and surveillance of diseases and has thus continued to prevent the closure of the markets to Botswana's beef exports. The meat exports have substantially increased the agricultural sector's contribution to GDP, and poverty alleviation. Improved livestock health led to high meat quality which has contributed to increased income for cattle keepers. This, invariably, has led to improved standard of living. One of the major concerns of the project was to reduce over reliance on the Republic of South Africa for animal health services and serve other Southern African States. Botswana has drastically reduced its reliance on South Africa for animal health services. The project has made positive impact on the economy. It has attained on sustainable level the objectives for which it was designed. Export markets which was one of the major project objectives has been sustained. The value of exports of meat and meat products has increased from Rand 80,269,000 (UA12, 047,300) in 1983 to Rand 234,496,059 (UA 35,194,716) in 1996. This has been achieved because, as a result of the project, the country has been able to maintain high quality of meat and meat products for export markets, especially to the European Union.

5. Understaffing of the NVL has remained a major issue from the project inception through implementation period to completion. The Bank and GoB should jointly work out the final solution to the problem. Livestock development has a better chance of success if supported by adequate veterinary services. The Bank should therefore support similar projects in the future.

## 1. INTRODUCTION

1.1 Botswana is a landlocked country located in the heart of the Southern African Plateau bordered by Namibia on the west, Zimbabwe on the North-east, South Africa on the south and south-east, and by Zambia at the junction of the Caprivi Strip (Namibia). It has an area of about 582,000 Km<sup>2</sup>. Botswana lies between 20<sup>0</sup>-28<sup>0</sup> east of the Greenwich and 17<sup>0</sup>-28<sup>0</sup> south of the Equator. The climate is entirely subtropical and very dry. The total population was estimated in 1996 to be about 1,530,000. Over 40% of the population are involved in subsistence agriculture.

1.2 The policy objectives for the agricultural sector, and the strategies for implementing these policies, have remained relevant since independence (1966) except for the changes in emphasis and targeting, according to the socio-economic characteristics of farming communities in various agro-ecological zones. With about 70% of the population living in the rural areas, and deriving their livelihood from agriculture related activities, the major forms of government policy have been directed towards poverty alleviation.

1.3 The sector and the national goals are complementary, focussing on poverty reduction and economic growth. Increase in rural income as a result of increase in agricultural productivity is likely to lead to poverty alleviation and economic growth.

1.4 Bank Group Operations in Botswana commenced in 1973 when the ADB Board of Directors approved a loan of UA 2.20 million for Telecommunications I project. By the time the PCR mission was in the field, a total of 37 projects costing UA 324.93 million had been approved.

1.5 The first Bank Group intervention in the Agriculture sector occurred in 1981 when loans of UA 7.2 million, from ADB, and UA 6.17 million from ADF were approved by respective Board of Directors to assist in the development of Arable Land Development phase I. An Agriculture Line of Credit of UA 5.0 million was approved by the ADB Board of Directors in 1982. The project under review, the Veterinary Services Development Project (VSDP), financed by the Nigerian Trust Fund (NTF), was considered by the ADB Board of Directors, and subsequently a loan of UA 3.206 million was approved on 21 June, 1983. There has not been any new investment by the Bank Group in the agriculture sector since the date of the approval of the loan for the VSDP.

1.6 Of the total Bank commitment to Botswana, amounting to UA 324.93 million, only UA 33.18 million or 10.2 per cent has been invested in the agricultural sector. This compares unfavourably with other sectors, like Transport where UA 107.86 million (33.2 per cent) Public Utilities, UA 48.96 million (15.1 per cent) and Social Services UA 134.34 million (41.5 per cent). Annex 7 shows a summary of Bank Group operations as at 31-12-97.

1.7 This PCR is based on the appraisal report, project files in the Bank, Borrowers financial and technical reports, Quarterly reports, borrower's PCR, interviews and site inspections conducted during the PCR mission in Botswana.

## 2. **SECTOR GOAL AND PROJECT OBJECTIVES**

### 2.1 **Country's Development Goals and Strategy**

#### 2.1.1 **The National Strategy**

The overall country's development goal in the medium to long term is to reduce poverty, and promote economic growth in a sustainable environment. The development goal has remained unchanged since the country obtained independence in 1966. Most previous national development plans (NDP5) have been based on the national principles of democracy; development; self-reliance and unity and the planning objectives of sustained development; Rapid Economic Growth; Economic Independence; and Social Justice. The current NDP 8 emphasises these principles.

#### 2.1.2 **The Sector Strategy**

The policy objectives for the agricultural sector, and the strategies for implementing these policies include among other things:-

- (i) improvement in food security at the household and national levels; emphasis being laid on household food security;
- (ii) diversification of the agricultural production base into horticulture like the high value ornamental flowers. Other activities include pulses, dairy, poultry, piggery, forestry, bee keeping and veld products.
- (iii) increased agriculture output and productivity (livestock and crops) to ensure long-term viability of the agricultural sector and its competitiveness to both domestic and international markets.
- (iv) Increased employment opportunities for the fast growing labour force
- (v) provision of a secure and productive environment for agricultural producers; and,
- (vi) conservation of scarce agricultural and land resources for future generations.

### 2.2 **Project Objectives**

The project had two main objectives, which were not defined at the time of appraisal, in terms of sector and specific objectives. These objectives were to:-

- (i) safeguard Botswana's lucrative export markets for meat and livestock products by developing its veterinary disease diagnostic capacity and capabilities in order to provide prompt services on livestock diseases, their control, and the maintenance of the quality of beef and meat products from the Botswana Meat Commission abattoir at Lobatse.
- (ii) reduce over-reliance on South Africa for animal health services, and to serve other Southern African States.

## 2.3 **Project Description:**

2.3.1. The project as envisaged at appraisal and subsequently approved by the Board of Directors in June 1983 comprised the following:

- (i) The construction of a Central Veterinary Diagnostic Laboratory (CVDL);
- (ii) provision of equipment for the CVDL and 14 district laboratories (centres);
- (iii) provision of a well equipped mobile laboratory van.

2.3.2. The CVDL which would have a total area of 1878m<sup>2</sup> provided for the following user requirements in form of administration block, clinic and reception, microbiology, pathology, post-mortem, animal breeding (laboratory animals) and service area. The project also made provision for laboratory equipment to improve a diagnostic capability of the NVDL. A number of veterinary disciplines would be performed at the NVDL. Some of the disciplines that would be performed are bacteriology and virology, parasitology (helminthology and protozoology), biochemistry, pathology (clinical, gross and histopathology and food hygiene). Provision was also made for equipment to be installed in district laboratories. However the district laboratories were non-existent and most of the equipment became obsolete. A mobile laboratory was procured and has been put into use on disease investigations missions in remote areas of the country.

2.3.3 The design of the project provided promotion of physical expansion. As a result of savings realised from the project, the CVDL has been expanded and the following additional facilities are available: - additional laboratory facilities, conference building, library common room complex, food hygiene building, and an administration block.

## 3. **PROJECT FORMULATION**

### 3.1 **Project Origin**

3.1.1 The project was identified by the Government of Botswana as a result of the special role livestock subsector played in the national economy. From independence, until 1980 when the Government initiated the project, nearly all the income generated in the rural sector of Botswana came from livestock and accounted for 80 per cent of the income from agriculture production. It contributed about 40 per cent of the national GDP. Meat exports also accounted for over 45 per cent of national export earnings. Over 50 per cent of the total exports destination was the European Economic Community (EEC) now called the European Union.

3.1.2 Continued access to the EEC market, however depended to a large degree, on Botswana's compliance with stringent disease control, and high meat quality, which the EEC had set, at least in part, to discourage increased imports during periods when the European market was over-supplied with meat and meat products. Faced with this trade obstacle, the government recognised the need to upgrade, and update its laboratory facilities, and put in place laboratory equipment which would be able to prevent or fight all kinds of livestock diseases. To this end, the government included The Veterinary Services Development Project in the NDP5 (1981 to 1986) whose objectives and output would

respond effectively to the needs of the livestock sub-sector in terms of disease control and maintenance of high quality of meat, at internationally acceptable level.

3.1.3 As a result of consultations between the GoB and the Bank, the former invited the latter to provide assistance in constructing and equipping a new Veterinary Laboratory as outlined in the NDP5. There are no records to show that an Identification Report was prepared. There is also no information relating to a Preparation Mission or a Preparation Report.

### 3.2 **Project Preparation Appraisal, Negotiation, and Approval**

3.2.1 The appraisal of the project was conducted from 3<sup>rd</sup> through 19<sup>th</sup> December 1982. Mission composition constituted of a livestock officer, an agricultural economist and a veterinary expert. It is felt that the appraisal mission was adequately constituted considering the issues which were to be addressed at the appraisal.

3.2.2 The project was formulated and appraised within the context of the borrower's technical requirements and managerial capability. The project was submitted to the ADB Board of Directors for consideration; the Board approved a loan of UA 3.206 million on 21<sup>st</sup> June 1983. The disbursement documents show that the source of funds is the NTF, and that the loan agreement was signed on 8<sup>th</sup> October 1983. It was declared effective on 16<sup>th</sup> October 1984, about one year after loan signature.

## 4. **PROJECT IMPLEMENTATION AND COSTS**

### 4.1 **Effectiveness and Start Up**

4.1.1 The project had seven (7) loan conditions, as follows:

- (i) The Borrower shall have indicated to the Bank and obtained its approval of the procedure the Borrower proposes to follow for international competitive bidding pursuant to Section 6.03 of this Article;
- (ii) The Borrower shall have submitted to the Bank the list of goods and services to be financed with the Loan resources;
- (iii) The Borrower shall have given an undertaking to the Bank that it will make adequate budgetary allocations to meet its share in the Project costs;
- (iv) The Borrower shall have given an undertaking to the Bank that it will assume the responsibility to meet all cost overruns of the Project.
- (v) Vest in the Director of Veterinary Services the responsibility for mobilising all equipment and facilities to be provided in cases of active or suspected outbreaks of diseases;
- (vi) Draw up, and submit to the Bank, a satisfactory programme for the training of local professional veterinarians and middle level technical officers, with a view to ensuring availability of local personnel in the long term;
- (vii) Ensure that no local taxes, duties or levies of any kind whatsoever, are financed out of the Loan resources.

4.1.2 The loan was declared effective on 14/10/84, about one year (exactly 369 days or 12 months and 8 days) after date of signing the loan agreement on 08-10-83. It is not clear why the GOB took such a long time to fulfil the loan conditions. Delay in fulfilment of loan conditions contributed to delay in project start up by approximately one year. The delay could have been avoided if the Bank had provided the necessary advice to the Borrower on how to go about on fulfilment of loan conditions. As it is, there is no information in the files that the Bank made any attempts to assist.

#### 4.2 **Design Modifications**

During the two years (1984/1985, 1985/1986) project implementation period, no change was made to the project scope as envisaged at the appraisal stage and generally the design was adhered to. However, at the time the works were certified as substantially completed, it was realised that a large amount of savings had been made. The difference in the actual cost in "Pula" was due to fall in the value of the Pula during the implementation period. (Annex 2) Furthermore the contingency sum of approximately 22% was not utilised because there were no major changes in the design and scope of work. GoB entered into negotiation with the Bank for the permission to utilise the undisbursed balance of the loan for the extension of the CVDL facilities. In March 1991, the Bank approved the extension works in consonance with the Bank Group policy on utilisation of savings on loans or undisbursed loan balances on related project facilities. The amount outstanding was P2.05 m which was the maximum amount the Bank could make available for the extension of the facilities and GoB would meet all other additional costs associated with the new programme.

#### 4.3 **Implementation Schedule**

##### Main Laboratory building

4.3.1 It was envisaged at the appraisal stage that the construction works would commence by the middle of 1983. However, this could not materialise as the loan signature was delayed until 8<sup>th</sup> October 1983. The final approval by the Bank was given on 29<sup>th</sup> August 1984. The civil works contract, which was awarded to Messrs Wade Adams, was signed on 7<sup>th</sup> September 1984, and scheduled for completion in one year. The construction was substantially completed within the contract period and the laboratory staff took occupation of the building on 18<sup>th</sup> December 1985 to start work. The grand official opening of the building took place on 25<sup>th</sup> November 1986. There were no major changes to the design during the construction and the administration of the contract was smooth.

4.3.2 Procurement of equipment and machinery for the NVL and district laboratories commenced within the first year of the project as proposed in the staff appraisal report and scheduled for completion in one year. However the procurement was substantially completed by 1988. The long duration was due to the fact that in some cases, (procurement of computers), it became necessary to re-tender as the first tenders were unacceptable. There were no material changes in the equipment and machinery that were procured. The delays under the circumstances were acceptable, as cases of total rejection are not uncommon in tendering process.

### Laboratory Extension

4.3.3 The approval by the Bank for GoB to utilise the outstanding balance for the extension of the main laboratory building was given on 29<sup>th</sup> March 1991. It took GoB approximately four years to complete the building drawings, tender and award the contract for the construction works.

4.3.4 The commencement date for the contract was 15<sup>th</sup> May 1995 and it was scheduled for completion within 52 weeks. However, it was not completed till 24<sup>th</sup> April 1997 when the certificate of practical completion was issued as per Annex 4, thus a delay of eleven months. There were however minor modifications and additions requested by the client/user during the construction period. The additional work entitled the contractor to five months extension of time. Thus the effective delay on the contract was six months. The delay of the works started after the builders work had been completed and the sub-contractors for electrical and mechanical services came on the scene to undertake their portion of the works. The co-ordination of work activities were very poor and this could have been avoided if the main contractor had an opportunity to meet and discuss the programme of works for the services prior to its actual implementation.

### 4.4 Project Cost

4.4.1 The project was estimated to cost BWP 4.25 million or UA 3.56 million. Of this amount BWP 3.09 million (UA 2.59) million was in foreign currency while BWP 1.16 million (UA 0.97 million) was in local cost. The total foreign cost component of the project constituted 73 per cent of total project cost. Table 4.1 below presents summary of cost estimates as at appraisal.

**Table 4.1**

**Summary of Project Cost Estimates  
As at Appraisal**

---Pula million---

---(UA million)---

Components	F. E.	L.C.	Total Cost	F.E.	L.C.	Total Cost	% of F.E
A. Laboratory Constr.							
Laboratory Bldg.	1.772	0.900	2.672	1.486	0.754	2.240	66
Incinerator	0.025	-	0.025	0.021	-	0.021	100
Generator	<u>0.050</u>	-	<u>0.050</u>	<u>0.042</u>	-	<u>0.042</u>	<u>100</u>
Sub-total	1.847	0.900	2.747	1.549	0.754	2.303	67
B. Laboratory & Field Equipment							
Laboratory Equip.	0.456	-	0.465	0.390	-	0.390	100
Post Mortem Kits	<u>0.028</u>	-	<u>0.028</u>	<u>0.023</u>	-	<u>0.023</u>	100
Sub-total	0.493	-	0.493	0.413	-	0.413	100
C. Mobile Laboratory	<u>0.050</u>	-	<u>0.050</u>	<u>0.042</u>	-	<u>0.042</u>	<u>100</u>
Base Total	2.390	0.900	3.290	2.004	0.754	2.758	73
Physical Conting. (10%)	<u>0.239</u>	0.900	0.329	0.200	0.075	0.275	73
	2.629	0.900	3.619	2.204	0.829	3.033	73
Price Conting. (12%)	<u>0.461</u>	<u>0.170</u>	<u>0.631</u>	<u>0.386</u>	<u>0.143</u>	<u>0.529</u>	73
Grand Total	<b><u>3.090</u></b>	<b><u>1.160</u></b>	<b><u>4.250</u></b>	<b><u>2.590</u></b>	<b><u>0.972</u></b>	<b><u>3.562</u></b>	<b><u>73</u></b>

4.4.2 At the time of the PCR Mission the actual cost of the project, as originally designed was UA 1,880,465.54. It is not possible to distinguish foreign cost from local cost since

the records do not have this kind of information. The project cost only 52.79 per cent of the original cost estimate. The major reason attributed to the substantial saving was the decline in the value of Botswana Pula against major currencies. As a demonstration of the decline, annex 2 provides the fall of the Pula against the Bank Unit of account. It should be noted that the construction materials were mainly procured from South Africa (which was not a member of the Bank at that time) while construction works and supervising engineering were conducted by local firms. Botswana, South Africa, Swaziland and Lesotho belong to the same Customs Union.

4.4.3 In 1991 the Bank approved the Government request to utilise loan savings amounting to UA 1,552,729.46 to extend the laboratory (para 4.3.3). The extension works were completed in April 1997 bringing the total cost of the project to UA 3,829,881.54. Again foreign exchange component cannot be isolated because record keeping did not make provision for this. Table 4.2 below summarises actual cost estimate

**Table 4.2**

**Summary of Actual Project Cost  
Without Extension**

ACTIVITIES/CATEGORY	UA
Civil Works	1,249,354.21
Equipment	43925.33
Civil Works & Equipment	43925.33
Mobile Laboratory	77847.30
Unclassified	227,195
<b>Total:</b>	<b>1,880,465.54</b>

**Table 4.3**

**Summary of Actual Project Cost  
Including Extension Works**

Category	UA
Civil Works	2,780337.54
Equipment	43925.33
Civil Works and Equipment	282143.70
Mobile Laboratory	77847.30
Unclassified	228,077.56
Services (Electrical & Mechanical)	441689.11
Consultancy	181339.33
<b>Total</b>	<b>3,829,881.54</b>

#### 4.5 Financing Sources and Disbursement.

4.5.1 The appraisal report provides for the Bank to finance all foreign cost amounting to UA 2.590 million and part of local cost amounting to UA 0.616 million. The Bank local cost contribution was about UA 0.06 million of total Project cost or 63.80 per cent of total local cost. Bank total contribution was UA 3.206 million, which is about 90 per cent of the total estimated cost. GOB contribution was limited to UA 0.356 million in local cost. This was about 10 per cent of total project cost, or 36.20 per cent of total local cost. Table 4.4 below summarises source of funds as presented in the Staff Appraisal Report.

**Table 4.4**  
**Sources of Finance**  
.. .. .Pula million.....                      .....UA million.....

	Foreign Cost	Local Cost	Total Cost	Foreign Cost	Local Cost	Total Cost	% of Total
Source							
NTF	3.090	0.735	0.735	2.590	0.616	3.206	90
Government	-	0.425	0.425	-	0.356	<u>0.356</u>	<u>10</u>
Total	3..090	1.160	4.250	2.590	0.972	3.562	100

4.5.2 In 1986, the construction of the Laboratory, as indicated in the appraisal report, was completed. Bank contribution to the project was UA 1,653,270.54. However, following Bank approval, in 1991, for extension works to the Central Laboratory, (para 4.3.3) the Bank contributed a further UA 1,384,185.32, bringing its total contribution to UA 3,037,455.86. This is about 94.75 per cent of the targeted contribution at appraisal. An amount of UA 168,544.14 was available as savings and has been cancelled.

4.5.3 The GoB total contribution to the Project before Extension Works was UA 227,195. This was only 63.8 per cent of the estimated contribution at appraisal. However, as a result of the extension works, the GoB contribution rose to UA 792,425.68. This amount is about 220 per cent of the targeted contribution. Table 4.5 below summarises actual sources of funds.

**Table 4.4**  
**Actual Sources of Funds (Including Extension Works)**

SOURCE	IN UA	% OF TOTAL
NTF	3,037,455.86	79.31
GOB	792,425.68	20.69
TOTAL	3,829,881.54	100

## **Disbursements**

4.5.4 The disbursement procedure selected by the Borrower was that of reimbursement. That is the Borrower spent its resources and submitted claims to the Bank for reimbursement. Records show that the Bank effected reimbursements with minimum delays. On the other hand the Borrower took a long time, after incurring expenses, to submit claims to the Bank. This was an act of choice and not of Bank creation.

4.5.5 The appraisal report did not provide for disbursement schedule. However expenditure schedules by component and sources of funds are available. The expenditure schedules and disbursements are not usually compatible, hence no useful purpose would be served by comparing the two.

## 4.6 **Procurement**

### (i) **Civil Works**

4.6.1 The procurement of services for the construction of the buildings together with ancillary works for the main contract and the extension was done through Local Competitive Bidding (LCB) and not the International Competitive Bidding (ICB) as envisaged at the appraisal stage. The waiver of the ICB and adopting LCB procedure was justified by the presence of proven local capability in the construction industry and the simple nature of the buildings involved. The Bank Group had approved the LCB at the onset of the project implementation but the Borrower sought and received re-confirmation of the procedures adopted.

4.6.2 Generally the tenders were advertised by public notice in the Government Gazette and other media as appropriate with the involvement of the Central Tender Board (CTB). The CTB has powers and authority, among others “to call for, adjudicate and authorise acceptance or otherwise of formal tenders for Government’s requirements of supplies works and consultancy or other services”. The civil works contracts for the original and extension works were fixed price contracts allowing only statutory increases. Nine local contractors tendered for the main works and Messrs Wade Adams was awarded the contract after the evaluation and scrutiny by CTB. The contract for the extension was awarded to Messrs China Complant out of the eleven local Contractors who tendered for the construction works. In both cases the Bank reviewed and approved all procurement processes as required by the Bank’s Guideline.

### (ii) **Equipment**

4.6.3 The procurement of all equipment for the works was done through the ICB and in line with the Bank’s rules. The equipment supply was parcelled in eighteen (18) packages and tendered separately on the international market. The competition was very keen and no package received less than three bidders. The highest number of bidders for a single package was fifteen with the overall average of eight bidders to a package. The evaluation report and recommendations together with CTB approval (CTB form 3) were submitted to the Bank as the process went on. The Bank sought clarification and advised as it deemed fit and as there was no conflict with national laws and procedures, the procurement process went on smoothly with minimum delay.

4.6.4 The international competitive bidding process made the Borrower aware of alternatives on the market and to select the best in terms of cost effectiveness.

#### 4.7 **Reporting**

4.7.1 The Bank's reporting requirements from the Borrower are to submit quarterly progress and annual audit reports on the project. These are to enable the Bank to monitor the progress of implementation, and also for the basis of supervision missions and PCR.

4.7.2 The Borrower submitted the quarterly and audit reports regularly. However, some of the quarterly progress reports were not prepared on the Bank's prescribed formats. Audit reports were received annually on the project. The project completion audit report is expected from the Borrower as soon as the accounts are closed. This is likely to be by December 31st 1998. In addition, the borrower also submitted the project completion report (PCR) as required, on schedule.

### 5. **OPERATING PERFORMANCE AND RESULTS**

#### 5.1 **Overall Assessment.**

5.1.1 All the infrastructural facilities together with the equipment were in place in good time although there was a slight shift from the appraisal timing due to late signing of the contract. The quality of work is high and the equipment are the latest technology in the market.

5.1.2 The presence of enough diagnostic capacity in the country through having a fully equipped international laboratory has facilitated complete control and surveillance of diseases and has thus continued to prevent the closure of the markets to Botswana's beef exports. The meat exports have substantially increased the agricultural sector's contribution to GDP, and poverty alleviation (para 7.2.2).

5.1.3 The people of Botswana, especially livestock keepers have gained a lot from project activities. Improved livestock health led to high meat quality which has contributed to increased income for cattle keepers. This, invariably, has led to improved standard of living.

5.1.4 The implementation of the project was satisfactorily undertaken. The project contribution to the economy has exceeded expectations. It is considered a success story and can be considered for replication under similar conditions. (Refer Chapter 7).

#### 5.2 **Operating Results**

##### **The Laboratory**

5.2.1 The programme of the laboratory, constructed and equipped under the project has so far exceeded expectations. Its effect in disease control, and in some cases, eradication of some diseases, has led to increase in the population of the national herd. In 1985, when the project was completed, as planned at appraisal the population of the national herd was estimated at 3.0 million. In 1995 the national herd was estimated at 4.5 million, recording about 50 per cent increase (See Table 5.1 below). The increase in the national herd ensured a sustainable cattle offtake to the BMC. This in turn ensured increased exports of high quality meat products especially to the EU. The impact of the project, on economic growth, and poverty alleviation has been more than satisfactory. The export which was one

of the major project objectives has been sustained. The value of export of meats and +meat products increased from Pula 80,269,000 to Pula 234,496,059 in 1995.

### **Equipment**

5.2.2 The laboratory equipment as proposed at the appraisal stage was slightly amended and the final approved list was issued by the Bank on 19th October 1984. Procurement of equipment was based on this list. All the equipment for the NVL, District laboratories and the Mobile laboratory were purchased and put to good use with the exception of the district laboratories. The mobile laboratory has been replaced once in 1991, the second replacement was due in 1995 but this has not yet been done by GoB.

5.2.3 At appraisal it was envisaged that the implementation of the project would ensure the long-term survival of Botswana's livestock subsector, maintain a disease-free status, ensure the elimination or control of major parasitic, bacterial and viral diseases of livestock. It was also expected to ensure the sustenance of Botswana's external markets for meat and meat products as well as live animals. With the successful completion of the construction of the main laboratory, extension works and provision of equipment has brought the laboratory to the expected standards envisaged at appraisal.

## LIVESTOCK POPULATION

Table 5.1

<b>ANIMAL SPECIES</b>	<b>NUMBER – 1985</b>	<b>NUMBER – 1995</b>	<b>% CHANGE</b>
<b>Cattle</b>	2,985,459	4,486,786	50
<b>Goats</b>	1,137,500	1,837,700	62
<b>Sheep</b>	797,125	985,876	24
<b>Donkeys</b>	142,600	230,600	62
<b>Poultry</b>	1,800,683	1,077,100	-40
<b>Horses</b>	23,700	31,400	32

5.2.4 Because of the good performance of the laboratory complex especially in disease control and eradication, there have been fewer disease outbreaks, a decline in the quantity of the samples submitted to the laboratory for analysis, as was the case before the project. Notwithstanding, Botswana shares border with four (4) countries, Namibia, Zimbabwe, Zambia and South Africa, and is therefore vulnerable to any disease outbreaks in the neighbouring countries. Such were the cases in 1990, 1991 and 1995. The outbreak of 1995 was the most severe when the outbreak of Cattle Lung Disease or Contagious Bovine Pleuro-Pneumonia (CBPP) occurred. The bovine samples submitted to the laboratory for analysis increased to 1696 as compared to only 653 the previous year (1994). The ability of the laboratory to handle emergency situations and large quantity of samples was well demonstrated. The laboratory played a central role in containing the outbreak and losses both to the population and the national economy. Table 5.2 below provides details of samples submitted to the laboratory between 1983 and 1995. The important message from the table is that the laboratory does not only handle samples from cattle, but all kinds of animals and birds in Botswana. The project is providing a comprehensive laboratory services to the benefit of the society.

**LABORATORY SAMPLES FROM ALL DISTRICTS AND BMC  
TABLE 5.2**

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
<b>Cattle</b>	921	939	962	765	749	602	872	907	981	1058	976	653	1696
<b>Sheep/Goats</b>	291	424	528	697	836	786	1148	932	945	683	800	532	595
<b>Poultry</b>	334	398	508	517	336	389	326	249	312	339	412	454	356
<b>Dogs/Cats</b>	513	603	696	883	944	778	485	427	342	234	0	156	119
<b>Horse/Donkeys</b>	80	195	218	105	128	87	113	151	135	121	152	102	96
<b>Pigs</b>	23	13	36	55	23	21	7	17	28	16	7	7	3
<b>Rabbits</b>	3	4	5	0	2	10	9	5	0	2	11	0	3
<b>G/Pigs</b>	8	4	3	1	6	11	3	2	6	2	35	2	6
<b>Wild Life</b>	16	26	29	31	54	28	11	22	36	25	242	64	14
<b>Miscellaneous</b>	44	39	42	196	221	241	167	248	230	221	6934	194	219
<b>From BMC</b>	8824	7331	7664	7832	8092	5149	6122	6848	8297	7066	6934	6666	7815
<b>Total</b>	11057	9976	10691	11073	11391	8102	9263	9808	11312	9767	9569	8830	10922

5.2.5 One of the major concerns of the project was to reduce over reliance on the Republic of South Africa for animal health services and serve other Southern African States. Botswana has drastically reduced its reliance on South Africa for animal health services. With the exception of some hormones and virology, all other samples are now diagnosed at the laboratory. In addition South Africa, since 1996, has recognised the overall competence of the laboratory to diagnose all kinds of diseases, and no longer counter checks samples from meat and meat products as had been the case in the past. Notwithstanding, data was not readily available to indicate as to what extent the reliance had been reduced. South Africa, Botswana, Swaziland and Lesotho are in the same Customs and Monetary Union and this facilitates the integration of economic and social activities. In addition recent developments in Southern Africa has brought into light new geo-political and economic landscape whereby co-operation, integration and harmonisation of political, economic, social and environmental activities are the major development goal. Reducing over-reliance on South Africa for animal health services is no longer a viable objective.

### **The Role of The Laboratory to Botswana Meat Commission ( BMC)**

5.2.6 The BMC has three (3) abattoirs in Lobatse, Francistown and Maun. It relies on the NVL for quality control of its meat and meat products which is an essential requirement for exports. The services of the laboratory to BMC has ensured its sustenance of the export markets. The value of exports of meat and meat products has increased from Rand 80, 269, 000 in 1983 to Rand 234, 496, 059 in 1995. Testing for chemical residue was introduced on meat and meat products in 1990 as a requirement of European Union (EU). This is now being effectively carried out in the laboratory to the satisfaction of the EU and other importers. NVL is in the process of registration with the International Standard Organisation (ISO 9002) which will give it international recognition.

## 6. **INSTITUTIONAL PERFORMANCE**

### 6.1 **Management and Organisational Effectiveness**

6.1.1 The organisational Structure has not changed since the project inception. The National Veterinary Laboratory is a unit within the Department of Animal Health and Production, which is a division of the Ministry of Agriculture. The Director of Veterinary Services is responsible for the implementation of the Government Policy relating to the veterinary services department. He is assisted by two deputies. The NVL comes under the administrative control of the Deputy Director responsible for disease control. Under the Deputy Director is the Principal Veterinary Officer (Research) who is the head of NVL and supervises the daily operations of the laboratory.

6.1.2 No management changes were envisaged at the appraisal and none has been done as there has not been any need to carry out any structural changes. The existing structure is effective and no deterioration has taken place since inception. However, management has been constrained in its effort towards manpower development because of the need to develop a comprehensive approach to the civil service.

6.1.3 The Organisational Structure of the NVL and its relationship to the Department of Animal Health and Production and the Ministry of Agriculture is attached in Annex 4.

### 6.2 **Staff Recruitment, Training and Development**

6.2.1 The appraisal report recognised the need for training, and made it part of the “Other Conditions” of the contract. The Borrower was required to draw up a satisfactory programme for the training of local professional veterinarians and middle level technical officers with a view to ensuring availability of local personnel in the long term. GoB has not achieved the desired results in training and development of manpower resources to support long term sustainability of the laboratory facilities. As a result of staff inadequacy some sections of the laboratory are not being utilised to their full potentials. The main obstacle has been uncompetitive salaries which are not commensurate with the high demand of work in the laboratory. Trained people leave to seek employment in other sectors of the economy. The GoB is doing all in its power to remedy the situation without upsetting the civil service structure. Some of the measures being taken by the GoB include preferential treatment in the award of scholarships and a higher starting scale in the civil service structure for those who offer to, or are graduates of veterinary science, or other related disciplines.

6.2.2 The staff turnover has been very high. Since project inception in 1983 the staffing position has averaged 69% of approved establishment. Currently out of 62 approved positions only 45 or 72.6% of the total are filled. This is probably the best staffing percentage realised since the project’s inception.

### 6.3 **Performance of Consultants, Contractors and Suppliers**

6.3.1 The Department of Architecture and Building Services (DABS) and Department of Electrical and Mechanical Services (DEMS) under the Ministry of Works, Communication and Transport were assigned the task of supervising the design, and construction works of the project.

6.3.2 Generally the consultants performed creditably at the design stage and the subsequent revision arising from the Client/User additional requirement. The civil/structural engineer left the country before the work was completed and this created some difficulties which were resolved by the engineers at DABS. The main building contract was completed on time in 1985 and handed over to the client.

6.3.3 The extension contract went beyond the stipulated contract period of 52 weeks with a slippage of 9 months. However the necessary contractual tests have been carried out and a certificate of practical completion was issued on 24th April 1997. (Annex 3) The operation of the facilities to-date is commendable as well as the quality of work. With regards to the extension works, the builder's work went according to schedule. However, there were poor communication and co-ordination of the electrical and mechanical services. This was partly due to the fact that the sub-contractors were nominated while the main contractor would have preferred domestic sub-contractors over whom he could have exercised greater control.

6.3.4 With regards to the suppliers and considering the number and the extent of equipment, it can be said that their performance was satisfactory. During the course of the main building original contract, items purchased from South Africa had to be done through intermediaries because South Africa was not a member of the Bank at that time. There was consequential loss of time and increased cost, but without major adverse effect on the project. All the equipment met the required specification.

## 7. **FINANCIAL AND ECONOMIC PERFORMANCE**

### 7.1 **Financial Results**

The project output is non-quantifiable and difficult to attach any value. As such the appraisal team did not conduct any financial analysis of the project. However it can be, argued with adequate justification, that the project has made positive impact in terms of financial gains to livestock holders. The opportunity cost of not having the project would have meant unchecked outbreak of diseases with disastrous financial losses to livestock keepers. The only relevant financial conditions/covenants was the submission of audit accounts. This was satisfactorily met (para.4.7.2)

### 7.2 **Economic Impact**

7.2.1 In the absence of quantifiable output, and the inherent difficulties in applying values thereof, the appraisal team was not able to conduct economic analysis in terms of calculating the Internal Rate of Return. The PCR mission encountered similar difficulties and was therefore also unable to conduct economic analysis.

7.2.2 However, the project has made positive impact in the economy. It has attained on sustainable level the objectives for which it was designed. Export markets which was one of the major project objectives has been sustained. The value of exports of meat and meat products has increased from Rand 80,269,000 (UA12, 047,300) in 1983 to Rand 234,496,059 (UA 35,194,716) in 1996. This has been achieved because, as a result of the project, the country has been able to maintain high quality of meat and meat products for export markets, especially the European Union.

7.2.3 In 1995 there was a serious outbreak of Contagious Bovine Pleuro Pneumonia (CBPP). The laboratory constructed by the project, and the laboratory equipment procured by the project responded effectively and diagnosed 1696 bovine samples up from 653 samples in 1994. Had these facilities not been available, the opportunity cost to the national economy and farmers would have been catastrophic.

## 8. **SOCIAL RESULTS**

### 8.1 **Impact on Social Sector**

8.1.1 Livestock production is still a dominant economic activity among rural households. Its attractiveness stems from the environmental condition, which historically has been adverse for crop production. Extensive cattle rearing appears to have had a comparative advantage among farming enterprises as cattle seem to have adapted to the dry conditions. The fact that livestock sector has been performing well compared with the arable sector may also be due to the favourable livestock prices and effective disease control provided by NVL.

8.1.2 Cattle also play an important role in the lives of Botswana as a store of wealth and source of draught power. However, given the skewed nature of cattle distribution in the country, the development of the livestock sub-sector through the Tribal Grazing Laws Policy (TGLP) made only a limited contribution to mitigating the problems of rural employment and poverty. It is therefore difficult to assess the impact of the project on the social sector.

### 8.2 **Impact on Women**

8.2.1 Women In Development (WID) concerns were not specifically addressed at the appraisal stage. Between 1981 and 1991 the proportion of female headed households increased from 45% to 47% and in the rural areas over 50% of the households were headed by females, the majority of whom did not own cattle. The income-earning capacity of this group is constrained by the numerous dependent children, and lack of opportunity to accumulate productive resources. They are further constrained by limitation in education and training which limits their employability.

8.2.2 A statistical survey of the number of cattle between 1970 and 1990 showed a steady increase from approximately 1.22 million in 1970 to well over 4.4 million in 1995. However, households without cattle remained constant at approximately 40%. The impact of disease control, which was the pivot of the project, was therefore insignificant on the women, as they were too poor to avail themselves with the opportunities created.

## 9 **ENVIRONMENTAL RESULTS**

### 9.1 **Environmental Impact**

The issue of environmental impact was not addressed during the SAR stage. The construction of the national laboratory and provision of equipment for the national laboratory, the district laboratories and the mobile laboratory did not per se impinge directly on the environment. No base line data and subsequent observation of the impact of the project on the environment are available. However with the main project objective of

disease control and producing high quality of meat to meet the international market standards, it can be inferred that i.e. cattle production and meat products would be increased. Botswana has a long-standing tradition of cattle keeping and since 1970, the cattle population has increased from 1.22 million to well over 4.4 million in 1995. The problem of over grazing and soil degradation is therefore real.

## 9.2 Mitigating Measure

9.2.1 There is an increase in overgrazing in communal rangelands leading to land degradation. This is causing serious environmental problems because of poor livestock and range management. In recognition of this problem the Ministry of Agriculture has initiated action to control over stocking and over grazing. The main thrust of this action is to enforce the Agricultural Resources Conservation Act which provides for reducing livestock numbers to the level that can be sustained by the available grazing resources.

9.2.2 A positive impact is the reduction in the number of animals, which die and pollute the air. The rural population consumes disease free meat, which makes an improvement on their health status.

9.2.3 Poverty and environmental degradation are closely interrelated. As the rural economy improves it is anticipated that the continuous environmental stress and deterioration would be reduced through judicious management and use of natural resources by the majority of the rural population who are engaged in the livestock industry.

## 10 SUSTAINABILITY

10.1 There are no direct charges levied on farmers for the services provided by NVL. GoB provides all the funds that is required by NVL for its operation. There is however a levy on BMC per animal slaughtered and the amount is paid into government chest. With the present financial standing of GoB it can provide the funds required for the operations of NVL. The only limiting factor likely to contribute to the non-sustainability of the project is inadequate staff levels. This issue has been identified by the Bank and GoB. There are incentives in place to attract qualified personnel to veterinary services. These include full scholarships at the University for those studying veterinary services, and a higher starting salary scale for those who have offered to work in the livestock industry.

10.2 The recurrent cost consists of staff salaries and allowances, travel and transport, laboratory equipment and supplies and maintenance of buildings and services. GoB provides funds for all capital and recurrent costs. The policy of GoB is to provide veterinary services free of charge to the people. The SAR did not mention or suggest any means of recovering cost on the project presumably based on the fact that this was not the intention of the government in implementing the project with the currency "Pula" stronger than the "Rand" and considering the fact that most of the imports are obtained from South Africa. GoB has no problems with foreign exchange in the procurement of the needed spare parts to keep NVL running.

## 11. **PERFORMANCE OF THE BANK AND THE BORROWER**

### 11.1 **Bank Performance**

11.1.1 The Bank performance in the implementation process of the project has been mixed. At the project design stage, the Bank responded in a satisfactory manner to the needs of the Borrower. Furthermore, the Bank adequately interpreted the project objectives and justifications in so far as they met the Borrowers' sector goals. The Bank also responded, with minimum delay to the GoB requests for reimbursements.

11.1.2 However, the Bank did not supervise the project as regularly as would have been required. During the implementation of the project proper, only 3 Supervision missions were conducted. The extension works was supervised on only two occasions. Another shortcoming of the supervision missions was the composition of the missions. Except on one mission of April 1997, no Civil Engineer had been included in the previous missions, notwithstanding the fact that 84 per cent of project cost was for civil works. This denied the project some relevant technical advice which could have assisted in project implementation.

11.1.3 The Borrower is generally satisfied with Bank performance in the design and implementation of the project. It, however, expressed reservations on the inability of the Bank to supervise the project regularly with a balanced constituted team.

### 11.2 **Government Performance**

11.2.1 The performance of GoB in the project implementation was overall satisfactory. The Beneficiary and Executing Agency was the Ministry of Agriculture/Department of Animal Health. As the Ministry of Agriculture lacked the necessary expertise in the design and construction of buildings, it sought assistance from the Ministry of Works and Telecommunication. Two departments in the ministry namely: Department of Buildings and Architecture (DABS) and Department of Electrical and Mechanical Services (DEMS) were then assigned the responsibility of design and construction. Unfortunately DABS and DEMS did not have adequate manpower resources to undertake the assignment. The design and construction supervision was consequently given to five consultants.

11.2.2 DABS took up the over-all co-ordination and general administration of the various aspects of the work and reported to the Ministry of Agriculture. It was specifically responsible for work undertaken by the Civil/Structural, Architecture as Quarterly Surveying Consultants. DEMS on the other hand supervised the work of the Electrical and Mechanical consultants. The large number of operators under different roofs with different systems of work made the co-ordination a little difficult as some of the consultants could not keep to agreed schedules. Despite all the problems, the construction was satisfactorily completed.

11.2.3 The Central Tender Board (CTB) did a very thorough work in ensuring that the tendering processes were transparent and fair to all who participated in them. There was no GoB policy decision that proved detrimental to the smooth implementation of the construction works. The only area in which the GoB failed to deliver was the construction of the district laboratories which were outside the Bank's project description.

11.2.4 The NVL as completed is performing satisfactorily and to all intents and purpose can be considered as a Success Story to the credit of both the Bank and the GoB. One would wish to see the district laboratories brought on stream so that they can complement the work of NVL, which would only then take on referral and difficult cases from the

districts. GoB was generally satisfied with the performance of the Bank throughout the project cycle.

11.2.5 GoB complied with all loan conditions including “Other Conditions” of the Loan Agreement. The need for Project Implementation Unit (PIU) was not considered at appraisal, as this did not have much relevance to the execution of the works.

## 12 **CONCLUSION, RECOMMENDATION, ISSUES AND LESSONS LEARNT**

### 12.1 **Conclusion**

The National Veterinary Diagnostic laboratory which commenced operation in 1985 has provided an important disease diagnostic capacity within the Animal Health Department and continues to carry out research into local viral disease of economic importance to the livestock industry in Botswana. With the extension of the facilities in 1995 increased diagnostic capacity in the country has facilitated complete control and surveillance of diseases which are conditions precedent to exporting beef to the European market. Dependence on external laboratories has stopped except for counter checking. The continual export of Botswana’s beef to Europe amply demonstrates the success of the project. The appraisal goals and strategies were realistic and attainable. However adequate supervision on the part of the Bank, would have, probably, made a difference. It can be justifiably said that the project has attained the objectives for which it was established.

### 12.2 **Recommendations**

To maximise the benefits of the project, the Bank should be involved in the construction and equipping the district laboratories. The Bank should get involved in the training of staff to run the NVL.

### 12.3 **Issues**

12.3.1 Staffing: Understaffing of the NVL has remained a major issue from the project inception through implementation period to completion. The Bank and GoB should jointly work out the final solution to the problem.

12.3.2 Staff Training: At the appraisal stage, it was anticipated that inadequate staffing could undermine the successful utilisation of the facilities and hence, incorporation of the second clause in “Other Conditions”. This other condition has not been fulfilled. In the future, an activity which underpins the success of the project should be made an integral part of the project design.

12.3.3 Equipment for District Laboratories: Although the Bank fulfilled its portion of the agreement by procuring the equipment for the laboratories, this expenditure was wasted because the buildings were not constructed. In future the Bank should ensure that the first step (structure) has been taken by the Borrower by putting up the buildings before ordering the equipment to furnish them. The little delay, which might have occurred, could have saved the wastage of money, and would have reinforced the positive impact on the project.

## 12.4 Lessons Learnt

### By the Bank

12.4.1 Record Keeping: Poor record keeping can cause misleading results. There are no records in the files to confirm that the Government of Nigeria approved the use of NTF for the project. This can also affect the extent to which an analysis on issues affecting project implementation

12.4.2 The implementation of a project may take a long time to commence unless the Bank plays a facilitating role. In this case, the implementation of the project did not commence until September 1984, about one year after loan signature; and the extension works did not commence until May 1996, about five (5) years after Bank approval. In both cases, there are no records of Bank follow up or monitoring progress of the project.

12.4.3 There is likelihood that without proper monitoring by the Bank, Borrowers may not respect loan covenants.

### By the Borrower

12.4.4 District Laboratories: The infrastructural facilities for the district laboratories should have been in place before procuring equipment to furnish them. In the present state, some equipment has been wasted because there were no structures to contain them, and has as such become obsolete. This is an unwelcome burden to the taxpayer.

12.4.5 Construction: Where the main contractor has no say in the selection of sub-contractors (nominated) relations may deteriorate thus affecting works. In this case, the main contractor was a Chinese and sub-contractor, English. Poor communication, different work plans and styles, and even culture strained working relationship leading to delay in project completion by about 11 months. It may be advantageous for the contractor to select its own sub-contractor to avoid unnecessary conflicts.

12.4.6 Executing Agency: Where there are many institutions involved in the decision making on issues concerning project implementation, delays in the implementation process is likely to occur, either as a result of bureaucracy or disagreements among the institutions. It is advisable to limit the number of the institutions involved in project implementation.

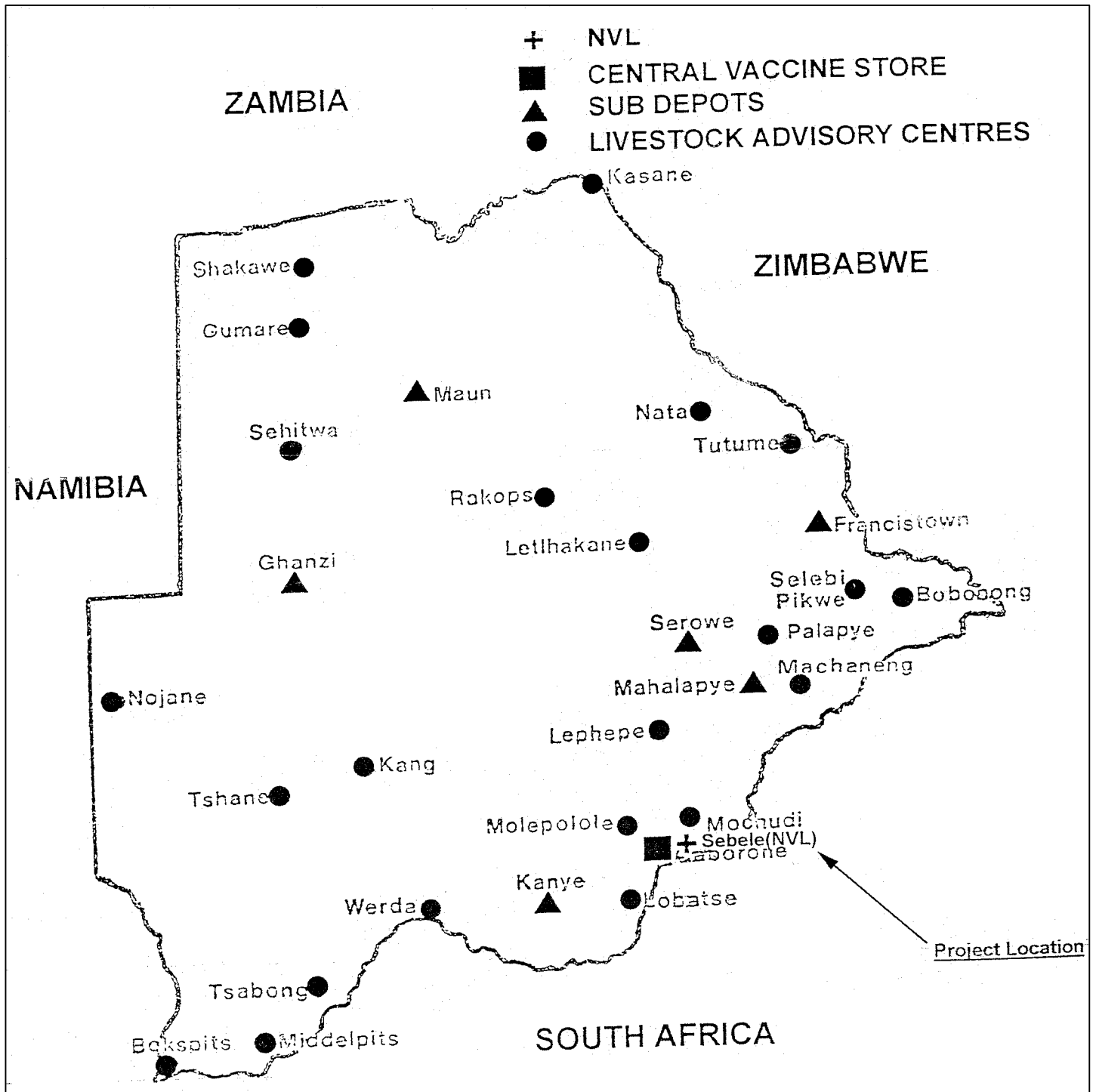
### By the Bank and the Borrower

12.4.7 Staff Position: The staff position should have been commensurate with the expanded facilities and the job requirement. As a result of the inadequacy of the staff some of the sections of the laboratory are not being utilised to their full potentials. Had the Bank monitored the project closely, this anomaly would not have occurred. (para 6.2.1)

12.4.8 Generally, livestock development has a better chance of success if supported by adequate veterinary services. The Bank should therefore support similar projects in the future.

# BOTSWANA

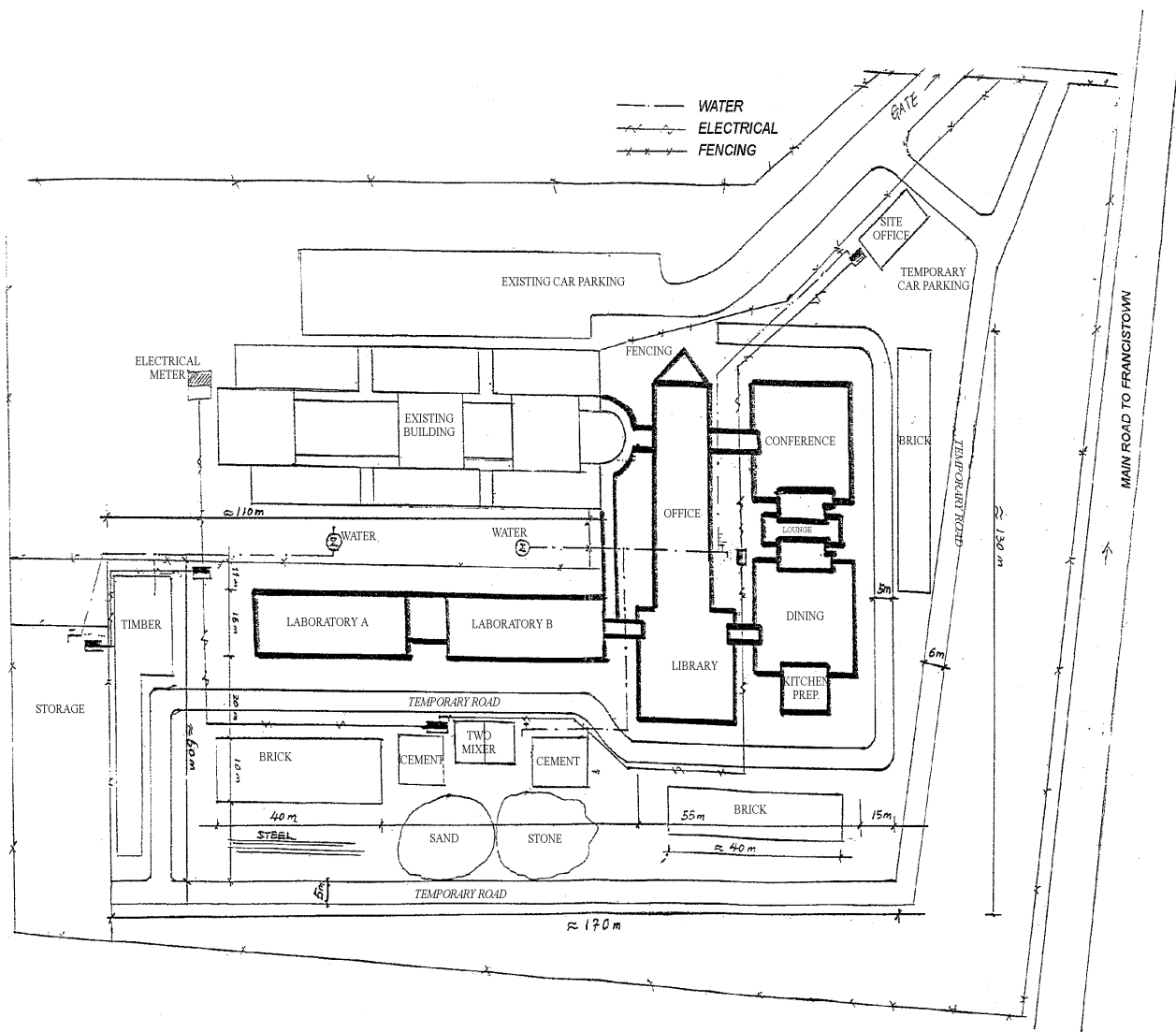
## VETERINARY SERVICES DEVELOPMENT PROJECT PROJECT AREA



This map has been prepared by the African Development Bank Group exclusively for the use of the readers of the report to which it is attached. The names used and the borders shown do not imply on the part of the Bank and its members any judgement concerning the legal status of a territory nor any approval or acceptance of these borders.

# BOTSWANA

## VETERINARY SERVICES DEVELOPMENT PROJECT



**NVL SITE LAYOUT**

**Veterinary Services Development project**  
**Historical summary of Quarterly Exchange Rates**  
**Botswana: BWP-PULA**  
**Bank Unit of Account (UA) to Pula**

Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
	January-March	April-June	July-September	October-December
1983	1.17041	1.1668	1.16354	1.16136
1984	1.20975	1.2274	1.15956	1.41743
1985	1.48743	1.69623	1.76762	2.1616
1986	2.30787	1.96694	2.40762	2.24251
1987	2.24768	2.14881	2.16062	2.1818
1988	2.2212	2.34938	2.43878	2.57666
1989	2.60492	2.6512	2.59989	2.55962
1990	2.46814	2.4688	2.4635	2.6285
1991	2.6363	2.6577	2.7225	2.7544
1992	2.9646	2.9698	2.9822	3.0975
1993	3.0829	3.2757	3.441	3.58769
1994	3.5229	3.6327	4.0043	3.9929



CERTIFICATE OF PRACTICAL COMPLETION  
OF PROJECT



REPUBLIC OF BOTSWANA  
Ministry of Works and Communications  
Architectural and Building Department

TO: COMPLANT (BOTSWANA) PTY LTD.  
PRIVATE BAG 00359  
GABORONE

Contract No.: TB/9/3/56/93-94

Contract Title NATIONAL VETERINARY LABORATORY EXTENSIONS - SEBELE

Contract Amount: P 6 723 888.00

FILE:

PLINTH AREA: 2982m<sup>2</sup>

This is to certify that the above project has been inspected for practical completion on 24/4 1997

and has been accepted subject to the following defects and/or deficiencies.

- a) REF ATTACHED DEFECTS LIST
- b)
- c)
- d)
- e)
- f)

Your liability period for the above expires six calendar months from the above date and you are required to carry out any emergency repairs to defects of materials or workmanship when required to do so during that period. Defects of a minor nature must be attended to before the date of expiration of your liability period.

You are required to notify me when you have carried out your responsibilities under the Articles of Agreement whereupon a further meeting will be held for the purpose of a final inspection to certify end of your defects liability and release of retention.

I confirm acceptance from you of the following keys, fittings equipment, moveable furniture and suppliers instructions etc.

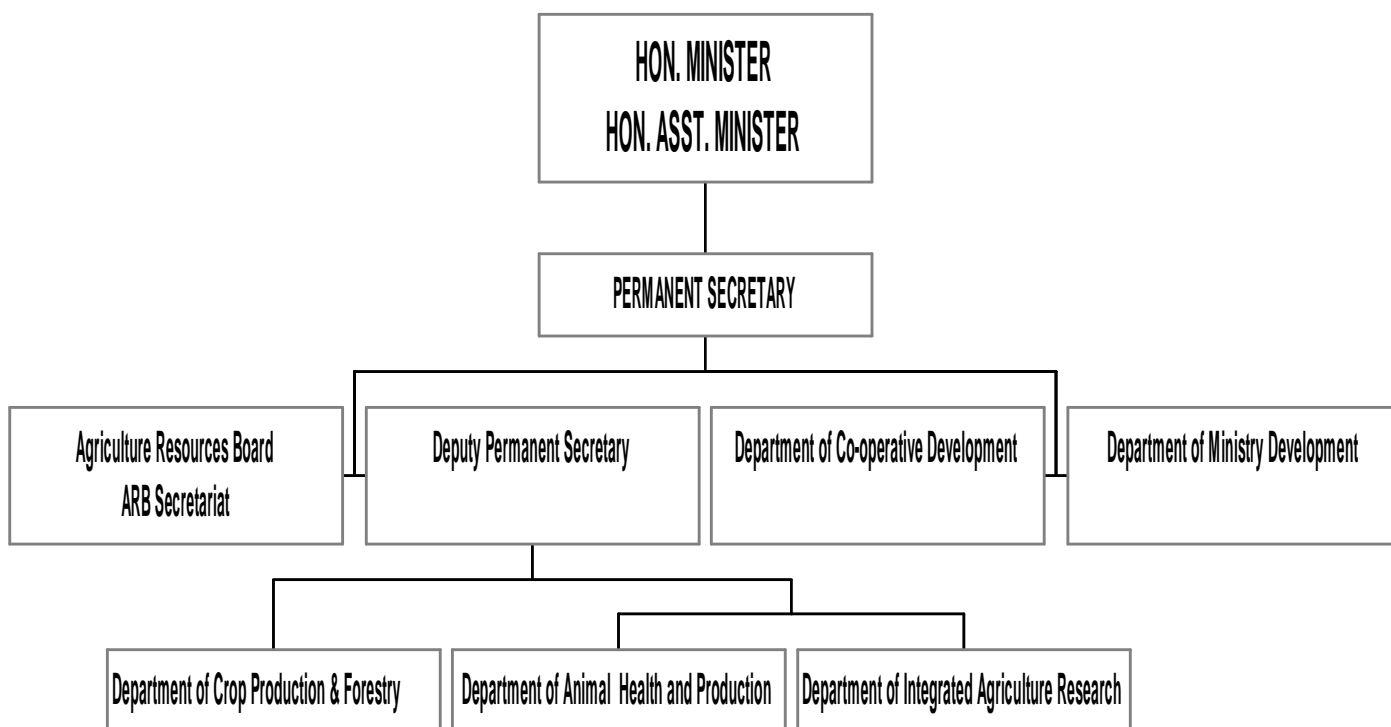
c.c. Client (2)  
Ministry of Works and Communications Statistics  
Principal Quantity Surveyor (2)  
Area Maintenance Depot  
Inspectorate  
Chief Architect on file

.....  
*[Signature]* for Chief Architect  
.....  
CONSULTANT PROJECT ARCHITECT  
PALEDI MORRISON PARTNERSHIP



**BOTSWANA  
VETERINARY SERVICES DEVELOPMENT PROJCT**

**ORGANISATIONAL CHART  
MINISTRY OF AGRICULTURE**



- Animal Health Policy and Programmes
- Disease Prevention, Control & Treatment Services
- Disease Research & Laboratory Services
- Animal Production and Products Development
- Dairy, Poultry, Piggery, etc Farming
- Meat Inspection and Abattoirs
- Tsetse Fly Control (all aspects)
- Livestock Marketing & Advisory Services
- Veterinary Services & Field Services
- Dept. Management/Resources

**DOCUMENTS CONSULTED IN WRITING THIS ANNEX REPORT**

The following documents were consulted during the process of writing this PCR:

1. The ADB Project Appraisal Report
2. The FLAD Procurement Documents
3. Bank files
4. Quarterly Progress Reports
5. Annual Audited Accounts
6. Files and other Accounts documents provided the GoB
7. Botswana National Veterinary Laboratory Annual Reports 1983 – 1995.
8. 1985 Botswana Agricultural Statistics
9. Botswana's Agricultural Policy:  
Critical Sectoral Issues and Future Strategy for  
Development: February 1991
10. 1993 Botswana Agricultural Census Report
11. Botswana Meat Commission Annual Report 1995/96
12. Statistical Bulletin of Botswana 1996
13. National Development Plan – 8 (part I and II)  
(1997/98 – 2002/03)

**Veterinary Services Development Project  
Summary of Professional and Technical Staff Positions  
at National Veterinary Laboratory, May 1997**

Post	Salary Scale	Establishment	In Post	Vacant
<b>Professional Staff</b>				
Principal Veterinary Officer II	D3	1	0	1
Senior Veterinary Officer	D4	4	4	0
Veterinary Officer	C1	3	3	0
Principal Scientific Officer II	D3	1	0	1
Senior Scientific Officer	D4	3	1	2
Scientific Officer I	C1	3	4	1 extra
Scientific Officer II	C2	5	1	3
Assistant Scientific Officer	C3	3	9	6 extra
<b>Technical Staff</b>				
Principal Technical Officer	C1	4	2	2
Senior Technical Officer	C2	5	7	2 extra
Technical Officer	C3/4	9	9	0
Livestock Officer	C3/4	0	2	0
<b>General Administration</b>				
Administration Officer	C3/4	1	1	0
<b>Artisan Staff</b>				
Senior Technical Assistant I	C4	1	1	0
Senior Technical Assistant II	B1	9	5	4
Technical Assistant	B2/3	10	5	4

**BOTSWANA: SUMMARY OF BANK GROUP OPERATIONS**

(As at 31st March 1999)

Sector	Project Title	Source Of Finance	Date Approved	Date Signed	Date Effective	Amount (UA Million)	Amount Disbursed (UA Million)	Percent Disbursed	Amount Cancelled (UA Million)	Deadline for last Disbursement
<b>Agriculture</b>	1. ALDEP I	ADB	27-Oct-81	05-Mar-82	30-Jun-83	7.20	3.38	46.99	3.82	Completed
	2. ALDEP I	ADF	29-Oct-81	05-Mar-82	30-Jun-83	6.17	5.15	83.50	1.02	Completed
	3. Vet. Services Development	NTF	15-Jun-83	07-Oct-83	16-Oct-84	3.21	3.03	94.51	0.17	31-Dec-97
	4. Francistown Abattoir	NTF	18-Aug-87	03-Oct-87	26-Aug-88	7.00	4.59	65.61	2.41	Completed
	5. First Agric. LOC to NDB	ADB	21-Dec-82			5.00	1.16	23.20	3.84	Completed
	6. Second Agric. LOC to NDB	ADF	21-Jan-88	29-Feb-88	05-Oct-89	4.61	2.30	49.92	2.31	Completed
Sub-total						33.18	19.62	59.12	13.56	
<b>Transport</b>	1. Lobatse-Kanye Road	ADF	12-Dec-75	01-Apr-76	07-Feb-77	4.61	4.56	99.09	0.04	Completed
	2. Sebele Airport Study	ADB	08-Feb-78	05-May-78		0.65	0.64	98.15	0.01	Completed
	3. Gaborone Intn'l Airport	ADB	23-Oct-79	20-Jun-80	31-Dec-81	8.00	7.87	98.38	0.13	Completed
	4. Rural Roads I	ADB	23-Aug-83	08-Oct-83	31-Dec-87	15.00	12.43	82.89	2.57	Completed
	5. Serowe-Orapa Road	ADB	15-Nov-84	17-Oct-85	06-Feb-86	22.74	9.28	40.80	13.46	Completed
	6. Nata-Maun Road Study	ADF	28-Aug-85	04-Feb-86	19-Sep-86	1.38	1.08	78.06	0.30	Completed
	7. Rural Roads II	ADB	23-Mar-87	11-Oct-87	25-Apr-88	10.65	10.65	100.00	0.00	Completed
	8. Rural Roads II	ADF	23-Mar-87	11-Oct-87	25-Apr-88	6.82	6.75	98.99	0.07	Completed
	9. Nata-Maun Road	ADB	23-Aug-88	02-Mar-89	21-Mar-90	7.77	7.77	100.00	0.00	Completed
	10. Road Maintenance Study	TAF	27-Aug-90	31-Jan-91	21-Jun-91	1.15	0.53	45.79	0.00	30-Jun-98
	11. Trans-Kgalagadi Road	ADB	25-Nov-91	13-May-92	09-Sep-93	18.50	10.30	55.69	0.00	31-Dec-98
	12. Trans-Kgalagadi Road	ADF	25-Nov-91	13-May-92	09-Sep-93	10.59	6.07	57.34	0.00	31-Dec-98
Sub-total						107.86	77.93	72.25	16.59	
<b>Public Utilities</b>	1. Telecommunications I	ADB	06-Nov-73	10-Mar-74	01-Nov-74	2.20	2.16	97.95	0.05	Completed
	2. North-East Water Study	ADF	15-Oct-75	01-Apr-76	07-Feb-77	0.32	0.31	95.03	0.02	Completed
	3. Telecommunications II	ADB	12-Nov-80	18-Feb-81	08-Jun-82	10.00	4.88	48.82	5.12	Completed
	4. Telecommunications III	ADB	27-Feb-81	15-May-81	30-Jun-82	10.00	9.80	98.00	0.20	Completed
	5. Morupule Power	ADB	30-Sep-82	28-Oct-82	22-Sep-83	20.00	13.34	66.70	6.66	Completed
	6. Gaborone Lobatse Water	ADB	23-Aug-88	31-May-89	21-Feb-90	4.00	4.00	99.98	0.00	Completed
	7. Gaborone Lobatse Water	ADF	23-Aug-88	31-May-89	21-Feb-90	2.44	2.34	95.74	0.00	Completed
Sub-total						48.96	36.82	75.20	12.04	
<b>Social Services</b>	1. Training of Health Personnel	ADF	15-Oct-75	01-Apr-76	06-Aug-76	4.15	4.08	98.43	0.06	Completed
	2. Francistown New Hospital	ADB	27-Sep-83	10-May-84	26-Jul-85	17.96	14.96	83.27	3.00	Completed
	3. Secondary Tchrs. Trng. Clg.	ADF	24-Sep-81	05-Mar-82	17-Mar-83	7.37	7.22	97.98	0.15	Completed
	4. Scndry. Schls. & Voc. Trng.	ADB	26-Aug-85	17-Oct-85	21-Nov-86	8.16	2.40	29.38	5.76	Completed
	5. Scndry. Schls. & Voc. Trng.	ADF	26-Aug-85	17-Oct-85	21-Nov-86	6.45	6.30	97.69	0.15	Completed
	6. Education III	ADB	25-Nov-87	29-Feb-88	08-Mar-89	25.50	25.50	100.00	0.00	Completed
	7. Education III	ADF	25-Nov-87	29-Feb-88	08-Mar-89	18.81	17.68	93.98	0.00	Completed
	8. Education IV	ADB	23-Mar-89	30-May-89	14-Feb-90	25.07	19.24	76.72	5.84	Completed
	9. Education IV	ADF	23-Mar-89	30-May-89	14-Feb-90	4.61	4.60	99.96	0.00	Completed
	10. Education V	ADB	29-Oct-90	01-Feb-91	20-Mar-92	11.50	6.83	59.39	3.95	Completed
	11. Education V	ADF	29-Oct-90	01-Feb-91	20-Mar-92	4.90	2.81	57.27	0.00	Completed
	12. Education V	TAF	29-Oct-90	31-Jan-91	20-Mar-92	0.46	0.00	0.00	0.00	Completed
Sub-total						134.93	111.60	82.71	18.92	
Grand Total						324.93	245.97	75.70	61.11	
Net Comtmnts.						263.82		93.23		



