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BOTSWANA

RURAL SECTOR GRANT
PROJECT PAPER

633-0077

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1 JUN 1980

ACTION MEMORANDUM FOR THE ASSISTANT ADMINISTRATOR FOR AFRICA

FROM: ^{JW Koehring}
~~AFR/DR, John W. Koehring~~

Problem: Your approval is required to execute a grant of \$1,250,000 from the FY 1980 Economic Support Fund (Section 531 of the FAA of 1961, as amended) to the Government of Botswana (GOB) for the Rural Sector Grant Project (633-0077) and to authorize life-of-project funding of \$3,780,000.

Discussion: The proposed project addresses the lack of productive employment opportunities for rural Batswana. The lack of such opportunities in the rural areas accounts for low productivity in the agricultural sector, a serious deficit in the country's food supply, a high rate of rural-urban migration and, as a result, a high rate of unemployment in urban areas, where formal sector jobs are scarce. The GOB is in the process of defining policies and programs that will be implemented during its upcoming planning period, and beyond, with a focus on programs to generate productive employment. Appropriate solutions to the underlying problems are expected to emerge as a result of initiatives taken at the village level, within the district planning process, and through pilot and quasi-experimental projects formulated at the central ministry level.

The purpose of the proposed project is to assist the GOB in the development and implementation of strategies to provide the rural population with increased access to productive employment opportunities. The proposed project utilizes the sectoral approach in order to support a full range of activities, thereby laying the groundwork for broader, more comprehensive programs during the 1980s. The project will focus on a series of sub-projects designed to assist the GOB in: (1) the improvement of land use planning and management; (2) the increase of arable agriculture production and the incomes of rural households, and; (3) the creation of non-farm employment opportunities. Project inputs will be channelled through the mechanism of a Rural Development Fund which will be administered jointly by USAID and the GOB, with funds obligated annually on the basis of implementation plans approved by both parties.

To accomplish the objectives of the project, \$1,250,000 is requested for obligation in FY 80. Life of project funding is \$3,780,000 which will be obligated over a three year period. The following table illustrates the specific areas in which funds will be required:

		A.I.D. Funding		
		FX	L/C	TOTAL
A.	Technical Assistance			
	- long-term	335,280	---	335,280
	- short-term	136,370	---	136,370
B.	Equipment/Commodities	143,490	350,315	493,805
C.	Vehicles	146,294	---	146,294
D.	Training	115,570	73,720	189,290
E.	Salaries	---	53,133	53,133
F.	Transport	---	43,308	43,308
G.	Construction	---	633,787	633,787
H.	Miscellaneous	---	941,234	941,234
I.	Project Advisory Contract	70,000	25,000	95,000
J.	Personal Services Contract	<u>140,000</u>	<u>---</u>	<u>140,000</u>
K.	Evaluation and Baseline data collection	<u>90,000</u>	<u>24,674</u>	<u>114,674</u>
		1,177,004	2,145,171	3,322,175
	+ Undesignated Projects			<u>457,825</u>
				\$3,780,000

The Government of Botswana will contribute \$1,905,897 to this project. This contribution will finance staff salaries, vehicle maintenance and other costs.

It has been concluded from the analyses included in the Project Paper that:

1. the project approach is technically and economically sound, socially acceptable, and administratively feasible, and that environmental concerns are fully addressed and incorporated into project implementation;

2. the technical design and cost estimates are reasonable and adequately planned pursuant to Section 611A of the FAA;

3. the timing and funding of project activities are appropriately scheduled;

4. sufficient planning has been made for the monitoring and evaluation of project progress;

5. all statutory criteria have been satisfied; and

6. the GOB can meet the recurrent costs associated with the project.

The Mission recommends a negative determination for the Initial Environmental Examination (IEE). Your signature is required on the IEE (attached) for final approval.

The Project Agreement will contain the customary conditions to disbursement which are acceptable to the GOB. In addition to the standard provisions, conditions precedent will be included in the project agreement to ensure that: (1) AID environmental regulations and 611 requirements are met for those sub-projects not yet identified, (2) a risk-benefit analysis is completed for the use of pesticides under the horticulture project and, (3) an environmental assessment is completed for any future activities in the wildlife management area. Additionally, the project agreement will include covenants to ensure that: (1) project memoranda for projects not yet identified be submitted in accordance with the implementation schedule; (2) project memoranda conform to the selection criteria set forth in the project paper; (3) project memoranda discuss beneficiaries; and (4) funds for baseline data be used to determine which pilot projects merit further expansion.

Four waivers are required to enable the procurement of construction materials valued at \$300,000, equipment valued at \$7,000, ten project vehicles valued at \$110,734, and a waiver for the total shelf item limitation of 10 per cent of the local currency costs or \$10,000 (Handbook 1, Supplement B).

The Project Review meeting was held on April 2, 1980. All Project Issues were resolved at that time. The Congress was notified of a program change on May 19th. The fifteen day waiting period expires on June 2. The responsible A.I.D. officer in the field will be John Pielemeier, and the AID/W backstop officer will be Douglas T. Kline. AFR/DR/SAP.

Recommendation: That you sign the attached Project Authorization, thereby authorizing the Grant and the requested waivers and that you sign the attached IEE indicating approval of the negative environmental determination.

Attachments:

- 1. Project Authorization
- 2. IEE
- 3. Project Paper

Clearance:

for DAA/AFR, WHNorth RMS
 AFR/DR, RStacy RMS
 AFR/SA, MDagata [Signature]
 AFR/SA, DCohen [Signature]
 AFR/SA, LPompa [Signature]
 AFR/DR, NCohen [Signature]
 AFR/DR/ENGR, LEIridge [Signature]
 AFR/DR/SDP, BBoyd [Signature]
 AFR/DR/EHR, WWaffle [Signature]
 AFR/DR/AGR, BWhittle [Signature]
 COM/ALI, PHagan [Signature]
 AFR/DR/SA, WWolff [Signature]
 GC/AFR, GLece [Signature]

AFR/DR/SA: DKline:agb:5/1/80

PROJECT AUTHORIZATION

Name of Country: Botswana
Name of Project: Rural Sector Grant
Number of Project: 633-0077

1. Pursuant to Section 531 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Rural Sector Grant Project for Botswana, "the cooperating country", involving planned obligations of not to exceed \$3,780,000 in grant funds over a three year period from the date of authorization, subject to the availability of funds in accordance with the AID/OYB allotment process, to help in financing foreign exchange and local currency costs for the project.

2. The project will assist the cooperating country in the development and implementation of strategies to provide the rural population with increased access to productive employment opportunities. This will be accomplished through a series of sub-projects which will assist the GOB to: (1) improve land use planning and management; (2) increase arable production and the incomes of rural households; and (3) increase non-farm employment opportunities in rural areas.

3. The Project Agreement, which may be negotiated and executed by the officer to whom such authority is delegated, in accordance with A.I.D. regulations and delegations of authority, shall be subject to the following essential terms and covenants and major conditions, together with such other terms and conditions as A.I.D. may deem appropriate.

(A) Source and Origin of Services

Goods and services financed by A.I.D. under the project shall have their source and origin in the cooperating country or in countries included in A.I.D. geographic code 941, except as A.I.D. may otherwise agree in writing. Ocean shipping financed under the grant shall be procured in the United States or the cooperating country, except as A.I.D. may otherwise agree in writing.

(B) Conditions Precedent

(1) Within 90 days of the signature of the project agreement or such other date as the parties may otherwise agree to in writing, the cooperating country will submit, in form and substance

satisfactory to A.I.D., written evidence that a plan has been developed for the financial management and monitoring of financial flows under the Rural Development Fund sub-projects.

(2) Prior to the initiation of construction elements costing more than P5,000 each, the cooperating country will submit to A.I.D. in form and substance acceptable to A.I.D., final plans, specifications and cost estimates inclusive of evidence that suitable sites have been allocated for the construction.

(3) Prior to initiation of construction elements costing less than P5,000 each, for which construction services and self-help is not used, the cooperating country will provide a description of construction to be financed and cost estimates in sufficient detail to allow A.I.D. to make an independent judgement of the adequacy of the cost estimate.

(4) Prior to any disbursement or to the issuance of commitment documents under the Project Agreement to finance any of the sub-projects in the second or third year of the project, the cooperating country will submit to USAID/Botswana a project memorandum for each sub-project for the approval of the mission director in accordance with the project criteria to be set forth in the project agreement and for a threshold decision of the environmental impact of each sub-project in conformance with A.I.D. Regulation 16 (22C. F.R. 216). If a negative determination cannot be made for a particular sub-project, the mission director will either disapprove the sub-project or ensure that further steps are taken to comply with Regulation 16.

(5) Prior to any disbursement or to the issuance of commitment documents under the Project Agreement to finance sub-project AE-11 (Horticultural Development), the procedures required under A.I.D. Regulation 16 (216.3(B)) with regard to the procurement or use of pesticides will be followed.

(6) Prior to any disbursement or to the issuance of commitment documents under the Project Agreement to finance any sub-projects relating to wildlife management other than that sub-project already included in the first year's activities: (a) an environmental assessment will be conducted and submitted along with the project memorandum for approval by the A.I.D. Assistant Administrator for Africa, and (b) if A.I.D. funds are to be used for any harvesting scheme, a wildlife monitoring program must be underway financed by another donor or the Government of Botswana.

(C) Covenants

The cooperating country shall covenant, in substance, as follows:

(1) To ensure that approved project memoranda for new

projects and progress reports for on-going activities be submitted to A.I.D. prior to January, 1981, for second year projects and January, 1982, for third year projects.

(2) To ensure that each project memoranda for new projects conforms to the criteria (including environmental criteria) to be set forth in the project agreement.

(3) To ensure that each project memoranda for new projects fully describe the beneficiaries of the project and the manner in which the project will benefit them.

(4) To ensure that the funds designated in the project budget for use in evaluation of baseline data be used for that purpose.

(5) To ensure that baseline data and evaluation be used to determine which pilot projects merit expansion to larger scale national programs.

(D) Waivers

The following waivers to A.I.D. regulations are hereby approved:

Based upon the justification contained in Annex IV of the project paper, and notwithstanding paragraph (A) above, I hereby:

(1) approve a procurement source waiver of the requirements under Handbook 1, Supplement B that commodities procured with funds granted to an RLDC shall have their source and origin in countries included in A.I.D. geographic code 941 to permit procurement of (a) \$300,000 of construction materials, (b) approximately \$7,000 of commodities and equipment and (c) 10 project vehicles at an approximate total cost of \$110,734, which have their source and origin in A.I.D. geographic code 935;

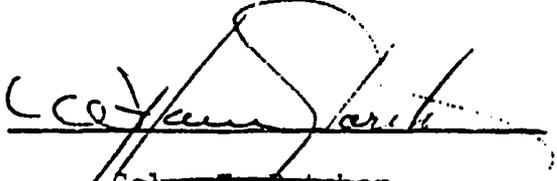
(2) certify that exclusion of procurement from free world countries other than the cooperating country and countries included in code 941 would seriously impede attainment of U.S. foreign policy objectives and objectives of the foreign assistance program;

(3) find that special circumstances exist to waive and do hereby waive, the requirements of Section 636(i) of the act in regard to vehicle procurement; and

(4) with respect to shelf items of a Botswana source but having their origin in code 935 countries and financed with Botswana pula purchased with United States dollars, approve a waiver of the requirements set forth in Handbook 1, Supplement B, paragraph 18.A.4.b, limiting the procurement of such code 935 items to 10 percent of the local currency costs or \$10,000 whichever is greater, to allow for procurement of these items up to \$1,300,000.

However, every effort should be made to purchase the above Code 935 items and materials from Code 941 countries.

Date: 6/11/80


Golder T. Butcher
Assistant Administrator for
Africa

AGENCY FOR INTERNATIONAL DEVELOPMENT PROJECT PAPER FACESHEET	1. TRANSACTION CODE <div style="border: 1px solid black; display: inline-block; padding: 2px;">A</div> A ADD C CHANGE D DELETE	PP 2. DOCUMENT CODE <div style="border: 1px solid black; display: inline-block; padding: 2px;">3</div>
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3. COUNTRY/ENTITY BOTSWANA	4. DOCUMENT REVISION NUMBER <div style="border: 1px solid black; display: inline-block; width: 20px; height: 20px; margin-left: 10px;"></div>
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5. PROJECT NUMBER (7 digits) <div style="border: 1px solid black; display: inline-block; padding: 2px;">633-0077</div>	6. BUREAU/OFFICE A. SYMBOL B. CODE <div style="border: 1px solid black; display: inline-block; width: 20px; height: 20px; margin-left: 10px;"></div>	7. PROJECT TITLE (Maximum 40 characters) <div style="border: 1px solid black; display: inline-block; padding: 2px;">Botswana Rural Sector Grant</div>
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8. ESTIMATED FY OF PROJECT COMPLETION FY <div style="border: 1px solid black; display: inline-block; padding: 2px;">85</div>	9. ESTIMATED DATE OF OBLIGATION A. INITIAL FY <div style="border: 1px solid black; display: inline-block; padding: 2px;">810</div> B. QUARTER <div style="border: 1px solid black; display: inline-block; padding: 2px;">3</div> C. FINAL FY <div style="border: 1px solid black; display: inline-block; padding: 2px;">812</div> (Enter 1, 2, 3, or 4)
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10. ESTIMATED COSTS (\$000 OR EQUIVALENT \$) -						
A. FUNDING SOURCE	FIRST FY			LIFE OF PROJECT		
	B. FX	C. L/C	D. TOTAL	E. FX	F. L/C	G. TOTAL
AID APPROPRIATED TOTAL						
(GRANT)	(543)	(707)	(1,250)	(1,273)	(2,507)	(3,780)
(LOAN)	()	()	()	()	()	()
OTHER U.S.						
1.						
2.						
HOST COUNTRY	230	474	704	298	1,608	1,906
OTHER DONOR(S)						
TOTALS	773	1,181	1,954	1,571	3,305	5,686

11. PROPOSED BUDGET APPROPRIATED FUNDS (\$000)									
A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE		E. 1ST FY <u>80</u>		H. 2ND FY <u>81</u>		K. 3RD FY <u>82</u>	
		C. GRANT	D. LOAN	F. GRANT	G. LOAN	I. GRANT	J. LOAN	L. GRANT	M. LOAN
(1) ESF	B263			1,250		1,250			1,280
(2)									
(3)									
(4)									
TOTALS									

A. APPROPRIATION	N. 4TH FY _____		O. 5TH FY _____		LIFE OF PROJECT		12. IN-DEPTH EVALUATION SCHEDULED MM YY <div style="border: 1px solid black; display: inline-block; padding: 2px;">10 81</div>
	D. GRANT	F. LOAN	P. GRANT	S. LOAN	T. GRANT	U. LOAN	
(1)					3,780		
(2)							
(3)							
(4)							
TOTALS							

13. DATA CHANGE INDICATOR. WERE CHANGES MADE IN THE PID FACESHEET DATA, BLOCKS 12, 13, 14, OR 15 OR IN PRP FACESHEET DATA, BLOCK 12? IF YES, ATTACH CHANGED PID FACESHEET.

1

 1 = NO
2 = YES

14. ORIGINATING OFFICE CLEARANCE	15. DATE DOCUMENT RECEIVED IN AID/W. OR FOR AID/W DOCUMENTS. DATE OF DISTRIBUTION
SIGNATURE Louis A. Cohen	<div style="border: 1px solid black; display: inline-block; padding: 2px;">MM DD YY</div> <div style="border: 1px solid black; display: inline-block; padding: 2px;">MM DD YY</div>
TITLE Mission Director	
DATE SIGNED <div style="border: 1px solid black; display: inline-block; padding: 2px;">MM DD YY</div>	

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Part I: Summary and Recommendations

Section A: Recommendations

Authorization of a grant of \$3,780,000 with \$1,250,000 obligated in FY 1980, \$1,250,000 obligated in FY 1981, and \$1,280,000 obligated in FY 1982 subject to the following waivers and approvals:

1. A procurement source and origin waiver from AID Geographic Code 941 to 935 for the procurement of approximately \$300,000 of construction materials, and approximately \$7,000 of commodities.
2. A procurement source and origin waiver from AID Geographic Code 000 (US only) to Code 935 for the procurement of ten project vehicles, and a determination that special circumstances exist which would allow a waiver of the requirements of Section 636 (i) of the Foreign Assistance Act as amended (valued approximately \$110,734).

Section B: Project Description

1. The Problem

Botswana has enjoyed rapid and relatively steady economic growth during the past decade, due primarily to expansion in the mining sector and favorable export prices for the livestock sector. Between 1965 and 1976 GDP per capita increased from \$87 to \$609. However, because mining has generated few employment opportunities and ownership of cattle is heavily concentrated, only a small proportion of the population has benefited from this growth. In 1977, only 5,500 people held jobs in the domestic mining industry (nearly four times as many were employed in South African mines as migrant laborers), and survey data from rural Botswana indicated that five percent of households owned half the national herd of cattle, 45% owned no cattle at all, and another 15% owned seven or less.

As viewed by both the GOB and USAID, the central problem in creating equitable development in Botswana, is dealing with the problem of scarcity of opportunities for rural productive employment. This will be achieved through programs in arable agriculture and non-farm employment. Related to these two priority areas is a third priority area, land use planning and utilization, which impacts directly on the GOB's ability to generate and implement programs in arable agriculture and non-farm employment.

2. Project Strategy

a. Arable Agriculture: For the 60 percent of rural households owning few or no livestock, arable agriculture is of crucial importance, although it is usually not the sole means of livelihood. To develop and implement programs for increasing productivity in arable agriculture, the rural poor --defined as the 60% of rural households who cultivate less than four hectares of land and own less than eight head of cattle--constitute the target group. The major constraints to increased agricultural production for this group of rural households are lack of draft power, water, farm implements and a proven technical package. Other constraints such as

improved separation of crop from grazing lands and village storage also need to be addressed. Specific programs to address each of those constraints will be carried out under the recently initiated Arable Land Development Program (ALDEP). 1/

b. Non-Farm Employment Opportunities: While constraints to arable production can be reduced through program and policy measures, additional jobs created are likely to be modest. Accordingly, attention will also be given to non-farm employment opportunities, which are at present poorly developed. Both the GOB and USAID feel that activities in the non-farm sector have the potential to benefit the rural poor directly, while utilizing available resources in a sustainable fashion.

One focus of a non-farm employment program would be the potential for forward and backward linkages between small to medium scale industries and arable crop production. Scarcity of farm implements suggest there is potential for input manufacture and supply geared to improved production. The processing of farm produce appears to be another area of significant opportunity. For rural households inhabiting the more remote areas of the country, where hunting and gathering is the means of livelihood, soundly designed wildlife utilization schemes appear to offer the greatest potential for generating productive employment.

c. Equitable and Efficient Land Utilization: Finally, sustainable and equitable utilization of the country's land resources is crucial to the government's ability to increase on-farm and non-farm employment opportunities for rural Batswana. Development of opportunities for arable agriculture depend directly on the Government's ability to create an equitable balance between land allocated for arable agriculture and land designated for grazing. Similarly, for the Basarwa and other remote area dwellers hunting and gathering is now threatened by the expansion of commercial cattle ranching in the sandveld zone of the eastern Kalahari.

An important prerequisite for equitable development is a land use planning process which considers the needs of these remote populations. The GOB has devolved responsibilities for land allocation and management to the Tribal Land Boards. The soundness of planning for long-term utilization of land hinges on the capabilities of these institutions and their technical personnel, and on the degree to which the planning process incorporates the interests of all groups in each community through careful consultation.

1/ Botswana's low rainfall has been the most limiting factor for increasing arable production. Mean annual rainfall ranges from 60 mm in the northeast to 250 mm in the southwest, and it is often poorly distributed within the annual growing season.

3. The Project Design

To resolve the series of interrelated problems discussed above, this project will assist the GOB in the development and implementation of programs to provide the rural population with increased access to productive employment opportunities. This will be accomplished through a series of sub-projects that are designed to:

1. improve land use planning, especially in the communal areas
2. increase small farmer arable production, and
3. increase non-farm employment opportunities in rural areas.

In accordance with GOB planning procedures, the Ministry of Local Government and Lands will be responsible for the design and implementation of projects to improve land use planning, the Ministry of Agriculture will be responsible for the design and implementation of programs to increase arable production, and the Ministry of Commerce and Industry will be responsible for programs designed to generate non-farm employment opportunities.

The proposed AID grant will be implemented through the mechanism of a Rural Development Fund (RDF).^{1/} This umbrella fund will serve as a source of support for sub-projects submitted by the three ministries which meet specified eligibility criteria. The grant will cover a three year period beginning with the GOB's 1980/81 fiscal year (April, 1980). Each ministry will be responsible for submitting sub-projects in the form of project memoranda (P.M.'s) to the Ministry of Finance and Development Planning (MFDP) for review and approval. The Rural Development Unit (RDU) in the MFDP will be the GOB entity responsible for ensuring that quality sub-projects are submitted on a timely basis and that these sub-projects meet established criteria.

To administer the Rural Sector Grant, annual implementation plans will serve as the mechanism through which funds will be obligated. The annual implementation plan including the P.M.'s for sub-projects has been completed for the first year of the project. Many of the P.M.'s require multi-year funding. Thus, most of the funds for sub-projects for year two of the project have been committed, and a portion of third year project funds have been committed. Complete implementation plans for the second and third years of the grant period will be submitted by the GOB to USAID/Botswana in January 1981 and 1982.

Certain sub-projects that are approved for RDF funding will serve as 'umbrellas' for a number of discrete activities, under one sub-project, with each discrete project having its own budget. Eligibility for RDF funding requires that the umbrella P.M. be approved by MFDP and submitted to USAID with the annual implementation plan. The plan shall require

^{1/} Although referred to in the text of the PP as the Rural Development Fund, no fund as such will be established. Using standard AID procedures the GOB will request reimbursement for expenses incurred under individual sub-projects.

that a certain amount of money be set aside for discrete activities that originate in the district planning system. Each such activity will be described in a 'mini-P.M.' which addresses feasibility issues, outlines an implementation plan and provides a detailed budget. ^{1/} Where life of project costs in a mini-P.M. total less than P25,000 (\$32,750) internal RDF funds may be allocated by the responsible line ministry. For each discrete activity whose life-of-project costs exceed P25,000 (\$32,750) however, a detailed P.M. must be submitted as part of the annual implementation plan for USAID review.

In other cases, where a sub-project is comprehensive and all its component activities can be specified at the planning stage, RDF funding would be committed at the time that a detailed PM is approved and submitted in an annual implementation plan.

For the first year of project implementation, nine sub-projects have been identified for financing. These sub-projects have been submitted to the MFDP in PM form and all have been approved by the GOB through its planning network. Of the nine sub-projects approved for financing, four are 'umbrella' PM's and five are comprehensive activities in which all components have been identified.

4. End of Project Status

By the end of the project, as a result of activities taking place under sub-projects, the following results are anticipated.

1. Land Use Planning and Management

--local land institutions will have an improved capacity to resolve basic technical issues affecting land allocation, and to introduce and develop a system of land registration

--a series of land use plans, developed and approved at the local level, will be under implementation for both (1) areas in Eastern Botswana where arable farming and grazing are currently practiced and (2) newly designated communal areas adjacent to commercial ranches where non-water right holders may be resettled

--future water development within arable communal areas will be systematically planned on the basis of the data and fundings generated by the Water Points Survey currently in progress

^{1/} 1.27P = \$1 U.S.

2. Arable production and on-farm income

- a fully elaborated ALDEP program will be underway, with interventions adapted to specific ecological zones and to the needs of different socio-economic group, including female-headed households
- results from pilot and quasi-experimental projects will demonstrate the technical and economic viability of various options for diversifying agricultural production in Botswana
- MOA field staff in the districts will have a strengthened capacity to formulate, design and implement production-oriented projects

3. Non-farm employment

- a support system will exist at the district level, backstopped by MCI, to service rural enterprises through the cadre of rural industrial officers
- a comprehensive data base on resource availability, market potential and investment needs for enterprises in the rural areas will have been assembled, providing the framework for an expanded MCI program during the mid-1980's.
- at least one new wildlife utilization project involving remote area populations will be designed and in the process of implementation

	<u>A.I.D. Funding</u>			<u>G.O.B. Funding</u>			<u>Grand Total</u>
	FX	LC	Total	FX	LC	Total	
A. Technical Assistance							
- long-term	335,280	---	335,280	58,603	---	58,603	393,883
- short-term	136,370	---	136,370	20,475	---	20,475	156,845
B. Equipment/Commodities	143,490	350,315	493,805	27,940	29,356	57,296	551,101
C. Vehicles	146,294	---	146,294	190,500	---	190,500	336,794
D. Training	115,570	73,720	189,290	---	26,065	26,065	215,355
E. Salaries	---	53,133	53,133	---	197,763	197,763	250,896
F. Transport	---	43,308	43,308	---	17,272	17,272	60,580
G. Construction	---	633,787	633,787	---	325,573	325,573	959,370
H. MISC.	---	941,234	941,234	---	1,012,350	1,012,350	1,953,584
I. D.A.I. In Country Expenses	70,000	25,000	95,000	---	---	---	95,000
J. P.S.C. in R.D.U.	140,000	---	140,000	---	---	---	140,000
K. Evaluation & Baseline data collection	<u>90,000</u>	<u>24,674</u>	<u>114,674</u>	<u> </u>	<u> </u>	<u> </u>	<u>114,674</u>
	1,177,004	2,145,171	3,322,175	297,518	1,608,379	1,905,897	5,228,072
+ Undesignated Projects			<u>457,825</u>	- (GOB contribution to undesignated projects not determined)			<u>457,825</u>
			\$3,780,000			1,905,897	\$ 5,685,897
			67%			33%	100%

5. Project Inputs

VI.

Part II: Background and Detailed Description

Section A: Project Background

1. Economic Profile

Botswana has enjoyed rapid and relatively steady economic growth during the past decade, due primarily to expansion in the mining sector (diamonds, copper-nickel and coal) and favourable export prices for the livestock sector. Gross Domestic Product was equivalent to only \$47 million at current prices in 1966, the year independence was achieved, but reached \$243 million in 1973/74 and \$381 million in 1976/77. Since diamond production began at the Orapa mine in 1970, the mining sector's share of GDP has grown to over 30 percent; it accounts for 60 percent of exports and over 33 percent of government revenues. The copper mining complex of Selebi-Phikwe provides significant foreign exchange earnings, and a second diamond mine at Jwaneng will come on stream in 1982, eventually doubling the country's diamond production.

The volume of livestock production has remained stable - the national herd of cattle more than doubled between 1966 and 1977, while the offtake dropped from 13% to 8.2% - but the value of livestock exports has risen steadily. Under the Lomé Agreement, Botswana beef commands prices in the European Economic Community that are 25-30 percent above world market levels. At present, livestock accounts for only a slightly smaller share of GDP than mining, and 70 percent of value added in the agricultural sector.

Consistent growth in the economy as a whole is reflected in increases in GDP per capita (from \$87 in 1965 to \$605 in 1976/77), and in per capita GNP income, currently estimated at \$745. In distributional terms, however, this growth has been very uneven because the principal growth sectors, mining and livestock, provide returns to small segments of the population. In 1977, only 5,500 people held jobs in the domestic mining industry (nearly four times as many were employed in South African mines as migrant laborers), and survey data from rural Botswana in 1974/75 indicated that five percent of households owned half the national herd of cattle, while 45 percent owned no cattle at all, and another 15 percent owned seven or less.

While urbanization is proceeding more rapidly in Botswana than in most other developing countries, 85 percent of the population still resides in the 10 rural districts. For the majority, whose livelihoods do not depend on mining incomes or the price of cattle, the upward trend of GDP has had little or no impact, aside from the rapid expansion of social services in both urban and rural areas. Thus while Botswana is no longer classified as one of the world's poorest countries, the majority of its citizens have yet to participate in and benefit from the process of economic development.

2. The Employment Problem

a. Magnitude of the Problem

The stated objectives of Botswana's development policy are:

- (1) rapid economic growth,
- (2) social justice,
- (3) economic independence and
- (4) sustained development

While considerable progress has been made towards attaining three of these objectives, the GOB defines social justice as a more equitable distribution of the benefits of development, including higher incomes. This stated GOB objective has clearly not been achieved. As viewed by both the GOB and USAID, the central problem in maintaining equitable development in Botswana, particularly for the rural majority, is the scarcity of opportunities for productive employment. The magnitude of this problem was outlined in a 1978 report to the GOB which described access to productive work opportunities as 'desperately unequal' and estimated current unemployment and underemployment at over 100,000. This report called for a comprehensive program during the Fifth National Development Plan period (1980-85) to create new jobs and increase incomes, with a focus on the rural areas, where the problem is most acute.

The nature and scope of the problem can be traced to a combination of policy decisions, economic conditions and ecological factors. While the potential for productive, income-generating activities in the rural areas of Botswana is limited, opportunities do exist to broaden access for the thousands of rural households currently operating at or below subsistence levels. These opportunities hinge on the soundness of planning for sustainable and equitable utilization of the land resources, increased productivity and higher returns in arable crop production and the development of new non-farm enterprises capable of employing people who are not directly engaged in agriculture.

b. Causes of unemployment

(1) Structure of the livestock sector

At present within the livestock sector, (which has benefited from high export prices) cattle tend to serve more as a means of savings and investment than as a source of income to their owners. As such, they are vulnerable to the cyclical drought conditions that characterize Botswana. The country's range resources are known to be seriously overstocked, especially in the densely populated, communally owned areas of eastern Botswana. While no prolonged drought has occurred since 1961-65, the combination of high stocking rates and low offtake threatens the long-term viability of the livestock sector.

Of equal importance is the uneven distribution of ownership which severely limits the potential of cattle to generate rural incomes. Fifty percent of the cattle marketed each year come from largely white-owned freehold farms, which account for only 3% of the land and 14% of the national herd. Many Botswana who own sizeable herds have other sources of income (e.g. salaried

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1. Michael Lipton, Employment and Labour Use in Botswana, December 1978, Government Printer, Gaborone. Lipton estimated the total Botswana labor force at 365 000. He argued that an additional 35 000 jobs would have to be created each year to produce full employment by 1987, but this assumes that all Botswana of working age desire full-time employment. Assuming that a target figure for 'full' employment would be somewhat smaller, the need for new jobs can be estimated at between 15 000 and 20 000 per year. To date new job creation has rarely attained 5,000 per year.

employment in the civil service), and can therefore pursue a strategy of building up their herds by limiting offtake and minimizing expenses on herd management.

Compared with arable farming, however, even minimal offtake rates from cattle herds offer much higher returns to Botswana farmers. The GOB Ministry of Agriculture estimates that at current prices and yield levels, a farmer can earn more from selling one ox than he can realize from growing four hectares of sorghum or nine hectares of maize, without even taking into account the much greater labor demands of arable farming as opposed to stock-rearing. For those Botswana who own cattle and are in a position to choose between further investment in livestock or in arable agriculture, (e.g. purchase of additional inputs, expanded hectarage), the choice is obvious. While they rarely abandon crop farming altogether, the maintenance and growth of their herds naturally command most of their attention.

(2) The nature of arable agriculture

For the 60% of rural households owning few or no livestock, arable agriculture is of crucial importance, although it is usually not the sole means of livelihood. The single most important limiting factor is Botswana's low rainfall: the mean annual amount ranges from 600 mm in the northeast to 250 mm in the southwest, and it is often poorly distributed within the annual growing season. The rainfall factor alone accounts for total crop failure in most areas at least one year out of five, and partial failure in at least one other year. While crop production research has been ongoing for several decades, Botswana's grain yields have remained stable at 250-300 kg per hectare and are among the world's lowest. Overall, the country has remained dependent on food imports for about 50 percent of consumption needs in an average year, and the deficit in food grain supply extends into the rural areas where agriculture is the principle economic activity.

To develop and implement programs for increasing productivity in arable agriculture, the rural poor - who can be defined as the 60 percent of rural households who cultivate less than four hectares of land and own less than eight head of cattle - constitute the key target group. ²

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1. Aside from costs associated with the provision of water (e.g. borehole operating costs), the principal expenses generally consist of low wages paid in cash or in kind to non-stockowners who tend the animals. Many head of cattle are also loaned out or shared on a temporary basis through traditional arrangements such as the mafisa system, which allow non-owners to use animals as draught power for plowing and to utilize their milk, but do not provide direct cash incomes.
 2. Returns to arable farming are presently so low, however, that even those households cultivating between four and ten hectares are likely to fall below or near the statistical poverty line. GOB programs for arable lands development also encompass the latter group.

The production practices of the poor majority can be characterized as dependent upon outside sources of draft power, deprived of male labor for farmwork (one study found that over half of this target group consists of households headed by women), a lack of cash to employ non-family labor and with production (in an average year) considerably less than minimum household subsistence needs. (Output of 1 000 kg from four hectares would be insufficient to provide a household of six with the FAO estimate of 250 kg per person for a nutritionally adequate diet). Data from the 1974/75 Rural Income Distribution Survey showed that more than 50 percent of rural households fell below the 'poverty datum line' (then estimated at \$732 per household), and depended on casual employment, gathering and migrant labor earnings and remittances to supplement arable farming. In the context of recurrent drought, the poor majority are most susceptible to severe hardship during periods of food scarcity and high prices.

Special efforts are required to address the specific needs of this group of farmers. Although progress is likely to be slower and more difficult with these farmers than with the larger, more progressive ones, the impact will be more immediate in terms of broad-based development, and may be stronger over the long run. Furthermore, since these same households account for most of the food deficit in the rural areas, increasing their on-farm productivity is the most effective way of addressing that particular problem where the need is greatest.

(3) Lack of non-farm employment opportunities

While constraints to arable production can be reduced, if not eliminated, through program and policy measures, additional jobs created is likely to be modest. Specific attention must therefore also be given to non-farm employment opportunities, which are poorly developed at present. Both the GOB and USAID feel that activities in the non-farm sector have the potential to benefit the rural poor directly, while utilizing available resources in a sustainable fashion.

One focus of a non-farm employment program would be the potential for forward and backward linkages between small - to medium-scale rural industries and arable crop production. Scarcity of farm implements, such as plows and cultivators, in some arable lands areas suggest that there is potential for input manufacture and supply geared to improved crop production. The processing of farm produce (e.g. grain milling, tanning of hides and skins) appears to be another area of significant opportunity. Relatively labor-intensive technologies exist for industrial development in both areas.

Activities of this kind, however, would have limited impact on rural households inhabiting the more remote areas of the country, where little or no arable farming exists. For the Basarwa and other remote area dwellers, hunting and gathering (together with small stock, in some areas) have been the basis of their subsistence. The continuation of these strategies, which reflect long-term adaptation to a fragile environment, is now threatened by the expansion of commercial cattle ranching in the sandveld zone of the eastern Kalahari, and by the designation of large areas in the central and western Kalahari as Wildlife Management Areas. An important prerequisite for equitable development is a land use planning process that

takes the rights and aspirations of these remote rural populations into account. In some of the eastern areas with arable potential, a transition into sedentary agriculture is a possibility. In the more remote areas, however, soundly designed wildlife utilization schemes appear to offer the greatest potential. Botswana is endowed with a diverse and abundant population of wildlife, ranging from herbivores to crocodiles. Results from a recent countrywide survey, sponsored by the European Development Fund, indicate significant potential for scientific cropping of certain species, with local populations directly involved in production and deriving their incomes from such schemes. Wildlife resources are increasingly recognized as a means of integrating the most remote and marginal rural households -- those with least access to remunerative employment in agriculture or the formal sector -- into the development process.

3. GOB Rural Development Strategy

a. Social Services

Government policies towards rural development have evolved over the past decade, from an initial concentration on social services and infrastructure to an emphasis on production and income-generating activities. Efforts to formulate a national policy originated with the publication of Government Paper No. 1 of 1972, entitled Rural Development in Botswana. This document outlined a dual strategy:

.The securing of rapid and large returns to the nation from intensive capital investment in mining and other viable modern industries, mainly aimed at export markets; and

.The reinvestment of the proceeds of these investments in such a manner as to promote labor-intensive activities and improve services in the rural areas.

This policy orientation, and a series of consultants' reports that resulted from it, argued for a major commitment by the GOB to provide social services and physical infrastructure in the rural areas.

The Accelerated Rural Development Program (ARDP) was launched in late 1973, in order to rapidly upgrade basic services in the rural areas. The ARDP concentrated exclusively on the building of infrastructure, and eventually affected 27 major villages and 195 smaller villages. Major ARDP outputs included boreholes, village water supplies, primary school classrooms and teachers' quarters, health posts and clinics, staff housing and tarred roads in eight major villages. At its conclusion in March 1976, more than \$25 million had been spent. One generally recognized result of the ARDP was increased capability and credibility on the part of District Councils (elected local government bodies) and their staff, with whom responsibility lay for implementation and management of the facilities that were constructed.

Progress has continued since the termination of the ARDP: 80 percent of the country's primary school age group is currently enrolled in schools; 80 percent of the country's population now lives within 15 kilometers of a health facility; and the GOB is close to its target of providing safe water to all villages with populations of more than 500 by the 1980/81 fiscal year. Continued donor assistance, primarily from SIDA and NORAD, has been in a major factor in the success of these efforts.

b. Employment generation

(1) Tribal Grazing Lands Policy

While the delivery of social services was comparatively easy to achieve, the underlying problems affecting rural employment and incomes have proven to be far more complex. Aside from the well-protected livestock sector, economic activity in the rural areas has been characterized by comparative stagnation, and the GOB has moved cautiously in designing and implementing programs focusing on production. Resource allocations within the development budget for the NDP V plan period reflect that certain of these programs are still at a formative stage, and that by their nature evolve more slowly and carry less political weight (in the short run) than highly visible programs such as educational expansion and improved rural health services.

The rationale behind the GOB's cautious approach, and the complex nature of the problems it seeks to resolve, are well reflected in the Tribal Grazing Land Program (TGLP). This land tenure reform program, which was launched in 1975, has two principal objectives:

.To make grazing control, better range management and increased productivity possible; and

.To safeguard the interests of those who own only a few cattle or none at all, and the right of every tribesman to have as much land as he needs to sustain himself and his family.

An extensive consultation program was conducted in 1975/76 to explain the purposes of the TGLP and solicit public opinion on various measures that were proposed (vigorous opposition was expressed to the concept of stock limitations, and the idea was subsequently dropped). This consultation process reached well below the district level to kgotias (village councils) in the communal areas, and included a national 'Radio Learning Program' of broadcasts on various aspects of the TGLP.

The first stage in TGLP land use planning, undertaken at the district level, was to zone each district's tribal land into three broad land use categories: commercial areas, to be devoted to ranching on a leasehold basis; communal areas, in which grazing lands, arable lands and village settlements would be sited; and reserved areas for wildlife and possible future commercial or communal grazing.

Significantly, the detailed planning that followed this broad zoning exercise has concentrated, in most districts, on areas zoned commercial, which tend to be far removed from population centers and less affected by problems of overgrazing than the communal areas. Yet even in the commercial areas, TGLP implementation has impinged on population groups (primarily hunter-gatherers) who are excluded from water rights on newly designated ranches, and must therefore find new livelihoods elsewhere. The rights and aspirations of these groups are now recognized as a key element in comprehensive land use planning under TGLP, and in land allocation decisions made by the Tribal Land Boards, which are the designated trustees and administrators of land at the local level.

Because land tenure issues in Botswana are so complex, and because the land resource base is so vulnerable to environmental degradation, increased capabilities for land use planning and land management are now recognized as critical to the success of the TGLP and other rural development programs. The Ministry of Local Government and Lands (MLGL) has identified local institution-building (specifically the Tribal Land Boards) and support to local land use planning initiatives as the focal points in its strategy for the NDP V period. The concept of Communal Area Planning and Development (CAPAD) has been proposed as a framework within which equity considerations and productive employment opportunities can be integrated into the land use planning process.

(2) Arable Lands Development Policy

Planning for an Arable Lands Development Program (ALDEP), which is seen as complementary to the TGLP, has been underway within the Ministry of Agriculture since late 1978. Initial MOA efforts have focused on identifying the constraints to increased crop production, especially those confronting the poor majority. Consultation has thus far included district-level field officers of central ministries, but has not directly involved small farmers to the extent used in building support for the TGLP

ALDEP goals include: (1) the achievement of self-sufficiency in basic grains and legumes at both rural household and national levels, (2) increased arable incomes (both self-employed and waged), (3) generation of employment in the lands areas to reduce rural-urban migration, and (4) conservation of foreign exchange through import substitution. The first of these appears over-ambitious within the foreseeable future at the national level, but within reach at the rural household level. Significant progress towards the other objectives is feasible, provided that the ALDEP planning process identified priority areas with high potential and that MOA resources are fully committed to support activities in those areas. As evidence of the GOB's commitment toward ALDEP, the proportionate share of arable agriculture in the MOA capital development budget is scheduled to increase from 10 percent to 40 percent for the coming plan period, while the budget for research and capital investments in the livestock sector will be maintained at its present level.

Full-scale implementation of ALDEP is not expected to begin until 1981, but the MOA has developed several pilot projects, and has specifically encouraged field staff in the districts to formulate small - to medium-scale projects that can be implemented during the 1980/81 GOB fiscal year.

Diversification of arable production will also be pursued through MOA projects assisting the development of horticulture, dairy production, poultry and forestry for commercial purposes. Most will be small in scale and will require modest investment; many will be initiated by farmers groups, Village Development Committees and non-governmental organizations (for example, the Brigades and Development Trusts); and impact will be localized and relatively small during the coming plan period. These activities should be seen as pilot efforts potentially leading to broader programs in the 1980s.

(3) The non-farm sector

The GOB's strategy in the non-farm sector is not as well developed as in the agricultural sector, although a broad commitment has been made at the policy level, concurring with the recommendations of the Lipton Report, to support rural industrialization. The Ministry of Commerce and Industry (MCI) is the youngest, and in terms of trained manpower, the weakest, of the central government ministries concerned with rural development. In the initial years of the NPD V plan period, the main thrust of MCI efforts will be to develop technical, managerial and financial services to support rural enterprises through a cadre of Rural Industrial Officers (RIOs) posted to the districts. A Senior Industrial Officer within MCI will backstop the RIOs and provide substantive direction to the evolving rural industries program. As experience is gained, MCI intends to formulate specific projects arising from analysis of data gathered by RIOs, in cooperation with private, non-governmental and parastatal organizations already active in the rural areas.

Also within MCI, the Department of Wildlife intends to develop specific projects based on wildlife utilization. The Gemsbok Domestication Project, which is to be implemented by an American PVO under an Operating Program Grant from USAID, has already been designed as a pilot effort. The Wildlife Department will require outside technical assistance from a resource economist in the short term, and needs to develop an internal project planning capacity in the longer term, in order to design socially and economically sound projects for future implementation. The potential benefits of such projects to remote area dwellers are well understood at the conceptual level, but detailed analysis is needed to bring them to fruition.

4. Decentralization and Project Planning

As its development strategy has evolved during the past decade, the GOB has made significant efforts to decentralize rural development planning and implementation, while simultaneously refining procedures for project planning and approval. These two features of the GOB system are interdependent, and are of crucial importance to programs for NDP V, which place heavy reliance on district-level initiatives in the three areas of land use planning and management, arable farming and non-farm employment.

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1. The Botswana Rural Sector Study, prepared in support of the PID for this project, provides more detail on these two aspects of the GOB system (see pp. 31-35 and 110-121).

(a) Decentralization

The GOB's commitment to decentralization, in which MLGL officials have played a leading role, has been pursued through:

- .The buildup of District Councils' capacity to undertake their statutory functions;
- .The devolution of responsibility for the planning of both land use and socioeconomic activities to the district level;
- .The coordination and initiation of extension efforts at the local level; and
- .Active encouragement to ministries to devolve responsibilities to their field staff, and to consult with district on all development proposals.
- .The increased focus of rural development programs on small villages and commercial areas

District councils have a statutory responsibility to provide primary schools, basic health care facilities, domestic water supplies, non-gazetted roads and social and community development services. Greater financial discretion over the spending of development funds is gradually being introduced to councils, although they remain dependent upon deficit grants from the central government for sources of recurrent expenditure. In 1979, agreement was reached with SIDA,¹ which already funds the primary school program, to extend its support to councils through the District Development Support Sector Grant. The DDSS is designed to build up the councils' capacity through the provision of training, equipment and infrastructure.

District-level planning has encompassed two main types of activity. The first is the preparation of Land Use Plans for the TGLP, and the second is the preparation of comprehensive District Development Plans (DDPs) in association with NDP V. The former were prepared by the Land Boards with technical support from District Officers (Land) and the Land Use Planning Advisory Groups (LUPAGs), composed of central ministry technicians posted to the districts. All ten districts have now completed district-wide plans that zone all land into commercial, communal or reserved categories. Detailed planning for implementation is now being undertaken. Thus far, commercial (ranching) areas have received the greatest attention, and several initiatives have been put forward by districts for communal service centers in areas adjacent to the newly demarcated ranches.

1. Swedish International Development Agency

Following the publication of NDP IV in 1976, each district prepared a District Development Plan for the period 1977-1982. These DDPs were comprehensive, in that they included all rural development activities to be carried out in each district. The novel feature of the plans was their division into two phases: phase one detailed the implementation of NDP IV, while the second phase looked beyond this and put forward priorities (based on each a district's assessment of its requirements) and proposals for inclusion in NDP V. The plans were prepared by District Officers (Development) in conjunction with the District Development Committee (DDC). They were then approved by the District Council before submission to the central government. Districts are also charged with responsibility for overseeing implementation of their plans, and have devised management and monitoring systems for this purpose.

b. The approval process

To allocate and channel funds for project implementation, the GOB has established a multi-staged approval process at both the district and central levels of Government. Once a project has been identified and formulated, either by district-level or central ministry headquarters staff, and has been accepted in principle, a project memorandum (PM) is prepared. The PM includes background information, describes the proposed activities and their timing, states what benefits are anticipated, and provides details of capital and recurrent funding needs.

When district initiatives are involved, the PM is submitted to a sub-committee of the District Development Committee (e.g. the Production Development Sub-Committee) or a technical body (e.g. the LUPAG) for comment and approval. Approval from the DDC itself and (where relevant) the Land Board precedes the presentation to the District Council for final district-level approval.

Once district approval is secured, the PM is then passed to the relevant line ministry for review and approval. As the case dictates, the PM may also be submitted to other ministries with potential interest or responsibility, and possibly to one of several interministerial committees. These same procedures are followed for projects originating at central ministry level. For production-oriented projects, one or more of the following interministerial bodies will normally be consulted: the District Plans Committee (DPC), the Land Development Committee (LDC) and the Rural Industries Working Group (RIWG). The line ministry retains authority, however, to approve the PM, reject it, or request modifications. Final approval rests with the Ministry of Finance and Development Planning (MFDP) which also has the right to request modifications.

Once approval has been gained at the central level, funds can be disbursed by the MFDP, which warrants funds to the line ministry concerned; the latter then sub-warrants the money to those bodies responsible for implementation, such as the District Council in the case of MLGL or Regional Agricultural Officers in the case of MOA. There are cases in which a line ministry will have funds warranted to it in a lump sum, in anticipation of requests from district authorities. One such project is MOA's AE 10 (Small Projects); another, which has been proposed for inclusion under this AID Rural Sector Grant, involves ALDEP Pilot Activities

There are at least six decision points in the GOB project approval system. Their intended function is to improve the conceptual basis of projects, and ensure feasibility and accuracy in costing required inputs. The checks and balances built into this system, reflecting Botswana's tradition of consultation, guarantee a cautious approach to the expenditure of funds. Yet prolonged scrutiny of projects that are relatively small in scale, and are based on agreed principles, poses obvious risks. Solutions to the more intractable problems of rural development require a willingness to test and monitor a variety of approaches: the payoff from a small activity with a 50 percent 'failure' rate (which implies 50 percent success) may be considerable.

These observations suggest that, far from being casually or inadequately planned, many projects that survive this lengthy approval process tend to be over-planned. For example, the PM for the Village Area Development Programme, an experimental SIDA-assisted project in Kgalagadi District, went through 15 drafts before final approval was secured. Accelerated approval, however desirable, is only likely to occur as the districts become more experienced (and more precise) in defining the activities they wish to undertake. As yet there is little experience of this kind in the production sector: most of the discussions on this sector in the 1977/82 District Plans contained only general 'shopping lists'. During the next several years, however, the GOB anticipates both a higher quality and greater quantity of production-oriented project proposals to originate in the districts. To facilitate this process a number of projects are being designed that will provide funds specifically for district initiatives and include an expedited approval process that will greatly facilitate the transition of project ideas at the district level into concrete development interventions. The model for this kind of project is AE10: Small projects which has been in existence for about 18 months and is described briefly on pages 26-27.

B. PROJECT DESCRIPTION

1. Goal

The goal of this project is to stimulate rural development and a more equitable distribution of income in Botswana. This corresponds to the major thrust of the GOB's Fifth National Development Plan (NDP V), which is now in the final stages of preparation, and to the objectives laid out in USAID/Botswana's CDSS. Both the USAID and GOB strategies are based on the assessment that while the country is experiencing rapid economic growth, the impact of that growth has been uneven, with little direct benefit (in the form of higher incomes) flowing to the rural areas where 85 percent of the population lives. The GOB initially addressed this problem by expanding social services and economic infrastructure throughout the country, but recently has shifted its attention to the more difficult issues of rural employment and income generation.

Both GOB officials and USAID recognize that achievement of this goal will require a sustained commitment over the long term, with substantial reliance being placed on strengthened institutions at the district level and below. The proposed Rural Sector Grant will contribute towards the goal by addressing an array of constraints limiting the potential for increased employment and higher incomes in the rural areas.

2. Purpose

The purpose of the proposed project is to assist the GOB in the development and implementation of strategies to provide the rural population with increased access to productive employment opportunities. The lack of such opportunities in the rural areas at present accounts for low productivity in the agricultural sector, a serious deficit in the country's food supply which must be met by imports, a high rate of rural-urban migration and, as a result, a high rate of unemployment in urban areas, where formal sector jobs are very scarce. The GOB is in the process of defining policies and programs that will be implemented during NDP V, and beyond, with a focus on generating productive employment. Appropriate solutions to the underlying problems are expected to emerge as a result of initiatives taken at the village level, within the district planning process, and through pilot and quasi-experimental projects formulated at the central ministry level. By adopting a sectoral approach, the Rural Sector Grant will support the full range of such initiatives, and thereby lay the groundwork for broader, more comprehensive programs during the 1980s. Project inputs will be channelled through the mechanism of a Rural Development Fund which will be administered jointly by USAID and the GOB, with funds obligated annually on the basis of implementation plans approved by both parties.

In order to clarify linkages between different components of the GOB program which will be supported under the project, three sub-purposes have been developed. Figure 1 shows how these sub-purposes are inter-related.

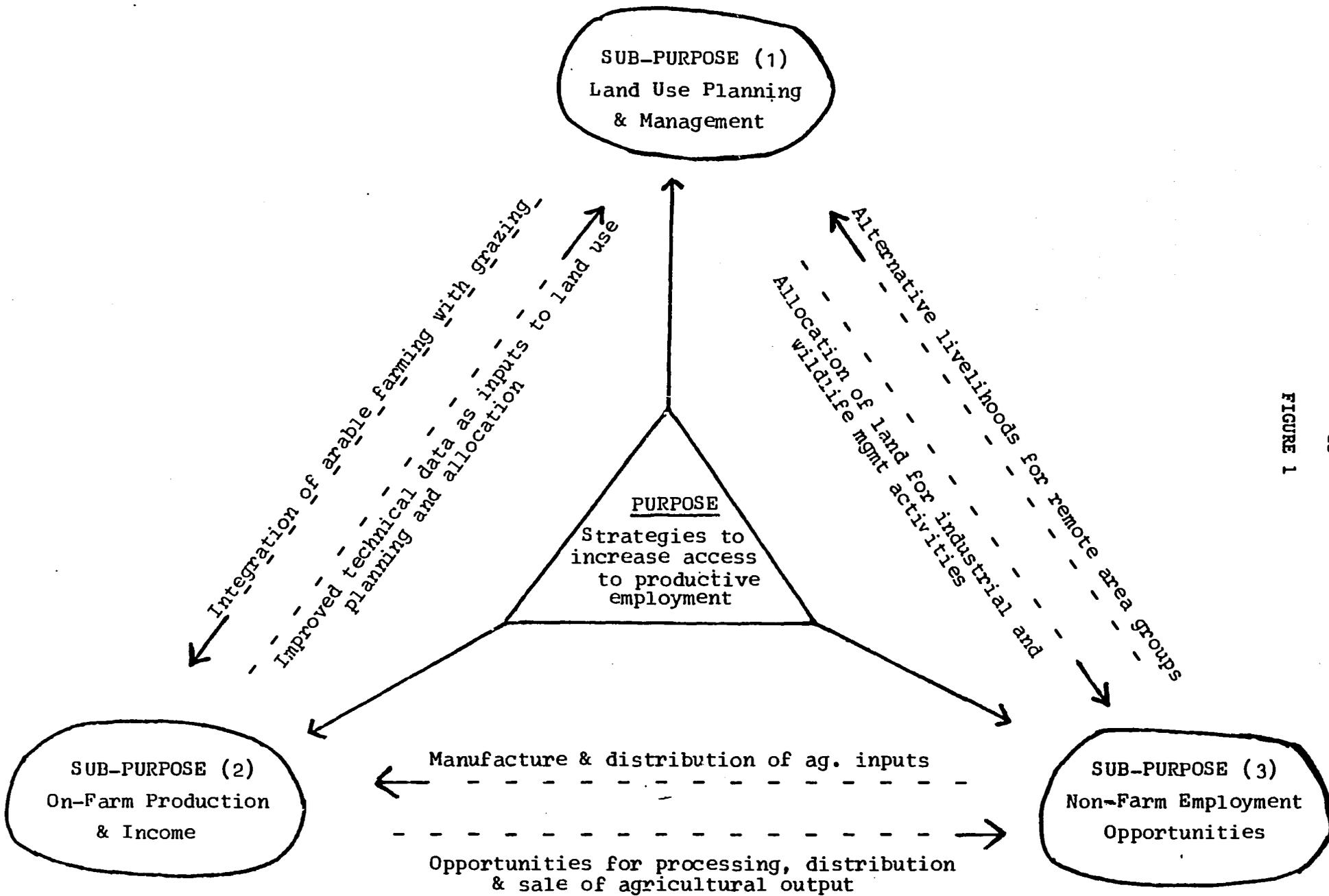


FIGURE 1

A. Sub-purpose (1)

The first sub-purpose of the proposed project is to assist the GOB in the improvement of land use planning and management. Sustainable and equitable utilization of the country's land resources is crucial to the future course of rural development in Botswana. The GOB has devolved responsibilities for land allocation and management to the Tribal Land Boards. The soundness of planning for long-term utilization of land hinges on the capabilities of these institutions and their technical personnel, on the degree to which the planning process incorporates the interests of all groups in each community through careful consultation, and on the allocation of land in accordance with its suitability for different uses. Further implementation of the TGLP, which is seen as the basis of a viable livestock industry, and development of complementary efforts under ALDEP for arable agriculture, will depend significantly on the quality of this planning process. To accomplish this sub-purpose, highest priority needs to be given to communal areas, which are both heavily grazed and densely populated, and where the need for comprehensive long-term planning is the most serious. The location of water points, and the management practices and environmental consequences associated with different types of water points (boreholes, wells, dams, etc) appear to be critical factors in land use planning. Systematic research on this subject will also help to achieve this sub-purpose.

B. Sub-purpose (2)

The second sub-purpose of the project is to assist the GOB in increasing arable production and the incomes of rural households. This sub-purpose is closely linked with sub-purpose (1), because sustainable increases in agricultural production, which also generate higher small farmer incomes, depend on the identification of high-potential arable land in the land use planning process, and on the allocation decisions made by Tribal Land Boards.

Increased production is one of the primary objectives of the evolving ALDEP program, but equal emphasis is placed on raising on-farm incomes for the poor majority who own few or no cattle and presently cultivate small amounts of land. While full-scale implementation of ALDEP will not begin until 1981 at the earliest, several pilot projects have been launched by the MOA, and similar initiatives are being encouraged at the district level. Diversification of agricultural production is also being pursued in activities with income-generating potential, such as horticulture, forestry and poultry. During the time-frame of the proposed project, the payoff from these efforts will be small, in terms of net gains in total arable production or household incomes, but they will have significant impact in shaping major GOB programs to be implemented in the 1980s

C. Sub-purpose (3)

The third sub-purpose of the project is to assist the GOB in increasing non-farm employment opportunities in the rural areas. While the non-farm sector has not been a major source of employment, and investment in small- to medium-scale rural enterprises has been minimal, the Lipton

Report and other studies have shown that significant potential exists for productive employment in this sector. The GOB intends to broaden its efforts in the sector, primarily through the Ministry of Commerce and Industry (MCI). In order to develop a substantive program, MCI will increase the number of its technical personnel, particularly at the district level, and will gather and analyze data on markets, resource availability and investment needs affecting the non-farm sector. Two key elements in this evolving program will be the exploitation of forward and backward linkages with agricultural production, which relates directly to sub-purpose (2), and the development of economically viable wildlife management schemes, in conjunction with sub-purpose (1), as a means of generating jobs and incomes for remote area dwellers who normally neither own cattle nor participate in arable farming.

3. End of Project Status

At the end of this three-year project, the following results are expected, with reference to each sub-purpose:

Sub-purpose (1): Land Use Planning and Management:

- A. Local land institutions (the Tribal Land Boards) will have an improved capacity to resolve basic technical issues affecting land allocation, and to introduce and develop a system of land registration;
- B. A series of communal area land use plans, developed and approved at the local level, will be under implementation for both (i) areas in eastern Botswana where arable farming and grazing are currently practiced, and (ii) newly designated communal areas adjacent to TGLP commercial ranches where non-water right holders (mainly Basarwa and other hunter-gatherers) may be resettled;
- C. Future water development within the arable communal areas will be systematically planned on the basis of the data and findings generated by the Water Points Survey currently in progress.

Sub-purpose (2): Arable Production and On-Farm Income

- A. A fully elaborated ALDEP program will be underway, with interventions adapted to specific ecological zones and to the needs of different socio-economic groups, including female-headed households;
- B. Results from pilot and quasi-experimental projects will demonstrate the technical and economic viability of various options for diversifying agricultural production in Botswana;
- C. During each year of the Rural Sector Grant, an increased volume of small projects originating with farmer groups will be approved and implemented with MOA support;
- D. MOA field staff in the districts will have a strengthened capacity to formulate, design and implement production-oriented projects.

Sub-purpose (3): Non-Farm Employment

- A. A support system will exist at the district level, backstopped by MCI, to service rural enterprises through the cadre of Rural Industrial Officers;
- B. A comprehensive data base on resource availability, market potential and investment needs for enterprises in the rural areas will have been assembled, providing the framework for an expanded MCI program during the mid-1980s;
- C. At least one new wildlife utilization project (in addition to the Gemsbok Project) involving remote area populations will be designed and in the process of implementation, by the Department of Wildlife within MCI.

4. Project Focus

A. GOB Institutions

In the central administration of rural development, the GOB utilizes executive ministries with discrete portfolio responsibilities. The sector program of each ministry is supported by conventional budget and planning processes centered in the Ministry of Finance and Development Planning (MFDP), and by the Department of Personnel in the Office of the President. Sub-projects submitted under the proposed Rural Sector Grant will originate within the three ministries: Local Government and Lands, Agriculture and Commerce and Industry. NDP V program objectives for each of these ministries have been laid out in the Project Background. MLGL is placing great stress on developing local land institutions and on integrated land use planning in the communal areas; MOA is gearing up for a major long-term effort to increase arable production and small farmer incomes; and MCI is expanding its field personnel in order to develop a comprehensive rural industry program. For an institutional assessment of these ministries, see Part III C (Institutional Analysis).

Interministerial coordination is supported through a network of 15 committees, in which information is exchanged and policy commitments are obtained through consultation and consensus. The center of this network is the Rural Development Council (RDC), which is chaired by the Vice President, who is also the Minister of Finance and Development Planning. The RDC is composed of all Permanent Secretaries and other key GOB officials. The secretariat of the RDC is the Rural Development Unit (RDU), which is a small and non-executive body located within the Division of Economic Affairs in MFDP. The Coordinator of Rural Development, who heads the RDU, has direct access to the Vice President, who has overall responsibility for rural development in Botswana.

The RDU shares offices with central planners in MFDP, and RDU staff serve on various coordinating committees, with a specific mandate to create linkages and information flows between ministries. Since its creation in 1973, the RDU has been closely involved with the creation and monitoring of the ARDP, the TGLP, the strengthened district planning

process and related decentralization measures, and drought relief programs. The RDU will be responsible for oversight and coordination of activities funded under the proposed AID Rural Sector Grant, and has played a major role in guiding the design process for first-year sub-projects.

B. The Target Group

The direct beneficiaries of activities funded under the proposed Rural Sector Grant will be those Batswana (an estimated 85 percent) who reside in the rural areas of the country. More specifically, activities will focus on two groups within the rural population who currently have least access to productive employment and whose incomes are the lowest:

1. The first group comprises households in the communal areas which practice arable farming but obtain very low yields and are not self-sufficient in food production. Because they cannot rely exclusively on agriculture, most spread their risks and depend on several other income sources, including casual wage labor, gathering and remittances from family members working in Botswana's urban areas or in South Africa. Approximately 60 percent of rural households cultivate less than four hectares of land, own fewer than eight head of cattle, and have incomes well below the statistical poverty line. At least 300,000 people fall within this group. As many as half of these households are headed by women, and new production-oriented projects will need to be carefully tailored to meet their needs.
2. The second group is considerably smaller (about 60,000 - 80,000), and resides primarily in the remote areas of Botswana, in zones now designated for commercial ranching and other uses that will displace them from traditional modes of subsistence based on hunting and gathering. Approaches being developed for communal area planning and development can also benefit these populations, who thus far have been little affected by Botswana's economic growth or by GOB development initiatives.

Reaching the poor majority remains a difficult and long-term process, and considerable experimentation will be required as programs and projects with a production emphasis are developed. The GOB's progress to date in decentralization provides a degree of assurance that village-level and district-level initiatives will receive appropriate support from central GOB ministries. Within the framework of the Rural Sector Grant, specific criteria will be applied to select sub-projects that are directed toward the poor majority.

5. Project Design

A. Sectoral Approach

The Rural Sector Grant is designed to build upon interministerial linkages that are crucial to the implementation of GOB programs during

NDP V. Increased access to productive employment provides a broad sectoral objective, corresponding to the major concern of the GOB's rural development strategy for the 1980s. Three distinct but inter-related sub-purposes have been defined, reflecting the key areas of land use planning and management, on-farm production and income, and non-farm employment. Significant progress towards resolving Botswana's severe employment problem will hinge on the integration of programs in these three areas. Attempts under ALDEP to tackle major constraints to production, for example, stand little chance of success in the absence of sound land use planning which resolves conflicting rights and establishes boundaries between arable lands and grazing lands in the communal areas. Similarly, small enterprise development in rural Botswana cannot proceed very far without taking account of supply and demand factors arising from ALDEP-related programs. These activities are already being implemented within ongoing GOB programs. Both GOB strategy and the design of the Rural Sector Grant specify that they be addressed in an integrated fashion, rather than deferring activities under one sub-purpose until another sub-purpose has been fully achieved.

These considerations reinforce the sectoral approach which has evolved during discussions between USAID and the GOB. The original request to USAID called for a flexible funding arrangement, oriented to central ministry programs, which would complement SIDA assistance to District Councils under the District Development Support Sector, approved in 1979. In the course of PID preparation and the analysis leading to the Botswana Rural Sector Study, however, sharper definition was given to the type of assistance USAID could supply. This led to the exclusion of some proposals advanced at the PID stage, which did not directly focus on productive employment or serve as pre-requisites for productive activities (as in the case of communal area land use planning). The result is a project which will function as an anchor for new and evolving programs in the three ministries, MLGL, MOA and MCI.

B. The Rural Development Fund

The proposed AID Rural Sector Grant will be implemented through the mechanism of a Rural Development Fund (RDF), which will be jointly managed by USAID and the GOB. This umbrella fund will serve as a source of support for an array of activities, jointly approved on an annual basis, which meet specified eligibility criteria derived from the project purpose and sub-purposes. The grant will cover a three-year period, beginning at or near the start of the GOB's 1980/81 fiscal year (1 April-31 March), with the possibility of renewal for a second phase pending the outcome of a joint evaluation. The appropriate time for this evaluation would appear to be at the end of the second full year of project implementation.

Sub-projects submitted for funding under the RDF will be formulated, designed and approved in accordance with established GOB planning procedures. For purposes of administering the Rural Sector Grant, annual implementation plans will serve as the mechanism through which funds will be obligated for each year of the grant period. Each annual plan will specify all sub-projects and constituent activities, with full costing

data, which require RDF funding during the coming year. For new sub-projects added to the eligibility list, project memoranda approved by MFDP will be included. For ongoing sub-projects that have been supported by the RDF during the preceding year, the implementation plan should include the following information:

1. a progress report noting achievements in the preceding year, and identifying implementation problems that have arisen; and
2. financial data on disbursements to date against in relation to planned expenditures (to indicate whether undisbursed funds remain in the RDF pipeline from the preceding year).

It is possible, indeed probable, that in any one year the requirements of certain sub-projects will either exceed or fall below the amounts that were projected in the annual RDF implementation plan. To allow for this, it is useful to provide some latitude for reallocation of funds within the set of eligible sub-projects. A ceiling of 15 percent is deemed appropriate by USAID and the GOB, allowing the GOB to exceed the level for any one sub-project (as costed in the implementation plan) by this amount, at its own discretion. The approval of the Director of USAID/Botswana will be required for any reallocation exceeding 15 percent on a single sub-project in a particular year.

C. Selection Criteria and Procedures

1. Common Elements of RDF Activities

At the PID stage, general guidelines were developed to define the types of sub-projects that would be eligible for funding under the RDF. The guidelines included a strong emphasis on production, a concentration on the communal areas, limitations on capital expenditure for construction, exclusion of most social service activities, provision for GOB financing of recurrent costs and a strong preference for projects originating within the district planning process.¹ Now that the design process has been completed, these guidelines remain applicable, but a greater degree of precision has been obtained by relating potential RDF sub-projects to the three sub-purposes of the Rural Sector Grant: land use planning and management, on-farm production and income, and non-farm employment generation. Each sub-purpose defines a grouping of sub-projects with a common theme. As a result of extensive consultations between the design team, USAID and the GOB, criteria have been formulated for each grouping. These criteria have been used in assessing potential Year 1 RDF activities, and will provide a basis for assessing sub-projects submitted in Years 2 and 3. The criteria for each grouping, and the Year 1 sub-projects which conform to them, are described in Section 4 below.

1. See pp. 39-40 of the Botswana Rural Sector Study

2. Review Procedures

a. GOB Approval and Selection of Sub-Projects

The standard requirements of GOB project memoranda must be satisfied for all activities proposed for RDF funding. These requirements include a demonstration of economic and technical feasibility, and of adequate implementation capability in the institution charged with carrying out the proposed activity. In addition, AID will require that each PM discuss the beneficiaries of each sub-project (numbers, sex, location, degree of poverty) and environment impact (see para 2b below).

Certain projects that are approved within the GOB system serve as 'umbrellas' for a number of discrete activities, each with its own budget. Many of these activities are generated at the district or village level (see, for example, LG 31 in Grouping I and AE 10 in Grouping II, below).

Eligibility for RDF funding requires that the 'umbrella' PM be approved by MFDP and submitted to USAID with the annual implementation plan. The plan shall require that a certain amount of money be set aside for discrete activities that originate in the district planning system. Each such activity will be described in a 'mini-PM' which addresses feasibility issues, outlines an implementation plan and provides a detailed budget. Where life-of-project costs in a mini-PM total less than P25 000, (U.S. \$31,750) internal RDF funds may be allocated by the ministry responsible for the 'umbrella' PM. For each discrete activity whose life-of-project cost exceed P25,000 (U.S. \$31,750), however, a detailed PM must be submitted as part of the annual implementation plan for USAID review.

In other cases, where a sub-project is comprehensive and all of its component activities can be specified at the planning stage, RDF funding would be committed at the time that a detailed PM is approved and submitted in an annual implementation plan.

If the funding requirements of potential RDF sub-projects exceed the amount available in either Year 2 or Year 3, the decision as to which shall be included under the RDF and which shall depend on other funding sources will be the responsibility of MFDP, in consultation with the RDU and the Reference Group established to coordinate RDF design and implementation.

b. Environmental Review Procedures

The Initial Environmental Examination did not foresee any major adverse environmental effects from RDF activities, and therefore recommended a Negative Determination. USAID requested that an environmentalist be included on the PP team, however, to review Year 1 activities that had not been fully described at the PID stage, and to establish environmental review procedures for sub-projects that would be submitted in Year 2 and 3.

Although the GOB takes into account the natural and human environments in designing projects, it does not explicitly address environmental issues in PMS. At the first meeting between the PP team and the interministerial reference group coordinating design of the Rural Sector

Grant, the Environmentalist distributed a memorandum suggesting how PMs could be augmented, in order to address three broad categories of environmental concern:

1. suitability (the fit between the proposed activity and its natural and socio-economic setting),
2. sustainability (the ability of the environment to support the proposed activity over the long term), and
3. externalities (primarily negative side effects of the proposed activity).

If adverse effects are identified, the PM should define the measures that will be used to avoid or minimize them.

All PMs submitted for Year 1 funding now contain discussions of environmental soundness issues. The PP environmentalist reviewed these submissions and determined that they correctly demonstrated that no significant adverse effects would occur as a result of their activities.

The Project Agreement will contain a provision that all PMs submitted in Years 2 and 3 also include sections examining environmental soundness. The PP team and USAID concluded that the format established for Year 1 was adequate for meeting AID requirements. As a further step in developing GOB capacities, the environmentalist conducted a half-day course on environmental assessment techniques for Senior Planning Officers and Administrators from MLGL, MDA and MCI, and planning officers from MFDP and the RDU. These will be the key GOB personnel involved in planning RDF sub-projects in Years 2 and 3 of the Rural Sector grant.

The only additional activity with major environmental implications presently foreseen for subsequent years is the development of water points (open wells and/or small dams) to support arable production. The ongoing Water Points Survey, which has a major environmental component (see Grouping I below), will provide guidance for future GOB efforts in this area. USAID approval for the use of RDF funds in Year 2 or 3 will depend on the results of the survey.

c. Sub-Project Groupings and Year 1 RDF Activities

All project memoranda submitted for Year 1 RDF funding were carefully reviewed during the PP design process, and several were rejected as unsuitable for RDF support, based on selection criteria that were developed for each grouping. The PMs that were approved by the GOB and USAID are available for AID/W review. Although not appended to this Project Paper, due to their length, they may be obtained from AFR/DR/SA.

1. See annex IE

The criteria used for each grouping are designed to serve three functions:

1. they exclude activities that are not directly related to the specific sub-purpose;
2. they are inclusive in the sense that they define priority areas and specifically encourage certain types of activities; and
3. they lay particular emphasis on the poor majority as the key target group for RDF activities.

Firm funding requirements have been established for Year 1, and provisional estimates have been made for Years 2 and 3. The criteria developed for each grouping will be applied in assessing all additional sub-projects submitted in Years 2 and 3.

Grouping I: Land Use Planning and Management

This grouping of sub-projects corresponds to sub-purpose 1 - to assist the GOB in the improvement of land use planning and management. Eligibility for RDF funding will be determined by the following criteria:

- .Land use plans submitted for RDF funding must contain information on the resource base (land capability, vegetation and water) and on the sustainability of proposed uses;
- .The implementation capacity of local institutions involved in land management (Tribal Lands Boards, Subordinate Land Boards and District Councils) should be analyzed and when necessary reinforced;
- .Basic infrastructure and social services would qualify for RDF funds only when they form part of a wider, comprehensive, physical and economic plan;
- .RDF funds should support activities related to CAPAD (Communal Area Planning and Development), including communal service areas created for persons displaced from commercial leasehold ranches;
- .Land use planning for TGLP commercial ranches would be excluded;
- .Surveys and investigations should be designed to identify productive economic activities, with special attention given to communal lands and remote areas.

During the PP design process, two 'mini-PMs' were submitted under the LG 31 'umbrella', requesting funds for borehole development in communal service areas adjacent to TGLP ranches. These did not meet the third and fifth criteria since neither contained a full physical and economic plan. They were returned to MLGL, and may be resubmitted in Year 2 if more detailed planning is carried out during the coming year.

<u>MLGL:</u>	<u>DEVELOPMENT OF LAND INSTITUTIONS</u>	<u>NDF No. LG 36</u>
RDF Funding in First Year:	P172,700	(US \$ 219,327)
Second Year:	P151,000	(US \$ 191,770)
Third Year	P 31 900	(US \$ 40,513)

This sub-project has been designed to strengthen the Tribal Land Boards, which have responsibilities as trustees, allocators and adjudicators of tribal land. MLGL is recruiting a cadre of technical officers to augment the staff of Land Boards, and four experienced Land Tenure Officers who will have regional responsibilities. Capital costs under LG 36 are being shared between the RDF (P366 850) and GOB Domestic Development Funds (P532 400). A detailed budget has been prepared covering GOB fiscal years 1980/81 through 1983/84.

RDF inputs over a three-year period include a six-month consultancy by a training specialist, course development and training course costs for Land Board members and staff, construction of 8 Subordinate Land Board offices in remote areas (4 in Year 1, and 4 in Year 2), office furniture and equipment for Land Board technical staff, and two vehicles for MLGL's newly created Applied Research Unit.

MOA: WATER POINTS SURVEY

RDF Funding (First Year Only): P 43,540 (US \$55,296)

Assisted by a team from Cornell University, the MOA is carrying out a survey of water points in the densely populated communal areas of eastern Botswana, in order to provide policy guidance for future water development. This survey got underway in August 1979, and will be completed in December 1980. Activities carried out to date include airphoto interpretation; interviews with samples of household heads (n = 358) and cattle owners (n = 258) in 12 agriculturally or geographically distinct study areas; structural and economic data on 54 water points; range assessments; development of a methodology for estimating the relative condition of cattle; and administration of water point diaries recording details of use.

Much of the survey has concentrated on dams. Recommendations for improving technical efficiency in dam siting and construction are being formulated. Alternative solutions, particularly shallow wells, are also being investigated. Careful attention is also being given to local participation in water point management, to farmer perceptions of critical water issues and to community strategies for backup water when sources such as dams go dry.

RDF support for the survey, totalling P 43,540 , will commence on or about April 1, 1980, the start of the GOB fiscal year, and will cover in-country operating costs such as enumerator salaries and data processing. AID/W funds from Cornell's cooperating agreement with DS/RAD will total P40 605 (US \$51,975), while GOB contributions will total P14 900.

Grouping II: On-Farm Production and Income

A second set of sub-projects has been grouped under sub-purpose 2. to assist the GOB in increasing arable production and the income of rural households. Eligibility for funding under the RDF will be determined in accordance with the following criteria:

- .Each sub-project must have a direct impact on agricultural production, or address a systemic constraint that limits production;
- .Each sub-project must be small producer-oriented, focusing on households which cultivate 10 ha or less;
- .Each sub-project must pay special attention to the problems of the poorest rural households, many of which are headed by women;
- .Proposed activities must be shown to be suited to the socio-economic systems of the intended beneficiaries;
- .Proposed activities must be shown to be suited to the ecological conditions of the area, i.e. the sub-project must be sustainable within the parameters of land and water availability, and the analysis must take account of potential secondary environmental effects;
- .Where applicable, a commitment of resources (financial, in kind or labor) should be obtained from beneficiaries to improve prospects of socio-economic sustainability.

During the design process, a poultry development sub-project was proposed for RDF funding by the MOA. This sub-project was oriented towards progressive farmers rather than the poor majority; in addition, several serious implementation issues were not adequately addressed in the PM. As a result, the sub-project was rejected. PMs for several other sub-projects underwent substantial revision during the design process, to bring them into greater conformity with the selection criteria. The four sub-projects in this grouping that were eventually selected for Year 1 funding are described in summary form below.

First Year Sub-projects

MOA:	<u>ALDEP PILOT ACTIVITIES</u>	AE - 19	
RDF Funding in First Year:	P	180,500	(US \$229,235)
Second Year:	P	122,000	(US \$154,940)
Third Year:	P	45,000	(US \$ 57,150)

The Arable Lands Development Program (ALDEP) is a major GOB initiative aimed at increasing the production of staple foods, generating productive employment and raising rural incomes. The purpose of the ALDEP Pilot Activities sub-project is to test some of the measures being proposed, to develop implementation capacity and to provide a gradual transition into the main ALDEP program. Some of the specific activities that the MOA intends to implement include pilot credit schemes for animal traction and farm implements, fencing to separate crop areas from grazing areas, on-farm water points to support arable production, and construction of prototype village-level storage facilities for grain and inputs.

Although some of these pilot activities will be designed by central planning staff within the MOA, most are expected to stem from district initiatives. MOA field staff are encouraged to develop project proposals, based on their direct contact with farmers, that will be approved by district institutions and then forwarded to the MOA (and eventually MFDP) for approval and funding. For activities of this kind which have life-of-project costs below P25,000 (\$32,750) and which fall under the 'umbrella' memorandum for ALDEP Pilot Activities, internal GOB review will be sufficient. Where LOP costs exceed P25,000, a PM for the proposed activity must be submitted to USAID as part of the annual RDF implementation plan.

Two pilot activities, farm implement credit and water development, were initiated during the 1979/80 fiscal year. During the 1980/81 fiscal year the implement subsidy and credit program will be expanded to 500 farmers. The total cost of this activity will be P145,000 of which the subsidy element (P43,500) will be financed under the RDF. First year funding is also being made available for the following types of district initiatives: water development for arable production (P29,000); credit for draft power (P29,000); village-level grain and input storage facilities (P50,000) and fencing to separate crop from grazing areas (P29,000). Total funding for this sub-project in Year 1 will be P180,500. These figures are indicative since they depend entirely on district initiatives. It is expected that some districts will not be able to initiate projects in areas other than those listed here (training of local farmers as extension assistants, gardening activities). Two have been received and are attached to the PM on ALDEP Pilot Activities. Such initiatives will be funded out of shortfalls from the programmed categories of activities. It is expected that requirements will be about P112,000 in Year 2 and decline sharply to P45,000 in Year 3, when the main ALDEP program is scheduled to get underway.

MOA: SMALL PROJECTS NDP NO. AE 10

RDF Funding in First Year:	- 0 -	
Second Year:	P80,000	(U.S. \$ 101,600)
Third Year:	P100,000	(U.S. \$ 127,000)

This project is designed to respond to village-level initiatives in undertaking small-scale agricultural infrastructure and production activities. Examples of types of activities to be funded are village gardens, small stock production, poultry, storage facilities, fences to separate crop lands from grazing lands, soil conservation measures and water development for agricul-

Three activities will be funded in the first year - Forestry Nurseries, the Sandveld Plantation Trails at Takatokwane in Kweneng District and the Matsheng woodlot management plan in Kgalagadi District. One forestry nursery will be established to increase the availability of seedlings for the later afforestation projects. The Sandveld trails aim to determine the most appropriate species and establish methods for an area representative of much of the Kalahari sandveld. The Matsheng woodlot management plan seeks to improve the productivity of a reserved woodlands area and develop a model for sustained local management of woodlots for firewood, timber, and fodder.

The Sandveld Trials will be implemented by the Kweneng Rural Development Association (KRDA) Forestry Unit, along with the MOA Forestry Nursery and the Kweneng District Council. The Matsheng woodlot project requires participation by the MOA, MLGL, the Kgalagadi District Council, and Village Development Committees from interconnected villages. A management structure has been created to coordinate the inputs of the different institutions.

It is expected that several non-governmental organizations, specifically Brigades, will submit woodlot proposals for RDF funding in Year 2 or 3. Preliminary proposals have already been received from the Kweneng District Council for a flood control project in Molepolole, and from the KRDA for a commercial woodlot for firewood and pole production. Other proposals may be submitted by the Serowe, Kasane, Mochudi and Ngamiland Brigades. In addition, the Forestry Nurseries activity will continue expanding to four more sites.

Grouping III: Non-Farm Employment Opportunities

The third grouping of sub-projects corresponds to sub-purpose (3): to assist the GOB in increasing non-farm employment opportunities in the rural areas. Eligibility for funding under the RDF is determined by the following criteria:

- .Each sub-project should be oriented towards groups which are characterized by high levels of unemployment and underemployment;
- .Special consideration should be given to labor-intensive technologies which are shown to be economically viable;
- .Survey activities and consultancies should be designed to fill major gaps in data on resource availability, market potential, choice of technologies and investment needs for new rural industries;
- .Sub-projects based on exploitation of natural resources (e.g. wildlife) must demonstrate that proposed practices will be sustainable over the long term;
- .Technical and managerial assistance to rural enterprises will qualify for RDF funding, but direct financial investment and provision of credit should come from sources other than the RDF.

First Year Sub-Projects

<u>MCI:</u>	<u>RURAL INDUSTRIES PROJECT</u>	<u>NDP No. CI 08</u>
RDF Funding in First Year:	P 168,150	(US \$213,550)
Second Year:	P 214,778	(US \$272,768)
Third Year:	P 175	(US \$222,250)

The Rural Development Fund will play a key role in helping to launch MCI's rural industries program, which is focused on a cadre of newly recruited Rural Industrial Officers (RIOs) who are posted to the districts. The RIOs themselves, who are expatriate volunteers, underwent an intensive training course (financed by USAID) during January/February 1980. They will be backstopped by a Senior Industrial Officer (Rural), who will be an OPEX technician funded under the RDF.

The initial focus of the RIOs' program will be on data collection and surveys of existing and potential industries and resources. As they gain familiarity with their districts and as the critical information gaps are filled, specific projects will be identified and developed within the district planning framework. Through the SIO, other MCI staff and outside consultants (where needs are identified), technical inputs will be made available to define area-specific programs.

In addition to the SIO, RDF funds will finance vehicles for 5 RIOs (with an equivalent number being purchased with GOB funds); training and office equipment for the SIO and for the RIOs and their counterparts; and a small projects fund to be used for surveys, training activities for rural entrepreneurs, demonstration and training equipment, and exhibitions (but not for direct investment or for working capital in rural enterprises themselves). Each RIO will have a fund of P5 000 in Year 1 and P10 000 in Year 2 and in Year 3; the SIO will manage a central fund of P25 000 per year. Details on disbursement procedures are provided in the project memorandum.

<u>MCI:</u>	<u>WILDLIFE MANAGEMENT DEVELOPMENT</u>	<u>NDP NO. GA 02</u>
RDF Funding in First Year:	P 80,000	(US \$101,600)
Second Year:	P 48,000	(US \$60,960)
Third Year:	P 48,000	(US \$60,960)

The objective of this sub-project is to increase access to productive, income-generating employment through more effective utilization of Botswana's wildlife resources. The PM for this sub-project contains four components:

1. Individual (hunter) harvesting schemes which aim to increase offtake of selected species from 5% to 10%;
2. Commercial harvesting schemes which would concentrate on animal species with a high market value;

3. Secondary processing activities, such as preparation of hides and skins; and
4. A monitoring program to ensure that utilization schemes are carefully tailored to fluctuations in animal populations.

As budgeted in the PM, the total cost of this sub-project would be P814,868 of which P586,668 would be needed to finance monitoring component over a five-year period. This amount is substantially larger than RDF funds alone could support. However, RDF funds can be used to support components (1) (2) and (3), which have the most immediate potential to create productive employment. In Year 1, RDF funds will be used to finance short-term consultancies to examine the technical, economic and social viability of schemes for harvesting zebra, crocodile and ostrich, which are relatively numerous, according to the EDF-financed Animal and Countrywide Animal and Range Assessment completed in 1979. Funds will also support an OPEX natural resource economist. The GOB will provide logistic support for the natural resource economist and the short-term consultants and will provide a counterpart for the natural resource economist. The cost of these inputs in Year 1 will be P80,000. Only very rough estimates can be made at this time for Years 2 and 3, since additional sub-projects await the outcome of the forthcoming consultancies. However, prior to AID funds being used for any harvesting scheme: (a) a thorough environmental assessment of the proposed scheme will be required; and (b) the monitoring program (item #4 above) must be underway funded by another donor or the GOB.

Part III: Project Analyses

Section A: Technical Analysis

1. Land Utilization

A. Land utilization patterns/problems

The GOB decided in 1975 to intervene actively in the question of land tenure with the initiation of the Tribal Grazing Lands Policy (TGLP). The objectives of TGLP were:

- .to make grazing control, better range management and increased productivity possible; and
- .to safeguard the interests of those who owned only a few cattle or none at all and the rights of every Tribesman to have as much land as he needs to sustain himself and his family.

The TGLP proposed to accomplish this by dividing tribal lands into commercial ranches, communal areas and reserves, which might become in some cases Wildlife Management Areas.

Implementation of TGLP has encountered several difficulties along the way. Commercial areas were often demarcated on the incorrect assumption that proposed ranches were unoccupied by human beings or cattle. The size of a commercial ranch was usually an arbitrary determination, rather than an informed decision based on the availability of water and forage. Few communal areas have been demarcated because of the complexity of natural resource issues and of the socio-economic systems in their areas. Nor has TGLP curtailed the haphazard pattern of cultivation which leads to conflicts between arable farming and cattle raising. In fact, the proposal for communal areas may be precipitating a land grab in some localities, as farmers put fences around 'lands' which are far larger than their present resources allow them to cultivate.

Nor do the Land Boards and Subordinate Land Boards, established to allocate demarcated lands, operate very effectively. The Land Boards have not set restrictions on the amount of commercial lands that one individual can hold, nor have they developed procedures for determining who in overcrowded communal areas has priority to commercial ranches. The Land Boards have not yet developed procedures for granting or canceling the right to use lands in communal areas, or for adjudicating disputes concerning land issues, and they have declined to impose limitations on stocking rates in communal areas.

Partly because of these implementation difficulties, it is not likely that the TGLP will be as successful as anticipated in meeting its dual objectives. Land is not always being assigned to its most productive uses, and not all people are securing a claim to the land resource.

B. Responses

LG 31, Implementation of Land Use Plans, is an essential component for the successful implementation of TGLP. One dimension of LG 31 is support for land use planning. It funds the collection and analysis of technical information, including data on soil types, vegetative patterns and existing

land utilization. This information is needed to insure the correct size and location of commercial ranches and the adequate and effective utilization of natural resources in communal areas. The other dimension of LG 31 is support for limited infrastructure (water for domestic consumption and health and education facilities) in Communal Service Centers, which are adjacent to commercial ranches. These services are intended to assist those people displaced from commercial areas as well as existing residents of communal areas.

LG 36, Development of Land Institutions, is another essential component for successful implementation of TGLP. Not only is it necessary to determine the most appropriate use of a land area, but also to assign users to the land, which is a difficult and complex task. Thus, the purpose of LG 36 is to provide Land Boards and Sub-Land Boards with the equipment and training needed to allocate land rights in an orderly and harmonious way.

2. On-Farm Production and Income

A. Problems

In its National Development Plan V, the Government of Botswana has committed itself to an arable agricultural policy to make Botswana self-sufficient in cereal grain production in the near term and to markedly increase employment in the agricultural sector over the long run. However, a complex mix of natural and economic characteristics of Botswana appear to limit the expansion and productivity of the arable agricultural sector. These include:

- .the high risk nature of crop production due to low total rainfall and the extremely uneven distribution of rainfall during the growing season;
- .the lack of access of the poor majority in rural areas to land, draught power, water, implements, and cash or credit;
- .the existence of competitive and more remunerative activities in cattle raising subsidized by very favorable marketing arrangements with the EEC, in paid labor positions in South African mines and the small Botswana mining industry, and in government service.

The majority of crop farming in Botswana is done on an extensive land utilization pattern. High seed densities of a mixture of crops are broadcast and turned into a very rough seedbed during a single pass of a plow. The plow is usually pulled by a team of donkeys or cattle which may number up to six or eight in the case of a single bottom plow or up to ten or twelve in the case of a two-bottom plow. One weeding may be done following planting, then the crop is left to mature. As the crops mature, some members of the family may be assigned to go to the 'lands' area (the area where crops are grown), to protect the crops from birds and other pests. The next major investment of family labor occurs when the crop is harvested.

The overall process of crop production in Botswana has been referred to as 'intensive gathering' or 'pre-agriculture' due to its very extensive nature. Such a description tends to ignore the fact that the Botswana natural

environment is inherently risky for dryland farming. Total rainfall is marginal for many crops, and rainfall distribution during the growing season is extremely uneven. Only a tiny portion of the 7% of the total land area which is considered suitable for arable agriculture can ever hope to benefit from irrigation. Water supply is a very uncertain and critically limiting factor in Botswana arable agriculture.

Given this perspective, smallholder behaviour in committing very few resources until some likelihood of receiving a yield is assured is very adaptive. Those individuals and institutions who seek to improve agricultural production through changes in cropping system productivity which require substantial or even marginal increases in either capital or labor investment, will have to adjust their strategies to meet the farmers' need for a less risk-prone approach.

The lack of access to crucial production inputs by the poor rural majority has been well-documented by a series of studies done since the 1960's. The impact of this problem is discussed in the previously prepared Botswana Rural Sector Study and in the Economic and Social Soundness analyses in this Project Paper. The economic analysis also addresses the effect of the presence of alternative investment and employment opportunities, which have a far greater rate of return and less associated risk than the crop sector, on arable agriculture.

The attractive returns from cattle raising and employment in the formal sector contrast sharply with present levels of return from crop production. This aspect of the Botswana economy is further developed in the Economic Analysis. However, it is important to note that some estimates indicate the need for more than a two-fold increase in cereal yields before arable farming could become competitive with cattle production or formal sector employment as a source of income. ¹

The general nature of the agronomic problems and the socioeconomic constraints to increased crop production have been understood for some time. However, only in the last decade has the Ministry begun to apply significant resources to study and research which address these problems. The major research station at Sebele has focused on traditional agronomic investigations. With support from donors, notably programs such as the UK's Evaluation of Farming Systems and Agricultural Implements (EFSAIP) and the Integrated Farming Pilot Project (IFPP), a shift is occurring towards a more systemic approach to the agronomic, economic, and socio-cultural constraints to improving dryland productivity in Botswana.

Besides staple crop production, there has been increasing recognition on the part of the GOB that agricultural diversification would serve its objectives of lessening dependence on South Africa, creating agricultural employment opportunities and decreasing foreign exchange requirements. Because the GOB has decided not to rely on a highly capital intensive, modern sector approach to the production of cash crops, it has been confronted with the need to develop the indigenous expertise in cash crop production and to formulate strategies for involving the rural smallholder in economically

1. Hoyt Alverson, Agricultural Development in Botswana: Targets and Constraints, Institute of Development Management Public Lecture, November 23, 1978.

feasible projects. To date, while potential areas of opportunity have been identified, e.g. in horticulture, forestry, and poultry raising, feasibility remains to be demonstrated by practical experience derived from pilot efforts.

B. Responses

The agricultural projects which the Rural Development Fund will support are not presented as certain solutions to Botswana's crop development problems. Rather, they aim to strengthen the MOA's efforts to find solutions which are in accordance with the needs of the poor majority of Botswana who are very dependent on arable agriculture for subsistence, and who will become more dependent on agricultural employment opportunities as the cattle industry reaches its peak and South Africa halts recruitment of mine workers. Besides seeking answers to the arable agricultural questions, the projects are also intended to develop planning and implementation capacity for expansion of successful pilot activities, especially at the district level and below.

The Arable Lands Development Pilot Project (ALDEP) is the Ministry of Agriculture's attempt to bring together the disparate threads of past crop research and experience to address the most commonly identified constraints to smallholder crop production. ALDEP already has a year of pre-pilot experience testing the impact of credit supply on the availability of draft implements. The first year's funding under the RDF will support the expansion of this program to the pilot stage by subsidizing the purchase of agricultural implements sold to farmers on credit provided by the National Development Bank. Also in the first year, the RDF will support a series of district initiatives addressing production constraints in order to foster the decentralization of agricultural development planning and implementation capacity. ALDEP activities are planned mainly for the hardveld area of the country where most of the country's arable land is located and for which the most is known about the adaptability of different crops and practices.

The MOA's Small Projects Project undertakes small-scale, readily identified projects at the level of the farmer group. It addresses the provision of incentives for small farmers to mobilize their own resources for feasible projects addressing locally identified needs. Most of the projects have a direct and visible impact on the ability of the farmer to produce, e.g. drift fences to avoid stock damage to crops, small vegetable gardens to diversify diet, beekeeping, dip tanks for tick control, etc., and few technical feasibility issues are involved.

Two other projects, Horticulture and Afforestation within the grouping reflect attempts to diversify the crop production base, and, in the case of the Afforestation project, rehabilitate the natural resource base in a renewable manner. The horticulture project is a quasi-experimental approach towards developing a management model, the 'horticultural estate', which provides for maximum participation by smallholders in the development of a commercial import substituting fruit and vegetable enterprise. Production technologies are based on the experiences of local growers, on the results of trials conducted at Sebele during the past few years, and on estimates by the horticultural unit of the MOA of the rate at which smallholders could acquire technical expertise in land preparation, crop husbandry, irrigation, harvesting, and packing. The Afforestation project in the first year of RDF support will establish a nursery and set up species trials to determine the adaptability and the economic feasibility of different species to be used in firewood, timber and

shrub fodder production in critically denuded areas in the sandveld. The sandveld area is generally considered to be sub-marginal for crop production.

3. Non-Farm Income Potential

A. Problems

At present 86 percent of the population resides in rural areas. Approximately half of the rural households are below the 'poverty datum line' due to under-employment or unemployment.

Cattle holding and arable agriculture are the backbone of Botswana's rural economy. They cannot, however, generate the 10 000 to 12 000 additional jobs needed per year. A greater part of the additional employment must be generated in non-farm activities.

There do exist opportunities for non-farm activities, especially in sectors with transport cost advantages and local raw material bases, such as construction material, processing of hides and trophies and service industries. Additionally, there will be increasing demand for agricultural inputs (tools, equipment, repairs) as programs such as ALDEP achieve increased productivity in arable agriculture.

Although the opportunities for rural industries are potentially very great, there are a number of significant obstacles. First, there is a severe shortage of cash in many rural areas and this makes market transactions difficult. Second, Botswana is a small, sparsely settled country and the absolute size of markets is very limited. Third, industries must compete with the very productive industries of the Republic of South Africa. These industries have easy rail and road access to Botswana and their goods pass the borders with no duties due to the Southern African Customs Union. Thus, the extent to which employment is generated in non-farm activities in rural areas depends more than in most countries on proper planning and organization of rural industrialization programs and projects and on their integration into the overall rural development effort.

B. Responses

The major effort in this area is the establishment of the Rural Industrial Officer cadre (RIOs). The RIOs will be the first and only cadre for planning, implementing and coordinating Botswana's rural industrialization programme. They will be given extensive training, vehicle support and limited cash for initiating projects.

A complementary project is the one for Wildlife Management Development in the same Ministry. This project will permit increased individual harvesting by licensed local professional hunters, explore the potential of commercial harvesting schemes for selected species and conduct education programs in the proper processing of hides and trophies. The most immediately promising areas are commercial harvesting of zebra and its associated tannery and a training program to prevent the loss of valuable hides and trophies by rural area

dwellers. Further instruction in tanning and production could lead to the growth of a cottage industry producing tanned skins, high quality karosses and curios along the lines of the handicraft industry tapped by Botswanacraft.

4. Inter-relationships among the three groupings

The utilization and management of land directly impinges on agricultural and wildlife development schemes, and thus has implications for off-farm employment. To a considerable extent, the soundness of land use planning determines the long-term viability of production activities, especially under the fragile ecological conditions found in Botswana. In communal areas, particularly, both grazing potential and soil fertility for arable purposes are influenced by the patterns of land utilization. Any attempt to deal with employment and income questions must therefore incorporate an assessment of land resource potential, and must also take into account the decision-making processes that operate in allocations of land resources.

Increasing arable land production is the major component of a project such as this which aims to increase rural employment and income. For example, ALDEP will increase production and thus income by upgrading farmer technologies. The increased agricultural activity will create the demand for such services such as harness manufacture and repair and the production and repair of implements. If ALDEP is successful in increasing yields, there will be markets for milling, oil extraction and other forms of processing agriculture output.

The rural industrialization program is needed to stimulate the provision of services needed by farmers and to develop facilities for processing agricultural and wildlife outputs. At this time there is very limited capacity in the service and secondary processing sectors in rural areas.

Increasing individual and commercial harvesting of wildlife is a lesser but still important way to increase employment and income especially in the more remote rural areas. The Wildlife Management Demonstration Project will increase hunting opportunities for rural residents, train them to treat meat and skins so they have a greater market value and evaluate and promote, where feasible, commercial harvesting schemes.

5. Environmental Issues

An environmental soundness statement has been prepared for each umbrella PM or project PM. The most pertinent issues by project are summarized below.

A. Horticulture

Since pesticides have been and are being used in Botswana in such small quantities, there are currently no legislative restrictions on the importation and distribution of pesticides. However, most pesticides are imported by the GOB and carefully scrutinized by the Ministry of Agriculture. All packaging is clearly labeled (in both English and Setswana) for handling precautions. Since most all suppliers of horticultural requests obtain their supplies of pesticides from government depots, the chances of highly toxic materials being imported and used by farmers under this project are practically nil.

The following pesticides will be used in the horticulture project:

Daconil WP
Dimethoate ("Rogor")
Diptres 95WS
Dethane M 45 WP

The use of these pesticides will be carefully controlled by all personnel involved in this project. Batswana employed in the project will be thoroughly trained in the use of pesticides. Suitable protective clothing will be worn whenever pesticides are handled. A pesticide risk benefit analysis will be conducted prior to the use of project funds for the horticulture sub-project.

Water requirements for neither of the two horticulture estates will significantly affect water supplies to urban centers of population. In drought years, there could be competition for water with livestock owners.

The locations of the two estates are not endemic for bilharzia or malaria. However, bilharzia is endemic in many places in eastern Botswana. At the two horticulture estates in Mogobane and Mathubudakwane the level of endemicity is low, 9.7% and 2.9% respectively. Both estates will have an insignificant impact on the amount of surface area being irrigated. In addition, the quasi-experimental nature of the estates ensures an intensive management of irrigation water flow. As a back-up precaution the Ministry of Health has offered to monitor snail levels and apply molluscicides should they become necessary.

B. Wildlife Management Development

The short and long-term technical assistance and training activities funded under the RDF will not have any immediate effect on wildlife populations. However, the short term consultancies, which will review the technical and economic feasibility of commercial harvesting schemes, might recommend increased cropping of such species as zebra and wildebeeste.

Even if the GOB encourages commercial cropping, the off-take rates from these schemes would probably not exceed the carrying capacity. The GOB has just completed a Countrywide Animal and Range Survey which indicated that the off-take rate could be increased from less than 5 percent now to approximately 15 percent. More importantly, the GOB intends to couple a commercial harvesting scheme with an annual monitoring program, which would permit maximum yields without jeopardizing animal stocks.

C. Water Points Survey

The water points survey as designed and being carried out should provide data which would minimize the adverse environmental effects associated

with water points funded under the RDF in Year two and three. The survey is examining the effects of different types of water points on range conditions and evaluating the effectiveness of various management patterns on maintenance of water points.

If the main justifications for including water points under RDF is to increase arable farm production, then any project should encourage the use of open wells, where possible, rather than small dams. Open wells are preferable for the following reasons: (1) open wells provide water for draft oxen at the beginning of the plowing season when small dams are usually dry; (2) open wells located between or adjacent to arable lands do not attract cattle, which often cause damage to fields because they are unfenced; and (3) open wells provide a safer source of domestic water supply, which is needed when farmers are living in the 'lands' area.

Section B. Engineering Analysis

The project will finance the construction of various structures including small buildings and other construction activities, primarily water related. Fifteen buildings will be constructed during the first year including five 200 ton grain warehouses, four three-room offices, one two-room school, one two-room health post, two two-bedroom houses and two agricultural buildings. Second year construction will include four additional office buildings and four additional warehouses. Other construction for which AID will finance primarily commodities (but no construction services) include pipelines, pumping equipment, a water storage tank, underground cisterns and a service road. Details of these activities by sub-project are included in Annex III, A.

A complicating factor is that design construction and supervision services will be performed by various entities. In general the Ministry of Works and Communications (MOW) is responsible for design and supervision services for line ministries, however, construction associated with a district is handled by the district level MOW's offices which have varying capacities district by district. Construction for parastatals, in this case the Botswana Agricultural Marketing Board (BAMB), appears to follow no set pattern. The design of this project has in all cases utilized existing channels of engineering and architect services except for the case of the parastatal in which AID will require the utilization of a consultant engineer. Details of construction implementation for approved first year sub-projects are included in Annex III A. In addition to host government engineering services, AID engineers will review plans, specifications and cost estimates, set FAR amounts and make final inspections for construction activities in excess of P5000.

At the time of project paper preparation, sub-projects requiring construction had progressed to the stage where designs, albeit rough designs in some cases, had been prepared and reasonable cost estimates had been made. In all cases involving buildings (with the exception of the parastatal) an architect had prepared a plan and a cost estimate based on size, nature of building, method of construction, etc. In some cases quantity surveyors had prepared cost estimates. In the case of the parastatal cost estimates were made based on similar construction currently underway.

- (1) The Central District Council will provide ownership and technical details of the borehole at Lepasha.

- (2) The ALDEP team should improve their cost estimate and implementation plan for construction of cisterns.
- (3) BAMB should obtain an engineering consultant to provide designs, improved cost estimates and supervision fo construction.
- (4) The horticulture project should construct a hand-dug test well at Mogobane to assure that supplemental waters supplies are adequate.
- (5) The Matsheng Afforestation project pipeline designs should be reviewed by an engineer.

For the first year's projects all engineering activity has been reviewed by a REDSO engineer. For future year projects an AID engineer will review all plans and cost estimates for construction activites over P5000. Also, prior to reimbursement for construction over P5000, an AID engineer will perform final inspections.

Self-help will be used to build most construction elements costing less than P5000 and in these cases AID funds will finance only commodities to be used in construction. Prior to initiation of any construction elements costing less than P5000 each, for which construction services and not self-help is used, the GOB will provide AID with a description of construction to be financed and cost estimates in sufficient detail to allow AID to make an independent jugement of the adequacy of the cost estimates. AID will accept written documentation from the GOB that these small construction elements have been completed and will not itself make final inspections.

C. Institutional Analysis

1. Overall Management of the RDF

Although this project will consist of nine separate sub-projects during the first year of funding and perhaps more during the second and third years, the special arrangements required to administer it will be minimal. This is because each sub-project will proceed through a well established GOB planning and approval process before being submitted to USAID for funding. Under this process, once a project has been identified either at the district level or at central ministry headquarters, and has been accepted in principle, a project memorandum (PM) is prepared. When district initiatives are involved PMs are prepared at that level, often with technical assistance from the relevant line ministry, and are reviewed and approved by various district level committees and institutions before being submitted to Gaborone for final review and approval. All ministries with a potential interest in a project are involved in the review process, either informally by providing reactions to the central ministry concerned or more formally through interministerial committees. (See page 10 above for more details).

The objective of the GOB project review and approval process is to improve the design of projects (concept, feasibility, cost estimates) and assure consistency with the Government's development policies. The system is well established and thorough although, as in all such systems, bureaucratic delays do occur. The individuals most involved in the review process are the Planning Officers in the line ministries and in the MFDP. As a group they are experienced and well qualified to carry out their responsibilities. Key feasibility and policy issues are identified early and in a well organized manner so that appropriate measures are usually agreed upon easily and expeditiously.

The overall coordination of the RDF will be the responsibility of the Rural Development Unit (RDU) which is located within the MFDP. This is an advisory body which since 1973 has played key roles in setting rural development policy and putting that policy into practice. The staff of the RDU will monitor the implementation of the RDF to assure that individual activities are consistent with overall project objectives and are implemented on schedule. In addition, the head of the RDU chairs an inter-ministerial Reference Group which will have prime responsibility for determining how funds available under the RDF are to be utilized. Other members of the Reference Group are the Senior Planning Officers in each line ministry concerned with this project (MLGL, MDA and MCI), their counterpart planning officers in the MFDP and the Planning Officer in the RDU. The GOB places a high priority on inter-ministerial consultations and can be expected to use the Reference Group effectively as a means of sorting out priorities and selecting appropriate activities for funding. The Reference Group was established in January 1979, and since then has played a key policy guidance and coordination role in the design of this project.

2. Institutional Capabilities of Key Ministries

a. Land Use Planning and Management

The ministry with primary responsibility for this sub-grouping of activities is MLGL. Following the establishment of TGLP it was determined that most of

the implementation responsibilities would be delegated to the districts. At the central ministry level MLGL has a core staff of technical and administrative personnel whose main function is to provide technical and organizational support for district organizations involved in Land Use Planning. The most important of these are the Land Boards which approve all land use plans, allocation of land for various uses and the development of those lands through fencing, construction of water sites, etc. In carrying out these functions the Land Boards receive technical guidance from the District Officer (Lands), and the Land Use Planning Advisory Group (LUPAG) which is made up mostly of central ministry technical field staff. For purposes of allocating land to individuals and groups at the local level there are Subordinate Land Boards which operate within the policy framework established by the main Land Boards.

The critical constraint to the implementation of land use plans is lack of technical expertise at the district level. The Land Board members, while knowledgeable about and sensitive to local political and social concerns, are not technically qualified to determine the appropriate use of natural resources. Similarly, the LUPAG's are made up of representatives of ministries that have their own areas of concern and expertise (agriculture, livestock, roads, social services) not directly related to land use planning. Also, going beyond land allocations to integrated communal area planning, i.e. the type of activities to be funded under LG 31, the constraint is a lack of district-level planning and design capability.

The MLGL has begun to address these constraints with a major institution building effort. This will consist of:

1. training Land Board members and staff;
2. establishing a cadre of well qualified Technical Officers (generally one for each Land Board)
3. the appointment of a Commissioner of Lands and under him four Land Tenure Officers to be based outside of Gaborone; and
4. the creation of an Applied Research Unit to relate land use planning to communal area development.

Through LG 36 and to a lesser extent LG 31 these efforts will be receiving direct support from the RDF. The project memoranda for these two activities show how the four steps listed above will remove the major constraints to proper land use planning in Botswana and will lead to a significantly more efficient use of communal area land resources over the course of the next three years.

b. Agricultural Production and Income Generation

The MOA has an ongoing program of technical research and extension that provides the basis for ALDEP and other programs to increase production and incomes in the agriculture sector. The research station at Sebele has a

large, mostly expatriate staff that conducts agronomic trials, tests improved seed varieties, does some plant breeding and carries out applied research on farmers' fields. At the central ministry there are a number of technical divisions (crop production, animal production, horticulture, poultry, land utilization, etc.) that initiate national programs in their respective areas and provide support for the agricultural field staff. For purposes of agricultural extension, the country is divided into six regions headed by Regional Agricultural Officers (RAOs), and the regions are subdivided into districts headed by District Agricultural Officers (DAOs). Under the DAOs are Agricultural Demonstrators (ADs). These are polyvalent extension agents who are responsible for introducing improved agricultural practices to small farmers. Recently, in some districts, the ADs have been assisted by Group Development Officers who are primarily responsible for organizing farmers for purposes of initiating self-help programs of the type to be financed under AE 10 - Small Projects.

It is difficult to conceive how a country of Botswana's size and level of development could have a larger, or better organized agriculture program. The MOA presently has a high proportion of experienced, well qualified expatriate staff while Botswana are receiving high-level technical training abroad. Despite this relatively favorable situation, the design and implementation of agriculture programs is not proceeding at the desired pace. During the last plan period the MOA achieved only 40 percent of its plan targets. Although part of the problem is due to lack of implementation capacity in the field, the principle problem is the difficulty in implementing production programs that are oriented towards large number of small farmers. Effective small producer programs must have applied research, pilot activities to test approaches and gain practical experience, high quality extension services and large numbers of small-scale participatory activities. Unlike infrastructure or social services, increasing small farmer productivity is a gradual process that cannot be rushed.

Having said this, however, certain steps can be taken to improve the MOA's effectiveness in carrying out small farmer programs. The first is to have high-quality technical backstopping for the extension staff. This is a top priority concern of the MOA. Large numbers of Botswana are receiving basic training abroad and existing local staff regularly receive additional training to up-grade their skills. Second, it is also necessary to increase the technical qualifications of field staff, primarily through on-the-job training. The MOA has a training program oriented along these lines but it is limited in size, to a large extent because the extension service is understaffed and it is difficult to free individual agents for training. Third, the effectiveness of existing staff can be improved through better management and motivation. This problem is well recognised by the MOA and attempts have been made to focus extension activities on well specified objectives and, using the Institute of Development Management, to train extension agents in project design and evaluation.

Finally, and in some ways most important, MOA programs can be improved by orienting both the central ministry and the field staff away from research and extension approaches organised according to technical speciality to one that is multidisciplinary and more focused on the varied problems and

needs of small farmers. This orientation does not now exist in the most of the MOA programs. It appears, however, that the analysis and experimentation to be carried out under the ALDEP program will highlight and document the need for more relevance in MOA programs. Given the strong GOB commitment to a small farmer approach to arable production there is a strong likelihood that ALDEP will bring about positive changes in MOA's approach to agricultural development and this in turn will increase its capacity to significantly increase small farmer production and incomes.

The agricultural sub-projects to be financed under the RDF have been designed with the described institutional constraints in mind. AE 10 -Small Projects and ALDEP Pilot Activities have been kept relatively small, because it is recognized that the agricultural field staff is already over extended and it will take them some time to incorporate these two activities into their regular workload. The Horticulture project is to be implemented by agricultural management association set up for this purpose. Since this is an entirely new type of activity for Botswana, certain implementation problems can be expected. The horticulture advisor to the MOA will follow this project closely and will provide direct technical and organizational assistance as problems arise. Finally, the Afforestation project will be implemented in large part by district-level non-governmental organization (Brigades). These organizations are already implementing woodlot programs and are in a position to not only expand those programs but also to provide technical assistance to communities and village groups which are interested in undertaking forestry projects for soil conservation, firewood or other uses.

c. Off-Farm Employment

For off-farm employment activities the key ministry is Commerce and Industry (MCI). This ministry has not yet developed the capability to carry out a national rural industrialization program. The main objective of the Rural Industry Project under the RDF is to create such a capacity by providing technical assistance to MCI and financing surveys to provide basic data on the potential for rural industries and on the constraints being faced by rural enterprises. The Senior Rural Industry Officer provided under the RDF and the Rural Industry Officers (RIO) to be provided by Peace Corps and other voluntary organizations will provide the GOB the basic manpower required to initiate a rural industry development program. Similarly, since MCI has little expertise in the design and implementation of wildlife management programs, the RDF will provide consultants to assist the GOB to design programs that might be appropriate for RDF support during the second or third year of the project.

Section D: Economic Analysis

The RDF will function as part of a broad-based and long-term GOB program to increase production, incomes and employment in rural areas. At the sectoral level the program raises a number of basic economic issues. These relate primarily to the size of markets for rural production activities, the lack of productivity-increasing technologies that are profitable at the level of the individual production unit, and the difficulty of developing economically feasible interventions that can generate employment and income for the poorest elements of the rural population. These issues, which are discussed in depth in Chapter 7 of the Botswana Rural Sector Study, are summarized briefly below:

1. Analysis of GOB Agricultural Production and Rural Income Objectives

a. Food Self-Sufficiency

Although no one knows what the effective demand for foodgrains is in this country, the FAO estimate of 250 kilograms per person for a nutritionally adequate diet would imply a requirement of about 185 000 tons per year. This is consistent with available data, which indicate production levels of 70 000 to 90 000 tons during years of normal rainfall and annual imports approaching 100 000 tons of grain equivalent (mostly in the form of maize flour). Even if effective demand were slightly less than nutritional requirements, say 200 kilograms per person, achieving self-sufficiency could mean almost doubling production.

A closer look at the nature of the food deficits gives some idea of what might be appropriate targets and strategies over the next five years to ten years. Of Botswana's population of 763 000, approximately 120 000 live in urban areas, another 150 000 are non-farming families living outside of urban areas, mostly in the major villages, and the remaining 493 000 are made up of 80 000 rural farming households. At the present time the food grain requirements of towns and major villages (approximately 67 500 tons assuming per capita consumption of 250 kg/year) are met almost entirely by imports and, as a group, the rural households have an additional deficit that can total 30 000 to 40 000 tons. Likely trends in population growth indicate that the foodgrain requirements in 1987 will be as follows:

	<u>Population (000)</u>			<u>Foodgrain Requirements in 1987 (tons)</u>
	<u>1978</u>	<u>1987</u>	<u>Growth Rate</u>	
Towns	120	285	9%	71 000
Major Villages	150	200	3%	50 000
Rural Areas	<u>493</u>	<u>550</u>	<u>1%</u>	<u>138 250</u>
	763	1 035	3%	259 250

Starting from a production level of 80 000 tons in 1978 (assuming average rainfall), production would have to grow by 5.6 percent per year to eliminate the foodgrain deficit in rural areas by 1987. If the deficits in major villages and urban areas are added, the required growth rate becomes 9 percent and 12.5 percent, respectively.

Achieving national food self-sufficiency does not appear to be a realistic goal over the next decade. Instead the GOB should aim for an ambitious but perhaps

attainable six percent growth rate in foodgrain production and concentrate on improving marketing channels in rural areas and between rural areas and major villages.

b. Employment Generation

As is the case in most other developing countries, the unemployment problem in Botswana stems from very low levels of productivity in rural areas and an insufficient number of employment opportunities for those migrating into urban areas. The problem is particularly acute at this time for Botswana, because several important sources of employment during the last decade or more have leveled off and some are beginning to decline. According to the recently published Lipton Report, the estimated breakdown of employment in 1978 was as follows:

Former sector, non-farm	64 500
Informal urban sector	12 000
Informal rural sector	17 500
Non-freehold crop production	35 000
Non-freehold livestock production	60 000
Freehold farms	6 500
Hunting and gathering	<u>5 600</u>
	201 100
(Including migrant laborers in South Africa)	261 100

In very general terms, Lipton estimates the Botswana labor force to be almost 365 000, implying an unemployment level of over 100 000. Although it is difficult to discern from Lipton's analysis exactly where the unemployment is located, some estimates are possible. Demographic data show that population growth in urban areas is 13 percent a year, while growth in formal sector employment is less than nine percent. This implies a very rapid growth rate in urban unemployment and underemployment. In the rural areas Lipton estimates that total employment in the crop and livestock sectors is about 95 000. Assuming conservatively that 160 000 persons are available for agricultural work (i.e. two per farm household) and have no alternative means of employment, rural underemployment can be estimated at 40 percent.

Looking at the future, employment opportunities will have to grow by 11 000 to 12 000 per year to keep up with the increase in the labor force. This would not permit any reduction in the level of unemployment estimated by Lipton. Of the sectors shown in the preceding table, employment in freehold farms, hunting and gathering and perhaps livestock are not likely to increase, while employment in South Africa can be expected to decline, perhaps by as much as 5 000 jobs per year. The key sectors, therefore, are the urban formal and informal sectors, the crop production sector and rural non-farm employment. If urban employment is projected to grow by nine percent per year (7 000 new jobs), this leaves a minimum of 4 000 jobs to be provided in the crop and rural off-farm employment sectors, i.e. a 7.65 percent annual increase in employment for these two sectors. The problem is obviously much more serious when the expected decline in migrant labor employment is taken into account, and becomes close to unmanageable if an attempt is made to eliminate the existing unemployment level of 100 000.

1. Michael Lipton, op. cit., Vol. I, p. 18.

Lipton's policy proposals for creating the necessary jobs fall into two categories:

- .Keep wage rates down in the formal sector while increasing productivity in agriculture; and
- .Reallocate investment outlays to sectors where the cost per job created is lowest.

This is a long-term process. What is likely to happen in the medium-term is that, as labor surpluses continue to increase in urban areas, unemployment will grow, and urban incomes will drop relative to rural incomes, thereby inducing increasing numbers of laborers to remain in rural areas. Although this may reduce the rate of rural-urban migration, it does little to increase the incomes of the large majority of Botswana currently living at close to subsistence levels. In the long run, if unemployment is to be lowered to acceptable levels and income disparities reduced, productivity in agriculture will have to increase significantly.

2. Constraints to Achieving Rural Development Objectives ¹

In the crop sector, the major macro-economic issue is the ability of domestic farmers, using known improved technologies, to compete with grain imports from South Africa. Studies have shown that at present consumer price levels, it is not economic for farmers to invest capital and labor to supply the local urban market. This raises issues of input and price subsidies and import controls. The GOB is exploring various ways of subsidizing inputs, but no concrete steps have yet been taken concerning price supports or import controls. The key considerations are whether there are social benefits to increased domestic production that are not reflected in market prices, and whether an infant industry argument can be made for subsidizing grain production in the short run, so that it can develop and become economically viable in the long run. These issues are recognized by the GOB, and studies are being conducted to provide the basis for policy decisions.

At the producer level, the key economic issues are the profitability of the improved technical package being promoted by the MOA, and the ways in which that package can be assimilated into the existing multi-faceted production systems of rural households in Botswana. These households earn income not only from crop production, but also from livestock, casual employment, hunting and gathering and temporary migration to cities and to South Africa. At existing costs of agricultural implements and farm labor, and at present producer prices, it is uneconomic for rural households to shift capital and labor out of livestock and other activities and into crop production.

The GOB is addressing this problem primarily by carrying out applied research to increase the productivity of the package, and by incorporating the results of that research into the MOA agricultural extension program. More recently, the MOA has initiated a pilot program to subsidize farm implements and draft power and, as noted above, the possibility of a price support program is being studied. The combined effect of these measures over time will increase the

1. This section is a very brief summary of the economic analysis contained in the Botswana Rural Sector Study. The reader should refer to that study for a thorough discussion of economic issues related to the GOB Rural Development Program.

economic feasibility of increased small farmer crop production in Botswana, and this in turn will have a positive impact on rural incomes and employment.

In addition to crop production, the RDF is supporting interventions to increase non-farm employment and incomes. The key economic constraint here is the size of markets. Most of the non-agricultural goods purchased in Botswana are imported, but the proportion of those goods that can potentially be locally produced is quite limited. There are, however, some possibilities for milling, manufacture and repair of farm implements, and production of simple consumer goods. Studies to identify the potentials in these areas, and the associated constraints, will be financed under the RDF. Even if the number of jobs that can be created in rural industries is comparatively small, it should be emphasized that rural industrialization is a critical element of the development process. This is because:

1. growth and modernization in the dominant sector, agriculture, requires ancillary goods and services;
2. increased agricultural production creates possibilities for the processing of these products, and
3. as agricultural incomes rise, so does demand for consumer and other goods, some of which could be produced in rural areas.

This process is not necessarily automatic, however, which is why rural industry is highlighted in the GOB's rural development strategy and is an important component of the RDF.

3. Economic Issues Related to RDF Sub-Projects

For most RDF sub-projects economic issues are not critical to overall feasibility. In the case of AE 10 (MDA Small Projects), for example, no activity will cost more than P5 000. These include fences, village garden and poultry projects, small woodlots and village storage. Many of these are labor-intensive, and contributions in kind are required from the beneficiaries. Resource commitments by beneficiaries, combined with technical advice and monitoring by MDA extension agents, greatly enhances the probability of sound design from the social and economic standpoints. In the case of ALDEP Pilot Activities, there will be small-scale projects relating to implement credit and subsidies, draft power credit, training of local farmers as extension assistants, water development and village storage. Most of these raise economic issues which will be built into the design of the pilot activities, and analyzed as necessary in project memoranda. In many cases the determination of economic feasibility will be a primary output, and therefore a strong justification for undertaking a pilot activity.

The two other Year 1 agricultural projects, Horticulture and Afforestation, raise significant economic issues. In the case of Horticulture, the major issues have to do with the ability of domestically produced vegetables to compete with South African imports and the profitability of vegetable farming for the participating households. These issues are analyzed at length in the project memorandum. In the case of Afforestation, the two Year 1 activities financed through the RDF are experimental projects in the sandveld. The need

for forestry development in the Kalahari is uncontested, and much of the cost of woodlot development and maintenance in these two instances will be in the form of contributed or hired labor. The key calculations here are the long-term social and economic benefits accruing from woodlots, and the opportunity costs of contributed labor. Since virtually no data are available on experimental projects of this kind, the economic analysis in the project memoranda must necessarily be qualitative. In Years 2 and 3, woodlots managed by Brigades may be submitted for RDF funding. The GOB and USAID have agreed that these proposals should include detailed calculations showing cash flow and economic rates of return.

In the non-farm sector, no significant economic issues need to be resolved regarding Year 1 activities funded under the RDF. Both the Rural Industrialization and Wildlife Management Development sub-projects are aimed at institution-building and data collection and analysis. These are considered to be necessary first steps in addressing problem areas that have major implications for income and employment in rural Botswana.

Of the sub-projects relating to land use planning and management, LG 36 falls in the category of institution-building, while much of LG 31 is expected to be basic survey work and socio-economic data collection to lead into effective land use planning. In those instances where LG 31 is used to finance actual development projects in remote areas such as Lepasha, estimates of social benefit will have to be given a heavy weight in the analysis of economic feasibility. Also, the economic analysis must include estimates of recurrent costs and demonstrate that district institutions are committed to meet these costs.

E. Social Analysis

1. Social Issues and Beneficiary Analysis

The project background and description in Part II of this Project focus attention on the rural employment problem in Botswana and on the size of the target group which the Rural Sector Grant seeks to assist. The concentration of economic growth in the mining industry and the livestock sector has led to an uneven distribution of incomes, particularly in the rural areas where an estimated 85 percent of the population resides. A variety of data sources exist which provide differing estimates of rural income levels and the magnitude of unemployment and underemployment. But there is broad agreement on the fact that the majority of rural households cannot produce enough food for their own needs, and have annual incomes significantly below the commonly accepted statistical poverty line.

Until recently, the rural development strategy of the GOB did not meet this problem head-on. Efforts to extend social services throughout the rural areas were generously financed, and implemented with considerable success during the mid-1970s. The implications of this commitment, in terms of the recurrent cost requirements generated vis-a-vis the relative weakness and stagnation of the rural economy, were not at first given critical consideration at the policy level. But the GOB's strategy has evolved to the point where access to productive activities has become the principal thrust of programs for the coming national plan period (NDP V).

The issue of access is directly linked to equity considerations, because skewed income distribution is not consistent with the GOB's stated objective of social justice.

The poor majority - those households who cannot produce enough to meet their own needs, and who depend on several different marginal sources of income - generally do not have access to the critical factors of production: most often they lack draft power, implements and cash, but they in many cases also lack sufficient amounts of land and labor. Their maintenance strategies therefore include a range of activities such as casual wage labor, beer-brewing and other part-time income-generating enterprises, hunting and gathering, and reliance on earnings remitted by absent family members. Chapter 8 of the Botswana Rural Sector Study contains a detailed analysis of these strategies and their social and economic context.

In the collaborative design process leading up to this Project Paper, the identification of beneficiaries for each sub-project was carefully analyzed. For each grouping of sub-projects, the selection criteria were framed to ensure that activities were oriented directly towards the rural poor, and had a production/income focus. These criteria conformed fairly closely to the GOB's own policy orientation, notably in the case of ALDEP planning, communal area land use planning and rural industrialization policy. USAID did not have to impose a novel approach on the GOB during the design process, because "New Directions" concerns are reflected in Botswana's rural development policy.

GOB programs aimed at resolving the rural employment problem face a number of serious technical and economic constraints. These are discussed in Parts III A and III D of this Project Paper, in the Rural Sector Study, and in the PMs

submitted for RDF funding in Year 1. There are complex important social issues too, that these programs must confront. Top-down intervention has not worked well in Botswana in the past, and consultation plays a key role at all levels of the political and administrative systems. Until quite recently, however, traditional institutions such as the kgotla - the single most powerful mechanism for consultation and decision-making at the village level - tended to be underestimated as vehicles for mobilizing development activity. Chapter 8 of the Rural Sector Study examines the potential of these rural institutions, which are emerging as the focus of the land use planning and process in many of Botswana's communal areas.

While frequent reference is made elsewhere in this Project Paper and in the Rural Sector Study to the special difficulties confronting women in their role as heads of households throughout rural Botswana, this subject deserves special emphasis, and is discussed in the following section.

2. The Role of Women in Rural Development

A. Background

Women play a major role in the rural and village areas of Botswana. Due to the migration of males into South Africa and urban mining areas of Botswana, women have the responsibility for carryout out many crop production activities in addition to their traditional roles of food preparation, house-keeping, child care and hut buildings. Many also keep pigs, poultry and small stock. In Botswana, women have considerable influence in decision making. In the absence of a husband, many women make all decision, while married women have much influence during family farm decisions. Women also operate a major portion of Batswana-run businesses. These businesses tend to be in the service sector, on a part-time basis, such as restaurants, hairdressing, sewing, and fresh produce. The selling and brewing of beer is by far the most significant form of self-employment for women in rural and village areas of Botswana. Most of these businesses are managed on a small scale without benefit of modern accounting principles and management techniques. They are also of marginal and part-time nature.

Batswana women have the same political rights as men. They have the right to vote and are eligible for various offices. Traditionally, women have not taken an active part in kgotla (village meetings), although they are present. This is due to the traditional nature of the kgotla which is basically a men's 'round table'. Women rarely participate in discussions unless called on or the subject directly affects them.

B. Land Use Planning and Management

Women in Botswana may own land under their own names whether they are married or single. This land can theoretically either be allocated to them by the Land Board or by her family, although the Land Boards do not have the capacity to maintain any type of legislation system. But if she

plows land that is her father's, the land will revert to her family once she is married. If a woman owns land and then marries, she will be under much pressure to put it under her husband's name which would turn it into joint property or in reality her husband's. This last case happens in majority of the rural areas.

In the Rural Sector Grant is a component to strengthen the land boards by instituting registration and management practices into the land board system. Land tenure officers are being recruited to help with this process. Two of the four land tenure officers are women and they should be more inclined to learn about and listen to women's landholding issues in Botswana. To have the registration system will also strengthen the ownership records of each individual male as well as female.

C. On-Farm Production and Income Generation

As stated earlier, women have responsibility for and carry out much of the crop production operations in Botswana. During the Arable Lands Development Program Conference (October 1979) it was determined that the major constraints to increasing arable crop production in Botswana were: lack of water, draft power and equipment, labor and seeds, and credit. This is especially true for female-headed households which tend to be at the lower end of the income spectrum. Through the ALDEP component of the Rural Sector Grant, subsidized credit will be available for input purchase such as donkeys, implements, seeds, fertilizer etc. It was explicitly pointed out by the Botswana National Development Bank and Botswana Cooperative Bank that women farmers could obtain loans from these banks purely on their own signature as long as they fit the other criteria which applies to both sexes, such as owning six ha. of land (MDA is considering lowering this figure to 4 ha. to let more of the marginal households in). There is also some thought to accepting joint applications for credit loans where two marginal families with three ha. each could fit the criteria and receive the loan together.

The Ministry of Agriculture is attempting to recruit more female agriculture demonstrators (ADs) especially in view of the large number of female-headed farming households. There are four female ADs at the moment and six more have just been recruited. ADs are a key component in ALDEP and will be the major disseminator of information at the farm level. As more female ADs are recruited, there should be an increase correlation in the amount of information obtained by female-headed farming households.

The nature of the AE 10 Small Projects sub-project makes it conducive to working with small groups (farmers associations, women's groups, etc.). Village Women's Groups would be looked at as possible target groups for small scale poultry keeping and village garden plots. These enterprises are traditionally female dominated and are very easy to put into the framework of the Small Projects fund. Women would also have inputs into the village woodlot schemes and other activities that involve them in a general way.

In the Horticulture sub-project women are seen as a major target group due to their traditional dominance in the household vegetable garden area. One third (1/3) of the pilot group participants will be women. This sub-project is especially appropriate to women due to the small scale nature of

the project and its lack of capital inputs on the individual's part. Women will have access to plots on the estates and other assistance as in credit loans, technical advice and other inputs.

D. Non-Farm Employment

As stated earlier many of the Botswana run businesses are female-managed operations in the informal sector. Due to this factor, most of the traditional entrepreneurs are female. Included in the Rural Sector Grant is a rural industries officer (RIO) sub-project where rural industries extension agents are provided in the rural areas to promote private enterprise by disseminating information on credit and technical expertise. Of the seven RIOs two are female. One of the first concentrated effort by the Rural Industries Unit in the Ministry of Commerce and Industry will be a paper drafted on beer brewing activities in Botswana which is a female dominated enterprise. Due to their traditional dominance in this area female entrepreneurs will be one of the major target groups of this sub-project. Although it is hard to identify the nature of female entrepreneurs due to their participation in many of the informal 'invisible' types of enterprises. The RIOs have been made aware of the complexity of the informal sector.

Section F. Financial Analysis - Table A

	<u>A.I.D. Funding</u>			<u>G.O.B. Funding</u>			<u>Grand Total</u>
	FX	LC	Total	FX	LC	Total	
A. Technical Assistance							
- long-term	335,280	---	335,280	58,603	---	58,603	393,883
- short-term	136,370	---	136,370	20,475	---	20,475	156,845
B. Equipment/Commodities	143,490	350,315	493,805	27,940	29,356	57,296	551,101
C. Vehicles	146,294	---	146,294	190,500	---	190,500	336,794
D. Training	115,570	73,720	189,290	---	26,065	26,065	215,355
E. Salaries	---	53,133	53,133	---	197,763	197,763	250,896
F. Transport	---	43,308	43,308	---	17,272	17,272	60,580
G. Construction	---	633,787	633,787	---	325,573	325,573	959,370
H. MISC.	---	941,234	941,234	---	1,012,350	1,012,350	1,953,584
I. D.A.I. In Country Expenses	70,000	25,000	95,000	---	---	---	95,000
J. P.S.C. in R.D.U.	140,000	---	140,000	---	---	---	140,000
K. Evaluation & Baseline data collection	90,000	24,674	114,674	---	---	---	114,674
	<u>1,177,004</u>	<u>2,145,171</u>	<u>3,322,175</u>	<u>297,518</u>	<u>1,608,379</u>	<u>1,905,897</u>	<u>5,228,072</u>
+ Undesignated Projects			<u>457,825</u>	- (GOB contribution to			<u>457,825</u>
			<u>\$3,780,000</u>	undesignated projects			<u>\$ 5,685,897</u>
			67%	not determined)			100%
					<u>1,905,897</u>		
					33%		

TABLE B
Budget Summary: Aggregate Sub-Project Costs in \$U.S.
By Fiscal Year

	1980/81			1981/82			1982/83		
	USAID	Host Country	Total	USAID	Host Country	Total	USAID	Host Country	Total
<u>Foreign Exchange Costs:</u>									
Technical assistance									
. long-term	111 760	19 467	131 227	111 760	19 568	131 328	111 760	19 568	131 328
. short-term	124,940	20,475	91 440				11 430		11 430
Equipment and Commodities	50 882		50 882	92 608	27 940	120 548			
Vehicles	59 455	190 500	249 955	51 279		51 279	35 560		35 560
Training	76 200		76 200	39 370		39 370			
Sub-Total	<u>423,237</u>	<u>230,442</u>	<u>599 704</u>	<u>295 017</u>	<u>47 508</u>	<u>342 525</u>	<u>158 750</u>	<u>19 568</u>	<u>178 318</u>
<u>Local costs:</u>									
Salaries	25 773	46 364	72 137	7 824	129 647	137 471	19 536	21 752	41 288
Commodities	147 935	6 300	154 235	164 280	23 056	187 336	38 100	-	38 100
Transport	23 724	12 700	36 424	10 515	2 286	12 801	9 069	2 286	11 355
Construction	300 531	125 517	426 048	294 613	164 496	459 109	38 643	35 560	74 203
Training	8 890	2 794	11 684	39 430		39 430	25 400	23 271	48 671
Miscellaneous	187,910	279 865	467 875	330 647	270 611	601,258	422 677	489 322	911 999
Sub-Total	<u>706 763</u>	<u>377 013</u>	<u>1 083 776</u>	<u>847 309</u>	<u>338 599</u>	<u>1 185 908</u>	<u>553 425</u>	<u>82 869</u>	<u>636 294</u>

NOTES: Total	1,118,000	704,487	1,954,487	1 142 326	637 604	1,887 604	712 175	609,759	1,889,759
D.A.I. in-country exp.	50,000			45,000					
P.S.C. in R.D.U.	45,000			45,000			50,000		
E.B.L.D.	37,000			17,674			60,000 + 475,825 in undersigned		
	<u>1,250,000</u>			<u>1,250,000</u>			822,175 projects = 1,280,000		

As noted in table A above, project costs total \$ 5,685,897 with A.I.D. financing \$3,780,000 (67%) and the GOB financing \$1,905,897 (22%) of total project costs. The GOB's contribution is calculated on projects identified to date and does not include a projection of their contribution to projects which as yet are undesignated. The A.I.D. contribution to the nine identified sub-projects totals \$3,140,501, with \$457,825, remaining to be programmed in years two and three of the project.

Annex II contains individual financial plans for each project memoranda. These tables include both GOB and A.I.D. costs associated with each sub-project. During the preparation of these tables, recurrent cost implications of each sub-project were discussed with appropriate GOB officials. In every case sufficient funds will be made available during the upcoming planning period to support the activities proposed herein.

Part IV: Implementation Arrangements

Section A: Responsibilities for Project Implementation

1. Project Mechanism

The unifying concept that underlies the proposed Rural Development Fund is support to income generating productive activities benefitting the rural population of Botswana. The RDF thus crosses sectoral lines, with three GOB ministries playing major roles: the Ministry of Local Government and Lands (MLGL), the Ministry of Agriculture (MOA), and the Ministry of Commerce and Industry (MCI). As described in Part II B of the Project Paper, the activities of these three ministries are complementary and to a large degree interdependent. Although not an implementing agency under the project, the Ministry of Finance and Development Planning serves as the focal point for ensuring the coordination and complementarity of projects generated by the three implementing ministries.

The RDF will serve as the source of funding for sub-projects formulated and approved in accordance with established GOB planning procedures. An annual list of sub-projects eligible for support will be submitted by the GOB to USAID/Botswana by 1 January of the second and third year of project implementation for approval prior to 1 April (which coincides with the GOB's fiscal year). These annual plans will identify the activities that require RDF funding during the coming year. For new sub-projects being added to the eligibility list, project memoranda will be included as evidence that adequate planning has taken place. For ongoing projects that have been included under the RDF in the preceding year and require future year funding, funds will be obligated on the basis of projected expenditures detailed in the annual implementation plans, if the individual sub-projects are progressing satisfactorily. To assist USAID in the review of annual implementation plans and accompanying project memoranda, Development Alternatives Inc. will provide approximately 12 person-months of short-term technical assistance during the project life.

2. Role of implementing institutions

a. The Government of Botswana

— Ministry of Finance and Development Planning

As mentioned above, the MFDP will serve as the coordinator for sub-projects submitted for consideration under the rural development fund. The Rural Development Council (RDC) will serve as the senior body guiding rural development policy and will provide broad policy guidance for project implementation. The Rural Development Council is chaired by the Vice-President, who is also the Minister of Finance and Development Planning. The Rural Development Fund steering Committee will be directly involved in Project implementation. This committee, which was created by the GOB to direct the development of the PID and feasibility study, will continue to guide project implementation during the life of the project. Its membership will consist of a Senior Planning Officer and Senior Administrator from each of the three implementing ministries and one planning officer

from the MFDP representing each sector. The Senior Planning Officer from each Ministry serves as the linkage between the RDF Steering Committee and the technicians in their respective Ministries at both the national and district levels. The Rural Development Unit (RDU), which serves as the secretariat to the RDC, will serve as the secretariat to the RDF steering committee. The RDU has a staff of four professionals and a secretary. The RDU coordinator will be the individual responsible for guiding sub-project preparation and resolving implementation bottlenecks. Although the RDU functions essentially as a communications mechanism its authority is considerable because the coordinator of the Unit has direct access to the Vice-President. Since its creation in 1973, the RDU has been involved with the creation and monitoring of a wide variety of interministerial and district level programs including the accelerated rural development program, the Tribal Grazing Land Program, and the development of district based development planning. The Communal Area Development and Planning (CAPAD) adviser within the RDU will play a primary role in project coordination and will be responsible for ensuring that adequate baseline data is gathered to ensure proper evaluation of pilot and quasi-experimental financed through the AID grant.

— The Ministry of Local Government and Lands (MLGL)

Section III C of the Project Paper discusses in detail the implementation capabilities of the MLGL to undertake their role in the proposed project. For the first year of project implementation, the MLGL has submitted two PMs. The first, Implementation of Integrated Land Use Plans, will focus on the development and methods for the proper utilization of commonly held land.

Since this activity is an umbrella project, the MLGL will be responsible for encouraging district officials to submit land use sub-projects for financing under the project. Under LG-36, the development of land institutions, MLGL will be responsible for ensuring that technical officials are recruited to augment the staff of the land Boards and that four experienced land tenure officers are assigned to the Districts.

— The Ministry of Agriculture

The MOA has submitted five PMs for financing beginning the first year of project implementation. Under the ALDEP program, the MOA will be responsible for testing measures which may increase arable production, developing implementation capacity and provides a gradual transition into the main ALDEP program. Under this sub-project MOA field staff are responsible for developing project proposals, based on their direct contact with farmers, that will be approved by district institutions and then forwarded to the MOA (and eventually the MFDP) for approval and funding. Similarly, under the small projects activity MOA district officials will assist farmers in preparing proposals which will qualify under the program.

— Ministry of Commerce and Industry

MCI has submitted two PM's to begin the first year of project implementation. Under the Rural Industries Project (CI-08), MCI through its cadre of rural industrial offices will be responsible for data collection and surveys of existing and potential industries and resources. Later in the project, the RIO's specific activities will be identified and implemented under the project. Under the wildlife management sub-project, M.C.I. will utilize consultants provided under the project to develop schemes for harvesting wildlife. During years two and three, MCI will utilize the data developed by the consultant's to initiate new sub-projects.

b. USAID

The Mission has discussed in detail its management responsibilities under the proposed project particularly given its limited staff size. The mechanism of one large project to support a series of sub-projects is seen as an effective management tool for limiting the number of discrete projects and reducing management time required. The Missions' Assistant Director for Projects (ADP) will serve as the Project Manager and will provide overall guidance and supervision to Project Division personnel who will monitor various aspects of the project. The USAID Food and Agricultural Office and an agricultural economist IDI will be responsible for monitoring the Land Use Planning/Management and the On-Farm Production Groupings while the ADP/Capital Projects Officer will monitor the Non-Farm Employment Grouping. The USAID Engineer (to be on board by September 1980) will be responsible for monitoring project-funded construction.

It is anticipated that GOB approved PMs will be submitted to USAID by the MFDP in January of 1981 and 1982 for USAID approval (coinciding with the GOB's fiscal year). At that time, the Mission will review these PMs against the criteria discussed in section II B of the Project Paper and will

review the progress of multi-year funded activities. ¹ It is not anticipated that the Mission will have sufficient manpower or technical expertise to adequately analyze these activities. Accordingly, the contractor services will be used to assist the mission in the review sub-projects.

3. Contracting Services

A. Sub-Project Analysis and Review

The Mission proposes using Development Alternatives Inc. (DAI) for approximately 12 person months (6 p/m in 1981 and 6 p/m in 1982) to review new sub-projects proposed by the GOB for inclusion under the RDF and to review the progress of ongoing multi-year funded sub-projects. DAI prepared the feasibility study which led to the RDF, reviewed all the projects for first year funds, and assisted with the preparation of the PP. For continuity, it is highly desirable this firm be utilized for the implementation phase of the project.

DAI will provide the consultative services described above under the Organization and Administration of Integrated Rural Development contract which is ongoing with DSB/RAD. USAID has discussed this with both DSB and DAI and both are in full agreement, having emphasized that this activity is compatible with the scope of their contract.

B. Recruitment of Technical Assistance

During the three year project life, it is anticipated that both short and long-term technical assistance will be requested by the GOB to assist in the implementation of the sub-projects. For the first year of the project, approximately six to nine person months of short term technical assistance will be required and one person year of long term technical assistance (the senior rural industrial officer under the rural industry sub-project). Since little institutional support will be required for technical assistance personnel and flexibility is required, an institutional contract to provide technical assistance would be inappropriate. Accordingly, the Mission has elected to utilize the services of the Transcentury Corporation to provide technical assistance on a delivery order basis. Transcentury has a full staff of recruiting personnel serving Southern Africa under the Southern Africa Manpower Development Project (SAMDP) and a contractor representative in Botswana. For this project, it is anticipated that the mission would use the services of Transcentury under the SAMDP contract. The costs of the recruitment would thus be absorbed by SAMDP contractor overhead, with the GOB providing the base-salary and most of the logistical support for long-term technicians, and Project funds utilized to top-off the salaries of the technicians, as is done in the OPEX program. The SAMDP/OPEX mechanism would also serve for the recruitment of short-term technicians.

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1. For ongoing sub-projects that have been supported by the RDF during the preceding year, the implementation plan should include the following information: (1) A progress report noting the achievements for the preceding year, and identifying problems that have arisen; and (2) financial data on disbursements to date in relation to planned expenditures (to ascertain whether sufficient funds remain in the RDF pipeline from the preceding year).

In addition to the technical assistance being provided by SAMDP, it is anticipated that some assistance on individual sub-projects will be provided through cooperating agreements which DSB has with selected universities. For example, in the case of the Water Points Survey, Cornell University is participating in the study through a Memorandum of Understanding with the GOB. DSB, the GOB, and funds from this project will be used to finance the remainder of the study. The Land Tenure Center at the University of Wisconsin has also expressed interest in participating in the Land Board Development sub-project through their cooperative agreement with DSB.

B. Project Administration

In addition to technical assistance for sub-project analysis and review and individual sub-projects, USAID will employ, under a personal service contract, an individual to work as the Communal Area Planning and Development (CAPAD) adviser in the Rural Development Unit in the Ministry of Finance and Development Planning. This individual will be responsible for monitoring all of the sub-projects from project generation to implementation and for ensuring that adequate base line data is gathered to properly evaluate pilot and quasi-experimental activities funded under this project. In this capacity, the individual will work with the three implementing ministries at the national level and with district level officials.

Section C. Other Implementation Procedures

1. Construction

The GOB, through the Ministry of Works and Communications, will have the overall administrative responsibility for supervising construction. They will, using their standard bidding procedures, let contracts for final architectural engineering design, issuing IFBs and letting contracts for construction. Although the supervision for construction will rest with the GOB, AID will reserve the right to approve all bid documents and contracts involving AID funds. Funds will be expended by AID using the fixed amount reimbursement system (FAR). Construction services and materials will have their source and origin in code 935 or Botswana. Since the FAR system will be used for construction, no waiver will be required for services. The waiver justification for construction materials is included in Annex IV, D of the project paper.

2. Commodities

The GOB, through the purchasing department in the MLGL, MOA, and MCI, (and the GOB Tender Board for procurement of goods valued at over P10 000) will be responsible for the procurement of all project funded commodities whose source and origin is in Southern Africa, using standard GOB procedures.

Commodities from the US will be purchased by the host government or through a procurement agent using standard AID PIO/C procedures. As needed, the Mission will call upon the procurement specialist in REDSO/East to provide specifications.

3. Disbursement Procedures

USAID has discussed disbursement procedures with the GOB. Standard A.I.D. reimbursement procedures will be used. The financial unit in the ministry of Finance and Development Planning (MFDP) will submit to the USAID controller quarterly reports which will detail expenditures by sub-project. Additionally, included in the authorization is a requirement that the GOB submit written evidence that a plan has been developed for the financial flows under the Rural Development Fund sub-projects.

Section D. The Sequence of Events

A list of critical events for the Project is included in Annex IE. It is anticipated that the Project will be authorized and first year funding obligated by 1 April 1980 (coinciding with the beginning of the GOBs fiscal year). Sub-projects for the second year will be submitted to USAID by December 31, 1981, with DAI technicians arriving to assist the USAID in reviewing these projects in January 1981. PMs would be reviewed and approved by AID and a Grant Agreement Amendment negotiated prior to April 1981. This approval would include any necessary review by the REDSO/Engineer for construction related activities and the application of 611(a), and 611(b) requirements. The same sequence of events is anticipated for the third year of the project.

Section E. Evaluation Plan

1. Annual Reviews

The projects progress will be reviewed on an annual basis concurrent with the submission of annual implementation plans. At the time new sub-activities are reviewed, the Mission, DAI and the GOB will review the progress of ongoing programs.

2. External Evaluations

Additionally, one external evaluation (using an outside consulting firm) will be project funded and will be administered jointly by the GOB and AID. This comprehensive evaluation, which will take place near the end of the second year of the project will review all ongoing sub-projects, project outputs, and progress toward meeting the project purpose. Funds will be made available during the first and second years of the project to gather baseline data for appropriate sub-projects that do not already include provisions for baseline data collection.

ANNEXES

I. Project Details

- A. Logical Framework
- B. PID Review Cable
- C. PID Follow-Up Cable
- D. DSB Support for Project
- E. List of Critical Events
- F. Incorporation of USAID Environmental
Concerns into Project Memoranda

II. Financial Exhibits

III. Engineering Exhibits

- A. Summary of Construction Activity
- B. Engineering Analysis of Sub-Projects

IV. Legal Exhibits

- A. Letter of Application
- B. Statutory Checklist
- C. Detailed Justification for Waivers
- D. Initial Environmental Examination

Narrative Summary Goal	Verifiable Indicators	Means of Verification	Assumptions
To stimulate rural development and a more equitable distribution of income in Botswana.	Measures of Goal Achievement - Number of jobs in rural sector increase by 30% over the next three years. - GOB revenue from domestic mining industry are used to stimulate rural development	- GOB employment statistics - Examination of revenues allocated to and expended by the domestic development fund (DDF)	- GOB's stated policy for equitable income distribution is translated into concrete programs
Purpose Assist the GOB in the development and implementation of strategies to provide the rural population with increased access to productive employment opportunities	- Proportionate share of arable agriculture in MOA's capital development budget increases by 40% during the planning cycles and to 50% during next cycle. - 6 programs to promote ALDEP are ongoing by end of Project. - RIO's have been replaced by Batswana and have a sufficient budget to continue to promote rural industries. - District Land Use Plans place considerable emphasis on wildlife and arable agriculture crops.	- GOB five year plans - Examination of district land use plans. - Examination of Budget line items for MCI's Rural Industries Program M. Ag's. ALDEP Program - Examination of District Land Use Plans.	- GOB continues to pursue ALDEP (Arable Lands Development Program) - Land use planning program sets aside sufficient land for marginal groups engaged in arable agriculture and hunting and gathering. - GOB continues to emphasize the development of small scale rural industry.
Sub Purpose (1) To assist the GOB in the improvement of land use planning and management	- Local land institutions will have improved capacity to resolve basic technical issues affecting land allocation and to introduce a system of land registration. - A series of communal area land use plans developed and approved at the local level will be under implementation for both (1) areas in eastern Botswana where arable farming and grazing are currently practical and (2) needy, designated communal areas adjacent to TGLP commercial ranches where non-water rights holders (Batswana and other hunter gatherers) may be resettled. - Future water development within arable communal areas will be systematically planned on the basis of the data and findings generated by the Water Points Survey currently in progress.	- Examination of Land Use Plans	- Districts continue to play a major role in land use planning. - GOB continues to emphasize importance of non-water rights holders in land allocation process
Sub-Purpose (2) To assist the GOB in increasing arable production and the incomes of rural households.	- A fully elaborated ALDEP program will be underway, with interventions adapted to specific ecological zones and to the needs of different socio-economic groups, including female-headed households. - Results from pilot and quasi experimental projects will demonstrate the technical and economic viability of various options for diversifying agricultural production in Botswana.	- Ministry of Agriculture records - MOA will have a series of viable production packages being disseminated	- GOB continues to consider implementation of ALDEP a high priority. - Arable agriculture has the potential for increasing on-farm incomes

	<ul style="list-style-type: none"> - an increased volume of small projects originating with farmer groups will be approved and implemented with MOA support. - MOA field staff in the districts will have a strengthened capacity to formulate, design and implement production-oriented projects 	<ul style="list-style-type: none"> - MOA and District records - Examination on ongoing and newly proposed projects. 	<ul style="list-style-type: none"> - Field staff will assist farmer groups in preparing small projects. - Central level ministries will continue to encourage district level personnel to develop projects.
<p>Sub-Purpose (3)</p> <p>To assist the GOB in increasing non-farm employment opportunities in rural areas.</p>	<ul style="list-style-type: none"> - A support system will exist at the district level, backstopped by MCI, to service rural enterprises through the cadre of rural industrial officers. - A comprehensive data base on resource availability market potential and investment needs for enterprises in rural areas will have been assembled, providing the framework for an expanded MCI program during the mid-1980s. - At least one new Wildlife utilization project (in addition to the Gemsbock Project) involving remote area populations will be designed and in the process of implementation by the Department of Wildlife within M.C.I. 	<ul style="list-style-type: none"> - District and National MCI records. - Ministry of Finance budgeting records 	<ul style="list-style-type: none"> - That the GOB places a high priority on off-farm employment and provides a budget to MCI sufficient to carry out its program. - That a potential exists in rural Botswana for rural industries and that these industries will be economically viable so as to increase farmer incomes.
<p>Outputs (first year)</p> <p>A. Land Use</p> <ul style="list-style-type: none"> - LG 31 - Land Use Plans - Land use plans for Ngamiland - Communal Service Center at Lepasha - LG 36 - Land Institutions - Improved Land Board staff - Water Points - Data on existing water points for use in future policy formulation <p>B. On-Farm Income</p> <p>AE 19 ALDEP</p> <ul style="list-style-type: none"> - Subsidized credit provided to farmers - facilities provided for grain storage - fencing provided separate gardens from livestock 	<p>Magnitude of Outputs</p> <p>1 land use plan</p> <p>1 service center with a health post and school</p> <p>1 water points survey covering each District</p> <p>Credit provided to 500 farms</p> <p>9 grain storage facilities</p>	<p>Plan examined</p> <p>Site visit</p> <p>Survey reviewed</p> <p>Min. Ag. - records</p> <p>Site examination</p>	<ul style="list-style-type: none"> - Sufficient displaced individuals to merit construction - Manpower available for training - that farmers consider credit high priority and will utilize funds available - that fencing is considered a high priority

AE 11 Horticulture

- establishment of a horticulture estate which addresses crop husbandry, management, marketing credit and water supply constraints.

1 horticulture estate completed

Site visit

- that GOB considers horticulture a high priority.

AE 15 Afforestation

- identification of appropriate forestry species

3 species identified

Min. Ag. records

- that forestry species exist appropriate to Sandveld area.

- improvement of productivity for reserved woodlands

2 management techniques identified

Site visit

- that production of woodlands can be increased.

C. Non-Farm Employment**CI 08 Rural Industries****Trained Rural Industries Officers**

8 RIO's

MCI records

- survey of existing and potential industries and resources

10 potential industries identified

Report reviewed

- that GOB considers training of RIO's a high priority

GA 02

- harvesting schemes increasing off-take

Off-take for selected species increased by 5 - 10%

MCI reports

- that sufficient species of wildlife present to increase off-take

- commercial harvesting schemes concentrating on animal species with a high market value

2 harvesting schemes developed

MCI reports

Inputs**Foreign Exchange Technical Assistance**

- long term
- short term
- Equipment and commodities
- vehicles
- Training
- Local costs
- Salaries
- Commodities
- Transport
- Construction
- Training
- Miscellaneous

(see financial plan)

AID records

- that AID supplies funds requested in subject project

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ANNEX
I B

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Page 1

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APPROVED BY AA/AFR, G.T. BUTCHER
DAA/AFR, W.M. NORTH
AFR/DP: RASTACY (DRAFT)
AFR/DR: M. JONES (DRAFT)
AFR/DR: L. NEILMAN (DRAFT)
AFR/DR: J. MORGAN (DRAFT)
AFR/DR: B. BOYD & P. SHAW (DRAFT)
AFR/DR: D. KLINE (DRAFT)
GC/AFR: E. CRAIGON (DRAFT)
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INFO AMEMBASSY HAIRCHI PRIORITY
AMEMBASSY MBABANE

UNCLAS STATE 264378

AIDAC; NAIROBI FOR REDSO-PASS LOU COHEN; MBABANE FOR RLA

E.O. 12065 N/A

TAGS:

SUBJECT: PID - RURAL SECTOR GRANT

1. THE SUBJECT PID WAS REVIEWED ON SEPTEMBER 11 AND 12. THE PID IS APPROVED. THE FOLLOWING GUIDANCE SHOULD BE REFLECTED IN THE PROJECT PAPER AND IN THE MANNER IN WHICH INTENSIVE REVIEW IS UNDERTAKEN (SEE PARTICULARLY PARAGRAPH 5). WE APPRECIATE USAID'S EFFORT IN DEVELOPING INTERESTING AND INNOVATIVE APPROACH.

2. GENERAL GUIDANCE

OUR PRINCIPAL CONCERNS WITH THE PROJECT DESCRIBED IN THE PID ARE (1) THAT THE RELATIONSHIP BETWEEN PROJECT OBJECTIVES AND THE PROPOSED ACTIVITIES IS NOT NOW SUFFICIENTLY EXPLICIT AND (2) THAT THE IMPLEMENTATION FLEXIBILITY PROPOSED WILL NOT HAVE A SUFFICIENTLY DEFINED BASIS AT THE TIME OF PROJECT AUTHORIZATION. WE ENDORSE A MULTI-ACTIVITY SECTORAL APPROACH AS A MEANS PRINCIPALLY OF (A) ENCOURAGING A HOLISTIC APPROACH TO SECTORAL PROBLEMS AND (B) MINIMIZING REDUNDANCY IN PROJECT DOCUMENTATION. HOWEVER, SUCH AN APPROACH MUST BE BASED ON A RURAL SECTOR STRATEGY SUFFICIENTLY DEVELOPED TO GIVE AN EVIDENT COHERENCE TO THE SECTOR APPROACH.

WE WANT TO ENCOURAGE, WHERE WARRANTED, PROJECT DESIGNS ALLOWING FOR FLEXIBILITY IN PROJECT IMPLEMENTATION (A) TO ADAPT THE PROJECT TO HOST GOVERNMENT PROCESSES, (B) TO RENDER SUPERFLUOUS BURDENSOME AID/ON OR USAID REVIEW/ APPROVALS, AND (C) TO BETTER SERVE PROJECT OBJECTIVES. WE AGREE THAT THE CIRCUMSTANCES IN BOTSWANA MAY WARRANT THIS APPROACH. WE WOULD SUPPORT BROAD IMPLEMENTATION FLEXIBILITY BASED ON IDENTIFICATION, SUFFICIENT ELABORATION, AND JUSTIFICATION OF THE PRINCIPAL PROJECT ACTIVITIES AND PROJECT COSTS WITHIN THE PROJECT PAPER, I.E., AT THE DESIGN/AUTHORIZATION STAGE. THE ACTIVITIES, THEMSELVES, MUST NATURALLY BE RELATED TO THE SECTORAL STRATEGY WITH ACTIVITY OBJECTIVES AND OUTPUTS DEFINED AND A CLEAR UNDERSTANDING AS TO HOW THEY SUPPORT THE STRATEGY.

3. RATIONALE, PURPOSE, SECTOR STRATEGY

WE FIND THAT THE RELATIONSHIP BETWEEN PROJECT RATIONALE AND PURPOSE ON THE ONE HAND, AND PROJECT ACTIVITIES ON THE OTHER, NEEDS TO BE MORE FULLY EXPLORED. THE LINK BETWEEN PROJECT ACTIVITIES AND THE EMPLOYMENT OBJECTIVE PARTICULARLY NEEDS TO BE MORE EXPLICIT. THE GOB'S EXPECTATIONS AND OBJECTIVES IN THE PRINCIPAL PROGRAM AREAS (E.G., ALDEP, IMPROVED LAND USE, AND RURAL SMALL INDUSTRY) MUST BE MORE FULLY ELABORATED; THESE PROGRAMS APPARENTLY CONSTITUTE THE GOB'S STRATEGY RESPONSE TO THE PROBLEMS OF THE RURAL SECTOR AND ARE THE PRINCIPAL AREAS SELECTED TO RECEIVE AID FINANCING. WE THINK THAT THE OBJECTIVES OF THESE PROGRAMS WOULD PROBABLY MERIT CONSIDERATION AT THE PROJECT PURPOSE LEVEL.

PARENTHETICALLY, AT PRESENT, EMPLOYMENT GENERATION IS ONE OF THE TWIN PURPOSES OF THE PROJECT. UNEMPLOYMENT AND UNDEREMPLOYMENT MAY WELL BE SERIOUS PROBLEMS IN RURAL BOTSWANA. IN ANY CASE, THE PROJECT PAPER SHOULD CONTAIN AN ANALYSIS IN SOME DEPTH OF THE UNEMPLOYMENT/UNDEREMPLOYMENT PROBLEM (WE ASSUME THE LIPTON REPORT PROVIDES SUCH AN ANALYSIS).

4. PROJECT ACTIVITIES

WE SUGGEST THAT THE MISSION/GOB IDENTIFY PRINCIPAL PROJECT ACTIVITIES, I.E., GROUPINGS (PERHAPS FIVE) OF SUB-ACTIVITIES TO BE CARRIED OUT UNDER THE PROJECT. SUCH POTENTIAL GROUPINGS ARE ALREADY SUGGESTED IN THE PID, E.G., RELATING TO RURAL SMALL INDUSTRY, ALDEP, CONSERVATION, LAND USE IMPROVEMENT AND PERHAPS DECENTRALIZED RURAL DEVELOPMENT PLANNING AND ADMINISTRATION. A SET OF OBJECTIVES FOR EACH GROUPING SHOULD BE DEVELOPED AND RELATED TO THE OVERALL STRATEGY FOR THE SECTOR PROGRAM. ACTIVITIES WITHIN THE

GROUPINGS (SUB-ACTIVITIES) SHOULD BE PRESENTED IN THE PROJECT PAPER. WE WOULD WANT THE SUB-ACTIVITIES DESCRIBED SUFFICIENTLY TO UNDERSTAND THEIR RELATIONSHIP TO PRINCIPAL ACTIVITY AND PROJECT PURPOSES AND ROLE IN SUPPORTING THE GOB'S STRATEGY. WE WOULD WANT THEIR COSTS JUSTIFIED TO THE EXTENT OF THE REQUESTED AUTHORIZATION. TO PROVIDE FOR NECESSARY MISSION APPROVAL FLEXIBILITY, WE WOULD SUGGEST THAT CRITERIA FOR SELECTION AND APPROVAL BE DEVELOPED FOR EACH OF THE PRINCIPAL PROJECT ACTIVITIES, I.E., THE MAJOR GROUPINGS. THESE CRITERIA (RATHER THAN GENERAL CRITERIA FOR THE PROJECT AS A WHOLE) WOULD GOVERN DEVELOPMENT AND MISSION APPROVAL OF HIGH PRIORITY UNFORESEEN SUB-ACTIVITIES, I.E., THOSE NOT IDENTIFIED AS SUCH IN THE PROJECT PAPER. ACTIVITIES FALLING OUTSIDE THE DEFINITION (CRITERIA) OF THE PRINCIPAL PROJECT ACTIVITIES WOULD NOT BE ELIGIBLE FOR FINANCING.

5. THUS, THE PROJECT PAPER SHOULD CONTAIN AN ELABORATION OF THE OBJECTIVES OF THE PRINCIPAL AREAS OF PROGRAM CONCENTRATION AND THE CURRENT, OVERALL GOB RURAL DEVELOPMENT STRATEGY, THE AID STRATEGY TO ASSIST THE GOB IN PURSUING ITS APPROACH AND A WELL PREPARED LOGICAL FRAMEWORK DEMONSTRATING THE LINKAGES AMONG PROJECT ACTIVITIES, OUTPUTS, PURPOSES, AND GOALS. WE SUGGEST THAT THE FIRST STEP IN INTENSIVE REVIEW OF THE PROJECT IS FOR USAID/GOB TO DETERMINE THE PRINCIPAL PROJECT ACTIVITIES AND TO DEVELOP THE LOGICAL FRAMEWORK IN THE CONTEXT OF GOB/AID STRATEGY. WITH THE UNDERSTANDING THAT THIS WILL BE REFINED AS INTENSIVE REVIEW PROCEEDS, WE WOULD CONSIDER IT USEFUL TO ALL IF USAID WOULD SUBMIT FOR AFR COMMENT A PAPER WITH THE RESULTS OF THE FIRST STEP.

OCT 12

6. OTHER DESIGN ISSUES

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A. FAA SECTION 811 (A) AND (B) ARE APPLICABLE TO THIS PROJECT SINCE IT EXCEEDS COLS 100,000. WE ARE TRANSMITTING TO USAID COPIES OF PRIOR DETERMINATIONS AND ALTERNATIVE APPROACHES CONCERNING SIMILAR CASES, PARTICULARLY, THE MALI RURAL WATER PROJECT PAPER.

B. THE PID IS SILENT ON THE ROLE OF WOMEN. THIS IS AN IMPORTANT OMISSION ESPECIALLY SINCE A RELATIVELY LARGE PROPORTION OF MEN WORK OUTSIDE THE COUNTRY WITH APPARENTLY SIGNIFICANT RAMIFICATIONS FOR THE ROLE OF WOMEN IN THE RURAL ECONOMY AS WELL AS IN THE HOUSEHOLD. AN ANALYSIS OF THE ROLE OF WOMEN IN THE RURAL SECTOR SHOULD BE PREPARED DURING INTENSIVE REVIEW BEFORE DESIGN OF PROJECT ACTIVITIES IS COMPLETED. THE ANALYSIS SHOULD BE PRESENTED IN THE PROJECT PAPER AND REFLECTED IN DESIGN OF ACTIVITIES AS

APPROPRIATE. THE PROJECT PAPER SHOULD CLEARLY DEMONSTRATE HOW WOMEN WILL PARTICIPATE IN A FULLY INTEGRATED FASHION IN THE PROJECT ACTIVITIES.

7. IMPLEMENTATION ARRANGEMENTS

A. WITH FOREGOING GUIDANCE ADDRESSED, WE WOULD CONCUR IN GENERAL APPROACH OUTLINED BY USAID IN PID, I.E., ANNUAL PROGRAMMING OF ACTIVITIES/FUNDS BY GDD/USAID INCLUDING USAID APPROVAL OF UNFORESEEN SUB-ACTIVITIES, A DEGREE OF FLEXIBILITY FOR GDD WITHIN ANNUAL, USAID-APPROVED PROGRAM, AND CERTAIN LIFE OF PROJECT FLEXIBILITY FOR USAID AS AMONG PRINCIPAL PROJECT ACTIVITIES.

B. WAIVERS: THE PROJECT PAPER SHOULD PRESENT JUSTIFICATION FOR PROCUREMENT WAIVER INTER ALIA IN TERMS OF THE RECENT EQUIPMENT PROCUREMENT PROJECT (633-0373). ANY VEHICLE OF THE SAME TYPE PROCURED FROM U.S. SOURCE UNDER THE LATTER PROJECT SHOULD, OF COURSE, BE SIMILARLY PROCURED UNDER THE PROPOSED PROJECT.

B. PP APPROVAL AUTHORITY FOR THIS PROJECT REMAINS WITH AA/APR. VANCE

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ANNEX I C
OUTGOING
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APPROVED BY AFR/SA:MVDAGATA

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AFR/DR:WVOLFF (DRAFT)

AFR/DR:BBYD

AFR/SA:LPOMPA

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AMEMBASSY NAIROBI

UNCLAS STATE 041415

AIDAC

E.O. 12865: N/A

TAGS:

SUBJECT: 633-0077 - RURAL SECTOR GRANT

REF: A) STATE 264578 B) GABORONE 242

1. REF B WAS REVIEWED BY AFR/DR AND AFR/SA ON FEBRUARY 1. THE OBSERVATIONS INCLUDED IN THE PARAGRAPHS BELOW REFLECT THAT REVIEW.

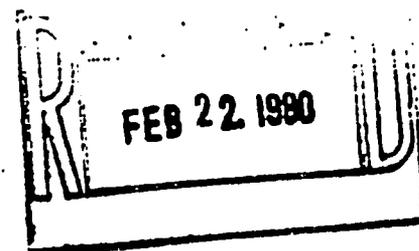
2. THE RESTRUCTURED EMPLOYMENT-BASED PROJECT RATIONALE REPRESENTS A SIGNIFICANT ADVANCE OVER THE AUGUST PID. IT IS ASSUMED THAT CERTAIN IMPLICIT LINKAGES (E.G., THE RELATIONSHIP BETWEEN IMPROVING ACCESS TO EMPLOYMENT AND IMPROVEMENT IN LAND USE PLANNING AND MANAGEMENT) WILL BE MADE MORE EXPLICIT IN THE PP.

3. ON CONFERRING WITH GC/AFR, A NUMBER OF QUESTIONS STILL REMAIN WITH REGARD TO SECTION 611 AND IEE CONSIDERATIONS. SUCH QUESTIONS (DETAILED BELOW), FOR THE MOST PART, ARE GENERATED FROM THOSE ASPECTS OF THE PROJECT (I.E., SUB-PROJECTS) WHICH WILL NOT BE DEFINED BY THE TIME PP AUTHORIZATION IS REQUESTED.

A) DETERMINATIONS FOR SECTIONS 611 (A), (B) AND (C) CAN BE MADE ONLY FOR THOSE PROJECT ELEMENTS THAT ARE SPECIFICALLY DEFINED IN THE PP. IN ADDITION, OVERALL PROJECT AUTHORIZATION WILL REQUIRE A DETAILED EXPLANATION OF CRITERIA FOR SUB-PROJECTS TO BE SELECTED DURING THE LIFE OF THE PROJECT. WE SUGGEST, AS ONE POSSIBLE MEANS OF HELPING TO MEET SECTION 611 REQUIREMENTS, THAT GOB/USAID DEVELOP MODEL ACTIVITIES FOR THE PROJECT PAPER WHICH DESCRIBE THE ANALYTICAL APPROACH AND CRITERIA TO BE EMPLOYED IN DETERMINING SOCIAL SOUNDNESS (INCLUDING BENEFICIARIES), ECONOMIC AND TECHNICAL VIABILITY (INCLUDING ENGINEERING AND ENVIRONMENTAL CONSIDERATIONS), AND FINANCIAL REQUIREMENTS (I.E., REASONABLY FIRM COST ESTIMATES). ADMINISTRATIVE PROCEDURES SHOULD ALSO BE DESCRIBED. PROTOTYPES FOR SMALL SCALE CONSTRUCTION AND DAMS WOULD FACILITATE PROJECT IMPLEMENTATION. EVEN WITH THE ABOVE, SEPARATE 611 DETERMINATIONS MUST BE MADE FOR ALL SUB-PROJECTS BEFORE FUNDS CAN BE OBLIGATED. SECTION 611 REQUIREMENTS WILL NECESSITATE AN INCREMENTAL FUNDING APPROACH. RLA/MBABANE CAN PROVIDE GUIDANCE ON MEETING REQUIREMENTS.

B) RE PARA 7, REF B, AN IEE NEGATIVE DETERMINATION WAS NOT REPEAT NOT APPROVED AT THE TIME OF PID REVIEW. CONTINUING CONCERNS ARE RELATED, IN PART, TO THE COMMENTS ON SECTION 611; THAT IS, A BLANKET NEGATIVE DETERMINATION CANNOT BE MADE FOR PROJECT ELEMENTS NOT SPECIFIED IN THE PID (I.E., SUB-PROJECTS), ALTHOUGH PROVISION COULD BE MADE IN THE AUTHORIZATION FOR INCREMENTAL DETERMINATION. IT IS DIFFICULT TO UNDERSTAND, HOWEVER, HOW A PROJECT THAT HAS A SUB-PURPOSE WHICH QUOTE IS TO ASSIST THE GOB IN THE IMPROVEMENT OF LAND USE PLANNING AND MANAGEMENT UNQUOTE (PARA 3, REF B) AND THAT WILL, FURTHERMORE, PROMOTE QUOTE THE DEVELOPMENT OF ECONOMICALLY VIABLE WILDLIFE SCHEMES UNQUOTE (PARA 5 REF B) WILL NOT HAVE A SIGNIFICANT IMPACT ON THE ENVIRONMENT. FURTHER USAID EXPLANATION OF THE ABOVE WOULD BE HELPFUL. VANCE

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ANNEX I D
OUTGOING
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PAGE 01 STATE 039269
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INFO OCT-00 /035 R

DRAFTED BY DS/RAD: JLOWENTHAL: ETJ
APPROVED BY DS/RAD: HHOBGOOD
AFR/SA: CSCHERRER (PHONE)
AFR/DR/ARD: BWHITTLE (PHONE)

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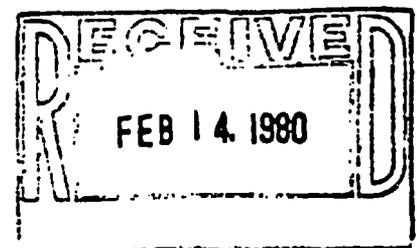
E. O. 12065: N/A

TAGS:

SUBJECT: ORGANIZATION AND ADMINISTRATION OF IRD (936-5300)

REF: LETTER PIELEMIER/LOWENTHAL 01 FEBRUARY 1980

1. DS/RAD CAN MAKE AVAILABLE RESOURCES REQUESTED FROM IRD CONTRACT TO ASSIST MISSION IN DESIGN AND IMPLEMENTATION OF BOTSWANA RURAL SECTOR GRANT (633-0077).
2. GIVEN THE MINIMUM LEVEL OF CORE-FUNDING FOR THIS CONTRACT, DS/RAD REQUESTS THAT MISSION SHARE THE COSTS OF LONG-TERM SERVICES. THE CONTRACT WILL FUND ALL COSTS OF THE INITIAL VISIT, DURING WHICH A DETAILED SCOPE OF WORK IS DEVELOPED. FOR SUBSEQUENT VISITS, DS/RAD PROPOSES THAT THE MISSION PAY ALL LOCAL COSTS (INCLUDING PER DIEM), INTERNATIONAL TRAVEL, AND SALARIES (INCLUDING OVERHEAD) OF IRD STAFF EXCEEDING THREE PERSON MONTHS EACH YEAR. DS/RAD WILL FUND THREE PERSON MONTHS OF IRD STAFF SALARY EACH YEAR FOR TWO-YEARS.
3. THE MECHANISM USED FOR IRD COST-SHARING IS A PIO/T IN WHICH DS/RAD IS CITED AS THE RESPONSIBLE AGENT. DS/RAD WILL THEN ADD THE MISSION'S CONTRIBUTION TO THE IRD CONTRACT.
4. PLEASE ADVISE DS/RAD OF MISSION REACTION TO THIS PROPOSAL AND THE APPROXIMATE SCHEDULING OF TRIPS IF KNOWN. VANCE



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Implementation ScheduleList of Critical Events

<u>Date</u>	<u>Action</u>	<u>Organization</u>
Feb. 80	Preliminary Design completed	GOB/USAID/DAI
Feb. 80	Approval by Ministry of Finance of all first year sub-projects PMS except AE 10 and AE 15	GOB
Feb. 80	AID Engineer review and approve necessary construction related activities	
March 80	Project Paper Approved	AID/W
March 80	Approval of AE 10 and AE 15 PMS	GOB
March 80	Signing of Project Agreement	GOB/USAID
Aug 80	3 new sub-projects or sufficient number of sub-projects for the second year funds being developed by various ministries.	GOB
Nov. 80	New second year sub-projects going through GOB approval process by Ministry of Finance and Development Planning	RDU/MFDP
Dec. 80	Annual list of second year sub-projects eligible for support submitted to USAID	RDU/MFDP
Jan - Feb. 81	Development Alternatives Inc. (DAI) to assist USAID in review of annual implementation plans and accompanying second year project memoranda.	
Feb. 81	First year sub-project progresses reviewed.	USAID/DAI
March - April 81	Lists of second year sub-projects PM reviewed and approved.	USAID
April 81	AID Engineer review and approve necessary construction related activities	
April 81	Grant Agreement Amendment negotiated	GOB/USAID
August 81	Sufficient number of third year sub-projects being developed	GOB
Nov. 81	New third year sub-projects going through GOB approval process RDU/Ministry of Finance and Development Planning.	
Dec. 81	Annual list of third year sub-projects eligible for support submitted to USAID.	FDU/FMDP

<u>Date</u>	<u>Action</u>	<u>Organization</u>
Nov. 81	External Evaluations (using outside consulting firm) will review ongoing sub-projects, project outputs, progress toward meeting project purpose and feasibility of a Phase II project.	USAID
Jan - Feb 82	DAI to assist USAID in review of annual implementation plans and accompanying third year PMs.	
Feb 82	Second year sub-project progresses reviewed.	USAID/DAI
March - April 82	List of third year sub-projects PM reviewed and approved.	USAID
April 82	AID Engineer review and approve necessary construction related activities.	

**INCORPORATION OF USAID ENVIRONMENTAL CONCERNS
INTO PROJECT MEMORANDUM**

The USAID procedure for assessing the significant adverse effects of a project on the natural and human environment is a formal process. The first step is a preliminary evaluation of the potential effects of a project on the environment. This evaluation is called an Initial Environmental Examination (IEE) and must be prepared for each project. If this preliminary evaluation indicates that there might be significant adverse effects on the environment, then USAID prepares an Environmental Assessment (EA). The EA is a detailed evaluation, i.e. forecast, of the effects of a project on an existing ecological setting. Its primary purposes are to determine the magnitude of significant adverse environmental impacts and either to identify measures which will mitigate adverse effects or to justify why the merits of a project outweigh negative effects.

Although the GOB takes into account the natural and human environment in designing projects, it does not explicitly address environmental issues in the preparation of Project Memorandum (PM). In order to meet USAID concerns for environmental soundness of projects, it is suggested that a PM submitted to USAID for funding contain a brief section which explicitly addresses the issues of potential adverse environmental effects which might result from implementation of a proposed project. In so doing, the PM would address three major environmental concerns, suitability, sustainability and secondary (external) effects of a project, rather than the explicit requirements of an IEE.

The first concern is the question of suitability i.e. the fit between project activity and the environment. This issue, simply put, requires abandoning the assumption of homogeneous natural and human resource bases and recognizing the diversity of the environment.

In the case of rangeland development, the issue of suitability is explicitly addressed by taking into account the diversity of the vegetative cover and water availability. Diversity in this case is measured by the number and types of plant species and water points and users. Environmentally sound management would require that allocation of lands for commercial grazing or wildlife management be based on the resource base as it is rather than on assumptions about it. The question is whether the assigned use (be it wildlife or cattle) would most effectively utilize the resource base.

In the case of water point development, one aspect of the suitability issue is the potential claims on the proposed water source. Potential claims can be based on customary rights, common law rights or any other kind of claim. Environmentally sound management would require that all these potential claims be recognized and resolved in the planning process. If these claims cannot be resolved satisfactorily, then the area may not be an appropriate location for a new water point.

The second concern is the question of the sustainability of a project i.e. will a project serve short-term, to the disadvantage of long-term, environmental goals. The issue, simply put, is extension of the time horizon for project evaluation from the one used for economic analysis, perhaps five to twenty years, to one consonant with ecological analysis, perhaps fifty to one hundred years.

In the case of rangeland development, the issue of sustainability is explicitly addressed by taking into account the carrying capacity of the natural environment. The carrying capacity is a measure of the number of individuals of any species that a particular environment can support. Environmentally sound management would require that a rangeland development project not allow grazing to exceed the long run carrying capacity of the land. The question is whether the proposed level of forage utilization is possible over the next fifty years rather than the next five years.

In the case of arable agricultural development, the issue of sustainability is explicitly addressed by taking into account the critical limiting factor. The limiting factor is that substance or quality in the environment, the supply of which is least abundant in relationship to the needs of the planned cropping pattern. In this case the limiting factor could be plant nutrients or water availability. Environmentally sound management would require that the anticipated level and type of output from an agricultural project not exceed the available water supply for irrigation. The question is whether the proposed level of output is possible two out of ten years or nine out of ten years.

The third concern is the question of secondary effects which may be more substantial than the primary effects of a project. The concern, simply put, is expansion of the scope of project evaluation from the one normally used for economic analysis, which focuses on direct effects, to one consonant with ecological analysis, which includes indirect as well as direct effects.

In the case of rangeland development, one way to address the issue of secondary effects is to examine beneficial activities which would be excluded by the proposed project. For example, a fencing program, while it would promote better range utilization by cattle, might exclude significant wildlife populations from their traditional feeding areas. Another type of question is whether rangeland development will encourage unplanned activities. For example, a water point might provide water for human as well as cattle use. If so, there could be human health problems resulting from the combined use.

In the case of arable land development, one way to address the issue of secondary effects is to examine if project inputs will have detrimental effects. For example, a horticulture project might encourage the use of persistent pesticides, which adversely affect biological systems and human applicators if the pesticides are not handled correctly. Another possible effect could be the spread of bilharzia.

In the case of afforestation projects, one way to address the issue of secondary effects is to explore whether other activities will adversely constrain the forest product output. For example, cattle grazing and premature cutting for firewood would probably prevent an optimal yield from an afforestation project.

In the case of rural infrastructure development, one way to address the issue is to estimate the number of new inhabitants who would be attracted to an area. Oftentimes, provision of a new service, such as a safe and

dependable water supply, will attract so many new inhabitants that they will overwhelm other existing services, such as educational and health facilities.

If any proposed project appears inappropriate for the resource base, viable only in the short term or to generate major secondary effects, then the PM ought to include a discussion of interests and considerations which offset adverse effects. For example, if allocation of commercial areas to cattle grazing is not sustainable, the PM should indicate why short term economic gains are so important and, if possible, what productive activities will be available to the relevant human populations when the range fails to sustain cattle grazing. Where appropriate, the PM should indicate potential mitigation measures, such as provision of separate water supplies for livestock and human use, alternative pesticides and intensive herding to eliminate the necessity of fencing.

Budget Summary: AE 10 Small Projects
(P thousands)

	1980/81			1981/82			1982/83		
	USAID	Host Country	Total	USAID	Host Country	Total	USAID	Host Country	Total
<u>Foreign Exchange Costs:</u>									
<u>Technical assistance.</u>									
. long-term									
. short-term									
<u>Equipment and Commodities</u>									
Vehicles									
Training									
<u>Local costs:</u>									
Salaries									
Commodities									
Transport									
Construction									
Training									
Miscellaneous									
TOTAL				(\$101 600)	(\$12 700)	(\$114 300)	(\$127 000)	(\$19 050)	(\$146 050)
				80 000	10 000	90 000	100 000	15 000	115 000

- NOTES:
1. Funding for 1980/81 is to be provided through Dutch aid.
 2. This project consists of small largely self-help activities that never exceed P5 000 and are usually less than P1 000. These activities are normally a combination of commodities, construction and local labor but, since they are all district initiatives it is not possible to determine ahead of time what the breakdown will be.
 3. The host country contribution is entirely from the beneficiaries; they must contribute at least 10% and often contribute 50% or more

Budget Summary: Horticultural Estates AE 11

(P thousands)

	1980/81			1981/82			1982/83		
	USAID	Host Country	Total	USAID	Host Country	Total	USAID	Host Country	Total
<u>Foreign Exchange Costs:</u>									
<u>Technical assistance.</u>									
. long-term									
. short-term									
<u>Equipment and Commodities</u>									
Vehicles	(\$11 195) 8 815		(\$11 195) 8 815	(\$12 874) 10 137		(\$12 874) 10 137			
Training							(\$10 160) 8 000		(\$10 160) 8 000
<u>Local costs:</u>									
Salaries		(\$8 707) 6 856	(\$ 8 707) 6 856		(\$13 584) 10 696	(\$13 584) 10 696		(\$14 270) 11 236	(\$14 270) 11 236
Commodities	(\$14 949) 11 771	(\$1 422) 1 120	(\$16 372) 12 891	(\$17 192) 13 537	(\$ 1 636) 1 288	(\$18 828) 14 825			
Transport	(\$ 4 572) 3 600		(\$ 4 570) 3 600	(\$10 516) 8 280		(\$10 516) 8 280	(\$ 9 069) 7 141		(\$ 9 069) 7 141
Construction	(\$84 225) 66 319	(\$6 518) 5 132	(\$90 743) 71 451	(\$103 880) 81 795	(\$ 8 287) 6 525	(\$112 167) 88 320			
Training									
Miscellaneous	(\$11 494) 9 050	(\$1 665) 1 311	(\$13 158) 10 361	(\$14 446) 11 375	(\$ 2 350) 1 851	(\$16 797) 13 226	(\$ 1 923) 1 514	(\$ 1 427) 1 124	(\$3 350) 2 638
TOTAL.	99 555 (\$126 435)	14 419 (\$18 312)	113 974 (\$144 747)	125 124 (\$158 907)	20 360 (\$25 857)	145 484 (\$84 765)	16 655 (\$21 152)	12 360 (\$15 697)	29 015 (\$36 849)

NOTES:

Budget Summary: AE 15 Rural Afforestation Projects
(P thousands)

	1980/81			1981/82			1982/83		
	USAID	Host Country ²	Total	USAID	Host Country ²	Total	USAID	Host Country ²	Total
Foreign Exchange Costs:									
Technical assistance									
.long-term									
.short-term									
Equipment and Commodities	(\$12 675)		(\$12 675)	(\$50 698)		(\$50 698)			
Vehicles	9 980		9 980	39 920		39 920			
Training									
Local costs:									
Salaries	(\$ 9 003)	(\$21 589)	(\$30 592)	(\$ 839)	(\$86 356)	(\$87 195)	(\$ 486)		(\$ 486)
Commodities	7 089	16 999	24 088	661	67 997	68 658	383		383
Transport	(\$30 560)	(\$ 4 878)	(\$35 438)	(\$53 122)	(\$19 516)	(\$72 638)			
Construction	24 063	3 841	27 904	41 828	15 367	57 195			
Training									
Miscellaneous ^Z	(\$23 266)		(\$23 266)	(\$44 684)		(\$44 684)	(\$ 1 542)		(\$ 1 542)
TOTAL	18 320		18 320	35 184		35 184	1 214		1 214
	(\$ 2 527)		(\$ 2 527)	(\$43 151)		(\$43 151)	(\$99 572)		(\$99 572)
	1 990		1 990	33 977		33 977	78 403		78 403
	61 442	20 840	82 282	151 570	83 364	234 934	80 000		80 000
	(\$78 031)	(\$26 467)	(\$104 498)	(\$192 494)	(\$105 872)	(\$298 366)	(\$101 600)		(\$101 600)

NOTES: ^Z Miscellaneous includes contingency factors and in years 2 and 3, amounts for the small afforestation projects program which have not yet been allocated.

² Host country contribution not yet calculated in year 3. Self-help contributions not included.

Budget Summary: AE 19 ALDEP Pilot Activities
(P thousands)

	1980/81			1981/82			1982/83		
	USAID	Host Country	Total	USAID	Host Country	Total	USAID	Host Country	Total
Foreign Exchange Costs:									
Technical assistance.									
. long-term									
. short-term									
Equipment and Commodities									
Vehicles									
Training									
Local costs:									
Salaries				(\$ 73 660)		(\$ 73 660)	(\$38 100)		(\$38 100)
Commodities fences + well linings)	(\$73,660)		(\$ 73,660)	58 000		58 000	30 000		30 000
Transport (grain storage)	(\$63 500)		(\$ 63 500)	(\$ 50 800)		(\$ 50 800)			
Construction	50 000		50 000	40 000		40 000			
Other costs (credit for draft power and farm implements)	(\$92 075)	(\$128 905)	(\$220 345)	(\$ 30 480)		(\$ 30 480)	(\$19 050)		(\$19 050)
	72 500	101 500	173 500	24 000		24 000	15 000		15 000
TOTAL.	180 500	101 500	281 500	122 000		122 000	45 000		45 000
	\$229 235)	(\$128 905)	(\$357 505)	(\$154 940)		(\$154 940)	(\$57 150)		(\$57 150)

- NOTES:
1. The host country contribution in 1980/81 is the GOB funding of the credit component of the farm implement program. The subsidy component of this program is funded under the RDF.
 2. The commodities are for fences and water points; much of the labor for these projects will be contributed by the beneficiaries.

Budget Summary: Water Points Survey
(P thousands)

	1980/81			1981/82			1982/83		
	USAID	Host Country	Total	USAID	Host Country	Total	USAID	Host Country	Total
<u>Foreign Exchange Costs:</u>									
Technical assistance.									
. long-term									
. short-term	(\$10 103)		(\$10 103)						
Equipment and Commodities	7 955		7 955						
Vehicles									
Training									
<u>Local costs:</u>									
Salaries	(\$13 595)	(\$ 2 540)	(\$16 135)						
	10 705	2 000	12 705						
Commodities									
Transport	(\$15 977)	(\$12 700)	(\$28 677)						
	12 580	10 000	22 580						
Construction									
Training	(\$10 827)	(\$ 3 683)	(\$14 510)						
	8 525	2 900	11 425						
Miscellaneous (Office exp.	(\$ 4 794)		(\$ 4 794)						
(10% contng.	3 775		3 774						
TOTAL	43 540	14 900	58 440						
	(\$55 296)	(\$18 923)	(\$74 219)						

NOTES: Figures do not include costs of three senior researchers from Cornell Univ. These costs total \$51 975 and are funded under a centrally-funded DSB project.

Budget Summary: GA 02 Wild Life Management

(P thousands)

	1980/81			1981/82			1982/83		
	USAID	Host Country	Total	USAID	Host Country	Total	USAID	Host Country	Total
Foreign Exchange Costs:									
Technical assistance									
Long-term	(\$60 960)	(\$ 7 483)	(\$68 443)	(\$60 960)	(\$ 7 483)	(\$68 443)	(\$60 960)	(\$ 7 483)	(\$68 443)
Short-term	48 000	5 892	53 892	48 000	5 892	53 892	48 000	5 892	53 892
Equipment and Commodities									
Vehicles									
Training									
Local costs:									
Salaries Counterpart		(\$ 7 483)	(\$ 7 483)		(\$ 7 483)	(\$ 7 483)		(\$ 7 483)	(\$ 7 483)
Commodities		5 892	5 892		5 892	5 892		5 892	5 892
Transport		(\$ 2 286)	(\$ 2 286)		(\$ 2 286)	(\$ 2 286)		(\$ 2 286)	(\$ 2 286)
Logistic support for technicians		1 800	1 800		1 800	1 800		1 800	1 800
Miscellaneous		(\$ 2 794)	(\$ 2 794)		(\$ 2 794)	(\$ 2 794)		(\$ 2 794)	(\$ 2 794)
		2 200	2 200		2 200	2 200		2 200	2 200
TOTAL	80 000	15 784	95 784	48 000	15 784	63 784	48 000	15 804	63 784
	(\$101 600)	(\$20 046)	(\$121 646)	(\$60 960)	(\$20 046)	(\$81 006)	(\$60 950)	(\$20 046)	(\$81 006)

NOTES:

Budget Summary: CI 08 Rural Industries

(P thousands)

	1980/81			1981/82			1982/83		
	USAID	Host Country	Total	USAID	Host Country	Total	USAID	Host Country	Total
Foreign Exchange Costs:									
Technical assistance									
long-term (SIO)	(\$50 800)		(\$62 885)	(\$50 800)		(\$62 885)	(\$50 800)		(\$62 885)
short-term	40 000		49 516	40 000		49 516	40 000		49 516
Equipment and Commodities									
Vehicles	(\$35 560)		(\$35 560)	(\$25 705)		(\$25 705)			
Training	28 000		28 000	20 240		20 240			
	(\$26 670)		(\$26 670)	(\$ 7 620)		(\$ 7 620)			
	21 000		21 000	6 000		6 000			
Local costs:									
Salaries	(\$15 430)		(\$15 540)	(\$ 9 512)		(\$ 9 512)			
	12 150		12 150	7 490		7 490			
Commodities									
Transport									
Construction									
Training	(\$ 8 890)		(\$ 8 890)	(\$ 7 681)		(\$ 7 681)			
	7 000		7 000	6 048		6 048			
Miscellaneous	(\$76 200)		(\$76 200)	(\$171 450)		(\$171 450)	(\$171 450)		(\$171 450)
Small project fund	60 000		60 000	135 000		135 000	135 000		135 000
TOTAL	168 150	96,627	177 666	214 778	251,497		175 000	489,322	
	(\$213 550)		(\$225 635)	(\$272 768)			(\$222 250)		

FOOTNOTES:

Budget Summary: LG 31 Land Use Plan Implementation - Ngamiland
(P thousands)

	1980/81			1981/82			1982/83		
	USAID	Host Country	Total	USAID	Host Country	Total	USAID	Host Country	Total
Foreign Exchange Costs:									
Technical assistance.									
.long-term									
.short-term	(\$12 700)		(\$12 700)						
Equipment and Commodities									
Vehicles		(\$12 700)	(\$12 700)						
Training		10 000	10 000						
Local costs:									
Salaries	(\$ 3 175)		(\$ 3 175)	(\$ 6 985)	(\$ 18 415)	(\$25 400)	(\$19 050)		
Commodities	2 500		2 500	5 500	19 500	20 000	15 000		
Transport	(\$ 3 175)		(\$ 3 175)	(\$10 795)	(\$ 1 905)	(\$12 700)			
Construction	2 500		2 500	8 500	1 500	10 000			
Training				(\$ 3 810)		(\$ 3 810)	(\$35 560)		
Miscellaneous (air photography)		(\$12 700)	(\$12 700)	3 000		3 000	28 000		
TOTAL	17 500	20 000	37 500	17 000	17 000	34 000	43 000		
	(\$22 225)	(\$25 400)	(\$47 625)	(\$21 590)	(\$21 590)	(\$43 180)	(\$54 610)		

NOTES:

Budget Summary: LG 31 Land Use Plan Implementation - Lepashe
(P thousands)

	1980/81			1981/82			1982/83		
	USAID	Host Country	Total	USAID	Host Country	Total	USAID	Host Country	Total
<u>Foreign Exchange Costs:</u>									
Technical assistance.									
. long-term									
. short-term									
Equipment and Commodities									
Vehicles									
Training									
<u>Local costs:</u>									
Salaries		(\$6 045)	(\$6 045)						
		4 760	4 760						
Commodities	(\$10 160)		(\$10 160)						
	8 000		8 000						
Transport									
Construction	(\$43 180)		(\$43 180)						
	34 000		34 000						
Training									
Miscellaneous		(\$2 604)							
		2 050							
TOTAL	42 000	6 810	46 760						
	(\$53 340)	(\$8 649)	(\$59 385)						

NOTES:

Budget Summary: LG-31 Land Use Plan Implementation Applied Research
(P thousands)

	1980/81			1981/82			1982/83		
	USAID	Host Country	Total	USAID	Host Country	Total	USAID	Host Country	T
Foreign Exchange Costs:									
Technical assistance:									
. long-term	26,130	16,170	42,500						
. short-term	(\$33,500)	(\$20,475)	(\$53,975)						
Equipment and Commodities									
Vehicles									
Training									
Local costs:									
Salaries									
Commodities									
Transport									
Construction									
Training									
Miscellaneous									
TOTAL									

- NOTES:
1. Funding for 1980/81 is to be provided through Dutch aid.
 2. This project consists of small largely self-help activities that never exceed P5 000 and are usually less than P1 000. These activities are normally a combination of commodities, construction and local labor but, since all district initiatives it is not possible to determine ahead of time what the breakdown will be.
 3. The host country contribution is entirely from the beneficiaries: they must contribute at least 10% of the cost.

Budget Summary: LG 36 Development of Land Institution
(P thousands)

	1980/81			1981/82			1982/83		
	USAID	Host Country	Total	USAID	Host Country	Total	USAID	Host Country	Total
Foreign Exchange Costs:									
Technical assistance									
. long-term									
. short-term	(\$38 100)		(\$38 100)						
Equipment and Commodities	30 000		30 000						
Vehicles	(\$12 700)		(\$12 700)	(\$38 100)		(\$38 100)	(\$11 430)		(\$11 430)
Training	10 000		10 000	30 000		30 000	9 000		9 000
Miscellaneous	(\$12 700)	(\$190 500)	(\$203 000)	(\$12 700)	(\$27 940)	(\$40 640)			
TOTAL	10 000	150 000	160 000	10 000	22 000	32 000			
Local costs:	(\$49 530)		(\$49 530)	(\$31 750)		(\$31 750)	(\$25 400)		(\$25 400)
Salaries	39 000		39 000	25 000		25 000	20 000		20 000
Commodities									
Transport									
Construction	(\$86 360)	(\$119 380)	(\$205 740)	(\$91 440)	(\$156 210)	(\$247 650)		(\$101 600)	(\$101 600)
Training	68 000	94 000	162 000	72 000	123 000	195 000		80 000	80 000
Miscellaneous	(\$19 939)	(\$30 988)	(\$50 927)	(\$17 780)	(\$18 415)	(\$36 195)	(\$ 3 683)	(\$10 160)	(\$13 843)
TOTAL	15 700	24 400	40 100	14 000	14 500	28 500	2 900	8 000	10 900
	172 700	268 400	441 100	151 000	159 500	310 500	31 900	88 000	119 900
	(\$219 329)	(\$340 868)	(\$560 197)	(\$191 770)	(\$202 565)	(\$394 335)	(\$40 513)	(\$111 760)	(\$152 273)

NOTE:

RURAL SECTOR GRANT 633-0077

Summary of Construction Activity (Buildings)

<u>Sub-Project</u>	<u>Building Type</u>	<u>Number of Units</u>		<u>Area of Bldg. (m²)</u>	<u>Budgeted Cost of Bldg. (Pula)</u>	<u>Budgeted Cost per Sq. Mtr. (Pula)</u>	<u>Comments</u>
		<u>Year 1</u>	<u>Year 2</u>				
1. Implementation of Land Use Plans LG 31 (Lepasha)	2 rm school	1	-	132	16,000	121	
	2 rm clinic	1	-	36	6,000	166	
2. Development of Land Institutions LG 36 (Subordinate Land Board Off)	3 room offices	4	4	73	17,000	233	
3. ALDEP Pilots AE 19							
A. Drift Fences	-						
B. Small Scale Water Dev.	-						
C. Grain Storage Facilities	Warehouses	5	4	105	12,800	122	Steel Building
4. Horticultural Development AE 11 Mogobane	Houses	2	-	50	9,000	180	
	Packing Shed	1	-	150	22,500	150	Partially open
5. Rural Afforestation AE 15							
1. Takatokwane	-						
2. Hatsheng	-						
3. Ramatlabama Nursery	Utility Bldg.	1		91	14,000	154	Partially open

Note: Year 1 - 15 structures in 12 locations - Estimate 2 P/H REDSO Engineering Requirement
Year 2 - 8 structures in 8 locations - Estimate 1 1/2 P/H REDSO Engineering Requirement

ENGINEERING ANALYSIS OF SUB-PROJECTS

Grouping I - Land Use Planning and Management

Ministry of Local Government and Lands: Implementation of Land Use Plans LG 31

Lepasha Construction

General

Initial year funding will be provided for the provision of community services at Lepasha. This site is located approximately 100 km west of Francistown and is served by the Central District Council. It will eventually serve approximately 500 residents who will have been displaced from leasehold ranches under another project. Proposed AID funded components at this site include:

1. provision of a safe domestic water supply through purchase of an existing borehole, purchase of pumping equipment and pipe;
2. construction of a two classroom school including office and storeroom;
3. improvements to teacher's quarters; and
4. construction of a health post.

Designs

An initial population and land use survey and a soil survey have been conducted of the area. Twelve commercial ranches of approximately 6400 hectares each have been allocated and community land has been designated nearby. Plans have been prepared by the Central District Architect (an American) for a two-room classroom and a health post. A site plan is to be prepared by the architect. Technical specifications of the existing borehole are to be submitted for review by AID. Teacher's quarters will be constructed by local artisans according to traditional practice. Improvements (i.e. metal door and window frames and concrete floor) will be financed by AID.

Construction Implementation

Construction of the school and health post will be performed by a local contractor under contract to the District Council with site supervision carried out by the subdistrict Ministry of Works building inspector and overall responsibility by the District Council Works Engineer. As a cost saving measure, a labor only contract is envisioned with the District responsible for purchasing and delivering commodities to the site.

Costs

Costs of the school and health post were reviewed and found to be reasonable. The borehole remains an outstanding issue. The District Council officers were attempting to determine the exact status of the borehole and what, if any, reimbursement is required to the original owners. If the Council finds that the budgeted funds are not required, these should be added to the contingency budget of the overall project.

Ministry of Local Government and Lands: Development of Land Institutions
LG 36

Subordinate Land Board Office Construction

General

The Project intends to finance the construction of eight subordinate Land Board Offices. These offices are to be located at the following locations:

<u>Location</u>	<u>District</u>
Charles Hill	Ghanzi
Ghanzi	Ghanzi
Tsabong	Kalahari
Hukuntsi	Kalahari
Nata	Central
Lentsweletau	Kweneng
Mathubudukwane	Kgatleng
Mochudi	Kgatleng

The subordinate land boards will conduct various activities from these offices including zoning and allocation of government lands and adjudication of disputes through a process which involves representation by various interested parties, maintenance of records, and collection of rents for ranches which are demarcated in the commercial areas. The Land Board staff including technical officer and land tenure officer will work from these offices.

Design

The design of the Subordinate Land Board Office was reviewed by the REDSO engineer. This design is shown of drawing No. XX.R1699

prepared by the Chief Architect's office of the Ministry of Works and Communications. The building, having an area of 73 square meters, consists of two offices, a storeroom and a conference room. The buildings are to be constructed of cement blocks on a concrete slab, with standard specification door and window frames, fibre-board ceiling with insulation material and roofing of IBR sheeting or canalite. The plans call for the building to be fenced and to be served by a standard design (Drawing XX.P.2065) pit latrine. At the time of the review no specific site allocations had been made, however, in the general vicinity of the eight towns there are no known problems that would require a detailed site investigation prior to construction. In all cases building sites will be allocated in the vicinity of existing government buildings.

Construction Implementation

The construction of these offices will be the responsibility of the District Councils who will also make site allocations, modify basic plans if necessary, prepare tender documents, approve tenders through the respective Council Tender Boards, award contracts, and supervise construction. Construction will most likely be performed by local contractors, who, according to the MOW architect, generally have the capability to undertake this type of construction. Unless other arrangements are made, a REDSO engineer will be responsible prior to construction for reviewing site plans and setting FAR amounts, and later conducting final inspections prior to reimbursement of the FAR amount.

Costs

The cost of each building at current prices is estimated at P17,000 (\$21,760). This is equivalent to P233 per square meter. The MOW architect reported current costs of similar construction ranging from P200 - P250 per square meter.

Grouping II On-farm Production and Income

MOA: ALDEP Pilot Activities AE19

1. Drift Fences

General

Under the ALDEP pilot activities AID has been requested to finance fences for the enclosure of up to ten ha. per farmer of arable land. Based on an average fencing cost of P450 per farmer AID would provide a P250 subsidy and the National Development Bank would loan the remaining P200.

Design

Fences are to be five strand barbed wire with metal posts. Sites to be fenced have not been determined.

Costs

The cost per meter is reasonable based on locally available fencing material.

2. Small-scale Water Development

General

ALDEP has proposed a small scale water development program to provide supplemental domestic and draft power water supplies early in the planting season. The proposal is to fund underground storage cisterns using as catchment area existing threshing floors. The cisterns are designed to catch water from the early rains (September through November) and store it so that water will be available for farmers to return to their lands earlier than previously in order to ensure timely planting to make use of the generally heavier December rainfall.

Design

The cisterns are to be of 8-10 cubic meter capacity based on a typical threshing floor of 80 square meters and rainfall from September through November averaging 120 mm. If these structures operate correctly an additional one month water supply should be generated. The design calls for the cistern to be constructed of concrete reinforced with chicken wire. A removable cover of reinforced concrete or locally available wood is to be provided. The design does not include a sediment trap, however. This is not essential since the soil of the threshing floor has been compacted. As with all systems a degree of maintenance is required. Proper maintenance will involve the prevention of polluting substances from entering the structure, maintenance of channels directing water into the cistern, and periodic cleaning of the structure. The importance of maintenance must be stressed by those implementing the project.

Construction Implementation

The ALDEP team is still investigating alternatives for implementing this construction. Construction may be undertaken by brigades, by district councils or by private contractors. In any case training will be required in selection of sites, sizing of cisterns and construction techniques. Farmer participation in the construction should also be encouraged and inspection after the first rainfall should be encouraged.

Costs

The first year budget of this activity is P29,000 and the Project Memorandum estimates the maximum per tank cost at P250. Experience with existing tanks has shown costs averaging P150, although this figure reportedly underestimates labor and transportation costs. Based on current local commodity costs averaging P60 per cistern it is difficult to envisage costs averaging higher than P150 assuming some local labor contribution by farmers.

3. Grain Storage Facilities

General

The project intends to finance the construction of nine grain storage facilities ("lock-up stores") as an ALDEP pilot activity for the Botswana Agricultural Marketing Board. These warehouses of approximately 200 ton capacity would serve as intermediate grain collection points for existing BAMB depots. Although specific sites have not been allocated, these warehouses will be located in the vicinity (i.e. 10-12 km radius) of existing depots.

BAMB has constructed eleven grain storage depots having 1,000 ton capacity, and has contracted for the construction of six additional depots. These structures are prefabricated or fabricated on-site steel buildings on a concrete slab. Detailed designs were not prepared for these structures, rather general specifications (i.e. size, height, strength of floor etc.) were presented and contractors were requested to propose designs. The BAMB general manager defended this practice on the basis of cost. The MOW architect was critical of the quality of construction of some of the existing structures due primarily to the lack of adequate supervision.

Designs

At the time of this review no designs or site plans for the proposed AID funded warehouses have been prepared. The approximate size of a 200 ton warehouse will be 105 square meters, based on stacking bags four meters high.

Construction Implementation

Various construction and supervision alternatives were discussed with MOA and BAMB officials with the conclusion that BAMB would contract for the construction with the assistance of an engineering firm who would provide designs and construction supervision services. The MOW Architect has agreed to provide a list of recommended engineering

firms for BAMB's selection. These services will be financed by BAMB. Construction will be performed by a local firm or firms specializing in the erection of metal buildings. A REDSO engineer will be responsible for review of the plans and cost estimates prior to letting the construction contracts and for final inspections. The supervision contract should specify that the REDSO engineer will accompany the consultant on inspection trips when required.

Costs

The cost estimate included in the Project Paper budget is \$12,800 or \$122 per square meter. BAMB currently has under construction warehouses of a larger size in remote areas at \$96 per square meter. The project paper price is felt to be reasonable considering the alternate construction method, the small size of these structures. When specific warehouse locations are determined a more definite cost estimate of the engineering services can be calculated.

Ministry of Agriculture: Horticultural Development AE 11

Mogobane Pilot Project Construction

General

Initial year funds will be provided for the Mogobane pilot horticultural project, an activity of the MOA to establish a 10 ha horticultural estate which will provide technical assistance and inputs and services to smallholder producers. AID will fund various activities under this sub-project including the construction of a 15 m x 10 m packing and commodities storage shed; commodities for the construction of a 1,030 cubic meter water storage reservoir, pumping equipment and for 1,660 meters of lined irrigation furrows; the construction of two staff houses; and construction materials for a net house for the growing of seedlings; fencing material; and the rental of heavy equipment for the construction of a service road.

Design

The REDSO engineer reviewed the plans for the staff house (drawing number GEN/HOU/13/101) which is designed as a standard two bedroom house for an agricultural demonstrator. The design for the packing shed will be prepared by the MOW architect, however, at the time of this review plans were adequately developed to determine a reasonable cost estimate. A discussion was held with the Chief Horticultural office concerning the other construction components all of which have been adequately designed. A tentative site plan was reviewed and the site was visited. An outstanding issue is the provision of a back-up

water supply. The capacity of the dam has decreased over the years due to siltation and there is presently marginal capacity to deliver water to all existing and proposed users. The project plans call for construction of six hand dug wells to provide a supplemental water supply. It is recommended that construction of a test well be undertaken as soon as possible to determine if adequate supplies can be obtained. (No site or design problems are foreseen.)

Construction Implementation

All construction will be supervised by the Agriculture Demonstrator/Manager and an IVS volunteer. The two staff houses and the packing shed will be constructed by a local contractor while other construction will be performed by direct labor. The service road will be constructed with a mix of rented equipment and direct labor.

Costs

Cost estimates of the staff housing and packing shed were provided by the MOW architect and were found to be reasonable. Costs of the other activities were obtained by the Horticulture Office from various sources. These were also reviewed and found to be reasonable.

Ministry of Agriculture: Rural Afforestation Project AE 15

1. Takatokwane

General

The Takatokwane Sandveld Plantation trial, located in Kweneng District, is an experimental 6 ha plantation to determine the most suitable tree species for pole production, fencing timber and firewood and to determine the practicability of various shrubs for stock feed. AID will fund fencing material for a 7.5 ha area, a water distribution system relying on a nearby well, forestry tools and seedlings, fertilizer and other miscellaneous inputs.

Design

No engineering designs are required. The size of the plastic pipe is adequate to deliver the required water supply.

Construction Implementation

All construction will be performed by direct labor, commodities are to be purchased off-shelf in Botswana.

Costs

Costs were reviewed and are reasonable based on current prices in Botswana.

2. Matsheng

General

The Matsheng woodlot management activity will establish four woodlots totalling 30 ha to serve four villages in Kweneng District of western Botswana. AID will finance 5,000 meters of fencing material and 10.4 km of pipeline as well as initial stocks of seedlings and fertilizer. This activity was designed as part of an overall land use plan and the supply of water for the woodlot was included in the plan.

Design

No engineering designs were submitted for this activity. The design of the pipelines, averaging 2.6 km, should be checked by a civil engineer to determine if pumping heads and water flows are adequate for the project's needs.

Construction Implementation

All construction will be performed by direct labor, commodities are to be purchased off-shelf in Botswana.

Costs

Assuming designs are adequate, the costs are reasonable based on current prices in Botswana.

3. Ramatlabama Nursery

First year funds will be provided for the establishment of a tree nursery at Ramatlabama in Southern District. This will be one of nine MOA tree nurseries of which six have been established. The nursery will provide seedlings for a variety of tree species which will primarily be used for firewood and building poles. AID will fund various agricultural equipment and the construction of a utility building containing an office, a storeroom and an equipment shed.

Design

The basic design of the utility building has been prepared by the Ministry of Works Architect's Office. Site plans have not been prepared to date.

Construction Implementation

Construction will be performed by direct labor or a local contractor supervised by the MOW.

Costs

Costs of the utility building were reviewed and are reasonable based on current prices in Botswana.

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 Department of State

INCOMING
 TELEGRAM
 9048

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 ACTION AID-35

Kline

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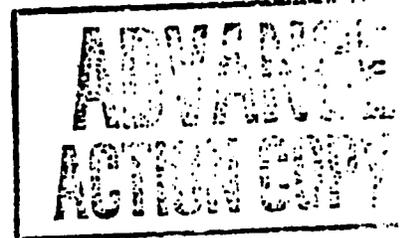
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FOR KLINE, AFR/DR/SA

E.O. 12065: N/A

SUBJECT: RURAL SECTOR GRANT PP (633-0077): LTR OF APPRECIATION

1. TEXT OF SUBJECT DATED FEB 13, 1980 AND SIGNED BY
 L. MOTHIBATSELA FOR PERMSEC, MINISTRY OF FINANCE AND
 DEVELOPMENT PLANNING IS REPEATED BELOW.

2. QTE SUBJECT: USAID RURAL SECTOR GRANT

DEAR MR. COHEN,

I WISH TO EXTEND TO YOU, ON BEHALF OF MY GOVERNMENT,
 OUR APPRECIATION FOR ALL ARRANGEMENTS MADE BY USAID TO
 FIELD A PROJECT PAPER DESIGN TEAM WHICH HAS HAD VERY
 USEFUL DISCUSSIONS WITH GOB OFFICIALS DURING THE PAST
 FEW WEEKS. THE PROJECT PAPER WHICH RESULTED FROM THOSE DISCU-
 SSIONS, TO A LARGE EXTENT, TAKES INTO ACCOUNT GOBS EXPRESSED
 DEVELOPMENT OBJECTIVES.

IT IS MY HOPE THAT THE PROJECT PAPER WILL RECEIVE EARLY
 APPROVAL IN WASHINGTON SO THAT THE RSF AGREEMENT CAN BE
 SIGNED IN TIME FOR IMPLEMENTATION TO COMMENCE AT THE
 BEGINNING OF OUR FINANCIAL YEAR. UNQUOTE.

DAWSON

UNCLASSIFIED

STATUTORY CHECKLIST

6C(1) - COUNTRY CHECKLIST

Listed below are, first, statutory criteria, applicable generally to FAA funds, and then criteria applicable to individual fund sources: Development Assistance and Security Supporting Assistance funds.

A. GENERAL CRITERIA FOR COUNTRY

1. FAA Sec. 116. Can it be demonstrated that contemplated assistance will directly benefit the needy? If not, has the Department of State determined that this government has engaged in consistent pattern of gross violations of internationally recognized human rights?
 - a) The project is designed to help the rural populace by financing sub-projects which will increase rural productivity and income.
 - b) No such determination.

2. FAA Sec. 481. Has it been determined that the government of recipient country has failed to take adequate steps to prevent narcotics drugs and other controlled substances (as defined by the Comprehensive Drug Abuse Prevention and Control Act of 1970) produced or processed, in whole or in part, in such country, or transported through such country, from being sold illegally within the jurisdiction of such country to U.S. Government personnel or their dependents, or from entering the U.S. unlawfully?

No such determination has been made.

3. FAA Sec. 520(a). Does recipient country furnish assistance to Cuba or fail to take appropriate steps to prevent ships or aircraft under its flag from carrying cargoes to or from Cuba?

4. FAA Sec. 620(b). If assistance is to a government, has the Secretary of State determined that it is not controlled by the international Communist movement? Yes.
5. FAA Sec. 620(c). If assistance is to a government, is the government liable as debtor or unconditional guarantor on any debt to a U.S. citizen for goods or services furnished or ordered where (a) such citizen has exhausted available legal remedies and (b) debt is not denied or contested by such government? No.
6. FAA Sec. 620(e) (1). If assistance is to a government, has it (including government agencies or subdivisions) taken any action which has the effect of nationalizing, expropriating, or otherwise seizing ownership or control of property of U.S. citizens or entities beneficially owned by them with taking steps to discharge its obligations toward such citizens or entities? No.
7. FAA Sec. 620(f): App. Sec. 108. Is recipient country a Communist country? Will assistance be provided to the Democratic Republic of Vietnam (North Vietnam), South Vietnam, Cambodia or Laos? No.

8. FAA Sec. 620(i). Is recipient country in any way involved in (a) subversion of, or military aggression against, the United States or any country receiving U.S. assistance or (b) the planning of such subversion or aggression? No.
9. FAA Sec. 620(j). Has the country permitted, or failed to take adequate measures to prevent, the damage or destruction, by mob action, of U.S. property? Security and protection measures appear to be adequate and reasonable.
10. FAA Sec. 620(l). If the country has failed to institute the investment guaranty program for the specific risks of expropriation, inconvertibility or confiscation, has the AID Administrator within the past year considered denying assistance to such government for this reason? No such denial has been considered.
11. FAA Sec. 620(o); Fishermen's Protective Act. Sec. 5. If country has seized, or imposed any penalty or sanction against, any U.S. fishing activities in international waters,
- a. has any deduction required by Fishermen's Protective Act been made? No such actions.
- b. has complete denial of assistance been considered by Aid Administrator?

12. FAA Sec. 620(g); App. Sec. 504.
- a) Is the Government of the recipient country in default on interest or principal of any AID loan to the country? No.
- b) Is country in default exceeding one year on interest or principal on U.S. loan under program for which App. Act appropriates funds, unless debt was earlier disputed, or appropriate steps taken to cure default? No.
13. FAA Sec. 620(s). What percentage of country budget is for military expenditures? How much of foreign exchange resources spent on military equipment? How much spent for the purchase of sophisticated weapons systems? (Consideration of these points is to be coordinated with the Bureau for Program and Policy Coordination, Regional Coordinators and Military Assistance Staff (PPC/RC). Until 1977 Botswana had no army, only a police force. In 1977 a small army was just being organized. For 1978, police and internal security expenditures represented approximately 5% of G. O. B. budget expenditures or about 1% of G.D.P. Less than 1% of foreign exchange resources are spent on Military equipment. No money has been spent on sophisticated weapons systems.
14. FAA Sec. 620(t). Has the country severed diplomatic relations with the United States? If so, have they been resumed and have new bilateral assistance agreements been negotiated and entered into since such resurption? No, not applicable.
15. FAA Sec. 620(u). What is the payment status of the country's U.N. obligations? If the country is in arrears, were such arrearages taken into account by the AID Administrator in determining the current AID Operational Year Budget? There is no indication of any arrears.

16. FAA Sec. 620(A). Has the country granted sanctuary from prosecution to any individual or group which has committed an act of international terrorism? We have no knowledge of any such action.
17. FAA Sec. 666. Does the country object, on basis of race, religion, national origin or sex, to the presence of any officer or employee of the U.S. there to carry out economic development program under FAA? No.
18. FAA Sec. 669. Has the country delivered or received nuclear reprocessing or enrichment equipment, materials or technology, without specified arrangements on safeguards, etc? We have no knowledge of any such delivery or receipt.
19. FAA Sec. 901. Has the country denied its citizens the right or opportunity to emigrate? We are not aware of any case.

B. FUNDING CRITERIA FOR COUNTRY.

2. Security Supporting

Assistance Country Criteria.

- a. FAA Sec. 502B. Has the country engaged in a consistent pattern of gross violations of internationally recognized human rights? Is program in accordance with policy of this Section? No.
Yes.
- b. FAA Sec. 531. Is the Assistance to be furnished to a friendly country, organization, or body eligible to receive assistance? Yes.

c. FAA Sec. 609. If commodities are to be granted so that sale proceeds will accrue to the recipient country, have Special Account (Counterpart) arrangements been made?

No Grant Commodities will be sold and thus no sale proceeds will be generated.

6C(2) - PROJECT CHECKLIST.

Listed below are, first, statutory criteria applicable generally to projects with FAA funds, and then project criteria applicable to individual fund sources: Development Assistance (with a sub-category for criteria applicable only to loans); and Security Supporting Assistance funds:

A. GENERAL CRITERIA FOR PROJECT.

1. App. Unnumbered; FAA Sec. 653(b).

(a) Describe how Committees on appropriations of Senate and House have been or will be ~~modified~~ ^{notified} concerning the project;

(a) FY 80 Congressional Presentation.

(b) is assistance within (Operational Year Budget) country or international organization allocation reported to Congress (or not more than \$1 million over that figure plus 10%)?

(b) Yes.

2. FAA Sec. 611(a) (1). Prior (a) Yes.

to obligation in excess of \$100,000, will there be

(a) engineering, financial and other plans necessary to carry out the assistance and

(b) a reasonably firm

(b) Yes.

estimate of the cost to the U.S. of the assistance?

3. FAA Sec. 611 (a) (2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance? None
4. FAA Sec. 611(b); App. Sec. 101. If for water or water-related land resource construction, has project met the standards and criteria as per Memorandum of the President dated Sept. 5, 1973 (replaces Memorandum of May 15, 1962; see Fed. Register, Vol 38, No. 174, Part III, Sept. 10, 1973)? This is not a water or water-related land resource construction project.
5. FAA Sec. 611(e). If project is capital assistance (e.g. construction), and all U.S. assistance for it will exceed \$1 million, has Mission Director certified the country's capability effectively to maintain and utilize the project? USAID/Director has
6. FAA Sec. 209, 619. Is project susceptible of execution as part of regional or multilateral project? If so why is project not so executed? Information and conclusion whether assistance will encourage regional development programs. If assistance is for newly independent country, is it furnished through multilateral organizations or plans to the maximum extent appropriate? No.

7. FAA Sec. 501(a); (and Sec. 201(f) for development loans

Information and conclusions whether project will encourage efforts of the country to:

- (a) increase the flow of international trade;
- (b) foster private initiative and competition,
- (c) encourage development and use of cooperatives, credit unions, and savings and loan associations;
- (d) discourage monopolistic practices;
- (e) improve technical efficiency of industry, agriculture and commerce;
- and (f) strengthen free labor unions.

The project will encourage international trade over well-maintained roads linking Botswana to its borders.

8. FAA Sec. 501(b).

Information and conclusion on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

The project will fund U.S. source technical assistance and equipment

9. FAA Sec. 612(b); Sec. 636(h).

Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized to meet the cost of contractual and other services.

GOB will contribute approximately 22% of project costs.

10. FAA Sec. 612(d). Does the U.S. own excess foreign currency and, if so, what arrangements have been made for its release?

Not an excess foreign currency country.

3. PROJECT CRITERIA SOLELY FOR SECURITY SUPPORTING ASSISTANCE

FAA Sec. 531. How will this assistance support/promote economic or political stability?

The project will support a series of sub-projects designed to reduce rural under and unemployment and increase rural incomes by encouraging arable farming and the development of rural industries.

The Standard Item Checklist has been reviewed for this paper.

ANNEX IV

II. Justification for Source and Origin waiver from Code 941 to Code 935 for commodities and project vehicles.

Co-operating country: Botswana

Project: Botswana Rural Sector Grant

Nature of Funding: Grant

Description: 1. Vehicles

- 7 four wheel drive vehicles with right hand drive - 3 pick-up trucks with right hand drive approximate value of vehicles (\$110,734).

2. Construction Materials

construction materials for water reticulation systems under AE-15, for a school, health post and teachers quarters under LG-31, for lock up stores under AE-19, for two houses and 1 packing shed under AE-11 and for 9 Land Board Offices under LG-36 value materials include electrical and plumbing fixtures, bricks, cement, steel reinforcing rods. Value of materials (\$300,000).

3. Commodities

2 water reticulation tanks for AE-15 (value \$7,000)

4. Shelf-items

items costing less than U.S. \$2,500 which includes dip tanks; construction materials for self-help such as bricks, cement and fencing materials.

Vehicles

A waiver is requested for the procurement of South African vehicles based on:

- (1) The lack of repair capability (both in parts availability and in mechanical skills at the government's central transport office) for U.S. vehicles and the desire for standardization of the Governments vehicles.

The GOB's central transport office has encountered several problems with U.S. manufactured vehicles procured under other on-going projects in Botswana. The Central Transport Office of the Government of Botswana, which has vehicle maintenance responsibility, has serious problems in securing repair parts for U.S. manufactured vehicle. There is no U.S. dealer representative in Botswana to provide spare parts or service for U.S. vehicles.

As a further problem, and while noting that to date no accidents have occurred in Botswana, it is clear that improper driving position (i.e., right hand drive) of the U.S. vehicles in all Southern Africa locations is a genuine hazard. The mission has discussed this problem with representatives of U.S. manufacturers which state the production costs would be substantially increased for such a small lot order.

Finally, C.T.O. is attempting to standardize their vehicle fleet and has not procured U.S. vehicles for the past five years. If U.S. vehicles were purchased under this project they would not be compatible with the GOB's standardization policy.

In addition to a procurement source waiver under AID Handbook 1, SB this action request requires a waiver under Section 636(i) of the Foreign Assistance Act. Section 636(i) limits AID financing to U.S. manufactured vehicles, but permits a waiver of this limitation "where special circumstances exist". According to the appropriate Conference Report, "special circumstances" are deemed to exist in "emergency or special situations such as a need for right hand drive or other types of vehicles not produced in the United States".

Based on the foregoing, we believe that "special circumstances" within the meaning of the legislative history do exist in this case and that a waiver for the U.S. vehicles requirement of Section 636(i) is justified.

Commodities

Water reticulation tanks will be purchased in Southern Africa because of the need for repair service and spare parts.

Shelf items

The sub-projects to be financed under the Rural Development Fund will require a high volume of procurement under \$2,500 for commodities for self help-type of activities. Most of these commodities are available locally. The nature of the sub-projects is such that the items to be procured cannot be anticipated sufficiently in advance to make it feasible to procure these items in large volume from code 941 countries. Accordingly, the authorization requests approval to exceed the 10% of local currency costs or \$10,000 requirements.

Construction materials

Private dealers in Botswana are equipped only to service and repair facilities (e.g., plumbing and electrical work) made in the U.K. or South Africa further necessitating that construction materials be procured from that area in order to ensure proper maintenance. Finally, electrical work requires 220 wiring materials and plumbing fixtures and roofing materials must be compatible with that available locally.

INITIAL ENVIRONMENTAL EXAMINATION

Project Location:

Botswana

Project Title:

Rural Sector Grant (633-0077)

Funding:

FY1980 - \$1,250,000 FY1981 - \$1,280,000
FY1982 - \$1,280,000
Total AID Contribution: \$3,780,000 LOP

IEE Prepared by:

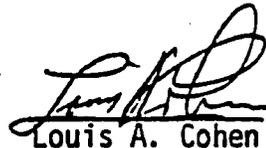
Louis A. Cohen, P.E.

7 August 1979

Environmental Action Recommended:

Negative Determination, but all sub-projects to be reviewed prior to obligation.

Concurrence:


Louis A. Cohen

Mission Director

8 August 1979

Assistant Administrator's Decision:

Approval



Date

6/11/80

Disapproval

Date

IMPACT IDENTIFICATION AND EVALUATION FORM

<u>Impact Areas and Sub-areas 1/</u>	<u>Impact Identification and Evaluation 2/</u>
A. LAND USE	
1. Changing the character of the land through:	
a. Increasing the population _____	N _____
b. Extracting natural resources _____	N _____
c. Land clearing _____	N _____
d. Changing soil character _____	M _____
2. Altering natural defenses _____	N _____
3. Foreclosing important uses _____	L _____
4. Jeopardizing man or his works _____	L _____
5. Other factors	
<u>Reducing overgrazing</u> _____	L _____
_____	_____
B. WATER QUALITY	
1. Physical state of water _____	N _____
2. Chemical and biological states _____	N _____
3. Ecological balance _____	L _____
4. Other factors	
<u>Rationalized planning of small dam sites</u> _____	L _____
_____	_____

1/ See Explanatory Notes for this form.

2/ Use the following symbols: N - No environmental impact
 L - Little environmental impact
 M - Moderate environmental impact
 H - High environmental impact
 U - Unknown environmental impact

IMPACT IDENTIFICATION AND EVALUATION FORM

C. ATMOSPHERIC

- 1. Air additives _____ N
- 2. Air pollution _____ N
- 3. Noise pollution _____ N
- 4. Other factors _____

D. NATURAL RESOURCES

- 1. Diversion, altered use of water _____ L
- 2. Dilution of cultural traditions _____ N
- 3. Other factors _____

F. SOCIOECONOMIC

- 1. Changes in economic/employment patterns _____ L
- 2. Changes in population _____ N
- 3. Changes in cultural patterns _____ N
- 4. Other factors _____

IMPACT IDENTIFICATION AND EVALUATION FORM

G. HEALTH

- 1. Changing a natural environment _____ L
- 2. Eliminating an ecosystem element _____ N
- 3. Other factors _____

H. GENERAL

- 1. International impacts _____ N
- 2. Controversial impacts _____ L
- 3. Large program impacts _____ N
- 4. Other factors _____

I. OTHER POSSIBLE IMPACTS (not listed above)

- _____
- _____
- _____

See attached Discussion of Impacts.

I. Examination of Nature, Scope, and Magnitude of Environmental Impacts

A. Description of the Project

The Botswana Rural Sector Grant will assist the GOB in the development and implementation of strategies to provide the rural population with increased access to productive employment opportunities. The project will establish a Rural Development Fund (RDF) which will support an array of sub-projects designed to generate productive employment in rural areas.

Management of the RDF primarily will be the responsibility of the GOB Ministry of Finance and Development Planning (MFDP), which has a well-deserved reputation for high-quality project planning and review, and has implemented sector grants with considerable effectiveness. The RDF will finance sub-projects approved by MFDP and USAID/Botswana which have been prepared by three key ministries involved in rural development and employment creation (Agriculture, Commerce and Industry, and Local Government and Lands), by local District Councils, and by non-governmental organizations such as Brigades. Detailed criteria for sub-project review are spelled out in the PP.

This sector grant will play a major role in GOB efforts to implement its strategy of rural development and rural employment creation, and will strengthen and stimulate the process of decentralized planning and implementation of rural development activities which is already beginning in Botswana.

AID review and approval of activities funded through the RDF will be maintained through a process of consultation between the GOB and USAID/Botswana. Sub-project selection criteria have been agreed upon by AID and the GOB during the PP stage for inclusion in the Project Agreement. Detailed project memoranda for all proposed sub-projects will then be assessed and approved internally within the GOB and included in annual implementation plans which the GOB will submit to USAID for review during a yearly joint programming exercise. The Project Paper (PP) contains the implementation plan for Year One of the grant period, including detailed project memoranda for all RDF activities to be funded in the first year. Obligation of funds for the first year only will take place when the initial Grant Agreement is signed. Obligations of Funds for the second and third year will follow USAID/Botswana (with REDSO/EA assistance, as required) review and approval of those projects included in the annual implementation plans which meet project selection criteria.

It is possible, indeed probable, that in any given year the financial requirements of certain sub-projects will either exceed or fall below the amounts projected in the annual implementation plan. In order to provide the GOB with the same latitude afforded USAID Missions in funding allocations within a given sector, the MFDP would have authority to reallocate funds between sub-projects in a given year up to a 15 percent ceiling. The approval of the USAID/Botswana Director would be required for any reallocation exceeding 15 percent on a single sub-project in a given year.

B. Proposed First Year Sub-projects

The specific activities proposed for initial support under the RDF include a number which will have effects on the environment. As described below, these effects are anticipated to be largely positive. Assurance of environmental soundness will be guaranteed through:

Provision in the Project Paper of criteria for assessing the environmental consequences of proposed sub-projects before approval - no sub-project that fails to meet these criteria will be included in the annual implementation plan;

Periodic reviews, at the time of joint USAID/GOB programming meetings, to monitor environmental consequences of on-going sub-projects and assess the consequences of proposed sub-projects; and

When deemed necessary in these joint meetings, contracting of consultants or assistance from AID regional staff to provide additional environmental expertise.

In the case of AE 10 (Small Projects) and ALDEP Pilots, the project will enable local-level farm groups to undertake improved and more productive agriculture. Agriculture as currently practised is not highly productive: it leads to significant soil degradation and sheet erosion, and could greatly benefit from the development and institution of improved dryland farming practices. The scale of arable agriculture in Botswana is increasing, and with this intensification it is vital to address the need for the development of technologies which are both productive and allow a sustainable utilization of the environment. USAID and the GOB are concerned that the activities undertaken through the RDF should lead toward the generation of improved, socially and economically acceptable farming practices. These will be complimented by GOB and USAID-supported research into improved on-farm technologies.

AE 11, Horticulture Development: The use of pesticides is not generally known in Botswana. Support to AE 11 would be likely to increase the use of pesticides, albeit by a very small amount.

Previous support to horticultural development by USAID in the form of an OPG was experimental and for purposes of field evaluation; thus, some information does exist on appropriate quantities and methodologies for application. A risk/benefit analysis is being undertaken for the use of pesticides in the project. A.C.P. to disbursement has been included in the authorization and no funds will be disbursed for this sub-project until the analysis is completed.

Land use planning has become the core planning activity for the rural areas of Botswana. To date, the entire country has been classified, after a process of popular consultation, into initial commercial, communal and wildlife management areas. In the tribal lands areas, this process of classification is vital to the development of activities designed to lead to improved communal management techniques. Soil and vegetation surveys could be undertaken as part of LG 31 (Implementation of Integrated Land Use Plans); these are considered by USAID to be a significant contribution to the classification process and the development of sound plans. Initial surveys in the Matsheng area (northern Kgalagadi) have revealed that local populations, after years of empirical experience, have accurately selected for arable agriculture and grazing purposes just those areas which soil surveys indicate to be most appropriate. More needs to be known about the criteria for the selection of land uses among local populations.

Overgrazing, with its attendant sheet erosion, elimination of nutritious grasses from the range and destruction of wildlife populations, also imperils the socioeconomic well-being of human populations. The dry years which can be expected to occur will take a heavy toll as large numbers of cattle compete for the scarce grazing available in a drought period. Wildlife and many naturally occurring edible plants — which have been relied upon in the past for subsistence during drought — will no longer be available.

LG 31 will be used especially to develop new and viable alternatives to the current dilemma of management of the common lands. The Matsheng Land Use Plan, which will draw upon LG 31, proposes a continuation of the very innovative and effective locally based planning activities which were initiated under the Village Area Development Program (VADP). The plan for the Matsheng villages outlines a strategy, within the boundaries of local social systems, for reversing the massive environmental deterioration which has taken place within this four village area. Initial classification of land is based upon current practices into forest (firewood provision), arable, grazing and wildlife management areas. The need in Matsheng, as in many similar areas throughout Botswana, is to utilize the existing consensus system within the villages to develop an agreed-upon management system which will retain a viable economy while regenerating much of the denuded land.

LG 36, Land Board Training, will enable Land Board staff and members to deal better with the technical issues of land use, especially with regard to the issues of recognizing and resolving problems of overstocking of given land areas. Assistance in classifying, surveying and managing land use plans will be undertaken using the Rural Development Fund, thus helping to ensure that planning continues to address questions of sustainability.

Water is the major want and need in much of rural Botswana. A water points survey will be undertaken in the first year of the grant, by a major United States university with AID funds and with some assistance from the RDF. The survey will undertake to understand the complex of social, economic, ecological and land use issues which surround the provision of water in the semi-arid environment of Botswana. In the absence of this study and appropriate technical and environmental criteria presented by the GOB for dam construction, USAID would not approve RDF expenditures for small dam and pond construction.

Forestry development in Botswana has not been extensive. There is good potential for forest production for purposes of developing renewable energy resources, providing building material, reclaiming degraded soils (as within the Matsheng inter-village area) and providing local people with an alternative income source. Some experimentation has been undertaken by Brigades, and test plots will be established by the GOB in Matsheng. Species selected for use will be cultivated in restricted and defined areas. Afforestation is not likely to become an extensive activity within Botswana, but the establishment for forest resources near to population centers will reduce the current pressure on naturally occurring vegetation, and secure a source of wood for cooking and building.

As population has grown in the eastern part of Botswana, cattle raising has become more extensive. Wildlife has retreated before increased hunting pressure and increased competition for the range. The establishment of wildlife management areas does not in and of itself guarantee the future of animals such as the gemsbok, springbok, hartebeest and wildebeest, buffalo, elephant, giraffe or zebra, however. pressure from local populations, and the need to seek food and income, may lead to further decimation of wildlife herds unless a rational and economically justifiable utilization scheme can be developed. Government policy and planning with regard to wildlife utilization have not gone far, but will benefit from the information being generated by a range and wildlife survey, which was due to be finished by the end of CY1979. EDF monies will be used to assist the Ministry of Commerce and Industry to develop its plans and capacities in the field of wildlife management and utilization. This activity is recommended here, on the grounds that unless wildlife can find an economically strong niche

within the development of Botswana, their numbers will continue to dwindle as their grazing lands are taken over for other purpose.

The initial focus of the Rural Industries Project will be on data collection and surveys, of existing and potential industries and resources. Industries identified are expected to be very small scale and will have no impact on the environment.

C. Identification and Evaluation of Environmental Impacts

The effect of RDF-supported activities will be largely to reverse certain trends of environmental change whose consequences, unchecked, would be disastrous for all Botswana. This will be achieved primarily through better management and information for planning. There is little reason to believe that the activities described would introduce practices or technologies which would lead to a decrease in local biological populations. Indeed, the application of explicit management to current problems might go far in decreasing competition for resources. The human environment of Botswana should be improved by anticipated RDF activities.

It is in the nature of the RDF that information requirements can be met through the development of sub-projects or the hiring of consultants. Sound planning which manages to avoid many of the potential conflicts between environment and development must be based upon ecosystem-specific information and flexible planning, a method which will be greatly strengthened by the improvement of district planning capacity. In all cases, sub-project design teams will include an environmental specialist, and the GOB's detailed sub-project memoranda will include the findings and recommendations of this specialist.

A.C.P. has been included in the Project Authorization which requires that all sub-projects be in conform with A.I.D. regulation 16.

II. Recommendations for Environmental Action

The Director has determined that the nature of the proposed Rural Development Fund is such as to require that establishment of a system of environmental safeguards on a year-by-year basis; no environmental assessment (EA) or environmental impact statement (EIS) is required for the project. Environmental reviews will be undertaken as a part of the yearly joint GOB/USAID planning meeting. The Director further requests that the Project Paper design team include an environmentalist capable of further securing the conformance of this project with AID environmental guidelines, within the frame work of joint GOB/USAID planning.