

633-0222

PD-AAG-789

UNCLASSIFIED

BOTSWANA  
PRIMARY EDUCATION IMPROVEMENT PROJECT

(633-0222)

Project Paper

UNCLASSIFIED

24 APR 1981

ACTION MEMORANDUM FOR THE ACTING ASSISTANT ADMINISTRATOR FOR AFRICA

FROM:

  
AAA/AFR/DR, John W. Koenring

**Problem:** Your approval is required to execute a grant of \$7,293,000 from the Section 531, Economic Support Fund (ESF) appropriation, to the Government of Botswana (GOB) for the Primary Education Improvement Project (633-0222). It is planned that a total of \$1,834,000 will be obligated in FY 1981.

**Discussion:** The proposed project addresses the shortage of trained teachers in Botswana's primary education sector, a shortage which is the cause of relatively poor performance by Botswana students at both primary and secondary levels. The shortage of trained and qualified teachers is a reflection of the general trained manpower shortage which has prevailed in Botswana since independence in 1966, a shortage which has resulted in a relatively low priority, and consequently low salaries, for primary school teachers. In a general situation of shortages of trained personnel and a primary education system that has been expanding at the rate of 9 percent annually, the staffing of primary schools has fared poorly.

The purposes of the proposed project are two-fold:

1. To establish a permanent capacity at the University College of Botswana (UCB) to provide appropriate pre-service training for primary school teachers through (a) the creation of a four-year professional Bachelor of Education degree program and (b) a two-year diploma program to upgrade senior primary school staff for whom a degree is not appropriate; and
2. To strengthen the capacity of the Ministry of Education (MOE), in cooperation with the UCB, to organize and implement effective in-service programs for supervisory staff and teachers involved in primary education.

To accomplish the objectives of the proposed project, \$1,834,000 is requested for obligation in FY 1981. At present, only \$1,200,000 is available for obligation. It is hoped, however, that an additional \$634,000 will become available shortly. Life-of-project funding is \$7,293,000, which will be obligated over a five-year period. The following table illustrates the specific areas in which funds will be required:

	AID Funding (000 Omitted)		
	<u>FX</u>	<u>L/C</u>	<u>Total</u>
A. Technical Services	\$2,834	---	\$2,834
B. Technician Support	---	\$1,281	1,281
C. Training	454	--	454
D. Commodities	139	100	239
E. Construction	---	715	715
F. Inflation	1,073	34	1,107
G. Contingency	<u>450</u>	<u>213</u>	<u>663</u>
<u>Total</u>	\$4,950	\$2,343	\$7,293

The GOB will contribute \$3,721,000 to this project. This contribution will help finance technical services, training, commodities, and construction.

It has been determined 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, thereby satisfying the requirements of Section 611(a) of the Foreign Assistance Act of 1961, as amended;
3. Sufficient planning has been made for the monitoring and evaluation of project progress;
4. All statutory criteria have been satisfied; and
5. The GOB can meet the recurrent costs associated with the project.

The IEE is negative and no future analyses are necessary.

The Project Agreement will contain the customary conditions precedent to disbursement which are acceptable to the GOB. In addition to the standard provisions, the additional conditions precedent will be included in the Project Agreement: (1) final plans, specifications and bid documents for construction; (2) GOB signature samples; and (3) evidence that appropriate land has been set aside for construction.

Five covenants are included in the authorization. The first will help ensure that candidates are made available for long-term training and that these individuals upon completion of their training will serve in the Ministry of Education. The second covenant will ensure that commodities purchased for the project will be used for project activities. The third and fourth covenants will ensure that the GOB will provide office space for technicians and housing for students until project-funded construction is completed. Under the fifth covenant, the GOB will agree to provide housing for three of the long-term technicians.

Two waivers are requested to enable the procurement of commodities valued at \$180,750 and services valued at \$169,000 from Code 935 Countries. The justification for these waivers is included in Annex L of the PP.

The ECPR was chaired by you on March 13, 1981. There were no outstanding issues to be resolved. Congress was notified of a program change on April 13 and the fifteen day waiting period expired on April 28. The congressional notification increases the amount of funds for obligation in FY 1981 from \$1,400,000 to \$1,834,000, increases life-of-project funding from \$3,800,000 to \$7,293,000 and changes the title of the project from Education Management Improvement to Primary Education Improvement. The AID/W backstop officer for this project is Douglas T. Kline, AFR/DR/SA. The responsible officer in Botswana is John Gant.

There are no human rights issues associated with this project.

Recommendation: That you sign the attached Project Authorization thereby authorizing the grant and the requested waivers.

Attachments

1. Project Authorization
2. Project Paper

Clearances

AFR/DP:RStacy	<u>RAS</u>	Date	<u>4/13/81</u>
AFR/DR:MDagata	<u>[Signature]</u>	Date	<u>4/17/81</u>
AFR/SA:LPompa	<u>[Signature]</u>	Date	<u>4/17/81</u>
AFR/DR:NCohen	<u>[Signature]</u>	Date	<u>4/24/81</u>
AFR/DR/EHR:MSeymour	<u>[Signature]</u>	Date	<u>4/27/81</u>
AFR/DR/ENGR:TTummarelo	<u>[Signature]</u>	Date	<u>4/27/81</u>
AFR/DR/SDP:BBoyd	<u>[Signature]</u>	Date	<u>4/27/81</u>
COM/ALI:SBilkin	<u>[Signature]</u>	Date	<u>4/27/81</u>
AFR/DR/SA:WWolff	<u>[Signature]</u>	Date	<u>5/22/81</u>
GC/AFR:EDragon	<u>[Signature]</u>	Date	<u>4/9/81</u>
AFR/DR/SA:DKline and TDoggett:rcj:4/6/81			

## PROJECT AUTHORIZATION

Name of Country: Botswana  
Name of Project: Primary Education Improvement  
Number of Project: 633-0222

1. Pursuant to Section 531 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Primary Education Improvement Project for Botswana involving planned obligations of not to exceed seven million two hundred ninety three thousand dollars (\$7,293,000) in grant funds over a five year period from 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 consists of assistance to the Cooperating Country to increase the access, efficiency and relevance of primary education. It will establish a permanent capacity of the University College of Botswana (UCB) to provide an appropriate and effective four year Bachelor of Education program in primary education and will strengthen the capacity of the Ministry of Education, in cooperation with the UCB, to organize and implement appropriate and effective in-service programs for supervisory staff and teachers involved in primary education. For these purposes AID will finance technical assistance, training, commodities, and shared construction expenses of a Primary Education Center (PEC) and student hostel.

3. The Project Agreement which may be negotiated and executed by the officer to whom such authority is delegated in accordance with AID 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 AID may deem appropriate.

### (A) Source and Origin of Goods and Services

Goods and services, except for ocean shipping, financed by AID under the Project shall have their source and origin in the Cooperating Country or in countries included in AID Geographic Code 941 except as AID may otherwise agree in writing. Ocean shipping financed by AID under the Project shall, except as AID may otherwise agree in writing, be financed only on flag vessels of the U.S. or the Cooperating Country.

(B) Conditions Precedent

Prior to any disbursement, or the issuance of any commitment documents under the Project Agreement to finance the construction of the PEC or hostel, the Cooperating Country will submit for AID approval, in form and substance satisfactory to AID, (1) final plans, specifications and bid documents for construction, and (2) evidence that appropriate land has been set aside for the site of the PEC or hostel.

(C) Covenants

The Cooperating Country shall covenant, in substance, as follows:

(1) to make available qualified candidates for long-term academic training in the U.S. on a timely basis and to ensure by bonding or other means that such trainees are assigned upon their return suitable positions within the Ministry of Education or the UCB and required to carry out assignments related to activities under this project, unless AID otherwise agrees in writing. Following normal GOB regulations the period required for service will be at least equal to the duration of the training financed under the project;

(2) that the equipment procured under the project will be exclusively used for project activities, unless AID otherwise agrees in writing;

(3) that, pending construction of the PEC, the University will provide suitable temporary office space to the U.S. team assigned to the UCB;

(4) that, pending construction of the hostel, the UCB will provide housing at UCB for students enrolled in the Primary Education Program; and

(5) to provide permanent technician housing for two U.S. team members assigned to the UCB and one U.S. team member assigned to the MOE.

(D) Waivers

The following waivers to AID regulations are hereby approved based upon the justification set forth in Annex L:

(1) The requirement set forth in Handbook I, Supplement B, Chapter 5 that commodities procured with grant funds have their source and origin in countries included in AID geographic Code 941 and Botswana is waived to permit procurement of approximately \$180,750 of commodities and equipment which have their source and origin in countries included in AID Geographic Code 935. Exclusion of procurement of these materials 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 the objectives of the foreign assistance program.

(2) the requirement set forth in Handbook I, Supplement B, Chapter 5, that the suppliers of services have their nationality in geographic Code 941 is waived to permit the procurement of services in the approximate value \$169,000 from suppliers having their nationality in countries included in A.I.D. Geographic Code 935. The interests of the U.S. are best served by permitting the procurement of these services from Free World countries other than the Cooperating Country and countries included in Code 941.

Date

4/27/81

W. Haven North

Acting Assistant Administrator  
for Africa

AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT PAPER FACESHEET

1 TRANSACTION CODE

A ADD  
C CHANGE  
D DELETE

PP

2 DOCUMENT CODE  
3

3. COUNTRY ENTITY  
BOTSWANA

4. DOCUMENT REVISION NUMBER

0

5. PROJECT NUMBER (7 digits)

633-0222

6. BUREAU OFFICE

A SYMBOL

AFR

B CODE

06

7. PROJECT TITLE (Maximum 40 characters)

Primary Education Improvement

8. ESTIMATED FY OF PROJECT COMPLETION

FY 85

9. ESTIMATED DATE OF OBLIGATION

A INITIAL FY 81

B QUARTER 2

C FINAL FY 84

(Enter 1, 2, 3 or 4)

10. ESTIMATED COSTS (\$000 OR EQUIVALENT \$1 - )

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	1,052	782	1,834	4,950	2,343	7,293
LOAN						
OTHER U.S.						
HOST COUNTRY	-	852	852	-	3,721	3,721
OTHER DONOR(S)						
TOTALS	1,052	1,634	2,686	4,950	6,064	11,014

11. PROPOSED BUDGET APPROPRIATED FUNDS (\$000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE		E 1ST FY 81		H 2ND FY 82		K 3RD FY 83	
		C GRANT	D LOAN	F GRANT	G LOAN	I GRANT	J LOAN	L GRANT	M LOAN
1) FSF	620	630		1,873		1,400		2,000	
2)									
3)									
4)									
TOTALS									

A. APPROPRIATION	N 4TH FY 84		O 5TH FY 85		LIFE OF PROJECT		12 IN DEPTH EVALUATION SCHEDULED
	P GRANT	Q LOAN	R GRANT	S LOAN	T GRANT	U LOAN	
1)	2,020				7,293		
2)							
3)							
4)							
TOTALS							

MM DD YY  
06 83

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

14. ORIGINATING OFFICE CLEARANCE

SIGNATURE

*Louis A. Cohen*

TITLE

Louis A. Cohen  
Director, USAID/Botswana

DATE RECEIVED

MM DD YY  
02 05 81

15. DATE DOCUMENT RECEIVED IN AID # OR FOR AID, W/ DOCUMENTS DATE OF DISTRIBUTION

## TABLE OF CONTENTS

	Page
PROJECT ABSTRACT	i
I. BACKGROUND	1
A. Primary Education in Botswana: The Current Problem	1
B. Primary Education as a GOB Priority	1
C. GOB and USAID Strategy	4
D. Relevant Other Donor Activities	5
II. PROJECT DESCRIPTION	7
A. Summary of Goal, Purpose and Outputs	7
B. Elements of the Project	9
III. PROJECT ANALYSES	14
A. Technical Analysis	14
B. Economic Analysis	26
C. Social Analysis	30
D. Administrative Analysis	33
E. Environmental Concerns	39
IV. FINANCIAL PLAN	40
A. Summary	40
B. Estimated AID Expenditures by Fiscal Year	40
C. Commodity List and Budget	43
D. Estimated GOB Expenditures by Fiscal Year	44
E. Summary of Project Inputs	46
V. IMPLEMENTATION PLAN	47
A. Institutional Contractor	47
B. Construction	48
C. Procurement	48
D. Schedule of Project Events	48
E. Evaluation Plan	49
F. Conditions, Covenants and Negotiating Status	50
ANNEXES	
A. Glossary of Terms	
B. Logical Framework Matrix	
C. Schedule of Project Events	
D. Job Descriptions for Institutional Contractor	
E. Engineering Analysis	
F. Economic Analysis	
G. Social Analysis	
H. Participant Training Program	
I. Supplementary Financial Tables	

- J. List of Design Team Contacts
- K. Statutory Checklist
- L. Waivers
- M. PID Approval Cable
- N. Draft Authorization
- O. Initial Environmental Examination
- P. GOB Letter of Request
- Q. Assessment of Primary Curriculum Development in Botswana
- R. Map of Botswana

PROJECT ABSTRACT

This project will provide an AID grant of \$7,293,000 over a five-year period to assist the Government of Botswana in increasing the access, efficiency and relevance of primary education, which has been identified in the Botswana National Plan as the top priority in the field of education.

With primary school enrollments expected to increase by 40% from 1980-1985, the Government of Botswana is seeking not only (1) to expand primary education facilities, mainly through World Bank and Swedish capital assistance, but also (2) to upgrade the quality of instruction through systematic improvement of the training of teachers.

This project addresses the second objective by providing major institutional assistance in both pre-service and in-service training to Teacher Training College (TTC) staff, primary school head teachers (principals) and primary school inspectors. The project will help establish a Department of Primary Education at University College Botswana in Gaborone which will offer two and four-year undergraduate programs leading to the diploma and BEd degree. It is anticipated that by 1990 all faculty of the then four (currently three) Teacher Training Colleges will be Botswana who have completed the degree or the equivalent. Half of the present TTC staff are expatriates who will be phased out. The UCB Primary Education program will take in 30 students every year, of whom about two-thirds will pursue the BEd degree and the balance will take a two-year diploma program leading to careers as primary school head teachers, senior teachers and inspectors.

The project's in-service program will aim at providing a series of 2-3 week workshops for all 800 head teachers and deputy head teachers, and 500-700 senior teachers now in the primary school system, as well as new senior staff entering over the next five years.

Under the project, AID will provide a five-member team of education specialists through a university contract who will form the nucleus of the UCB Primary Education faculty until eight Botswana participants return from the U.S. with MS degrees to replace them. One of the five U.S. specialists and two MS-level participants will be assigned upon completion of training to the Ministry of Education on in-service training activities.

Two new buildings will be constructed at UCB under the project, with capital costs to be shared by AID and the GOB. New facilities comprise a Primary Education Center (classrooms and offices) and an 84-bed student hostel. AID will also provide commodities in the form of books, teaching aids and audio-visual equipment to UCB and the TTCs.

The GOB share of the project budget is \$3,721,000 or approximately 34% of total costs of \$11,014,000. This will take the form of participating UCB faculty and MOE salaries, in-service training costs, construction and project local operating expenses.

## 1. BACKGROUND

### A. Primary Education in Botswana: The Current Problem

The results of primary education in Botswana are seriously inadequate. A 1976 survey, which drew heavily upon the experiences gained over almost a decade in a six-subject survey conducted in some 20 countries by the International Association for the Evaluation of Educational Achievement (IEA), assessed the outcomes of instruction in terms of student achievements at various levels in reading and mathematics and - at the secondary level - in science. It showed that the performance of Botswana students at both primary and secondary level tends to be unacceptably low in comparison with other tested developing countries, as well as developed countries. Moreover, it is a matter of general agreement that unsatisfactory performance at the higher levels of education is largely the result of an inadequate preparation of students in basic literacy and numeracy skills.

Since there was a great shortage of trained and educated Botswana at the time of independence in 1966, the subsequent supply of trained Botswana has been considerably inferior to the demand. This has provided the better trained and more able citizens with employment opportunities at comparatively elevated and well-remunerated levels in the public and private sectors. In this situation, teaching has been generally the destination of less capable students, and among teachers, primary school teaching has provided a considerably lower salary and therefore represented a lower priority. In a general situation of shortages of trained personnel and a primary education system that has been expanding at about 9% per annum, the staffing of primary schools has fared poorly.

To reverse this trend, the GOB recognizes that steps must be taken quickly to make primary education in Botswana a more attractive career and to up-grade the professional qualifications of primary school teachers and administrators. Recent salary increases are a step in the right direction, but major efforts must also be made to introduce qualitative improvements, especially at the teacher training level where the greater spread effect is possible. Botswana's three teacher training colleges are heavily dependent on expatriate staff (about 50%), which both the GOB and supporting donor agencies would like to see reduced. The localization of the TTC staffs and the establishment of a fourth primary TTC proposed for 1982-83 will place a heavy priority on the upgrading of Botswana educators to staff the facilities of the TTCs in the years ahead. This objective is one of the two primary purposes served by this project. The other major area for improvement in primary education (and the second purpose of the project) is to upgrade the senior teaching staff in the nation's 400 primary schools through in-service training.

### B. Primary Education as a GOB Priority

In recognition of this problem, the Ministry of Education (MOE) is

dedicated to the task of increasing the access, efficiency and relevance<sup>1/</sup> of the basic education provided to Botswana children. It has the objective of making primary education universal and expanding the percentage of school-age population enrolled at the secondary level.

Increasing the access, efficiency and relevance of primary education is a major and complex undertaking. Fortunately, Botswana has conducted various studies of these areas. The principal documents on which the expansion and improvement of primary education is based are the National Development Plan V (1979-85), and more specifically, the Reports of the National Commission on Education (NCE) approved by the GOB in August 1977, which set educational policy and strategy through 1985, and the Supplementary Report of the National Commission on Education dated July 1979.

Following is a quote from the Botswana National Development Plan 1979-85 (p. 107):

The GOB attaches the highest priority within education to the primary education sector. First, in the interests of equality of opportunity and of developing the potential of all children, the Government seeks to provide universal access to primary education. Secondly, since primary education lays the foundation for further education and training and for productive employment, the Government seeks to improve its quality and relevance.

In the long term primary education will form the first part of a basic education system available to all children. However, during this Plan period it will not be possible to provide access to junior secondary education for all primary school leavers, so for about half of the children completing Standard 7 primary education will be terminal. Hence the primary education sector must continue to make provision both for those who will be accepted for secondary education and for those who will not have further formal education.

The need for further development of primary teacher education in Botswana stems from a projected increase of 40% in the primary school

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<sup>1/</sup> Access can be defined as the percentage of the appropriate single-age group that completes each standard or form. Efficiency can be viewed as consisting of four components: (1) learning achievement (as partially measured by appropriate testing procedures), (2) repetition, (3) enrollment loss, and (4) per student cost. An increase in efficiency, therefore, involves increasing the first factor and reducing the other three factors, taking the interrelationships among them into account. Relevance involves the relation of education programs to selected socio-economic factors, such as employment, income, citizenship participation, fertility, agricultural productivity, etc.

enrollment, from 167,000 in 1980 to 220,000 in 1985. This projected increase, set forth in the 1979-85 National Development Plan, is based on the assumption that Botswana will continue to progress toward its official goal of universal primary education and is consistent with available population data.

Primary School Enrollments by Standard to 1985

	Std.1	Std.2	Std.3	Std.4	Std.5	Std.6	Std.7	Total
1979	27,620	23,507	24,542	22,670	22,044	18,173	18,334	156,890
1980	29,000	27,300	23,300	23,300	21,500	29,900	21,800	167,100
1981	30,500	28,700	27,100	27,900	17,500	20,500	25,100	177,300
1982	32,000	30,200	28,400	32,500	20,900	16,600	24,600	185,200
1983	33,600	31,700	29,900	34,100	24,400	19,900	19,900	193,500
1984	35,200	33,300	31,400	35,900	25,600	23,100	23,900	208,400
1985	37,000	34,800	32,900	37,600	26,600	24,300	27,800	221,300

Source: Planning Unit, Ministry of Education

Note: Includes Government aided and unaided schools. 1979 figures are actual.

It is predicted that the cadre of primary teachers will need to be increased from approximately 5,000 in 1980 to 6,800 in 1985. The Planning Division of the MOE projects enrollment increases in primary teacher training courses will increase from 700 in 1979 to 1,300 by 1984, a growth of almost 90%. Although it would appear that this increase in primary teacher trainers will help to satisfy the projected need for 6,800 primary teachers by 1985, it is important to note that more than 1,800 of these primary teachers will be unqualified. Many of the 1,800 unqualified teachers will likely be form 5 school leavers who are performing community service and an additional 800 may be persons who expect to enter primary level teacher training after one year of teaching service.

Projection of the Primary School Teaching Force to 1985

	Teachers Required	Qualified Teachers Available	Unqualified Teachers Required	Percentage Unqualified
1979	4,870	3,100	1,770	36
1980	5,140	3,340	1,800	35
1981	5,460	3,560	1,900	35
1982	5,710	3,870	1,840	32
1983	5,970	4,170	1,800	30
1984	6,440	4,520	1,920	30
1985	6,840	4,990	1,850	27

Source: Ministry of Education Planning Unit

Note: 1979 figures are actual; 1980 to 1985 figures are projected.

Concerns over the provision of individualized instruction to pupils with special problems, higher rates of success in language mastery and improved performance on externally set examinations are related to the quality of the primary teaching cadre. A qualified teacher in every classroom would constitute a first step toward providing an equitable approach to these concerns.

The stated aim of the GOB as regards primary education requires support for primary teacher education, for curriculum development and for in-service programs that will affect the teachers and children in the schools.

The Ministry of Education and the University College of Botswana (UCB) face a severe shortage of the manpower needed to carry out the government plan for improving primary education. The Faculty of Education at the University has a predominantly expatriate staff and the Teacher Training Colleges at Lobatse, Serowe and Francistown have staffs that are about 50% expatriate. In all cases, the teaching staffs are already heavily committed to teaching the courses in existing programs, in supervising teaching practice, in serving on national curriculum panels, and in assisting with in-service activities.

The need to establish a program for the preparation of teacher college tutors and to support the extension and implementation of far reaching efforts in curriculum development and in-service education is clearly defined.

### C. GOB and USAID Strategy

The GOB policies for education in the 1979-85 National Development Plan period can be stated as follows:

- (1) to increase educational opportunities and reduce inequalities as far as resources permit;
- (2) to contribute to the balanced development of the country by seeking to satisfy manpower requirements for all sectors; and
- (3) to promote personal qualities such as respect for national ideals, self-reliance and concern for other people and to encourage the full development of individual talents.

To achieve these objectives the Government has prepared a strategy which has the following principal elements: (a) improvement of the quality of and access to primary education; (b) development of a new structure to ultimately provide nine years of basic education for all by the 1990's through the expansion of secondary education in both the public school system and in the private community schools; (c) reformulation of the curriculum to emphasize the acquisition of basic knowledge and skills needed in a rapidly changing society and economy; and (d) increased emphasis on part-time learning, out-of-school education, and the combination of learning and work.

The program to carry out this strategy can be summarized as follows: (a) an increase in primary education enrollment in order to attain a seven-year universal primary education for the 6-13 age group by the early 1980's, and an improvement in equity and quality by the elimination of tuition fees at the primary level and the expansion of pre-service and in-service teacher training; (b) a 50% increase in secondary school enrollment to be effected during the next six years, along with the localization of junior secondary school examinations and the development of a training college for junior secondary school teachers; (c) a strengthening, reorganization and gradual expansion of technical and nonformal education in line with existing and projected availability of instructors; and (d) an expansion of the Botswana campus of the University College of Botswana (UCB) to cater to an anticipated enrollment of some 1,200 in 1985.

As early as 1976, preliminary, informal discussions were undertaken by the MOE, UCB, and USAID, regarding the status of primary education and the implications for future planning and action. In January, 1980, a Project Identification Document (PID) was completed and sent to AID/W for the purpose of collaboration on a project which would provide technical assistance to the GOB in the areas of primary pre-service and in-service education improvement. The PID, which was subsequently reviewed and approved by AID/W in March of 1980, set forth an initial plan for the establishment and implementation of a primary education improvement project. Under a cooperative agreement with AID, Ohio University in Athens, Ohio, was selected to complete the project design in the form of the present Project Paper and to provide the AID-financed institutional and technical assistance to implement the project.

#### D. Relevant Other Donor Activities

The largest capital assistance source to the education sector in Botswana has been the World Bank with two current loans of \$10.5 million and \$10.0 million. These loans include financing the construction of a dozen junior secondary schools and upgrading the facilities of an equal number of secondary schools. In addition, considerable assistance has been provided to Youth Brigade Centers, as well as capital improvements to the Matsha Community College, Botswana Extension College and Botswana Institute of Administration and Commerce. Up to now, the World Bank has not addressed primary education, but planning is presently underway for a major IBRD loan, possibly up to \$30 million in two tranches which will build or upgrade 1,000 primary classrooms throughout the country. This program would include new construction of classrooms and teachers' quarters, as well as architect/engineer services and furnishings. This World Bank loan is also expected to finance construction of the fourth Primary Teacher Training College near Gaborone in 1982-84.

The AID PP team met with a World Bank Education Mission in Gaborone to compare notes and found the Bank Mission already well informed about the proposed AID project. The leader of the Bank team stated that the AID project to provide pre-service and in-service education to improve the Botswana primary school system was an essential ingredient in the

planning for the next World Bank loan, and if AID for some reason failed to undertake this project, the IBRD loan would probably have to be delayed until another donor was found to provide this key element, without which the physical addition of more classrooms would serve very little purpose.

The European Development Fund (EDF) also provides capital assistance to education in Botswana in the form of extensions to the teacher training colleges and a new science block at the University.

The largest bilateral donor in the education field is the UK, which dispenses capital aid through the EDF and technical assistance through OSAS, an overseas technical services mechanism similar to the American OPEX. There are currently 380 British OSAS personnel in Botswana, to be reduced to 159 by 1982-83 under current plans for retrenchment by the British Government. Significantly, there are now 120 OSAS personnel in the education sector and this number is expected to rise to 160 by 1982, reflecting the high priority placed by Britain on the education sector in Botswana. OSAS teachers serve mainly in secondary schools as headmasters and math and science teachers, but many are also on the staffs of the teacher training colleges.

In addition, the Scandinavian countries supply a small number of teachers in Botswana, but Danish support is reportedly being curtailed. Swedish aid (SIDA) has concentrated on financing the construction of primary schoolrooms and a new agreement for \$9 million in additional construction has just been signed, but in future less Swedish attention is expected to be devoted to schools, and more SIDA funds will probably go to other aspects of rural development, such as water supply.

## II. PROJECT DESCRIPTION

### A. Summary of Goal, Purpose and Outputs

The goal of the project is to assist the Government of Botswana (GOB) to increase the access, efficiency and relevance of primary education. This goal will be served directly to the extent that project purposes are realized.

The high priority which GOB has assigned to primary education is reflected in plans to provide for a 40% increase in enrollments in Standards 1-7 between 1980-85, and to increase the numbers of qualified teachers and classrooms to meet this need. Inasmuch as the project addresses itself to the need for qualified teachers and to the matter of upgrading of instruction in the primary schools, the access and efficiency elements will be affected. The presence of increasing numbers of Botswana in posts of educational leadership is calculated to address the concern for relevance of primary education to the life needs of the people.

Achievement of the project goal can eventually be measured by both quantitative and qualitative means, but as a long-term objective it may not be possible to assess the element of relevance during a project of only five years.

The purposes of the project are twofold:

- (1) to establish in the University College of Botswana (UCB) a permanent capacity to provide appropriate pre-service training through (a) the creation of a four-year professional Bachelor of Education degree program, and (b) a two-year diploma program to up-grade senior primary school staff for whom a degree is not appropriate;
- (2) to strengthen the capacity of the Ministry of Education (MOE), in cooperation with the UCB to organize and implement effective in-service programs for supervisory staff and teachers involved in primary education.

The purposes set forth here involve a number of activities in inter-institutional areas. In-service education is primarily the responsibility of the MOE and emphasizes the introduction of new curricula and upgrading the quality of teaching in the schools. The UCB, through its Faculty of Education, provides in-service programs for the tutors at the Primary Teacher Training Colleges and assists with the curriculum development at TTCs.

Pre-service education of TTC tutors is a responsibility of the Faculty of Education at UCB, although that faculty presently is specialized in secondary education rather than primary education. A major element of this project will be to train 30 students a year in a combination four-year degree program and two-year diploma program at UCB. For several years the

majority of graduates will join the staffs of the three (soon to be four) Teacher Training Colleges. This is deemed to be the most critical spot for university-educated Batswana to influence and up-grade the national primary education network. Other graduates will be assigned as needed by the Ministry of Education.

Establishment of a permanent capacity to provide pre-service education to staff involved in primary education will contribute to the preparation of qualified teachers, while the supply of TTC tutors trained to the BEd level is increased and maintained at levels compatible with evolving demands. This development will contribute to the goals of increased access and relevance of primary education.

Establishment of a permanent in-service training capacity will be pursued through a coordinated program of workshops aimed at training head teachers, deputy heads, and senior teachers to serve as instructional leaders. This project will have a multiplier effect as selected head teachers, deputy heads, and senior teachers work with other primary teachers throughout the country.

#### Specific Project Outputs

The outputs which are expected to result from the attainment of project goals and purposes are as follows:

- (1) A functioning Department of Primary Education as a new entity in the UCB.
- (2) Batswana graduates of the UCB with BEd degrees or two-year diplomas in primary education, qualified to serve as TTC tutors, head teachers, MOE officers and in other leadership positions.
- (3) Batswana trained in the U.S. to the masters degree level in appropriate fields of primary education, to replace U.S. project staff at the UCB.
- (4) Institutional base established for the systematic and effective in-service training of head teachers, deputy heads, and senior teachers in the 480 primary schools, and for the development of staff of the TTCs and the Inspectorate.

Over a five-year period the project will train approximately 80 Batswana in primary education to diploma and degree levels, depending on the exact mix of students in the two programs. The majority of the Batswana who complete the BEd degree will be slated for positions as tutors in the Teacher Training Colleges for the first 5-10 years following establishment of the program at UCB. As the TTCs become locally staffed with trained persons, it is expected that graduates will begin to move into leadership positions as head teachers, deputy heads, inspectors, and specialists in MOE positions. Since an on-going institution is being

created, 23-30 Batswana will continue to complete the UCB program annually long after this AID project terminates.

## B. Elements of the Project

### 1. Technical Assistance

Technical assistance will be provided to the MOE and the UCB in support of project activities through the assignment of the following U.S. contract team specialists:

Curriculum/Supervision/Administrator  
 Reading Specialist  
 Math-Science Specialist  
 Teaching English as a Second Language (TESL) Specialist  
 In-Service Training Specialist (MOE)  
 Short-Term Consultants (44 person months)

Total: 28 2/3 person years.

The In-Service Training Specialist will be attached to the MOE, while the other four members will join UCB's Faculty of Education and will form the nucleus of instruction for the BEd, diploma, and the in-service programs. U.S. Institutional Contractor (IC) specialists will have both pre-service and in-service teaching responsibilities. As participants are trained in the U.S. and as Batswana student participants at UCB complete general studies, the exact mix for U.S. IC specialists of teaching at the University or teaching within the in-service workshops will vary. The "mix" over the life of the project is estimated to be 50% pre-service (at UCB) and 50% in-service (at Teacher Training Colleges and Centers throughout the country).

### 2. Participant Training

The project provides for a total of 16 participants (ten long-term, six short-term) distributed as follows: eight who will study for the Master of Education degree (seven in the U.S. and one in an African university) and return to assume roles as primary education faculty members at the University College Botswana (UCB); two who will also study for the Master of Education degree in the U.S. and will return to assume roles in the Ministry of Education (MOE); and six who will participate in short-term courses of three to six months in the U.S. or in third countries.

Planned fields of specialization for the MS degrees are the following:

#### UCB Participants

- (1) Teaching English as a Second Language (TESL)
- (2) Reading/Language Arts
- (3) Science
- (4) Mathematics
- (5) Administration/Supervision
- (6) Social Studies (African university)

- (7) Early Childhood Education
- (8) Media Development

#### MOE Participants

- (9) Administration/Planning (In-Service)
- (10) Curriculum

Short-term studies will be in the fields of evaluation, curriculum development, educational materials development, TESL, schools broadcasting, and administration/supervision and could be conducted in other African countries (Kenya, Nigeria, Ghana), as well as the U.S.

### 3. Commodities

The design of the commodity budget is dictated by three major areas treated within the scope of the Primary Education Improvement Project. These areas are (1) the establishment of both a degree and a diploma program in primary education at UCB; (2) the needs of the Teacher Training Colleges for a variety of materials and equipment treating primary education; and (3) the requirement of a wide range of equipment, consumable and reference materials for use in the various facets of the in-service education program.

The UCB has not formerly had a program in primary education, consequently there are no library, periodical, or curriculum materials available for use in primary teacher education. It is proposed that professional books on education and reference materials as well as periodicals will be housed in the University library. The curriculum/resource library for each of the primary school subject areas will be housed in the Educational Resource Center which will be a part of the Primary Education Center which is being constructed to house the primary education program (the library has indicated that at present they lack space to house these materials).

The budget projection for periodicals, library books and curriculum materials during the life of the project is \$90,000 for the UCB. In addition, the sum of \$6,000 has been allocated for the upgrading of education holdings and periodical materials in each of the three TTCs (total \$18,000).

Films, filmstrips, games, kits and teaching aids (\$31,000) and audio-visual and reproduction equipment (\$57,000) will be provided. Over the five-year period, other miscellaneous costs of \$43,000 include international communications (\$10,000); repair and maintenance of equipment (\$8,000); consumable supplies for workshops (\$10,000); and office supplies (\$15,000).

This totals \$239,000 for all commodities. A complete list of commodities is included in the Section IV Financial Plan.

#### 4. Construction

Two units will be constructed at UCB in support of the project and without which the University could not absorb the new programs. An agreement has been worked out whereby AID and the GOB will each finance 50% of the total costs of (1) a Primary Education Center which will provide classroom space for the new courses, additional office space, to be used by the U.S. project team and their Batswana counterparts, an instructional media room and an educational materials production workroom. The instructional media room will serve as a library and demonstration center for primary school instructional materials and will be used as a classroom for short-term training programs. The second unit (2) will be an 84-bed hostel to house the BEd and Diploma candidates and in-service trainees who cannot make other housing arrangements off-campus. The University currently has on-campus hostels which house 1,012 students and have essentially a 100 per cent occupancy rate. Since student housing in Gaborone is virtually non-existent, the hostel is an essential supporting feature of the project. Construction will be by local contractors and payment of the AID portion will be by Fixed Amount Reimbursement (FAR).

A full description of the construction element is included as Annex E, Engineering Analysis.

#### 5. Summary of the Project's In-Country Training Programs

##### a. The BEd Program in Primary Education

A major component of the project will be the development and implementation of a BEd program in Primary Education which will prepare persons to serve in leadership roles as teacher College tutors, head teachers, inspectors and MOI specialists. It is appropriate to emphasize that the BEd program will not prepare persons for teaching positions in the schools, a function that will remain a responsibility of the TTCs.

There is an existing BEd degree program at the UCB with specialties in subject fields relevant to secondary education. The project activity will establish and implement a new program leading to the BEd with primary education specialization. This new program will utilize existing resources at UCB which are relevant to training in the primary education field, such resources consisting of a few selected courses in educational foundations, courses in general studies offered by faculties other than Education, the basic library holdings, and the administrative services of the UCB and the Faculty of Education.

##### b. The Diploma Program in Primary Education

A two-year program in primary education will be developed and implemented in cooperation with the Faculty of Education at UCB. This program is designed to provide for the upgrading of the job skills and knowledge

of persons in the education sector for whom the longer BEd program is impractical or otherwise inappropriate. The diploma course will be particularly useful for head teachers, inspectors, and other persons who have had long tenure in a position, although it will offer a reasonable training alternative for younger persons who do not qualify, or desire to pursue a BEd degree course.

The diploma program will have the capability of accepting 10-15 full time students per year at the UCB campus. Additional students may be accommodated in this program through the acceptance for credit of a limited amount of part-time, off-campus study which is sponsored or approved by UCB. As much as possible a general studies program will be followed for the first year by degree and/or diploma students.

Whereas the BEd program will require study in one subject major and one subject minor, the diploma program will emphasize professional studies which will be related to the current problems of primary education in Botswana, and specifically applicable to improving the administration and instruction of the primary schools.

The diploma program will cover these three major areas of professional content:

- (1) School organization and management; general educational policy and planning staff relationships in the school; community-school relations.
- (2) The primary school curriculum; improvement of teaching methods; evaluation of educational processes; individualizing instruction for special children; planning and conducting in-service education.
- (3) Supervision and guidance of teachers; field visits to schools and colleges; seminars on identification/analysis of educational problems.

#### c. The In-Service Program

While the degree/diploma course at UCB can take in only about 30 students per year, the in-service program is designed to cover eventually all of the primary school inspectors (35), head teachers (now 414), deputy head teachers (now 414) and senior teachers (now 664). These numbers are expected to increase by 17% by 1982. In follow-up workshops at least 1,200-1,600 primary school teachers will be reached, and through them up to 50,000 primary school children will eventually be influenced. This is based on the target of providing each of the 400 primary schools with a minimum of two persons (depending on school size) who have received in-service training as "instructional improvement leaders". These teams will work in their respective schools to conduct teacher workshops for regular primary teachers.

In-service training for instructional leadership would take the form of 3-4 week courses and workshops at teacher centers, TTCs and UCB

and a follow-up workshop of similar duration within one year. Problems of improving the quality of primary school teaching will be addressed, including curriculum development, student motivation, methodology for basic literacy in English and Setswana, and methodology for basic numeracy and improving the quality and relevance of math instruction.

#### Summary Statement

All parties involved in the preparation of this project (the Ohio University team, REDSO/EA, USAID/Botswana, and various MOE and UCB officials and advisers who participated on the GOB side) agree that the project is well-suited and fully equipped to attack the central problems of primary education in Botswana, which as stated earlier has been identified in the National Development Plan as this country's number one educational priority. The project aims at increasing both the quantity and quality of Botswana primary school educators at the most critical levels - TTC tutors, head teachers, inspectors - where leverage and the multiplier effect are greatest. Judging from the design team's many hours of discussion, interviews and field visits at all levels, the project clearly has the enthusiastic support of the MOE, from senior headquarters staff to individual TTC and primary school principals and teachers. GOB participation, both in human and financial terms, will be extraordinarily high (see Annex P).

For a full treatment of major elements of the project and a more detailed account of the various educational programs covered, see the Technical Analysis which follows immediately.

### III. PROJECT ANALYSIS

#### A. Technical Analysis

##### 1. Description of Methodology

The project will respond to several areas of critical need through an approach that will integrate technical assistance, commodity support and participant training with existing resources and programs. In-country training programs will address the pre-service and in-service needs of staff members from several areas of primary education, curriculum development, teacher education, administration, and instructional leadership.

Instructional improvement at the primary school level will be pursued through in-service courses and workshops provided to inspectors, head teachers, deputy head teachers and senior teachers. In accordance with MOE policy which assigns instructional leadership responsibility to head teachers and their assistants, the planned courses and workshops will provide the information and skill development which is needed to extend the instructional improvement process to the primary teachers at the school level. In this manner, the continuing problem regarding the use of unqualified teachers is at least partially addressed.

It is projected that the MOE Curriculum Development Unit (CDU) will contribute to the in-service programs through its materials and staff resources. Since 1978 the MOE Department of Curriculum, with the assistance of one USAID funded OPEX Curriculum Development Specialist, has sought to implement the educational philosophy and objectives outlined in the 1977 National Policy on Education (Government Paper No. 1, 1977). The efforts of the Curriculum Department and MOE organized teacher panels have been directed toward developing syllabi and teaching/learning materials which reflect GOB philosophy and policy. Progress by the panels and the Curriculum Unit includes draft syllabi for Standards 1-7, formation of subject objectives for Standards 1-7 as well as completed and approved Teachers' Guides and pupil materials for Standards 1 and 2 in Setswana, mathematics, English, science, social studies, and religious education.

A GOB/USAID OPEX specialist will continue to work with the curriculum/subject panels to complete the Standard 1-7 curriculum revisions. All work will be coordinated closely with the in-service and pre-service training to ensure effective coordination and implementation into the formal system and model schools and will generally follow the recommendations of the Assessment of Primary Curriculum Development Project, see Annex Q.

The existing In-Service Education Division of the MOE, and the related teacher training centers will be involved in program planning, implementation and evaluation with overall coordination being the responsibility of the In-Service Specialist from the AID project team.

The Faculty of Education of the UCB, and the TTCs, through the affiliated institutions relationship, presently carry out in-service

and curriculum development work related to primary teacher training. The in-service activities of the project will be linked to the UCB and the TTCs through joint planning and through cooperative efforts to provide resources for the instructional improvement program.

A major project component will function within the structure of the UCB Faculty of Education. This component will deal with the need to increase numbers of TTC tutors on the one hand and, on the other, to improve the effectiveness and quality of the administration and supervision of the primary schools. To these ends, it is projected that a program of studies will be developed in the area of primary education leading to the BEd degree. This program will prepare persons for leadership positions as TTC tutors, head teachers, inspectors, MOE specialists, and other positions as the needs of the future may dictate.

For the upgrading of head teachers, deputy heads, inspectors and others who seek to improve their skills and qualifications short of the degree level, a course of studies will be offered which will lead to the Diploma in Primary Education. The diploma program will allow credits to be earned through part time study, through university sponsored in-service courses, etc.

## 2. Alternate Courses of Study

The BEd degree and diploma programs in primary education will provide alternative approaches to the completion of studies in these programs. These alternatives, detailed in the discussion which follows, are intended to make further professional training accessible to qualified persons from a variety of positions in the education sector without creating major personnel displacements in the primary schools, TTCs and other agencies.

a. The full time/continuous BEd course of study will provide advanced placement for persons who have depth and breadth of successful experience in the field of primary education. They will be allowed to skip the first year of general studies, and may be expected to complete the BEd primary education program in 2-3 years of full time study. Persons from responsible positions with primary schools, TTC tutors, inspectors, and MOE specialists are illustrative of the persons who will be considered for advanced placement.

b. A combined study/internship program leading to the BEd degree will be provided for younger, less experienced men and women who will enter into an initial two year period of study at UCB, followed by a supervised internship at a TTC. A reduced course load will be provided for the interns in order that theoretical studies in curriculum and methods may be combined with the practical experiences of teaching.

Upon satisfactory completion of the internship, the students will return to UCB to complete the BEd course requirements in primary education.

The internship alternative will require modification of the first two years of general studies in the current BEd program. General studies will continue to be required, but provision will be made for professional studies in order to prepare students to benefit from the internship

experience of the third year. The Faculty of Education and other departments of the UCB will devote attention to this matter in conjunction with the project team and TTC faculty whose full cooperation will be essential to the success of the internship experience.

c. The Faculty of Education at UCB, in cooperation with project staff and appropriate MOE division heads, will plan a two year program of studies in primary education leading to the diploma. The plan will provide for persons in responsible positions who cannot leave their posts for long periods of study and for whom a degree may not be necessary. Part-time study, correspondence courses, university sponsored workshops, and intensive periods of study in residence may be combined in a program that would lead to the diploma. It is expected that the program for the first year of study could be common to both diploma and study/internship BEd degree candidates. For project planning and budgeting purposes the figure of 20 degree and 10 diploma candidates entering each year has been chosen. This figure may vary in practice with the number of degree candidates probably increasing as the program matures.

The final plans for each of the programs presented here will be developed jointly by the U.S. project implementation team in cooperation with the UCB, and MOE and the TTCs, with implementation beginning in 1982.

### 3. Components of the Pre-Service and In-Service Training Programs

#### a. The BEd Degree Program

The BEd degree course in primary education will contain the following major components:

##### (1) Academic studies

- Language education
- Science and mathematics
- Social studies
- Health studies

##### (2) Education component

- Psychology of education: teaching and learning
- Child growth and development
- Teacher education
- Primary education in Botswana
- Foundations of education: philosophy of education, history of education
- Administration and supervision in Botswana schools

##### (3) Professional component

- Curriculum studies development in the subjects of the primary school
- Primary teaching techniques
- Micro-teaching
- Development and utilization of teaching/learning materials

Remedial teaching: diagnosis and prescription  
 Classes on organization/planning  
 Evaluation and measurement

(4) Field Component

Visits to schools, in-service centers, teacher training colleges;  
 Supervision of TTC students who are engaged in student teaching;  
 Internship in a TTC, an In-Service Center or MOE division as  
 career goal may dictate;  
 Serving as aide to an in-service workshop team.

Students for the BEd degree program will be recruited from among the following:

- (1) Holders of the Cambridge Overseas School Certificate ("O" levels upon completion of Form 5, the equivalent of U.S. 12th grade) who have had at least two years of experience as primary school teachers (qualified or unqualified), and who are seeking careers in primary education.
- (2) Teacher college tutors for whom advanced standing may be given in the degree program on the basis of relevant post-secondary training already completed.
- (3) Inspectors, head teachers and deputy heads whose previous levels of post-secondary training qualify them for advanced standing in the degree program.
- (4) Ministry of Education specialists at levels of responsibility for which degree training in primary education would be appropriate.

It is projected that 20 per year will be admitted into the BEd degree program, and that, beginning in 1984 there will be an initial output of at least 17 (see following table). Inasmuch as there will be a clear need for tutors to staff the expanded TTCs, and to move forward the localization process, it is expected that all 17 of the BEd graduates through 1990 will be assigned to positions as TTC tutors.

b. The Diploma Program

It is projected that persons who earn the Diploma in Primary Education will, in most instances, return to posts at higher levels of responsibility, such as deputy heads moving into head teacher assignments. In other instances, where the diploma study has been completed without a long period away from the job, the diplomate will continue at a higher salary grade, functioning at increased levels of efficiency.

When it is taken into account that there are more than 400 head teachers, 400 deputy heads, and 664 senior teachers who have officially designated responsibilities for improvement of education at the school level, it is immediately apparent that the output of eight diplomates per year will be readily absorbed into this leadership cadre. Of

PROJECTED DEMAND FOR DEGREED BATSWANA TEACHER TRAINING COLLEGE TUTORS RELATED TO THE OUTPUT OF BEds IN PRIMARY EDUCATION 1979-1991.

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991 <sup>5/</sup>
Number of tutors needed <sup>1/</sup>	55	65	75	80	95	105	110	126	126	126	126	126	126
Less Batswana staff with BEd <sup>2/</sup>	-16	-16	-16	-16	-16	-33	-50	-67	-84	-101	-118	-122	-126
TTC staff attrition (10%)						3	5	7	8	10	12	13	13
Total needed for all BEd staff	39	49	59	64	79	75	65	66	50	35	20	17	13
Less number trained at UCB with BEd	0	0	0	0	0	-17	-17	-17	-17	-17	-17	-17	-17
Gap to be filled by other means <sup>3/</sup>	39	49	59	64	79	58	48	49	33	18	3	0	0
BEds available for assignment outside TTCs <sup>4/</sup>	0	0	0	0	0	0	0	0	0	0	0	0	4

18

<sup>1/</sup> Based on projected need contained in National Development Plan, 1979-85.

<sup>2/</sup> Based on number Batswana TTC staff with BEd in 1980.

<sup>3/</sup> Presently filled by expatriate staff and non-degreed Batswana staff.

<sup>4/</sup> Based on projection of 17 BEd graduates in primary education with all going to TTCs through 1991.

<sup>5/</sup> In 1991, the four TTCs will have localized staffs prepared to the BEd level in primary education. Assuming that the tutor cadre remains constant at 126, and attrition from all causes continues at 10%, or 13 per year, the output of 17 BEd graduates per year will meet the demand with only four BEds available for assignment to other education posts, beginning with the year 1991.

PRIMARY TEACHER DEMAND AND SUPPLY IN BOTSWANA 1979-1990

An Illustrative Calculation Assuming National Service, Probationary Year Program, and In-Service Education Centers

	Actual 1979	1980	1981	1982	1983	1984	1985	1986 <sup>a)</sup>	1987 <sup>b)</sup>	1988 <sup>b)</sup>	1989 <sup>b)</sup>	1990 <sup>b)</sup>
1. Enrollment (Standards 1-7)	156,664	167,100	177,300	185,200	193,500	208,400	221,300	230,152	237,055	244,167	251,495	259,040
2. Pupil-Teacher Ratio	32	32	32	32	32	32	32	32	32	32	32	32
3. Total Teacher Demand	4,863	5,140	5,460	5,710	5,970	6,440	6,840	7,192	7,408	7,630	7,859	8,095
4. Trained Botswana teacher stock of previous year		3,095	3,322	3,642	3,953	4,284	4,733	5,271	5,693	6,102	6,499	6,884
5. Less wastage (3% of line 4)		-93	-100	-109	-119	-128	-142	-158	-171	-183	-195	-207
6. Add new second year output from TTCs		+320	+420	+420	+450	+580	+580	+580	+580	+580	+580	+580
7. Total trained teachers	3,095	3,322	3,642	3,953	4,284	4,733	5,271	5,693	6,102	6,499	6,884	7,257
% teachers trained	64%	64%					77%	78%				89%
8. Other teachers required	1,838	1,818	1,818	1,757	1,686	1,607	1,569	1,499	1,306	1,131	975	838
9. National Service <sup>c)</sup> workers	-	28	90	330	660	1,000	(End of five year plan)					
10. Probationary teachers		1,740	1,678	1,377	976	557						
11. In-Service Teacher Training through Education Centers		50	50	50	50	50						

- a) Assumes that by 1985 Botswana has achieved an enrollment ratio of 95% and that enrollment growth will slow from 6% to 4% between 1985 and 1986.
- b) Assumes an annual rate of growth in enrollment of 3% which is equivalent to rate of growth in population. Thus, enrollment growth after 1986 is a function of population growth rather than increasing percentage of school age population in school combined with population growth which characterized the pre-1986 period.
- c) Teacher equivalents are 1/2 the number shown since National Service persons are assigned to schools in pairs. National Service workers hold the COSC.

significance, also, is the fact that there are primary schools of Class I and Class II category, enrolling more than 600 students per year. The complexity of the administration in these larger schools and the greater demand for leadership skills, serve to emphasize the need for diploma holders in these schools.

Students in the diploma program may, in 10-15 percent of the cases, move into the BEd degree program if the academic performance and career outlook of the individual indicate such course to be feasible. Because of the differing elements of the diploma and degree programs, it is not expected that transfers from one program to the other will be a common occurrence, but rather that transfer is acceptable in special cases. Degree students who do not complete the BEd program would not automatically be awarded the diploma or be promoted to a higher pay scale. Further study in specific areas would be required in most cases. The diploma also will not be used as a consolation award for failures in the BEd program.

### c. Teacher In-Service Training

The in-service education component will provide a major resource for the improvement of primary education at the school level where teachers, pupils, and head teachers are engaged in the teaching and learning processes. The multiplier concept will be employed in an effort to extend the benefits of improved teaching to a large number of pupils over a relatively short period of years. Hence, those persons who occupy leadership positions at the school level will form the target population of the initial undertakings in in-service education. These persons will be drawn from the following positions:<sup>1/</sup>

	<u>1980</u>	<u>1981</u>	<u>1982</u>
(1) Head teachers of primary schools	414	449	468
(2) Deputy head teachers of primary schools	414	449	468
(3) Senior teachers of primary schools	<u>664</u>	<u>745</u>	<u>810</u>
Total Responsibility Positions	1,492	1,643	1,746

The identification of this target population is compatible with the GOB's stated intention to provide primary teachers with increased professional support and to strengthen administrative capacity for the improvement of primary education. In order to extend in-service education into the primary schools, it is planned to work with head teachers, deputy head teachers, and senior teachers as instructional leadership teams; hence it is projected that most primary schools, depending upon size, will eventually have at least two persons who have been prepared as instructional improvement leaders through the in-service process. These teams will carry out instructional improvement in their respective schools, cooperating with teacher centers and teacher training colleges as conditions and requirements indicate. Ultimately, some of these

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<sup>1/</sup> Numbers projected to 1982 by MOE.

instructional leadership teams will provide a critical resource in extending the improvement process to all primary schools in the nation as they will be able to work in in-service programs for other head teachers, deputy heads and senior teachers.

The in-service plan provides for workshops and courses of 3-4 weeks duration to be held at teacher centers, teacher training colleges and the University. The instructional leadership teams will then return to their respective schools with a specific plan for providing in-service to the teachers there. Such plans, together with supporting materials and strategies will be important products of the leadership in-service workshops.

During the six month period following the leadership in-service workshops, in-service staff will visit each of the leadership teams at their schools for purposes of advising, consulting and obtaining early feedback regarding the instructional improvement process. Meetings will be held with teaching staffs in these schools to gain additional insights regarding the process.

Within eight months of the initial in-service workshop, the instructional leadership teams will participate in a second workshop of two weeks duration. The purposes of this workshop will be to evaluate the in-service scheme in which they have participated, identify additional problems in the instructional domain, consider modified approaches to in-service, and finally, participants will be trained to work as members of teams which will offer in-service training to head teachers, deputy heads and senior teachers in other schools.

The In-Service Division of the MOE, the U.S. project team In-Service Specialist, the CDU, and the Department of Primary Education at UCB will be involved in the final determination of themes and content areas. Some of the problems that were identified in the GOB paper on National Policy on Education (1977) should be considered. These include:

- (1) the development and implementation of a new primary curriculum;
- (2) the improvement of basic literacy in Setswana and English;
- (3) the improvement of the quality of teaching in the primary schools.

These three problem areas should constitute the starting point for the identification of specific topics to be pursued in instructional leadership in-service workshops.

The staff for the instructional leadership in-service workshops will be drawn from the following sources:

- (1) MOE In-Service staff members and the Inspectorate;
- (2) Curriculum Development Unit staff of the MOE;
- (3) UCB Primary Education Department staff;

IN-SERVICE ACTIVITY FRAMEWORK

Time Frame	Project Team Activity-In-Service	Numbers Affected	Staff for Activity	Location	Potential Number of Pupils Affected
January-March 1982	<u>In-Service Workshops Phase I</u> (3 weeks) for head teachers, deputy heads, senior teachers in 20 model schools.	40-50 in responsibility positions	CDU persons, MOE, UCB, Project Team, Inspectors, TTC Principals and Tutors	To be selected from TTCs, UCB or Training Centers	x
April-June 1982	<u>Follow-up in 20 model schools</u> (10 weeks) to assess short term impact of workshop on in-service at school level.	325-400 (Primary Teachers)	CDU, MOE, Project Team, UCB Faculty, Inspectors, TTC persons	At primary schools in the field (20)	12,500
June-August 1982	1. <u>Teacher Education Conference</u> (2 weeks) for 40 Teachers College Tutors.	40 TTC Tutors	Project Team, UCB Faculty, TTC Principals, CDU persons	UCB	300 TTC students
	2. <u>In-Service Workshops Phase II</u> (2 weeks) for original participants in Phase I, to evaluate, revise in-service approach; to provide leadership training for the in-service training of additional teams from other primary schools. Selection of 6-8 leadership teams of 2 persons each from the 40-50 participants in workshops.	40-50 Same as Phase I	Same as Phase I	Same as Phase I	x
September-November 1982	<u>Planning Conferences in the Field</u> (3 days each) with the 6-8 new leadership teams, at the school sites or at Training Centers.	12-16 In-Service Team Leaders	Drawn from staff involved in Phase II	In the field	x
January-March 1983	<u>Six to Eight In-Service Workshops Phase III</u> (3 weeks) for heads, deputy heads, senior teachers of 60-80 primary schools.	120-160 in responsibility positions	New leadership teams with support by project team, and resource persons from Phase II staff	At TTCs and Training Centers	
April-June 1983	<u>Follow-up in 60-80 schools</u> (10 weeks)	1,200-1,600 Primary Teachers	Leadership teams with two resource persons from Phase II staff for each team	In the field	36,000-48,000 pupils

- (4) Institutional Contractor team In-Service Specialist;
- (5) Teacher Training College specialists;
- (6) Botswana Teachers Union representative(s).

It is important that the institutional contractor In-Service Specialist assume major responsibility for initiating and facilitating the cooperative involvement of all appropriate agencies in the planning and implementation of in-service workshops. The U.S. In-Service Specialist will work closely with the in-service team, the CEO for Primary Education and Teacher Training and the CDU of the MOE, as well as maintaining a working relationship with the Primary Education Department at UCB. The office of the In-Service Specialist will be located at the MOE.

In-service activity aimed at the development of instructional leadership will be carefully and deliberately planned to be implemented on a limited scale at the outset. Inasmuch as the multiplier effect will be employed, the foundations must be soundly established. Accordingly it is projected that the first such in-service workshop will be undertaken in the first six months of 1982 and that persons in responsible positions, i.e. head teachers, deputy heads, and senior teachers, from 20 primary schools will participate as instructional leadership teams. Inasmuch as the new primary curriculum is being implemented in selected model schools, it is reasonable to select leadership teams from these schools. Such an approach will take advantage of the experience which has been gained with the new curriculum and problems and strategies for its effective use by teaching staff.

From the 40-50 participants of this first in-service workshop, it is planned that a small number of innovative and effective persons will be selected to become instructional leaders for 6-8 workshops to be held in early 1983 for the purpose of providing in-service training to the head teachers, deputy heads and senior teachers of an additional 60-80 primary schools. In all instances these new teams of instructional leaders will be assisted by resource persons from the project staff, and others from the TTCs, the Training Center staffs and the UCB.

It is expected that for an indefinite period of years there will continue to be cycles of in-service workshops which train head teachers and assistants to be more effective instructional leaders, and to serve on in-service teams to cover other schools in their regions. However, it is essential that a thorough evaluation of the training be carried out periodically in order that the plan for in-service may benefit from the experiences gained during the initial years of the project. The 1983 evaluation will be concerned with the following:

- (1) effectiveness of the training process as it relates to implementing the new curriculum at the school level;
- (2) impact on teaching performance in English and Setswana;
- (3) impact on the roles of head teachers et al as instructional leaders;

- (4) effectiveness and acceptance of the concept of instructional leadership teams using primary school personnel.

It is planned to gather data from all of the persons who participated in the workshops, from persons who served as workshop leaders and resource persons, and quite importantly, from the primary teachers whose schools were involved in the in-service workshops in 1982-83.

It is anticipated that the in-service process will be extended, during 1984-85, to an additional 100 schools. By 1984 the training model will have been established and the return of MEd trained Batswana to the MOE and to UCB will enable project specialists to devote greater time and energy to working with counterparts in the area of in-service education. During 1984-85 it is projected that the leadership of the entire in-service activity will be assumed by Batswana specialists from the MOE, UCB, and other appropriate local institutions.

d. In-Service Programs for Inspectors

A separate, but related series of in-service courses of 4-6 weeks duration will be held on the UCB campus, designed especially for field inspectors of primary education. The numbers of inspectors are comparatively small at about 35, although GOB plans call for increasing that number to meet the needs for more efficient and extended services of the office. Two courses will be scheduled each year.

The in-service training for inspectors will be directed at the specific problem areas of the job and will include such items as clarifying and improving administrative operations on both short-term and long-term bases, organizing in-service workshops for teachers in the schools and strengthening working relationships with head teachers. Selection of specific in-service themes will result from a study of the inspectors' perceived needs and after consultation with MOE officials.

Staff for the inspectors' in-service courses will be drawn from the project team, from TTC specialists, from the MOE and from UCB, depending upon the topics that are being treated.

Follow-up of the in-service courses will provide a means of assessment of outcomes and will assure continued support for inspectors as they move to improve the operations of their offices. Formal evaluation of each in-service activity will be provided and will form the basis for modification of the scheme and process. By the end of the project, it is expected that all field inspectors will have taken part in a minimum of three in-service programs.

A related outcome of the in-service programs for inspectors will be the identification of persons who will be considered for the diploma and the BEd degree courses. Since many of the topics of this in-service component are similar to the content of the diploma program, it may be possible to provide for advanced standing for inspectors who move into the formal program at UCB.

#### c. In-Service Education for TTC Tutors

This component of the in-service mission of the project will be carried out in close cooperation with the Faculty of Education at UCB and the Curriculum Development Center of the MOE. UCB has an existing relationship with the TTCs through an affiliated institutions organization which involves in-service and curriculum development. To date, this work has been directed mainly to the subject matter concerns of the tutors whereas the project effort will be directed toward more specific concerns of primary teacher education. Accordingly, it is anticipated that the instructional problems of the primary school will be given careful attention in order that the preparation of primary teachers in the TTCs will be tied closely to actual teaching-learning situations. Techniques for improving language learning, in both Setswana and English, methods for increasing mathematics achievement, and improvement of health education are examples of topics that will be pursued in the TTC in-service activities.

The new primary curriculum being developed and tested by the CDU will comprise another important element of TTC in-service since the tutors must prepare future teachers to implement the new curriculum.

Staff for TTC in-service training will be drawn from the UCB, the CDU, and the project team. Important resource persons will be identified from head teachers, deputy heads and senior teachers of primary schools in order to benefit from first hand experience of persons in the schools and to strengthen the working links among these groups.

TTC workshops will be of 2-4 weeks duration, scheduled to coincide with vacation periods. At least two per year will be planned, to be held at UCB where tutors from all three TTCs may come together to work on common problems.

#### 4. Conclusions on Technical Feasibility

The project activities at the UCB in the new Department of Primary Education and the broad range of in-service programs will employ an organizational plan designed to institutionalize pre-service and in-service programs as joint responsibilities and undertakings of the MOE, the UCB, and the TTCs. Cooperative planning and staffing of the in-service work will be enhanced by the placement of a U.S. project team member in the MOE for the purposes of coordination of planning and implementation. The training to the Masters level of a counterpart Mofswana will begin in 1981 in order that this key position can be localized before the project ends.

It is important to note that many separate but related activities are to be carried out by various units in the education sector under the project. Appropriate coordination will be of paramount importance; arrangements for this coordination are discussed in the Administrative Analysis. The achievement of the project goal and two project purposes set forth in the Project Description and the Logframe (Annex B) will result in the creation of a permanent capability in the MOE and UCB for

improved primary education in Botswana and for more efficient use of human and informational resources. During the life of the project, the various activities described above are designed to strengthen and upgrade the primary education institutions in Botswana. Based on exhaustive visits to all three teacher training colleges and extensive discussions with MOE and UCB officials in Gaborone, the project design team and GOB counterparts are satisfied that all elements of the project proposed are technically feasible and attainable with project assistance, given the human and material resources available in Botswana and the high resolve of the GOB to improve the quality of primary education in this country.

## B. Economic Analysis

### 1. Introduction

This section of the PP summarizes the results of a detailed economic analysis found in Annex F. The methodology used is a descriptive least-cost analysis. Cost-benefit or cost-effectiveness analyses cannot be realistically performed for this project due to reasons outlined in detail in Annex F, Section 1(A), Selection of Appropriate Type of Analysis.

### 2. Descriptive Least-Cost Analysis of the Project

During the 1970's Botswana has made significant progress in the quantitative expansion of access to primary education. Focus has now turned to improving the quality and to overcoming inequities in the distribution of education resources. Major emphasis is being placed on the process of selecting and training primary school teachers. This project will have essentially three impacts which relate to the quality of primary education. First, it will improve the quality of primary school instruction by improving the quality of pre-service training and outreach capacity of in-service training without resorting to an increase in the hiring of unqualified teachers. Second, it will contribute to efforts to redress inequities within the primary school system. The National Commission on Education in its spatial analysis of resources allocated to primary education found glaring imbalances in the way human and physical resources were allocated within Botswana. By centering on rural schools and the lower grades within them, the in-service teacher training component of the project will help to overcome these inequities and improve the academic performance of children in rural areas. Third, it will help to remove the problem of repetition at the primary level. The institution of automatic promotion standards 1 to 6 in the early 1970's did little in reality to solve this problem. Repetition rather than being spread across the primary grades was merely shifted from the first six standards to the seventh one. By focusing on the lower grades and improving the quality of instruction at these levels, the in-service training component of the project will reduce the cost of repetition and improve the flow of students into the junior secondary level.

#### a. Selection of Best Approach to Improving Instructional Quality

There is considerable pressure to expand rapidly teacher training

in order to reduce the numbers of untrained teachers and to meet the added need for trained teachers to handle anticipated enrollment increases. However, the National Commission on Education strongly advised against too rapid expansion of teacher education which would increase the numbers of poorly trained and qualified teachers with little or no impact on student performance. The basic problem is to meet the short-term needs for teachers in a way which does not mortgage the future possibilities to hire better trained and qualified teachers for primary education. The Commission felt that there were two major constraints on the supply of qualified teachers. The first was the absence of trained tutors at the teacher training colleges and the second the lack of suitable students to receive teacher education. The demand for tutors at the teacher training colleges will grow from 55 in 1979 to 110 by 1985 (see Technical Analysis for details). In order to meet this need and replace expatriates the government plans to expand the University's program in education to include a major in primary education. To meet the short-run demand for teachers, the government has incorporated into its National Development Plan V other recommendations of the National Commission on Education. These special measures include the creation of a National Youth Service, use of probationary teachers, and innovative approaches to in-service primary teacher staff development.

The largest in-service program to improve the instructional quality at the primary level is this project. By developing leadership teams of head teachers, deputy head teachers, and senior teachers to work with the instructional staff in their respective schools the program provides an ongoing mechanism and process to improve the quality of primary education. By developing this program as an outreach function of both the teacher training colleges and the University, the program will institutionalize the link between resources engaged in teacher education and the teacher in the classroom. While the program is seen as one of the short-term means to improve the quality of primary instruction, it has the advantage of being flexible enough to expand to serve the needs of a professionally trained and qualified teaching staff once the backlog of untrained teachers is removed.

b. Design Features of the Project which Minimize Short-Run and Long-Run Costs

To simplify this discussion, the two project components, pre-service and in-service teacher training, are treated separately. However, it should be remembered that this distinction is not easily made in reality since the various project elements are well integrated and linked.

(1) Pre-service teacher training through creation of Diploma and Bachelor of Education (Primary) programs at the University College of Botswana

This part of the project has a number of features which will substantially reduce its long-run costs while simultaneously maximizing its benefits. Furthermore, there are a number of features which ensure that it will maintain flexibility to respond to future needs.

(a) Cost reducing features

First, an improved student-faculty ratio will take place as the project adds four faculty positions and approximately 120 students to the Faculty of Education. As a result the recurrent costs associated with the four new faculty positions will be partially offset by the increase in the student-faculty ratio.

Second, the use of tutor trainees at the teacher training colleges working under the supervision and guidance of qualified tutors will decrease the dependency on higher-paid expatriate staff as the TTCs expand.

(b) Features ensuring flexibility

First, the program of using tutor trainees provides flexibility in expanding the program in the short-run to meet the additional staff requirements of the teacher training colleges without locking the colleges into an uneconomical long-run staffing pattern.

Second, the program provides flexibility to reward good qualified tutors with the opportunity to continue their education to the bachelor level while minimizing the likelihood that less qualified students will receive the bachelor's degree.

(c) Features to improve the incentive structure

First, the reliance on diploma tutors at the teacher training colleges and the opportunity to be selected for the BEd program improves the incentive for interested individuals to perform well. Performance will be one of the selection criteria for the bachelor's degree program.

Second, by selecting from among national service and probationary teachers candidates for the University program as well as for training at the Teacher Training Colleges, the Primary Education Improvement program offers incentives for people to do a good job in the classroom and to follow the advice and suggestions of the leadership team.

Third, by offering outstanding teachers with several years of experience the opportunity to undertake an advanced placement three year Bachelor of Education (Primary) degree program at the University, the program will offer promotional opportunities for experienced older teachers.

(2) In-Service Teacher Training Through Creation of Leadership Teams

The leadership team approach is an extremely efficient means to improve the effectiveness of primary school instruction which is consistent with the government's plans to undertake a more gradual and balanced expansion of trained teachers. The program combines features which reduce the operational cost of the program, improve its efficiency, and provide flexibility to respond to future needs. Each of these is discussed briefly below.

(a) Cost reducing features

The leadership teams will be given a modest increase in pay to undertake the additional functions of working with teachers in the classroom and participating in workshops and training programs at the Teacher Training Colleges, the University, and the Education Centers. The increased payment to the leadership teams will be considerably less than would be involved through a more traditional approach of offering large numbers of teachers short-term training courses for which they would receive additional compensation.

(b) Efficiency improving features

There are essentially three ways in which this in-service program will improve the efficiency with which resources allocated to primary education are utilized. First, by involving the head teachers, deputy heads, and senior teachers more closely with the instructional processes within their schools it is possible to enhance instructional quality by having well-trained and qualified staff share their experience and knowledge more systematically with less trained staff. Second, by giving the Teacher Training Colleges the day-to-day operational responsibility for the program, it increases the outreach functions of the Teacher Training Colleges, fostering greater linkage between the colleges and the classroom teachers. This should improve the quality of instruction at the training colleges. Third, it provides a mechanism for coordinating other in-service programs such as national service, probationary teachers, and educational centers.

(c) Incentive features

The program will not offer additional salary to the untrained teacher to follow the advice of the leadership teams. But the program has built into it a mechanism for increasing the likelihood that teachers will wish to cooperate with the leadership teams, since the leadership teams will be a major identifying source for potential candidates for teacher training and the University's diploma and degree program, all of which offer upward mobility for the untrained teacher.

3. Recurrent Cost Implicationsa. Background

Unlike many other developing countries, Botswana is less likely to be constrained from expanding its educational system because of inadequate financial resources. The National Development Plan V (1979-85) indicates that public revenues will increase at an average real rate of 10.7 percent per annum over the plan period 1979-1985, primarily due to growth in the mining and livestock sectors. The government's total recurrent and capital expenditures on education are expected to increase in constant terms from P37.8 million in 1978-79 to P49.0 million in 1984-85, or 29.6 percent. As a percent of total government expenditures, the share devoted to education would increase from 19 percent to 22 percent respectively.

With the slow down in the rate of expansion of primary education between now and 1985, the Plan envisages that primary education will increase at less than the ten percent increase for the overall education sector. However, within the resources to be allocated to primary education, the funds allocated to curriculum development and teacher training will increase at substantially more than ten percent reflecting the government's priority assigned to qualitative improvements in these areas.

#### b. Impact of this Project on Long-Run Recurrent Cost

It is difficult to isolate this project's impact on the recurrent cost commitments of the Government of Botswana over the fifth plan period or into the next plan period. Many of the elements of the project have already been factored into the estimates contained in the fifth plan. This would include the planned expansion of the Teacher Training Colleges, the new University program in primary education, and the in-service teacher training programs.

While these programs have been taken into account in the development of the plan, many of the details of this particular project which affect cost were not known at the time the plan was put together. It would appear that when the various design features of the program as now envisaged are taken into account, the net result of these features is likely to reduce rather than increase planned recurrent cost. Therefore, it seems reasonable to conclude that the project will at worst have no impact on the recurrent cost commitments of the Government of Botswana and at best a slight decrease in the cost programmed in the plan. (See estimated GOB Expenditures for Life of Project, recurrent and capital cost breakdown, in Annex I.)

#### 4. Conclusion

The project has been carefully conceived to balance expected gains in learning achievement and improved efficiency against additional short-run and long-run recurrent costs. For a modest investment of under U.S. \$2.00 per child enrolled in school over the next ten to fifteen years, the project is likely to make a significant contribution to qualitative improvements in primary education in Botswana. The project will do this without adding significantly to the government's recurrent cost over and above what is already foreseen. Therefore, it seems reasonable to conclude that this project represents the most effective and least-cost option to achieve the government's objectives to improve pre-service and in-service teacher training within its planned budget constraint.

#### C. Social Analysis

This section summarizes the more detailed Social Analysis found in Annex G.

##### 1. Socio-Cultural Feasibility

The project addresses some key factors affecting an increase in the access, efficiency and relevance of primary education in Botswana. To

achieve the project purpose the UCB primary education program and the MOE in-service training program must be shown to be appropriate to circumstances in Botswana and effective. The programs are expected to be related to the real and practical Botswana situation. An indication of the effectiveness and appropriateness of the in-service component will be obtained by examining student performance in a sample of classrooms in which the teachers use the skills and knowledge acquired in the in-service program and in classrooms whose teachers have not attended the project-related in-service sessions. The development and implementation of the UCB primary education program and the in-service training component are designed to embrace the full participation of the GOB, key Botswana outside of government, and relevant foreigners who have many years of experience in-country.

The prevalence of untrained primary teachers has been shown to be significantly related to students' low achievement scores. Student achievement is also related to socio-economic background, although its influence decreases as a student advances through secondary school. There are substantial regional variations in student performance and the quality of the teaching staff. Approximately half of the primary teachers in large and small villages are untrained compared to about one-quarter of those teaching in district headquarters and two percent of the urban teaching force. The inequity between types of communities is further accentuated in pupil to trained teacher ratios. The project will give special attention to rural schools and to schools located in the large and small villages in order to upgrade teaching staffs.

As of 1980 free primary education exists in Botswana, thus there are few, if any, direct financial costs which prevent children from attending. However, other reasons contribute to lack of a primary education. Family labor requirements prevent many children, especially boys, enrolling or continuing in primary school. Also, children in the sparsely populated areas are disadvantaged due to distance to the nearest primary school. Thus, a household's level of poverty tends to be less significant than other factors in determining whether or not children in a particular household receive a primary education.

## 2. Spread Effect

The in-service component is designed to have a multiplier effect in an effort to extend the benefits of improved, effective teaching to a large number of primary school pupils. The in-service program will focus initially on Standards 1-4, eventually on all primary standards 1-7, because it is felt that this is the best strategy for providing a sound base of essential skills which will positively affect learning achievement in the higher grades, and thus reduce repetition, enrollment loss and per student cost. Further information on the spread effect strategy appears in Annex G.

## 3. Role of Women

More females attend primary school than do males. Females accounted for 55 percent of the 1979 total primary school enrollment, and 60 percent

of those in Standard 7. The ratio drops during secondary school, however, from 55 percent in Form 1 to 40 percent in Form 4. The drop-out of girls is mainly attributable to pregnancy and to low aspirations.

Females comprise about 71 percent of the total primary teaching force, but they are concentrated in the lower grades and many are untrained, i.e. they have never undergone a teachers' training course. Thirty-six percent of the 1979 primary teaching force were untrained: 23 percent of the males compared with 42 percent of the female primary teachers. Women however are increasingly enrolled in TTCs to receive their teaching certificates: 80 percent of the 1979 TTC students were female.

The project is expected to involve and positively affect women. First, since the in-service component will focus on Standards 1-4, it will reach females who are the largest group teaching at this level. Second, the admission of candidates for the diploma program and the Bachelor of Education in primary education program will encompass recruitment of persons who have already demonstrated outstanding abilities as primary school teachers: in this way it is expected that several women will be admitted into the degree program. Third, improvement of teaching in the TTCs, through provision of better trained tutors and modification of the TTC program, will positively affect females since they form a large majority of the students at TTCs. Fourth, improving the effectiveness and appropriateness of teaching in the primary schools will benefit the students, the majority of whom are girls.

#### 4. Beneficiaries

Among the direct project beneficiaries will be those who enter and graduate from the Diploma and Bachelor of Education programs in primary education. Approximately 80 are expected to graduate during the life of the project and thereafter approximately 25 per annum. Also, ten Batswana will receive training at the Master of Education level in the U.S. or an African country. Through in-service workshops and direct relationship with the UCB faculty of primary education, about 50 TTC tutors will be able to enhance their effectiveness in teaching and supervising students. In addition, about 414 head teachers, 414 deputy head teachers, 664 senior teachers and 35 inspectors will participate in in-service courses given by the project-related team. This is explained further in the social analysis in Annex G.

The project's direct beneficiaries are expected to positively affect 1,200-1,600 primary school teachers and about 50,000 students, the project's indirect beneficiaries. School teachers are expected to benefit from acquiring improved skills, and instructional materials from in-service courses given by leadership teams. Those in the TTC program will benefit indirectly from an improvement in teaching techniques and course content, and a more appropriate program. Overall the project is expected to impact upon primary school pupils by improving their academic performance and by relating their classroom experience more closely to their real environment.

## D. Administrative Analysis

### 1. Roles and Relationships

The Primary Education Improvement Project involves a cooperative effort among the Ministry of Education (MOE), University College of Botswana (UCB), the USAID funded contractor, and USAID. Each agency has certain unique tasks as well as responsibility for cooperating with and assisting the others with the development and implementation of selected activities.

#### a. Ministry of Education

The MOE has the overall responsibility for primary education in Botswana. This project will be coordinated by the Chief Education Officer (CEO), Primary Education. The United Teaching Service (UTS) is responsible for posting staff to the local districts and the release of staff for in-service education activities (short-term) and for further studies (long-term). The Curriculum Development and Evaluation Department has responsibilities for the following functions: development and implementation of the primary curriculum; examination development; research and testing; teaching aids production; and school broadcasting. The Department of Primary Teacher Training, under the direction of a CEO, is responsible for the Inspectorate of the primary schools, the Teacher Training Colleges, the Teacher Training Centers and the primary schools. The implementation of the project's in-service program will be a priority responsibility of the Primary Teacher Training Department in the MOE. The MOE will have a major responsibility for selecting participants who will return to fill MOE positions and will have a collaborative role with the University in facilitating participant training in the U.S. The development and reproduction of materials needed for the in-service program will also be an MOE responsibility.

#### b. University College of Botswana

The UCB is the locus for the development of the BEd program to prepare tutors who will staff the TTCs and provide professional personnel for the MOE including the inspectorate and head teachers. While this is a new undertaking for UCB, the University has had some prior involvement with primary education through its affiliated relationships with the three TTCs. In the affiliated relationship, UCB sets and moderates the Primary Teaching Certificate (PTC) examinations and participates in the supervision of practice teaching. The University makes awards of the PTC to successful candidates of the TTCs. UCB faculty have also participated in curriculum development and in-service activities in TTCs. The MOE and the UCB consult regularly on such matters as TTC admission regulations, syllabi, staffing, teaching organization and in-service activities for TTC tutors.

In the new BEd Primary Education Program, UCB will establish the Department of Primary Education, develop appropriate courses, set the admission procedures and award diplomas and degrees to successful candidates upon completion of the study programs. The program of studies for both the BEd degree and other non-degree programs will be developed

by the contractor and, in cooperation with appropriate faculty, draw as needed upon the resources of the MOE and the TTCs. UCB will participate in the selection of Botswana counterparts and facilitate their takeover of faculty responsibilities after completion of their training programs in the U.S. and an overlap period with the U.S. contract team.

c. The contractor

The contractor (IC) will provide five specialists, four of whom will serve as faculty members at UCB and one who shall be assigned to the MOE. The specialists attached to UCB shall have responsibility for providing leadership in the development of the primary education diploma and BEd programs. In addition to developing course syllabi, the specialists will assume teaching roles. Upon the return of the counterparts from training in the U.S., the U.S. specialists will work with the Botswana faculty in handing over responsibility for the primary education program. A concurrent responsibility for specialists situated at UCB is to participate in the development and implementation of the MOE in-service education program for personnel in primary schools.

The IC specialist assigned to the Department of Primary Teacher Training in the MOE will have a major responsibility for developing and implementing the in-service program for primary school personnel. This program will require the cooperation and active involvement of the several units in the MOE, the contractor specialists at UCB and the tutors at the TTC. The IC In-Service Specialist will work directly with the CEO for Primary Education and in a collaborative relationship with the CEO for Curriculum Development and Evaluation. Liaison will be maintained with UCB through the Dean of the Faculty of Education and the Chairman of the Department of Primary Education.

In cooperation with the MOE and UCB, the contractor will also facilitate the participant training program in its various phases of selection, training and assumption of on-the-job responsibilities. In addition, the contractor will provide library reference materials, teaching aids and other teaching/learning materials appropriate to the Primary Education Improvement Project. Short-term consultants will be provided as needed to implement the in-service and UCB tutor preparation programs.

The contractor's team leader will work directly with the MOE through the CEO for Primary Education and the CEO of the Curriculum Development and Evaluation Department. Liaison will be maintained with the UCB through the Dean of the Faculty of Education. Project staff assignments to in-service activities, teaching responsibilities and curriculum development are illustrative of the matters that will require administrative coordination by the contractor's team leader. Contract administration will require the team leader to maintain close working relationships with USAID/Botswana.

d. USAID/Botswana

The USAID project manager will be the Human Resources Development Officer (HRDO). He will remain in close contact with the contractor's team leader, the contract team and key MOE and UCB personnel. The HRDO

will be an ex officio member of the GOB Steering Committee (see following chart). The USAID Training Office will assist in preparing documentation required for project participants. The USAID Field Support Office will provide logistic support to the contractor similar to that provided to all other contract teams presently operating in Botswana.

## 2. Project Coordination

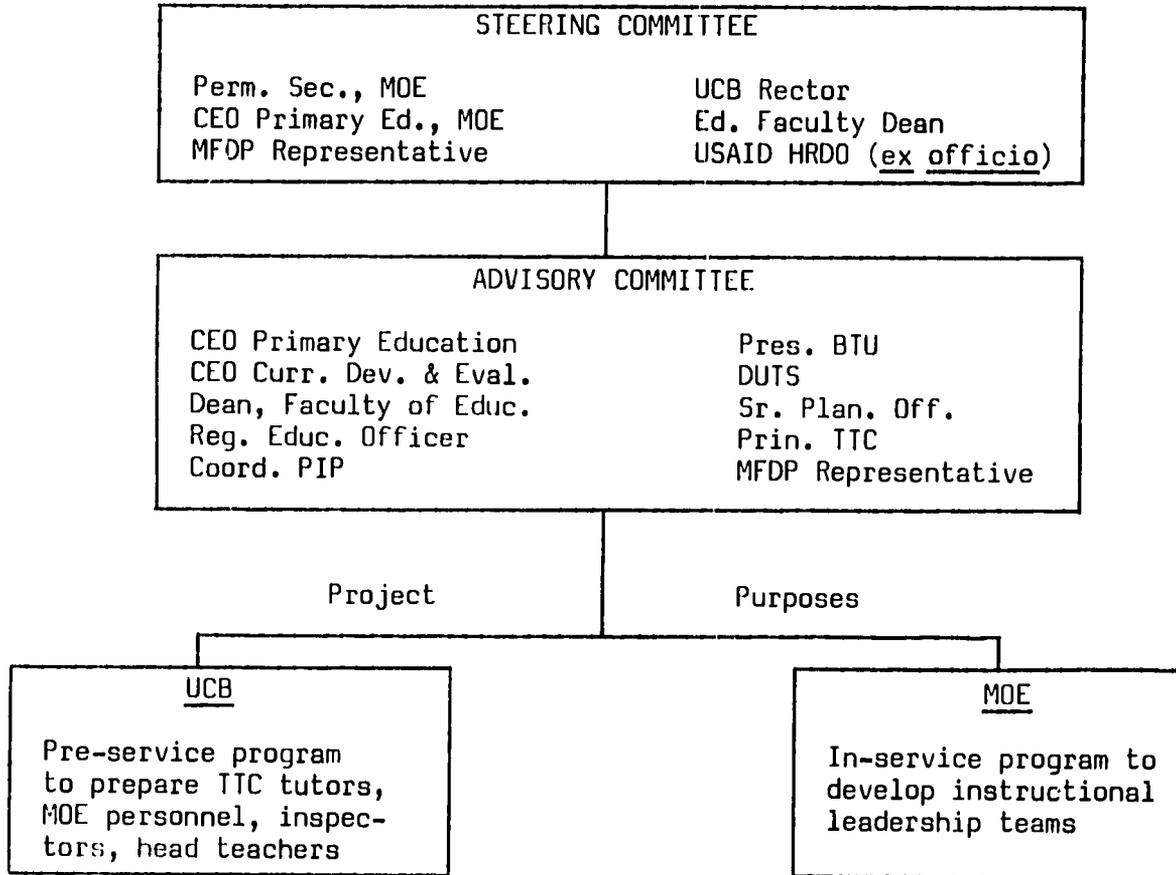
To achieve the project purpose of establishing a permanent capacity in the Ministry of Education and the UCB to provide appropriate and effective pre-service and in-service instructional programs to staff involved in primary education, effective means of project coordination will be established and maintained. The achievement of the goal of increasing the access, efficiency, and relevance of primary education must be viewed as a shared responsibility by the MOE and the UCB and their respective units and personnel. Because primary education has not been a part of the program of studies at UCB, past opportunities to develop working relationships with MOE in the arena of primary education have been limited. Concern has been expressed in several quarters about the ability and willingness of the MOE and UCB to cooperate closely in this area, given the University's high degree of independence and autonomy and the past tendency of these two educational entities in Botswana to pursue their separate paths. There has been considerable recent evidence, however, to indicate that both parties recognize that close coordination is essential to the attainment of the nation's top educational priority, and to that end appropriate working relationships are being developed. The first is the formation of a high level Project Steering Committee. The following chart shows the organizational structure for overall project coordination.

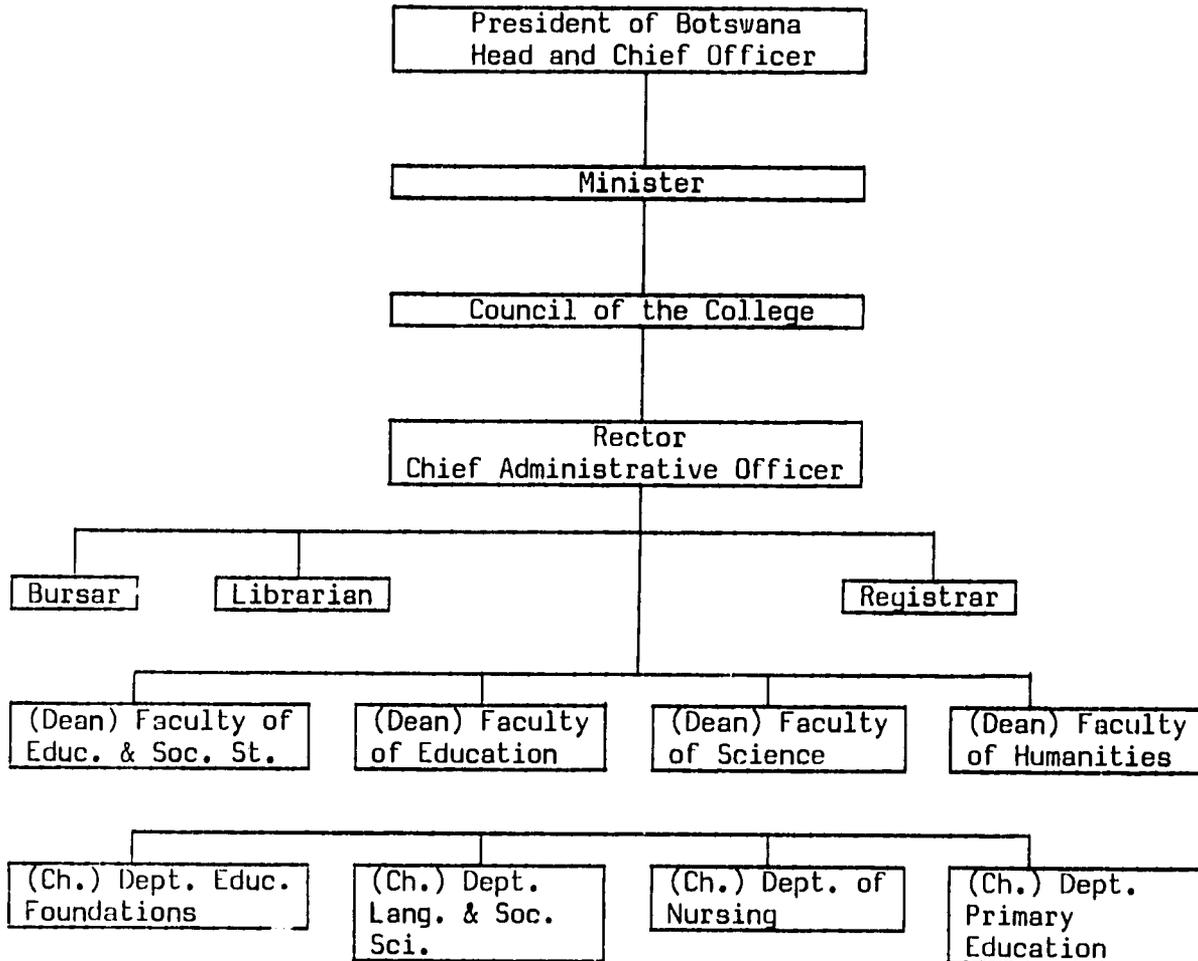
The Project Steering Committee, which has functioned during the project design period (approximately one and one half years), is composed of the Permanent Secretary and Chief Education Officer for Primary Education from the MOE, the Rector and Dean from UCB, a representative of the Ministry of Finance and Development Planning (MFDP), and the USAID Human Resources Development Officer. The Project Steering Committee has two functions:

- (1) to consider and act upon any overarching policy considerations relating to the project, and
- (2) to facilitate communication and cooperation among the MOE, the UCB, and the USAID institutional contractor. USAID will be represented on the committee as an ex officio member.

The Project Advisory Council, chaired by the CEO for Primary Education, is concerned with counsel and advice relating to the project's implementation. Its membership is composed of the CEO for Primary Education and the Teacher Training Colleges, the Dean of the Faculty of Education (UCB), the CEO for Curriculum Development and Evaluation, the Director of the Unified Teaching Service, a representative of the MFDP, the President of the Botswana Teachers Union, the team leader of the in-service project, the Senior Planning Officer, the Principal of Serowe TIC and an MOE Coordinator for the Primary Education Improvement Project. In addition to advising on the project's implementation, the Advisory Committee will facilitate

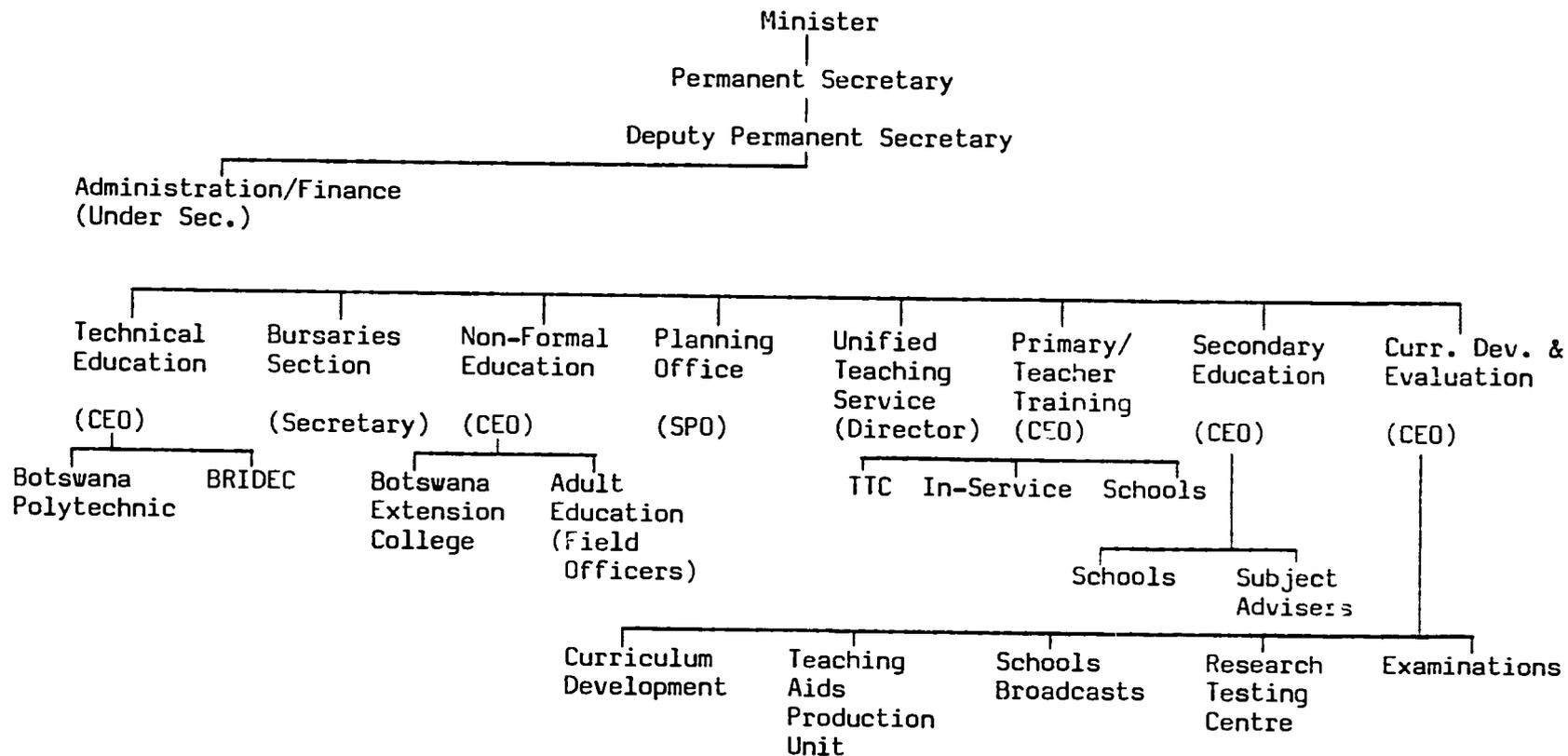
COORDINATION FOR THE PRIMARY  
EDUCATION IMPROVEMENT PROJECT



UCB ORGANIZATIONAL CHART

MINISTRY OF EDUCATION ORGANIZATIONAL CHART

(unofficial)



38

Created for OU/USAID Team  
from a plan by SPO

cooperation and communication among the units of the MOE and other agencies having a direct role to play in the improvement of primary education.

### D. Other Administrative Arrangements

This section of the paper has been devoted to institutional roles and relationships within the project and to project coordination. Other important administrative arrangements are covered elsewhere. The Project Implementation Plan (Section V of the paper) describes the method of selecting the U.S. contractor, the procurement plan and provisions for project evaluation. A detailed calendar of project events is also offered as Annex C. For procedure on contracting for the construction element, see Annex E.

### E. Environmental Concerns

An Initial Environmental Examination recommending a negative determination was submitted with the PID in January 1980 and approved in AID/W as part of the PID review process. Since this Project Paper proposes no significant design changes from the PID, no further environmental analysis is necessary. The IEE is attached to this paper as Annex O.

#### IV. FINANCIAL PLAN

##### A. Summary

The total budget for this project is \$11,014,000 of which AID contributes \$7,293,000 and the GOB \$3,820,000 or 33.8% of total project costs. Major components of the budget are as follows:

<u>AID</u>	(in \$000)	<u>GOB</u>
2,834	Technical Services	521
1,281	Technician Support	
454	Training	774
239	Commodities	82
715	Construction	906
-	Operations and Support	450
1,107	Inflation	650
663	Contingency	338
7,293	Total	3,721

The budget has been prepared in close cooperation with GOB officials. Project Paper team members and USAID/Botswana officers met twice with a top Ministry of Finance and Development Planning (MFDP) official to review the GOB project budget and recurrent cost implications. In addition an MFDP official worked with the team to prepare the project paper.

It is evident that the GOB fully recognizes the recurrent costs inherent in continuing the teaching programs to be developed under this project and has clearly demonstrated its willingness and ability to meet both capital and recurrent cost requirements attributed to the GOB in the project budget.

The GOB will bear a relatively heavy share of project expenses (33.8% of all costs and 61% of local costs). This reflects both the comparatively favorable financial position of the GOB and the high priority it assigns to this project.

In the following tables, details of both the AID and the GOB budget are provided. Supplementary financial information is offered in the form of back-up tables in Annex I.

##### B. ESTIMATED AID EXPENDITURES BY FISCAL YEAR (U.S. \$000)

	<u>FY81</u>	<u>FY82</u>	<u>FY83</u>	<u>FY84</u>	<u>FY85</u>	<u>Totals</u>
<u>Technical Assistance</u>						
<u>Long-term Advisors</u>						
1. Primary Education Adv. (curric. devel., supervision, admin.; Team Leader)	92	92	92	92	92	460

	<u>FY81</u>	<u>FY82</u>	<u>FY83</u>	<u>FY84</u>	<u>FY85</u>	<u>Totals</u>
2. Math/Science Adv.	92	92	92	92	92	460
3. Reading/Lang. Arts Adv.	92	92	92	92	92	460
4. Teaching English as a Second Language (TESL)	92	92	92	92	92	460
5. In-Service Training Adv.	92	92	92	92	92	460

Short-term Consultants

Evaluation Planner <sup>1/</sup> (Baseline study & Eval. execution)	7 p/m	18		36		36	90
Distance Teaching Spec.	4 p/m		12	24	12		48
Psychometrician (testing design)	4 p/m		24	24			48
Linguistics Specialist	8 p/m	24	24	24	12	12	96
Educ. Materials Devel.	6 p/m	18	18	18	18		72
Curriculum Devel.	5 p/m	12	12	12	12	12	60
In-Service Supervision and Administration	4 p/m	12	12	12	12		48
Unspecified Consul- tants	6 p/m		24	24	24		72
Sub-Total	44 p/m	84	126	174	90	60	534

Total Technical Assistance      544      586      634      550      520      2,834

Project support budget for  
5 long-term advisors out-  
side University contract      190      219      251      289      332      1,281

Training

2 yr MS degree program in U.S.  
for UCB Faculty of Education  
8 Botswana participants      80      80      80      80           320

2 yr MS degree program in U.S.  
for MOE, 2 Botswana participants      40      40                          80

Short-term U.S. and 3rd country  
courses, 6 participants x 3 mos.           18      18      18           54

Total Training      120      138      98      98           454

Construction (AID share =  
50% of construction costs)

Primary Education Unit

Classroom Block      29                               29  
Instructional Materials  
Block      62                               62

1/ Independent evaluator outside project institutional contract.

	<u>FY81</u>	<u>FY82</u>	<u>FY83</u>	<u>FY84</u>	<u>FY85</u>	<u>Totals</u>
Office Block	23					23
Total Basic Construction	114					114
Inflation - 18 mos. at 24% p.a.	46					46
Contingency 10%	<u>16</u>					<u>16</u>
Total AID share (50%)	176					176
<u>Hostel</u>						
84-bed hostel at Dec. 1980 prices	353					353
Inflation - 18 mos. at 24% p.a.	137					137
Contingency 10%	<u>49</u>					<u>49</u>
Total AID share (50%)	539					539
Total AID share of construc- tion costs, both units <u>1/</u>	715					715
<u>Commodities</u>						
Library periodicals	3	3	3	3	3	15
Books and Reference Materials - UCB		75				75
Books and Reference Materials - TTCs		18				18
Films, Filmstrips, Games, Kits, Teaching Aids	31					31
Audio-visual and Repro- duction Equipment	57					57
Repair and maintenace of Equipment		2	2	2	2	8
International Communica- tions	2	2	2	2	2	10
Consumable Supplies (for Workshops)	2	2	2	2	2	10
Office Supplies	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>15</u>
Total Commodities	98	105	12	12	12	239

1/ Architect/engineer's fee, supervision of construction and furnishings not included; these are to be funded entirely by GOB.

<u>SUMMARY</u>	<u>FY81</u>	<u>FY82</u>	<u>FY83</u>	<u>FY84</u>	<u>FY85</u>	<u>Totals</u>
<u>AID Budget Totals</u>						
Technical Assistance	544	586	634	550	520	2,834
Technician Support	190	219	251	289	332	1,281
Training	120	138	98	98	-	454
Construction	715	-	-	-	-	715
Commodities	<u>98</u>	<u>105</u>	<u>12</u>	<u>12</u>	<u>12</u>	<u>239</u>
Sub-Total (in 1981 prices)	1,667	1,048	995	949	864	5,523
Inflation (15% annually, compounded) <u>1/</u>	-	124	240	344	399	1,107
Cost with inflation added	1,667	1,172	1,235	1,293	1,263	6,630
Contingency 10%	167	117	124	129	126	663
Grand Total AID Costs	1,834	1,289	1,359	1,422	1,389	7,293

#### C. COMMODITY LIST AND BUDGET

##### Books for UCB and In-Service Use

Periodicals for library - 3,000 per year x 5	\$ 15,000
Reference books, education, subject areas	25,000
100 textbooks in each of 15 areas for reference, research, etc.	30,000
Specimen sets of primary school textbooks for workbooks for each subject area	20,000
Texts/References/Periodicals for each of 3 TTCs, 6,000 x 3	<u>18,000</u>
Total Books and Reference Materials	\$108,000

##### Teaching Aids

Filmstrips and films for each subject area	\$ 19,000
Games, kits, teaching aids, testing materials	<u>12,000</u>
Total Teaching Aids	\$ 31,000

##### Equipment

1 Minolta Copier (with capacity to produce overhead transparencies)	\$ 5,000
10 Overhead Projectors	5,000

1/ Excluding construction element which is pre-inflated at 24% p.a. for 18 month period, and technician support which is pre-inflated at 15% p.a. to clarify waiver presentation.

2 Printing Calculators	\$ 1,000
5 Carousel Slide Projectors	2,500
2 Portable Radios	500
4 16 mm Sound Movie Projectors	6,000
3 Record Players	1,000
5 Cassette Recorder-Players	1,000
3 Filmstrip Projectors	800
1 Liquid Duplicator (ditto)	700
4 regular Manual Typewriters	2,500
1 Electric Typewriter with interchangeable type balls	1,200
1 Electric Typewriter	1,000
1 primary Electric Typewriter	1,200
10 steel rolling Library Carts	2,000
20 boxes Overhead Transparencies	1,000
10 boxes Thermal Transparencies	1,000
3 Thermofax Reproducers	8,000
2 Portable Backpack TV Cameras	6,000
Video Playback Equipment and Accessories	3,000
50 Video Tapes	2,500
100 Cassette Tapes	600
Camera with frame for closeup photography	500
3 Honda Portable Generators @ 1,000	<u>3,000</u>
Total Equipment	\$ 57,000

Supplies, Maintenance and Communications

Consumable supplies for Teaching Aids and In-Service Workshops	\$ 10,000
General repair and maintenance of equipment, \$2,000 x 4 yrs	8,000
International communications, \$2,000/yr x 5 yrs	10,000
Office supplies, postage, paper etc., \$3000/yr x 5 yrs	<u>15,000</u>

Total Supplies \$ 43,000

Grand Total Commodities \$239,000

D. ESTIMATED GOB EXPENDITURES BY FISCAL YEAR (U.S. \$000)

	<u>FY81</u>	<u>FY82</u>	<u>FY83</u>	<u>FY84</u>	<u>FY85</u>	<u>Total</u>
<u>Technical Services</u>	104	104	104	104	105	521
<u>In-Service Education</u>	12	66	81	66	69	294
<u>Participant Training</u>	UCB (8)	22	58	76	92	355
(Salaries while in U.S. and full salaries of returned partici- pants assigned to project, international travel)	MOC (2)	-	35	18	36	125
<u>Support to U.S. Team</u>	30	10	10	10	10	70
Furniture (1st year), local travel & per diem						

	<u>FY81</u>	<u>FY82</u>	<u>FY83</u>	<u>FY84</u>	<u>FY85</u>	<u>Total</u>
<u>Vehicles</u>	50	8	8	8	8	82
Purchase (4), fuel and repair						
<u>Construction</u>						
50% of PEC and Hostel	400 <sup>2/</sup>	315 <sup>2/</sup>				715
Furnishings <sup>1/</sup>		86				86
Arch/Eng Fee <sup>1/</sup>	105					105
<u>Operations</u>						
Food for UCB Students	16	32	44	54	54	200
Maintenance of Hostel & PEC	16	16	16	16	16	80
<u>Other Costs</u>	20	20	20	20	20	100
(Supplies, secretarial services, printing etc.)						
<u>Total Base Costs</u>	775	750	377	406	425	2,733
Inflation - 15% compounded	-	49 <sup>3/</sup>	113	195	239	650
Contingency (10%)	<u>77</u>	<u>80</u>	<u>49</u>	<u>60</u>	<u>72</u>	<u>338</u>
<u>Grand Total GOB Costs</u>	852	879	539	661	790	3,721
AID Total Cost						7,293
Grand Total All Project Costs						11,014
GOB share as % of Total Costs						33.8%

<sup>1/</sup> Furnishings and fees for architect/engineer and supervision of construction apply to both hostel and Primary Education Center at UCB. Both will be financed entirely by the GOB. Actual construction costs of both units will be shared 50-50 by AID and the GOB.

<sup>2/</sup> Includes inflation of 18 months at 24% p.a.

<sup>3/</sup> 1981 is base year. Inflation allowed for 1982 is nominal (6%) since construction estimate is preinflated at 24% p.a. and salary levels are frozen from 1982.

E. SUMMARY OF PROJECT INPUTS (U.S. \$000)

	<u>AID</u>		<u>GOB</u>		<u>TOTAL</u>	
	<u>FX</u>	<u>LC</u>	<u>FX</u>	<u>LC</u>	<u>FX</u>	<u>LC</u>
Technical Services	2,834	-	-	521	2,834	521
Technician Support	-	1,281 <sup>1/</sup>	-	-	-	1,281 <sup>1/</sup>
Training	454	-	-	774	454	774
Commodities	139	100	-	82	139	182
Construction	-	715 <sup>2/</sup>	-	906 <sup>2/</sup>	-	1,621
Operations and Support	-	-	-	450	-	450
Total Base Cost	3,427	2,096	-	2,733	3,427	4,829
Inflation	1,073	34 <sup>3/</sup>	-	650	1,073	684
Contingency	450	213	-	338	450	551
Grand Total	4,950	2,343	-	3,721	4,950	6,064

<sup>1/</sup> Includes inflation at 15% p.a. compounded for clarification waiver request.

<sup>2/</sup> Includes inflation at 24% p.a. for 18 months.

<sup>3/</sup> Inflation for commodities only.

## V. IMPLEMENTATION PLAN

### A. Institutional Contractor

#### 1. Contracting Procedures

Ohio University has assisted USAID/B in the preparation of this Project Paper under terms of a Collaborative Assistance Agreement between USAID/W and Ohio University entered into as of September 1980. Subject to the acceptance of the Project Paper after AID/W review, and with the concurrence of the GOB, a contract will be negotiated with Ohio University as the Institutional Contractor (IC) to assist the GOB in implementing the project.

Two senior education officials from Botswana, one from the MOE and one from UCB, participated in the selection of Ohio University to assist in final preparation of the Project Paper. This included a visit in July-August 1980 to the Ohio University campus to hold discussions with appropriate officials and to gain perceptions of the institution's capability. It was agreed between the GOB and AID at that time that conditional on the preparation of a satisfactory final project design (PP) and contingent upon Ohio University presenting a cost for contract services acceptable to AID, Ohio University would be selected as the U.S. implementing institution under a Collaborative Assistance Agreement without competitive bidding.

#### 2. Contractor's Responsibility

The contractor will recruit and nominate specialists to fill positions that are provided for in the Project Paper. Nominations will be forwarded to USAID/Botswana for concurrence and reference to the relevant agency in Botswana. The IC will comply with all applicable AID regulations regarding personnel matters and will provide appropriate documents regarding compliance with equal opportunities requirements.

The IC will administer the contract through the College of Education of Ohio University. A project coordinator (the IC's Chief of Party) will serve as liaison with the contract officer of AID/W to recruit specialists for assignment to the project team, to bear responsibility for maintaining records as required for periodic audit, and to assure that fiscal procedures are consistent with institutional practices.

Teaching responsibilities of the U.S. team assigned to UCB will be established by the Dean of the College and the IC Chief of Party. The team's In-Service Adviser will be assigned to the MOE and will work directly for the CEO but will still be under the overall administrative guidance of the IC Chief of Party.

Participants for training in the U.S. and third countries will be selected by the MOE and/or UCB in consultation with USAID/B and the project team. Institutions for training will be selected to assure that the training to be provided is of high academic and technical quality.

A period of overlap will be provided to assure that participants who return from training will be appropriately oriented to the positions which they are assuming. The overlap period will not usually exceed three months after which the project team specialist will assume other project duties or be phased out.

#### B. Construction

Construction of the Primary Education Center and the hostel at UCB will be done by a private local contractor under GOB contract. After considerable negotiating with the GOB, it was agreed that AID and the GOB would share funding responsibility for construction, since this represented relatively high capital costs at the beginning of the project. AID and GOB will each finance 50% of the construction costs of the Primary Education Center (PEC) and an 84-bed student hostel required by the expanded enrollment at UCB under this project. The AID and GOB share of construction costs, including inflation and contingency, comes to \$715,000 each. The GOB will supply furnishings for both the hostel and the learning center as well as architect/engineer fees for both units. U.S. financing of their share of construction costs will be under the Fixed Amount Reimbursement (FAR) method of payment.

Justification for construction, cost estimates, building specifications and contracting procedure are described in detail in the Engineering Analysis, Annex E.

#### C. Procurement

Except for building materials, which will be purchased by the GOB as their contribution to construction costs, procurement is a relatively small part of this project. Commodities totalling \$239,000 can be grouped into three main categories: (1) books/references/periodicals for UCB and the TTCs; (2) audio-visual equipment and teaching aids; (3) supplies, maintenance and communications. The four vehicles to be acquired for the project will be bought by the GOB as part of its contribution, since these vehicles will all be of non-U.S. source and origin. The GOB budget will also cover fuel and vehicle maintenance.

Books and periodicals, film strips, games and testing materials will be purchased from the U.S. through the project's Institutional Contractor. Small equipment such as duplicators, typewriters, calculators, cassette recorders, movie and overhead projectors, and related supplies (film, tapes, paper, etc.) will be purchased from South Africa through local suppliers. While many of these articles may be bought in Botswana as shelf items, waiver provisions are made in Annex L for procurement in South Africa.

#### D. Schedule of Project Events

An action calendar spanning the entire five year life of the project has been prepared by the PP team and is attached as Annex C. While some actions are illustrative and dates in many cases must be regarded as highly tentative, the sequence of events may provide a useful guide to the U.S. and GOB implementors and evaluators of the project.

## E. Evaluation Plan

Evaluation is an important aspect of this project and several different types and levels of project assessment are planned. Evaluation elements include a baseline survey, annual internal reviews and two formal external evaluations.

### 1. Evaluation Design/Baseline Survey

During the first few weeks of the project, an independent short-term consultant, preferably the external evaluator, provided outside the University contract probably under a separate IQC, will develop in cooperation with the participating agencies a comprehensive evaluation design and collect relevant baseline data. The evaluation design will identify the specific project objectives to be sought and evaluated, the data which must be collected to assess the attainment of objectives and the procedures by which the data will be analyzed. Sources of baseline data include records maintained by the MOE, the Office of National Statistics and the UCB. Additional baseline data may be gathered through the use of questionnaires with specific population groups, and administration of student achievement tests and attitude surveys, and interviews with selected individuals. Baseline data will be used for comparative purposes at the points of the mid-term and final evaluations.

### 2. Annual Project Evaluation Summary (PES)

Progress under the project will be reviewed annually by the USAID Human Resources Adviser with the cooperation of the institutional contract team and appropriate UCB, MOE and MFDP officials. To provide an independent judgment, a REDSO/EA specialist may be asked to participate. The internal project evaluations will seek to ensure that the implementation efforts are directed toward the achievement of project purposes and outputs. These annual evaluations will examine both project progress toward the achievement of outputs and the performance of the participating parties in meeting project commitments and requirements. Action to resolve any identified problems will be an outcome of these evaluations. Each September during the life of the project, the project staff will prepare a work plan for the ensuing year. After formal review and approval by the MOE, UCB, MFDP and USAID/B, the work plan will form the basis for the coming year's operation beginning in October and, at the same time, provide a benchmark for the subsequent annual evaluation.

### 3. External Evaluations

External independent examinations will be conducted at approximately the project's mid-point (1983) and its conclusion (1986). The mid-term evaluation is timed to coincide with the completion of major developmental activities in the in-service education program delivery system, the UCB pre-service program and the participant training program. The external mid-term evaluation will examine the project's concept and implementation in relation to project goals, purposes, and outputs. It will be treated as a formative assessment, and its recommendation could form the basis of directional changes in the second half of the project. For example, if a fifth teaching position at UCB is deemed to be needed, another

long-term team member could be added at that time with a possible corresponding reduction in short-term consultants. It is expected that any additions introduced at that time could be financed under the contingency item in the Project Budget. Any major changes would require amendments to the Project Paper and Grant Agreement.

The end-of-project evaluation in 1986 will assess the achievement of the project as a whole. Both of the external evaluations will comprise 2-3 member contract teams and might also include a member from AID/W (AFR or DSB) and/or REDSO/EA. Funds are provided in the project budget for the two external evaluations.

#### F. Conditions, Covenants and Negotiating Status

The Project Authorization will contain the following conditions precedent to disbursement of AID funds for construction: (1) final plans, specifications and bid documents for construction; (2) signature samples; (3) an executed contract for such construction with a firm acceptable to AID; and (4) evidence that appropriate land has been set aside for the site of the PEC and student hostel.

In addition the GOB will covenant the following actions for their part to facilitate project implementation:

- (1) to make available qualified candidates for long-term academic training in the U.S. and to ensure by bonding or other means that such trainees are assigned upon their return to suitable positions within the Ministry of Education or the UCB and required to carry out assignments related to activities under this project, unless AID otherwise agrees in writing. Following normal GOB regulations the period required of service will be at least equal to the duration of the training financed under the project;
- (2) that the equipment and motor vehicles procured under the project will be exclusively used for project activities, unless AID otherwise agrees in writing;
- (3) that, pending construction of the PEC, the University will provide suitable temporary office space to the U.S. team assigned to the UCB;
- (4) that, pending construction of the hostel, the UCB will provide housing at UCB for students enrolled in the primary education program; and
- (5) to provide permanent technician housing for two U.S. team members assigned to the UCB and one U.S. team member assigned to the MOE.

Conditions and covenants have been discussed with MOE, UCB and Ministry of Finance and Development Planning (MFDP) officials of the GOB during the Project Paper design. GOB involvement in the preparation of the project has been very broad and deep. Relevant senior officials

of the MOE, UCB and MFDP have been thoroughly briefed and fully support the project. The PP team from Ohio University, which will also supply the U.S. implementation team, spent six weeks in Botswana and had an extremely intensive orientation to the primary education system in Botswana, which included visits to UCB, all three Teacher Training Colleges, as well as numerous primary and secondary schools. Contacts and interviews with over 200 people were recorded and are listed as Annex J.

Substantive issues arising between the PP team and GOB and AID officials and advisers during the project design period were all resolved satisfactorily and the views expressed by various MOE and UCB officials on the nature of pre-service and in-service training to be conducted under the project have been taken into account in this paper.

GLOSSARY OF TERMS

AID: See USAID

AID/W; USAID, Washington D.C. headquarters

BEd program: Bachelor of Education degree program to prepare persons for leadership positions in primary education.

Batswana: The people of Botswana (singular is Motswana)

Botswana: The country

Cambridge Overseas School Examination: Examination given at end of Form 5 ordinarily. Represents Cambridge "O" levels. First or second division pass qualifies for university admission.

CD&E: Curriculum Development and Evaluation

CDU: Curriculum Development Unit

Curriculum Studies: The area of the BEd program dealing with teaching methodologies.

Deputy Head Teacher: The assistant to the person in charge of a primary (elementary) school. Usually involves teaching as well as administrative duties.

Diploma Program: A two-year program at UCB to upgrade the job skills and knowledge of persons in the education sector for whom the BEd program is impractical or inappropriate.

Distance Teaching: Use of TV, radio or correspondence courses for instruction and in-service education.

Educational Foundations: The area of the BEd program dealing with the psychology, philosophy, sociology and history of education; child growth and development; statistics, evaluation and tests and measurements.

Form: Forms 1 through 5 correspond to Grades 7 through 12 in the U.S. The equivalent of Form 6 (English "A" levels) is the first year of university in Botswana.

GOB: Government of Botswana

Head Teacher: The person in charge of a primary (elementary) school. In small schools the position includes teaching as well as administrative duties. In larger schools the head teacher is a non-teaching position.

IC: Institutional Contractor

In-service: Short-term educational conferences, seminars, workshops for which participants are temporarily excused from their teaching responsibilities.

Inspectorate: The branch of the MOE having responsibility for inspection of the primary schools and the operation of the Teacher Centers.

Internship: The third year of study in the BEd program for less experienced students in a TTC.

Junior Certificate: The award made for successful completion of the examinations given at the end of Form 3 (Grade 9). Many positions in the public sector in Botswana require the Junior Certificate as the basic level of educational attainment. A requirement for continuation to Forms 4 and 5 (senior U.S.) is successful completion of this examination.

MOE: Ministry of Education

Motswana: One Botswana national

NCE: National Commission on Education

NDP: National Development Plan

Participant Trainee: Botswana participant in an AID sponsored training program.

PEC: Primary Education Center, to be constructed by USAID at UCB.

PEIP: Primary Education Improvement Project

Pilot School: A school designated by Ministry of Education for experimental use of the new primary education curriculum. At present the new curriculum for Standards 1 and 2 is being used experimentally in these schools.

Primary School Leavers Certificate: The award made for successful completion of the examinations given at the end of Standard 7 (Grade 7). A requirement for continuation in the educational system in Botswana is the successful completion of this examination.

PIC: Primary Teaching Certificate, awarded by UCB to successful TTC candidates.

PTT: The department of Primary Teacher Training in the MOE.

REDSO/EA: AID Regional Economic Development Services, East Africa (located in Nairobi, Kenya).

SAMDP: Southern Africa Manpower Development Program

Senior Teacher: A trained experienced teacher in a primary school. Senior Teachers often assume some responsibility for assisting untrained teachers within their particular school.

Standard: The equivalent of a grade level. Standard 1 equals Grade 1. The primary school is comprised of Standards 1-7 (Grades 1-7).

Subject Matter Content: That area of the BEd program dealing with knowledge and understanding of one's teaching subjects.

Trained Teacher: Holds at least a certificate from a TTC.

TTC: Teacher Training College. Botswana has three such 2 year training institutions for the preparation of primary school teachers. They are located at Francistown, Serowe, and Lobatse.

TTC Tutor: One who teaches in a Teacher Training College, i.e. a teacher trainer.

UCB: University College, Botswana

USAID: United States Agency for International Development

USAID/B: USAID in Botswana

UTS: Unified Teaching Service

Untrained Teacher: Does not hold a certificate from a TTC.

PROJECT DESIGN SUMMARYLOGICAL FRAMEWORK

Project Title & Number: Botswana Primary Education Improvement (633-0222)

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><b>GOAL:</b></p> <p>To assist the GOB to increase the access, efficiency and relevance of primary education.</p>	<p>Increased numbers and percentages of primary school age children attending primary school.            Students completing additional years of primary education.            Increased scores on Primary School Leaver's Examination (PSLE).            Better qualified primary education teaching and supervisory personnel.            Increasing numbers of students and higher achievement at the Junior Secondary level.</p>	<p>MOE national primary school statistics; Standard 6 &amp; 7 and JC test score results.</p>	<p>Development of Primary Education remains a top priority with the GOB.</p>
<p><b>PURPOSE:</b></p> <p>1) To establish a permanent capacity at Univ. College of Botswana (UCB) to provide an appropriate and effective 4 year Bachelor of Education program and a 2 year diploma program in Primary Education.            2) To strengthen the capacity of the Min of Education, in cooperation with the UCB to organize and implement appropriate and effective in-service programs for supervisory staff and teachers</p>	<p>1) The operation of a Department of Primary Teacher Education in the Faculty of Education at UCB for preparation of TTC tutors, primary head teachers and inspectors.            2) The existence and functioning of Interagency committees coordinating UCB and MOE efforts in in-service education and curriculum development.            3) A majority of the primary teacher education faculty at UCB will be Batsvana by 1985.            4) Seventeen Batsvana students will</p>	<p>UCB records and reports; Project evaluations; MOE records and evaluation of in-service program.</p>	<p>The supply of input-level primary teachers will be adequate over the next few years to meet the demands of an expanding primary school system.            Better career opportunities provided to primary school educators through the UCB degree program will enhance the prestige of primary education as a career and will</p>

continued

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
involved in primary education.	<p>graduate from UCB with BEd degrees in primary education each year beginning in 1984. Eight Batswana supervisors, inspectors, head teachers, deputy heads, senior teachers etc. will receive education diplomas each year beginning in 1983.</p> <p>5) Head teachers, deputy heads, senior teachers in 400 schools will have completed in-service programs aimed at improving instructional practice in the primary schools.</p> <p>6) Library holdings and instructional resources in primary education will have been increased many-fold at UCB, at TTCs and at Training Center sites.</p> <p>7) Improvement in student performance resulting from teacher use of methods learned at in-service workshops.</p>		attract larger numbers of better qualified candidates.
<b>OUTPUTS:</b>	<p>Classrooms, offices, hostel constructed. Teaching program in full operation.</p> <p>17 graduates per year with BEd degree. Most early graduates will staff teacher training colleges.</p> <p>8 graduates per year with Diploma in primary education.</p> <p>10 participants trained to the MS level working in Botswana.</p>	<p>GOB and REDSO engineering inspections; MOE in-service records; UCB records for Primary Education Report; Project evaluations; Reports of U.S. university contractor;</p> <p>Academic records of Batswana participants</p>	<p>Head teachers and senior teachers receiving in-service training under the project will in turn effectively pass on their newly learned teaching techniques to individual teachers serving under them in primary schools throughout the country. GOB (MOE and local government authorities) will distribute requisitioned teaching materials, books and supplies to</p>

continued

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>education to replace U.S. project staff (localization).</p> <p>5) Institutional base established for systematic and effective in-service training of head teachers, deputy head teachers and senior teachers at 480 primary schools.</p>	<p>7 others trained under SAMDP project to BS and MS levels.</p> <p>100-150 head teachers, deputy head teachers and senior teachers completed in-service training. 500 primary school teachers from 250 schools receive in-service training provided by 25 leadership teams.</p>	<p>in MS program at U.S. university.</p>	<p>primary schools, especially rural schools on a timely basis. GOB will assign participants returning from U.S. with MS degrees to appropriate positions in MOE, UCB, and the TTCs.</p>
<u>INPUTS:</u>			
<u>A. AID Contribution</u>			
Technical Assistance			
<p>Long-Term Advisors</p> <ol style="list-style-type: none"> <li>1. Primary Education Adv. (curric. devel., supervision, admin; Team Leader)</li> <li>2. Math/Science Adv.</li> <li>3. Reading/Lang. Arts Adv.</li> <li>4. Teaching English as a Second Language (TESL)</li> <li>5. In-Service Training Adv.</li> </ol>	\$2,300,000	<p>MOE and UCB records; Building contractor records; Commodity supplier invoices, bills, and receipts; Progress reports by U.S. university contract team and short-term consultants; PEC and outside project evaluations.</p>	<p>U.S. university contractor will be able to furnish the long-term advisors and consultants required on a timely basis. GOB will be able to identify and release qualified participants as scheduled for long-term training in U.S.</p>
Short-term Consultants, 44 p/m	\$ 534,000		
Technician Support	\$1,281,000		
Training			
<p>10 Botswana participants to U.S. for 2 year MS degree in Primary Education</p>	\$ 400,000		
<p>Short-term courses in U.S. and third countries, 18 p/m</p>	\$ 54,000		

continued

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Commodities	\$ 239,000		
Books, reference materials	(108,000)		
Instructional aids and equipment	( 88,000)		
Supplies	( 43,000)		
Construction			
50% of costs of PEC and hostel	\$ 715,000		
Inflation (15% compounded annually)	\$ 1,107,000		
Contingency (10%)	663,000		
Total AID Budget	\$ 7,293,000		
<b>B. <u>GOB Contribution</u></b>			
Technical Services	\$ 521,000		
In-Service Education	294,000		
Participant Training	480,000		
Support to U.S. Team	70,000		
Vehicles	82,000		
Construction	906,000		
Operations	280,000		
Other Costs (supplies, printing, clerical costs)	100,000		
Inflation	650,000		
Contingency	338,000		
Total GOB Budget	\$ 3,721,000		
Grand Total Project Budget	\$11,014,000		
GOB share	33.8%		

PROPOSED SCHEDULE OF EVENTS

<u>DATE</u>	<u>MAJOR ACTION</u>	<u>RESPONSIBLE ORGANIZATION</u>
December 1981	PP completed	PP team, USAID/B, GOB
January 1981	PP submitted to AID/W	USAID/B
February 1981	PP reviewed and authorized	AID/W
March 1981	First participant trainee departs (SAMDP)	UCB, USAID/B
	Project Grant Agreement negotiated and signed	USAID/B, GOB
April 1981	CP's satisfied	GOB
	Architect contracted for design of Primary Education Complex (PEC)	GOB
May 1981	Final drawings for PEC approved	GOB
	Tenders issued for construction of PEC	GOB
	AID/W signs contract with U.S. institution	USAID/W, IC (IC=Institutional Contractor)
June 1981	Two additional trainees depart (SAMDP)	USAID/B, GOB
July 1981	Team Leader arrives on post	IC
	Four vehicles ordered and delivered	GOB
August 1981	Three project participants depart for training in U.S.	IC, GOB, USAID/B
	Intake of 30 students for degree and diploma programs at UCB	UCB, MOE, IC
	Four remaining members of U.S. team arrive on post	IC
	External evaluator for baseline data on post (6 weeks duration)	AID/W, USAID/B
September 1981	External evaluator departs	AID/W, USAID/B
	Contract awarded for PEC construction	GOB
September-December 1981	Planning for in-service and pre-service programs	IC, UCB, MOE, TTC

<u>DATE</u>	<u>MAJOR ACTION</u>	<u>RESPONSIBLE ORGANIZATION</u>
October 1981	Construction contractor mobilization (est. const. period 14 months)	GOB, Const.
	Local purchase of commodities in process	IC
November 1981	Commodities ordered from U.S.	IC
	Furniture for classrooms, hostels, offices ordered	GOB
December 1981	In-service workshop for Inspectors	IC, MOE, UCB, TTC
January-March 1982	In-service workshops <u>Phase I</u> (3 weeks duration) for head teachers/deputies, sr. teachers in first group of 20 model schools	IC, MOE, UCB, TTC
January-April 1982	Completion of program components for second year of 2 year diploma course	UCB, IC
January 1982	Short-term TESL specialist arrives for workshops and consultation	IC
April 1982	Midpoint of construction of PEC	Const. Contractor, GOB
April-June 1982	Follow-up and evaluation in 20 model schools of in-service workshops	IC, MOE, UCB
June 1982	Short-term TESL specialist departs	IC
	Participant in TESL (short-term) departs	USAID/B, GOB, IC
	In-service workshop for Inspectors	IC, MOE, UCB, TTC
June-August 1982	Teacher Education Conference at UCB for TTC tutors (2 weeks)	IC, TTC, UCB, MOE
	In-service workshops <u>Phase II</u>	IC, MOE, UCB, TTC
August 1982	Four project participants depart for training in U.S.	IC, USAID/B, GOB
	Two SAMDP participants return and phase into instruction at UCB	USAID/B, UCB, GOB
	Participant in TESL (short-term) returns and is assigned to MOE	IC, USAID/B, MOE
	Intake of 30 students for degree and diploma programs at UCB	UCB, MOE, IC

<u>DATE</u>	<u>MAJOR ACTION</u>	<u>RESPONSIBLE ORGANIZATION</u>
August 1982	Commodities ordered from U.S. arrive	IC
September 1982	Short-term media specialist on post	IC
	Educational materials participant (short-term) departs	IC, GOB, USAID/B
September- November 1982	Planning conference in the field with new Leadership Teams (3 days each) in-service	IC, MOE, UCB, TTC
November 1982	Completion of construction of PEC	Const. Contractor, GOB
	Furniture for hostel, classrooms, offices delivered	GOB
December 1982	Move primary education program into PEC	IC, UCB, MOE
	Hostel available for 84 students	UCB, MOE
	Teacher Education Conference at UCB for TTC tutors (2 weeks)	IC, TTC, UCB, MOE
	In-service workshop for Inspectors	IC, MOE, UCB, TTC
	One project participant departs for training	IC, USAID/B, GOB
December 1982	Educational materials participant (short-term) returns and is phased into work in PEC media center at UCB	IC, UCB
	Yearly project evaluation initiated and completed	USAID/B, IC, MOE, UCB, TTC
January- March 1982	In-service workshops, <u>Phase III</u> . 6-8 workshops each of 3 weeks duration for head teachers/deputies, sr. teachers	IC, MOE, UCB, TTC
January 1983	Distance Teaching Specialist (short-term) arrives	IC
March 1983	Media specialist (short-term) departs	IC
May-June 1983	Follow-up and evaluation of in-service work (10 weeks)	IC, MOE, UCB, TTC
June 1983	Evaluation specialist (short-term) arrives	AID/W, USAID/B
	Midterm evaluation by external evaluator	AID/W, USAID/B

<u>DATE</u>	<u>MAJOR ACTION</u>	<u>RESPONSIBLE ORGANIZATION</u>
June	1983 Schools broadcasting participant (short-term) departs	IC, USAID/B, GOB
	Distance teaching specialist (short-term) departs	IC
	Eight diploma students in primary education complete course	UCB, MOE, IC
	In-service workshop for Inspectors	IC, MOE, UCB, TTC
August	1983 Teacher Education Conference at UCB for TTC tutors (2 weeks)	IC, TTC, UCB, MOE
	Three participants complete training in U.S. One phased into instruction at UCB, one phased in at MOE.	IC, GOB, USAID/B
	Intake of 30 students for degree and diploma programs at UCB	UCB, MOE, IC
	Project evaluation specialist (short-term) departs	AID/W, USAID/B
	Schools broadcasting participant (short-term) returns	IC, USAID/B, GOB
	Two project participants depart for training in U.S.	IC, USAID/B, GOB
November	1983 Completion of program components for years 3 and 4 of BEd program	UCB, IC
December	1983 Teacher Education Conference at UCB for TTC tutors (2 weeks)	IC, TTC, UCB, MOE
	In-service workshop for Inspectors	IC, MOE, UCB, TTC
	Yearly project evaluation initiated and completed	USAID/B, IC, MOE, UCB, TTC
January-March	1984 In-service workshops, <u>Phase I</u> . 6-8 workshops each of 3 weeks duration for head teachers/deputies, sr. teachers in second group of 20 model schools	IC, MOE, UCB, TTC
January	1984 Supr./Adm. Specialist (short-term) arrives	IC
	Curriculum Dev. participant (short-term) departs	IC, USAID/B, MOE

<u>DATE</u>	<u>MAJOR ACTION</u>	<u>RESPONSIBLE ORGANIZATION</u>
March 1984	Curriculum Dev. participant (short-term) returns and phases into MOE	IC, USAID/B, MOE
April-June 1984	Follow-up in second group of 20 model schools (10 weeks)	IC, MOE, UCB, TTC
June 1984	In-service workshop for Inspectors	IC, MOE, UCB, TTC
	Eight diploma students complete course	UCB, MOE, IC
	Supr./Adm. specialist (short-term) departs	IC
	Supr./Adm. participant (short-term) departs	IC, USAID/B, MOE
August 1984	Teacher Education Conference at UCB for TTC tutors (2 weeks)	IC, TTC, UCB, MOE
	Intake of 30 students for degree and diploma programs at UCB	UCB, MOE, IC
	Four participants complete training in U.S. and return. Three phased into instruction at UCB, one phased into MOE.	IC, USAID/B, GOB
	Supr./Adm. participant (short-term) returns	IC, USAID/B, MOE
September-November 1984	Planning Conferences in the field (3 days each) with 6-8 new in-service Leadership Teams	IC, MOE, UCB, TTC
December 1984	One participant completes training in U.S. and returns. Is phased into instruction at UCB.	IC, USAID/B, GOB
	Teacher Education Conference at UCB for TTC tutors (2 weeks)	IC, TTC, UCB, MOE
	In-service workshop for Inspectors	IC, MOE, UCB, TTC
	Yearly project evaluation initiated and completed	USAID/B, IC, MOE, UCB, TTC
January-March 1985	In-service workshops, <u>Phase II</u> . 6-8 workshops each of 3 weeks duration for head teachers/deputies, sr. teachers	IC, MOE, UCB, TTC
January 1985	Curriculum specialist (short-term) arrives	IC
	Evaluation participant (short-term) departs	IC

<u>DATE</u>	<u>MAJOR ACTION</u>	<u>RESPONSIBLE ORGANIZATION</u>
March 1985	Evaluation participant (short-term) returns	IC, USAID/B, GOB
April-June 1985	Follow-up and evaluation in schools - in-service	IC, MOE, UCB, TTC
June 1985	Curriculum specialist (short-term) departs	IC
	In-service workshop for Inspectors	IC, MOE, UCB, TTC
	Seventeen BEd primary graduates complete course at UCB	UCB, MOE, IC
	Eight diploma in primary education students complete course	UCB, MOE, IC
August 1985	Intake of 30 students for degree and diploma programs at UCB	UCB, MOE, IC
	Teacher Education Conference at UCB for TTC tutors (two weeks)	IC, TTC, UCB, MOE
	Two participants return from training in U.S. and phased into instruction at UCB	IC, USAID/B, GOB
September-December 1985	Planning conferences in the field (3 days each) for 6-8 new in-service Leadership Teams	IC, MOE, UCB, TTC
December 1985	Teacher Education Conference at UCB for TTC tutors (2 weeks)	IC, TTC, UCB, MOE
	In-service workshop for Inspectors	IC, MOE, UCB, TTC
	Yearly project evaluation initiated and completed	USAID/B, IC, MOE, UCB, TTC
January-March 1986	In-service workshops, Phase III. 6-8 workshops each of 3 weeks duration in third group of model schools for head teachers/deputies, sr. teachers	IC, MOE, UCB, TTC
April-June 1986	Follow-up and evaluation in third group of model schools (10 weeks)	IC, MOE, UCB, TTC
June 1986	In-service workshop for Inspectors	IC, MOE, UCB, TTC
	Seventeen BEd Primary graduates complete course at UCB	UCB, MOE, IC
	Eight diploma in primary education students complete course	UCB, MOE, IC

<u>DATE</u>	<u>MAJOR ACTION</u>	<u>RESPONSIBLE ORGANIZATION</u>
August 1986	Intake of 30 students for diploma and degree programs at UCB	UCB, MOE, IC
	All UCB primary education degree and diploma courses staffed by Batswana returned participants	UCB, IC, MOE
	Three members of U.S. team depart	IC
	Evaluation specialist (short-term) arrives	AID/W, USAID/B
	Teacher Education Conference at UCB for TTC tutors (2 weeks)	IC, TTC, UCB, MOE
September 1986	Final project evaluation by external evaluator completed	AID/W, USAID/B
	Evaluation specialist (short-term) departs	AID/W, USAID/B
	Final contract team personnel depart	IC
	Project assistance completion Date PACD	IC

JOB DESCRIPTIONS

Team Leader and Specialist in Curriculum and Supervision

Qualifications: An earned doctorate and experience in teaching at a variety of levels - primary and tertiary. Experience in administration of educational projects in developing countries desirable.

Duties:

To administer the contract between AID/W and Ohio University in conjunction with AID/B.

To maintain liaison with the contracting university.

To maintain liaison with the appropriate units in the MOE and UCB.

To serve as a consultant on primary education to the MOE and UCB.

To serve as coordinator/supervisor of all project funded personnel and project activities including participant training, the activities of short-term consultants and the ordering of commodities.

To coordinate all project funded research projects.

To facilitate the work of the In-Service Specialist in implementing in-service activities at UCB and through the MOE.

To supervise the Teaching Practice of Primary Education students at UCB in cooperation with the Dean of the Faculty of Education.

To assist in teaching responsibilities at the fourth year level in the areas of Administration, Curriculum, and Supervision.

In-Service Education Specialist

Qualifications: An earned doctorate and experience in teacher education at various levels. Experience in educational administration/supervision desirable. Experience in positions requiring coordination between educational agencies desirable.

Duties:

To serve as a member of the Project Advisory Council.

To assume leadership responsibility and to organize and implement the in-service workshops for inspectors, head teachers/deputies, senior teachers and TTC tutors.

To share responsibility for the preparation of materials and the arrangements for these workshops.

To provide direction and coordination to the instructional leadership teams developed through the in-service workshops and to conduct necessary follow-up activities with them.

To initiate and facilitate the cooperative involvement of all appropriate agencies in the planning and implementation of in-service workshops.

Reading/Language Arts Specialist

Qualifications: Earned doctorate with specialization in the teaching of developmental and remedial reading and language arts subjects. Primary and tertiary teaching experience required.

Duties: Class instruction, committee work, supervision of teaching practice at UCB. Curriculum development in the reading/language arts areas at UCB. Establishment of a reading improvement center for the use of university students. Development of materials for and participation in in-service activities for head teachers/deputies, senior teachers, TTC tutors sponsored jointly by UCB, MOE, and the project. Research treating the state and needs of reading instruction in Botswana.

Math/Early Childhood Education Specialist or Math/Science Specialist

Qualifications: Earned doctorate with specialization in the teaching of primary school mathematics and either early childhood education or science. Primary and tertiary teaching experience required.

Duties: Class instruction, committee work, supervision of teaching practice at UCB. Curriculum development in primary school mathematics and in either early childhood education or science. Development of materials for and participation in in-service activities for head teachers/deputies, senior teachers and TTC tutors sponsored jointly by UCB, MOE, and the project. Primary mathematics research treating the state and needs of primary school mathematics instruction in Botswana.

English/Teaching English as a Second Language Specialist

Qualifications: Earned doctorate with specialization at the primary level in English/TESL. Primary and tertiary teaching experience required.

Duties: Class instruction, committee work, supervision of teaching practice at UCB. Curriculum development in the English/TESL areas at UCB. Development of materials for and participation in in-service activities for head teachers/deputies, senior teachers, TTC tutors sponsored jointly by UCB, MOE, and the project. Research treating the peculiar problems of language and language development in Botswana.

Note: One of the three positions - Reading/Language arts, Math/Early Childhood or Science, English/TESL - would also serve as Chairman of the Primary Education Department.

## ENGINEERING ANALYSIS

### I. Construction Justification

The physical facilities to be constructed under this project have been selected as a result of analyses performed by the University and Ministry of Education staff and the current efforts of the Ohio University team. When fully operational the TTC trainee program will add 130 students to the University's current full time enrollment of 1,076 including 150 pre-entry science students. This increment can be served by general University services, i.e. basic education courses, food services, etc. However, these students will require additional facilities directly related to their training and additional on-campus housing facilities.

A Primary Education Center will be constructed which will provide office space, an instructional media room and an educational materials production workroom, and two classrooms with an observation room between them. The instructional media room will serve as a library and demonstration center for primary school instructional materials and will be used as a classroom for short-term training programs to be conducted under the project.

An 84-bed hostel will be needed to house the degree and diploma students. The University currently has on-campus hostels which house 1,012 students and have essentially a 100 percent occupancy rate. Student housing in Gaborone is virtually non-existent; University officials state that hostel facilities are needed to serve 95% of the full-time students. It is estimated that the 84-bed hostel will adequately meet the additional student load placed on the University during the early years of the project. The University has plans to further expand hostel facilities.

### II. Description of Facilities

#### A. Primary Education Center (PEC)

The PEC will consist of a classroom block, an instructional media block and an office block. The total constructed area is 405 square meters, requiring a plot approximately 24 m x 40 m. A suitable plot has tentatively been identified on the University Master Plan. Final approval will require action by the University Development Committee.

The classroom block will contain two standard 30 seat classrooms. An observation room will be located between the two classrooms to enable undisturbed monitoring of student-teacher sessions.

The instructional media block will contain a room which will serve a variety of purposes including library and demonstration center for primary education materials and center for short courses. The block will also contain restrooms and a production room for preparing primary education teaching materials.

The office block will provide four faculty offices, a secretary's office and an office for the Chief of Party. All offices and classrooms are sized according to guidelines set by the University. Air conditioning will be provided in faculty offices and in the instructional media room in accordance with University policy.

#### B. Hostel

The hostel will provide accommodation for 84 students. Students will occupy double rooms having an area of 14 square meters. The hostel is designed as a three story structure having three sets of restrooms on each floor. The plans include a lounge area on the ground floor and a warden's apartment. Five hostels have been constructed previously according to the same plan. Based on experience the plans have been modified and improvements have been incorporated so that the current hostel design provides a functional and efficient building.

No other construction elements have been identified during the project design. Housing for two of the TA team is available on a rental basis from the University and USAID has three houses available that were built for the GOB for earlier USAID-funded technicians.

#### III. Construction Standards

The General Specification (Metric Edition Revised 1977) of the Ministry of Works and Communications, Buildings Department, will apply to all construction under the project. The construction is to be of reinforced concrete foundations and floors with concrete block walls. Columns of the hostel are reinforced concrete and walls are block infill. Roof construction of both the PEC and the hostel will be precast asbestos cement panels in accordance with existing University buildings. Ceilings are plaster board and floors are vinyl or asphalt tile except in restrooms where bathroom tile is used. Walkways and heavy traffic areas are hard surfaced concrete. Window and door frames are steel, doors are to be of wooden construction. Solar hot water heating will be used, as has been provided for other University buildings.

#### IV. Construction Contractors and Materials

Adequate construction labor and experienced contractors are available in Gaborone. Construction being done in Botswana generally is of excellent quality, far superior to that found in most LDCs. Previously financed AID construction (Botswana Agricultural College, warehouse construction, miscellaneous housing) has been of excellent quality with good professional services (architects, engineers, quantity surveyors, works superintendents) and good support from ministries. Plans, specifications, cost estimates and construction supervision will be the responsibility of the Buildings Department of the Ministry of Works and Communications.

Contracting procedures for the construction element of the project will be the standard competitive tendering procedure employed by the Government of Botswana. These procedures have been used successfully on several AID projects in Botswana and are acceptable.

It is anticipated that a single construction contract will be let for the hostel and the Primary Education Center through the Central Tender Board. The construction costs will be divided equally between USAID and the GOB. In addition the GOB will finance the costs of architectural design and furnishings for the buildings. Fixed Amount Reimbursement (FAR) procedures will be utilized. Thus, AID will approve plans, specifications and cost estimates for all construction but will not be involved in contractor selection. FAR procedures have been used successfully for AID-financed buildings of similar size in Botswana in recent years and no problems are anticipated.

It is estimated that approximately 50% of the construction contract will be required for the purchase of construction materials. The GOB portion of construction financing (50%) will be used for purchase of construction materials since most of these materials are, of necessity, procured from South Africa (although increasing amounts are now procured from Zimbabwe).

#### V. Construction Implementation Plan

Final designs and tender documents have been prepared for the hostel and approved by the Buildings Department. The University has an existing contract with a firm of architects who have performed consultant's services for construction of previous hostels and are the master plan architects for the University. It is planned that this firm will provide consultant's services for the construction of the hostel.

In order to make the job attractive to contractors the hostel and the PEC should be tendered as a package. In order to not delay initiation of construction the University Development Committee should retain an architect as soon as possible so that designs for the PEC will be ready and the entire construction package can be tendered shortly after the Grant Agreement is signed. One architect should be responsible for designing the overall project and tendering it as a package so that economies of scale are achieved. In order to carry out this proposal USAID should approach the University Development Committee so that GOB funds are allotted and the architect is retained.

If the foregoing proposal (i.e. both construction elements tendered as a package) is adopted the implementation schedule will be as shown below. The tender period (i.e. advertising, issuing tender documents, receipt and review of tender award) is estimated to take three months assuming advertising is done through normal GOB channels. The construction period for both buildings is estimated at 14 months.

#### Construction Implementation Schedule

<u>1981</u>	January	Architect contracted for design of PEC
	March	Project Obligation
	May	Final Drawings Approved
	June	Tenders Issued
	September	Contract Award
	October	Contractor Mobilization

<u>1982</u>	April	Midpoint of Construction
	November	Completion of Construction

#### VI. Cost Estimates

The cost of the PEC is estimated at \$350,449 for construction and \$93,631 for furnishings and professional fees. A detailed cost estimate is included on page 5 of this Annex. The basis of the estimate is a quantity surveyor's report for a similar sized University construction contract for additions to the Institute of Development Management to be tendered in February, 1981 and other current construction in the Gaborone area. An inflation factor of 24% per annum has been incorporated into the cost estimate. This figure is representative of construction costs in the region and has been prevalent for the past two years. Actual costs for Phase II of the Botswana Agricultural College have increased at approximately 24% per year over the original estimates prepared in 1978.

The cost of the hostel is estimated at \$1,079,333 for construction and \$116,408 for furnishings and professional fees. This estimate is based on a May 1979 contract price for the identical unit. This price has been inflated at the 24% rate to the present and to the estimated construction midpoint to arrive at the budgeted figure.

#### VII. Conclusions

The facilities to be constructed under the project are adequate to meet the intended purpose and are not elaborate. The design of the hostel is identical to previously constructed hostels and the design of the PEC will be in keeping with surrounding University buildings. Tentative sites have been identified which are in keeping with the University Master Plan.

It is concluded by REDSO Engineering that with regard to the construction component of the project the proposed design, planning for execution of the final design, construction, and arrangements for construction supervision are adequate and that the cost estimates are reasonably firm and acceptable and therefore meet the 611(a) requirements of the FAA Act of 1961 as amended.

SUMMARY OF CONSTRUCTION COSTS (\$000)

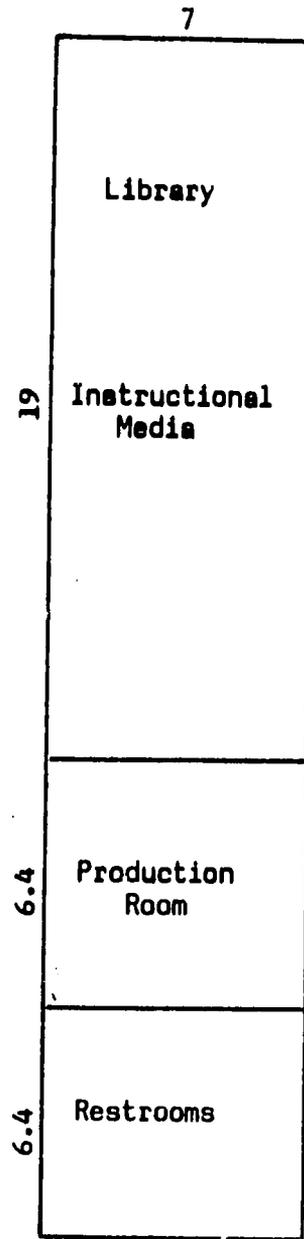
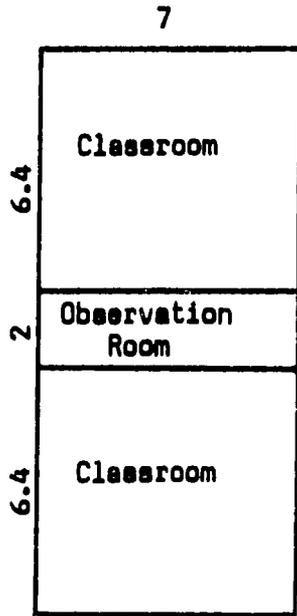
<u>A. Construction</u>		<u>AID</u>	<u>GOB</u>
Primary Education Unit	\$ 350,449		
Hostel	1,079,333		
	<u>\$1,429,782</u>	\$ 714,891	\$ 714,891
<u>B. Furniture and Professional Fees</u>			
Primary Education Unit	\$ 93,631		
Hostel	116,408		
	<u>\$ 210,039</u>		\$ 210,039
<u>C. Total</u>	\$1,639,821	\$ 714,891	\$ 924,930

Cost Estimates1. Primary Education Unit

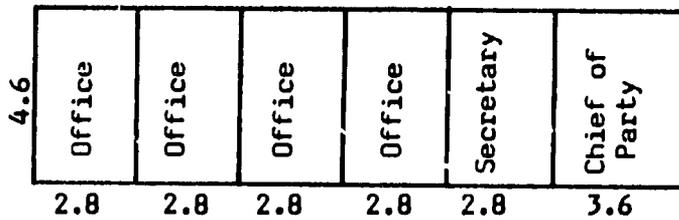
A. Classroom Block	<u>Pula</u>
2 classrooms @ 44.8m <sup>2</sup> @ P417/m <sup>2</sup>	37,363
1 practice teaching observation room 14 m <sup>2</sup> @ P417/m <sup>2</sup>	5,838
B. Instructional Media Block	
1 Multi-purpose Library/Media Room 133 m <sup>2</sup> @ P417/m <sup>2</sup>	55,461
1 Materials Production Room 44.8 m <sup>2</sup> @ P417/m <sup>2</sup>	18,682
1 Rest Room 42 m <sup>2</sup> x P417/m <sup>2</sup>	17,514
C. Office Block	
4 Faculty Staff Offices @ 12.9 m <sup>2</sup> x P417	21,517
1 Secretary Office 12.9 m <sup>2</sup> x P417	5,379
1 Chief of Party Office 16.6 m <sup>2</sup> x P417	<u>6,922</u>
Subtotal	168,676
Inflation to construction midpoint (18 months compounded at 24% annually)	65,581

	<u>Pula</u>
Subtotal	234,257
Contingency @ 10%	<u>23,426</u>
Total	P257,683
At P1.00 = \$1.36, cost is	\$350,449
<b>D. Furniture and Professional Fees</b>	
Furniture (December 1980)	P15,500
Inflation (November 1982 delivery)	9,300
Professional fees @ 13 1/2% + P3,000 (architect, engineers, quantity surveyor, works superintendent)	<u>37,787</u>
Subtotal	62,587
Contingency @ 10%	<u>6,259</u>
Total	P68,846
At P1.00 = \$1.36, cost is	\$ 93,631
<b>II. <u>Hostel</u></b>	
<b>A. 84 bed hostel</b>	
May 1979 contract price	P367,500
Price inflated to December 1979 (7 months @ 24% per annum)	418,950
Price inflated to December 1980 @ 24% per annum	519,498
Inflation to Construction Midpoint (18 months compounded at 24% annually)	<u>201,981</u>
Subtotal	721,479
Contingency (10%)	<u>72,148</u>
Total	P793,627
At P1.00 = \$1.36 cost is	\$1,079,333
<b>B. Furnishings and Professional Fees</b>	
Furnishings (December 1979)	P 20,000
Inflation (November 1982 delivery)	18,132

Professional fees @ 5%	P <u>39,681</u>
Subtotal	77,815
Contingency (10%)	<u>7,781</u>
Total	P 85,594
At P1.00 = \$1.36 cost is	\$116,408



Note: 7.0 m = 22.4'  
 6.4 m = 20.5'  
 4.6 m = 14.7'  
 2.8 m = 9.0'



All measurements are outside wall measurements.

ECONOMIC ANALYSIS  
OF  
PRIMARY EDUCATION IMPROVEMENT PROJECT  
(633-0222)  
IN BOTSWANA

December 1, 1980

Prepared by:

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Agency for International Developmtn  
Washington, D.C.

## TABLE OF CONTENTS

	Page
I. Introduction	1
A. Selection of Appropriate Type of Analysis	1
II. Descriptive Least-Cost Analysis of the Project	2
A. Overview of Anticipated Benefits	2
B. Selection of Best Approach to Improve Instructional Quality	3
C. Design Features of the AID Sponsored Project which Minimize Cost in the Short-run and Long-run	6
1. Pre-service Teacher Training through Creation of Diploma and Bachelor of Education (Primary) at the University College of Botswana	6
a. Cost Reducing Features	6
b. Features Ensuring Flexibility	7
c. Features Improving Incentives	7
2. In-Service Teacher Training through Creation of Leadership Teams	9
a. Cost Reducing Features	8
b. Efficiency Improving Features	8
c. Incentive Features	8
III. Recurrent Cost Implications	8
A. Background	8
B. Impact of this Project on Long-Run Recurrent Cost	9
IV. Conclusion	10
Information Sources	10

## I. INTRODUCTION

### A. Selection of Appropriate Type of Analysis

Essentially there are three analytical tools which might be employed to analyze the economic impact of a development project. They are cost-benefit analysis, cost-effectiveness analysis, and least-cost analysis. The first two of these assumes that the benefits as well as costs can be quantified either in monetary terms for cost-benefit analysis or some measurable quantity for cost-effectiveness analysis. For example in a dam project, it is possible to assess the values of the inputs that go into its construction and operation and relate these to the economic benefits anticipated over the life of the dam. On the other hand most education projects do not lend themselves easily to this kind of analysis.

There are exceptions to this rule such as an on-the-job training program in which it is possible to place a monetary value on the increased productivity resulting from the training and compare this to the cost of the training program. However, this is not the case when the investment is made in the education of young children where the economic returns on the investment may not be realized for ten or more years and where the investment is but one of a series of necessary investments to build up the person's productive capacity.

In order to handle such situations, economists devised cost-effectiveness analysis in which the benefits, while not measurable in a monetary sense, at least can be quantified such as increased academic performance, lower repetition, or higher enrollment. Cost-effectiveness analysis basically compares the marginal cost associated with a unit increase in the expected benefit. The most cost-effective alternative is the one with the lowest cost per unit gain in benefit or the highest gain in benefit relative to a one unit increase in cost.

The least-cost approach is a spin-off from cost-effectiveness analysis. The main difference is that in least-cost analysis the benefits may be qualitative or impossible to quantify. Even though the benefits may not be quantified in any meaningful sense, it is assumed that to achieve an objective or purpose for which the investment is being made there are a number of alternatives from which one can choose. The problem is to select the one which has the lowest cost. Thus, there must exist options which give equally acceptable outcomes to which the investor, beneficiary, etc. are indifferent. Otherwise, if there is only one possible or preferred option least-cost analysis hardly makes any sense.

In the case of the Primary Education Project, it is not possible to do either a cost-effectiveness analysis or a cost-benefit analysis. There are two basic problems which prevent using either of these techniques.

First, there is a problem of quantifying benefits. The project's primary objective is to improve the internal efficiency of primary education by increasing student performance and reducing repetition through

upgrading instructional quality. While ultimately it is expected that these improvements will be reflected in economically more productive adults, it is impossible to assign any value to these long-run expected gains. Furthermore, while the available evidence suggests a direct relationship between better trained teachers and increased student achievement and reductions in the repetition rate, there is no way a priori to identify how these are affected by various investment patterns in teacher education.

Second, there is a problem of specifying benefits and costs. In order to compare benefits and costs, it is necessary to be able to identify them. This would on the surface seem easy enough. However, it is extremely difficult for a primary education project. For example, short-run benefits from the project may be reflected in improvements in the internal efficiency of the educational system such as better academic performance and reductions in repetition. However, over the long run these gains in efficiency may result in gains at the secondary level as well since the students coming into secondary schools will be better prepared. Ultimately both the gains in primary and secondary education will result in adults who are better able to perform social, political and economic roles within the society. Identifying the causal chain between any single investment in primary education and any single ultimate benefit and attributing it to a specific intervention at the primary level is extremely complex and virtually impossible in the absence of sophisticated longitudinal data analysis.

A similar problem of specificity exists on the cost side. Improving the efficiency of one level of education increases the cost at each higher level of education as more and more students flow through the system. For example, increasing the output from primary education results in an increase in the demand for teachers and facilities at the secondary level. This in turn increases the demand for higher education. How these costs are factored into an analysis of a specific primary education project and what weight is assigned to them becomes next to impossible.

In this analysis, a descriptive least-cost approach is used. While it is possible to do a more rigorous quantitative least-cost analysis than the one undertaken here, to do so would greatly expand the amount of time and resources needed with dubious impact on the ultimate conclusion about the economic viability of this project which can be derived from a less sophisticated approach.

## II. DESCRIPTIVE LEAST-COST ANALYSIS OF THE PROJECT

### A. Overview of Anticipated Benefits

During the decade of the 1970's, Botswana made significant progress toward the achievement of universal primary education. Much of this early effort was focused on the quantitative expansion of access to primary education. As Botswana approaches universal primary education in the mid-1980's attention has shifted to improving the quality and to overcoming inequities in the distribution of educational resources.

The National Commission on Education in its analysis of student performance concluded that the key to improving student performance lay

in the quality of instruction. For this reason, the National Commission on Education placed considerable emphasis on the process of training and selecting teachers. Most of the Commission's recommendations have been accepted by the government and are embodied in its National Development Plan V (1979-1985).

This project is one of several designed by the government to implement these recommendations over the next five years. It will have essentially three impacts which all relate to the quality of primary education. First, it will improve the quality of primary school instruction by improving the quality of pre-service training and outreach capacity of in-service training without resorting to an increase in the hiring of unqualified teachers. Second, it will contribute to efforts to redress inequities within the primary school system. The National Commission on Education in its spatial analysis of resources allocated to primary education found glaring imbalances in the way human and physical resources were allocated within Botswana. The least qualified teachers, the highest ratio of students to trained teachers, and the lowest ratio of physical equipment per pupil were found in rural areas. As a result the rural success rate on the primary school leaving examination was about half of what it was in urban areas. Furthermore, this analysis revealed that untrained teachers were more likely to be teaching at the lower grades. Thus, by centering on rural schools and the lower grades within them, the in-service teacher training component of the project will help to overcome these inequities and improve the academic performance of children in rural areas. Third, it will help to remove the problem of repetition at the primary level. The institution of automatic promotion for standards 1 to 6 in the early 1970's did little in reality to solve this problem. Repetition rather than being spread across the primary grades was merely shifted from the first six standards to the seventh one. For example in 1968, repetition in standard 7 was less than one percent. It jumped to 21 percent in 1975 and continued to climb to 24 percent in 1979. As a consequence, well over 90 percent of all repetition is now in the seventh standard. By shifting the problem to the highest primary grade, automatic promotion simply increased the cost associated with repetition since it now occurs at the most expensive level of primary education. By focusing on the lower grades and improving the quality of instruction at these levels, the in-service training component of the project will reduce the cost of repetition and improve the flow of students into the junior secondary level.

#### B. Selection of Best Approach to Improving Instructional Quality

In 1979, there were 156,664 children enrolled in primary education. This represented 81 percent of the children of primary school age. By 1985, it is expected that 95 percent of the children of primary school age will be in school. This will result in a 1985 enrollment of 221,300. Assuming that the student-teacher ratio remains at about 32 to 1, the number of teachers required for primary education will increase from 4,863 in 1979 to 6,840 in 1985. Therefore, over this period, there will be an increase of 41 percent in the number of teachers needed.

There is, therefore, considerable pressure to expand rapidly teacher training in order to reduce the numbers of untrained teachers and to meet the added need for trained teachers to handle anticipated enrollment increases. However, the National Commission on Education strongly advised against a too rapid expansion of teacher training which would increase the numbers of poorly trained and unqualified teachers with little or no impact on student performance.

In 1976, the National Commission found that the professional background of the teaching force was extremely weak. Of the teachers already in service, 38 percent had no professional training. Among those considered to have had training, 56 percent had only a primary education before entering teacher training. Among the untrained, 81 percent had completed standard 7 or less. Although the proportion of trained teachers grew in the late 1960's and in the early 1970's the reduction of fees in the early 1970's resulted in a massive expansion of primary education which required hiring many untrained and unqualified teachers. As a result the proportion of trained teachers in 1976 was no better than it had been in 1968.

The Commission argued that the demand and supply situation regarding primary teachers was badly out of phase. At the present time, the rapidly rising demand for teachers cannot be met because of inadequacies in the supply of qualified individuals. On the other hand, by the mid 1980's the demand for teachers will begin to slacken as the rate of growth in primary education lessens. At that time, there will be a growing supply of qualified individuals to serve as primary teachers. Thus, the basic problem is to meet the short-term needs for teachers in a way which does not mortgage the future possibilities to hire better trained and qualified teachers for primary education. The Commission made a number of recommendations to resolve this dilemma. Most have been accepted by the Government of Botswana.

The Commission felt that there were two major constraints on the supply of qualified teachers. The first was the absence of trained tutors at the teacher training colleges and the second the lack of suitable students to receive teacher education. Rather than build new teacher training facilities, the Commission recommended that the underutilized capacity of the existing teacher training colleges at Serowe, Lobatse, and Francistown be expanded to 300 students each for a total enrollment of 900. This would increase the annual output from the two year teacher training program to 450. Without the capacity to rapidly expand the number of trained tutors for this expansion, the increase in staff requirements would have to be met by hiring expatriates over the short-run.

The government has accepted most of the Commission's arguments that it should not rapidly expand teacher education. However, the government felt that without the addition of at least one more teacher training college, the process of overcoming the shortage of trained teachers would be too slow. Therefore, the government has adopted plans to add a teacher training college during the course of the National Development Plan V which will increase the output of trained teachers

from 450 in 1983 to 580 by 1984. As a consequence of those actions, the demand for tutors at the teacher training colleges will grow from 55 in 1979 to 110 by 1985.

In order to meet this need and replace expatriates the government plans to expand the University's program in education to include a major in primary education.

By following these plans, the government will be able to overcome the backlog of untrained teachers and will have achieved a balance between its capacity to train teachers and the demand for teachers by the mid-1990's. At that time, the output from the teacher training colleges will be sufficient to overcome the loss of qualified teachers due to normal attrition and the natural increase in the population of primary school age children.

To meet the short-run demand for teachers, the government has incorporated into its National Development Plan V other recommendations of the National Commission on Education. These special measures include the creation of a National Youth Service, use of probationary teachers, and innovative approaches to in-service primary teacher staff development.

The Commission had envisaged that the major difference between the demand and supply of teachers would be met through a national service program whereby Form V school leavers would serve as primary school teachers. While the Commission's idea has been accepted and factored into the current five year plan, it is far more modest than originally conceived. The government has also decided to reserve, as recommended by the Commission, about 500 primary school teaching positions for individuals who would serve a probationary period prior to selection for admission into teacher education. This program permits the selection of appropriate candidates for teacher training and also gives future teachers some experience teaching before they actually enter more formal teacher education. The government also plans to establish educational centers which would offer a three year in-service training for about 50 teachers a year who have considerable experience teaching but are not able to attend full-time programs of teacher education.

Potentially the largest in-service program to improve the instructional quality at the primary level is this project. By developing leadership teams of head teachers, deputy head teachers, and senior teachers to work with the instructional staff in their respective schools the program provides an ongoing mechanism and process to improve the quality of primary education. By developing this program as an outreach function of both the teacher training colleges and the University, the program will institutionalize the link between resources engaged in teacher education and the teacher in the classroom. While the program is seen as one of the short-term means to improve the quality of primary instruction, it has the advantage of being flexible enough to expand to serve the needs of a professionally trained and qualified teaching staff

once the backlog of untrained teachers is removed.

This AID-sponsored pre-service and in-service teacher training project has been designed within the parameters established by the Government of Botswana policy to ensure a balanced approach to the expansion of teacher education which takes into account its short-run and long-run needs for trained teachers. It has been based on careful analysis and planning. A program which ignored the need to maintain a balanced approach and favored a rapid expansion of pre-service training or staff upgrading through short-term courses would have the following effects. First, it would encounter serious problems of finding qualified students for the teacher training colleges. Second, it would greatly expand the dependency of the government on expatriates to staff the teacher training colleges. Third, it would expand the capacity of the teacher training colleges beyond what long-run needs could justify. Fourth, it would add to recurrent cost by upgrading teachers without realizing a significant gain in instructional quality. Fifth, it would expand the faculty of education at the University above what can be justified over the next ten years with corresponding increases in recurrent cost and with a tendency to accelerate educational inflation at all levels within the educational system.

C. Design Features of the AID-Sponsored Project Which Minimize Cost in the Short-Run and the Long-Run

To simplify this discussion, the two project components, pre-service and in-service teacher training, are treated separately. However, it should be remembered that this distinction is not easily made in reality since the various project elements are well integrated and linked.

1. Pre-service Teacher Training Through Creation of Diploma and Bachelor of Education (Primary) Programs at the University College of Botswana

This part of the project has a number of features which will substantially reduce its long-run costs while simultaneously maximizing its benefits. Furthermore, there are a number of features which ensure that it will maintain flexibility to respond to future needs.

a. Cost reducing features

First: The program will add four faculty positions and approximately 120 students to the University's faculty of education. At present, there is about one faculty member per ten students at the University. The ratio for the faculty of education is considerably lower at nearly one to seven. The impact of the addition of the new program in primary education will be to increase the student faculty ratio to close to the University average. This will increase the efficiency with which resources allocated to the faculty of education are utilized. As a result the additional recurrent cost associated with the four new faculty positions will be partially offset by the increase in the student faculty ratio.

Second: By relying upon two-year students enrolled in the primary education diploma course at the University as tutor trainees at the

Teacher training colleges who work under the supervision and guidance of qualified tutors, the project will decrease the dependency on higher paid expatriate staff as a means to expand the capacity of the teacher training colleges. This would permit a more efficient deployment of the better trained and qualified tutors. Through this approach the long-run recurrent cost associated with the expansion of the teacher training colleges will be reduced significantly. Furthermore, by using paraprofessionals in the teacher training colleges, the government has greater long-run flexibility to expand or decrease the staff to respond to changing conditions. For example, if toward the mid-1990's it appeared that the teacher training colleges are training more teachers than needed, the number of tutor trainees can be reduced. This is considerably easier to do because of the more rapid turnover of trainees than would be the case for regular tutors.

After serving as a tutor trainee for one year, the best would be selected to proceed to the Bachelor of Education (Primary) degree program by completing one additional year of course work at the University. The others who successfully completed their apprenticeship year and had acceptable marks in the academic portion of their two year course work would be awarded diplomas. They would, if they wished, continue to be employed by the TTCs as tutors.

#### b. Features Ensuring Flexibility

First: As noted above in the discussion of cost-reducing features, the program of using tutor trainees provides flexibility in expanding the program in the short run to meet the additional staff requirements of the teacher training colleges without locking the colleges into an uneconomical long run staffing pattern.

Second: The program provides flexibility to reward good qualified tutors with the opportunity to continue their education to the bachelor level while minimizing the likelihood that less qualified students will receive the bachelor's degree. In a regular four year degree program, it is considerably more difficult to weed out unqualified students. Also through this approach failure to proceed to the bachelor's degree does not have a negative detrimental impact on students, since those who continue to the bachelor's degree are the exception rather than the rule.

#### c. Features to Improve the Incentive Structure

First: The reliance on diploma tutors at the teacher training colleges and offering the bachelor's program to the best of them improves the incentive to perform well, since performance will be one of the selection criteria for the bachelor's degree program.

Second: By selecting among national service and probationary teachers candidates for the University program as well as for training at the teacher training colleges, the program offers incentives for these people to do a good job in the classroom and to follow the advice and suggestions of the leadership team.

Third: By offering outstanding teachers with several years of experience the opportunity to undertake a special three year Bachelor

of Education (Primary) degree program at the University, the program will offer promotional opportunities for experienced older teachers.

## 2. In-Service Teacher Training through Creation of Leadership Teams

The leadership team approach is an extremely efficient means to improve the effectiveness of primary school instruction which is consistent with the government's plans to undertake a more gradual and balanced expansion of trained teachers. The program combines features which reduce the operational cost of the program, improve its efficiency, and provide flexibility to respond to future needs. Each of these is discussed briefly below.

### a. Cost Reducing Features

The leadership teams will be given a modest increase in pay to undertake the additional functions of working with teachers in the classroom and participating in workshops and training programs at the teacher training colleges, the University, and the education centers. The increased payment to the leadership teams will be considerably less than would be involved through a more traditional approach of offering large numbers of teachers short-term training courses for which they would receive additional compensation.

### b. Efficiency Improving Features

There are essentially three ways in which this in-service program will improve the efficiency with which resources allocated to primary education are utilized. First, by involving the head teachers, deputy heads, and senior teachers more closely with the instructional processes within their schools it is possible to enhance instructional quality by having well trained and qualified staff share their experience and knowledge more systematically with less trained staff. Second, by giving the teacher training colleges the day-to-day operational responsibility for the program, it increases the outreach functions of the teacher training colleges fostering a greater linkage between the colleges and the classroom teachers. This should improve the quality of instruction at the training colleges. Third, it provides a mechanism for coordinating other in-service programs such as national service, probationary teachers, and educational centers.

### c. Incentive Features

Since the program will not offer additional salary to the untrained teacher to follow the advice of the leadership teams, the program has built into it a mechanism for increasing the likelihood that teachers will wish to cooperate with the leadership teams. The leadership teams will be a major source for identifying potential candidates for teacher training and the University's diploma and degree program in primary education, all of which offer upward mobility for the untrained teacher.

## III. RECURRENT COST IMPLICATIONS

### A. Background

Unlike many other developing countries, Botswana is less likely to be constrained from expanding its educational system because of inadequate financial resources. The National Development Plan V indicates that public revenues will increase at an average rate of 10.7 percent per annum over the plan period 1979-1985. However, this rate of growth will not be uniform throughout the period. Between 1978-79 and 1981-82 revenues will increase at an estimated 5.7 percent per annum. Between 1981-82 and 1984-85, the annual rate of increase will rise to 14.9 percent. This projected rapid acceleration in the rate of growth of public revenues is predicated on the expected public revenues to be generated by the Jwaneng diamond mine.

The plan calls for an annual increase of ten percent for the whole education sector. The government's total recurrent and capital expenditures on education are expected to increase from P37.8 million in 1978-79 to P49.0 million in 1984-85. As a percent of total government expenditures, the share devoted to education would increase from 19 percent to 22 percent respectively.

With the slow down in the rate of expansion of primary education between now and 1985, the Plan envisages that primary education will increase at less than the ten percent increase for the overall education sector. However, within the resources to be allocated to primary education, the funds allocated to curriculum development and teacher training will increase at substantially more than ten percent reflecting the government's priority assigned to qualitative improvements in these areas.

#### B. Impact of this Project on Long-Run Recurrent Cost

It is difficult to isolate this project's impact on the recurrent cost commitments of the Government of Botswana over the fifth plan period or into the next plan period. Many of the elements of the project have already been factored into the estimates contained in the fifth plan. This would include the planned expansion of the teacher training colleges, the new University program in primary education, and the in-service teacher training programs.

While these programs have been taken into account in the development of the plan, many of the details of this particular project which affect cost were not known at the time the plan was put together. Some of these will result in an increase in cost while others will reduce it. For example, in the original conceptualization of this project, additional remuneration for the leadership teams had not been considered. This change increases recurrent cost. On the other hand, the addition of the tutor trainee program at the teacher training college reduces recurrent cost.

It would appear that when the various design features of the program as now envisaged are taken into account, the net result of these features is likely to reduce rather than increase planned recurrent cost. Therefore, it seems reasonable to conclude that the project will at worst have no impact on the recurrent cost commitments of the Government of Botswana and at best a slight decrease in the cost programmed in the plan.

#### IV. CONCLUSION

The project has been carefully conceived to balance expected gains in learning achievement and improved efficiency against additional short-run and long-run recurrent costs. For a modest investment of under U.S. \$2.00 per child enrolled in school over the next ten to fifteen years, the project is likely to make a significant contribution to qualitative improvements in primary education in Botswana. The project will do this without adding significantly to the government's recurrent cost over and above what is already foreseen. In the unlikely event that costs envisaged for the overall qualitative improvements in primary education were to exceed those planned, the government is prepared to keep the 22 percent share of the national budget allocated to education in 1984-85 the same by instituting cost-saving features such as an increase in the student teacher ratio. Therefore, it seems reasonable to conclude that this project represents the most effective and least-cost option to achieve the government's objectives to improve pre-service and in-service teacher training within its planned budget constraint.

#### INFORMATION SOURCES

1. Draft Primary Education Improvement Project Paper
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3. National Development Plan 1979-85, Ministry of Finance and Development Planning, Gaborone, Botswana, November 1980.
4. Report of the National Commission on Education, Volumes I and II, Gaborone, Botswana, April 1977.
5. Supplementary Report of the National Commission on Education, Gaborone, Botswana, July 1979.

## SOCIAL SOUNDNESS ANALYSIS

### A. SOCIO-CULTURAL FEASIBILITY

The project is designed to embrace the full participation of Batswanans. It is intended to meet the needs and be appropriate to the conditions of Batswana educators and primary students. The training developed will follow the priorities and policies of the GOB, which include redressing inequities and improving the relevance of the formal education system. This project addresses key factors impeding an increase in the access, efficiency and relevance of primary education. However, to attain this program goal other actions are concomitantly required, as revealed below. The PP section on other donor and GOB efforts indicates that actions are being taken to address other key factors, such as improvement of facilities and a more appropriate curriculum.

#### 1. Primary Schools and Equity Issues

There was a 25 percent increase in primary school enrollments between 1976-79 mainly due to the GOB reducing annual tuition fees from P6.00 to P3.00, or approximately \$8.10 to \$4.05. As of 1980 free primary education exists in Botswana. These actions by GOB since 1975 have given greater access to primary education by children from poorer homes.

There are few, if any, direct costs. Parents are requested to provide their children with school uniforms, which cost about P11.00 (about \$14.85) but it is not compulsory. In regard to lunchtime meals, most standard 1-7 students receive free hot meals, facilitated by the World Food Program to which AID is a contributor. Yet, there are many children of primary school age not attending classes. District primary school enrollments in 1976 represented approximately 88 percent of the district population aged 7-13 years old: it was, however, as low as 63 percent in Northwest District. Due to the abolition of school fees, the percentage of primary school age children enrolled has probably increased slightly. However, there are reasons other than direct financial costs which prevent children from attending. Family labor requirements prevent many children, especially boys, from either entering or continuing in primary school. Also, children in the sparsely populated areas are disadvantaged due to distance to the nearest primary school. And, it is mainly the minority ethnic groups found in remote areas who are hindered by physical access to school.

The location of "rural" primary schools, which is under the direct control of each district, is in villages. The most common settlement pattern has been for each family to have, if possible, three dwelling locations, based on their function, i.e. village, lands and cattle post. This pattern is dependent on the wealth of the household, the quality of the land and availability of other essential resources around the village. Recent studies indicate that where adequate water is available,

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<sup>1/</sup> Christine Smith, "An Analysis of Factors Affecting Primary School Enrollments in Botswana", MOE, Dec. 1977.

an increasing number of families are living full time on their lands. In some of these land areas, which are occupied on a permanent basis, private schools are being established, at the initiative of the Local Development Council, a local leader or a group. Research in Kweneng District by C. Allison shows that all these private schools have only up to standard 3, contain a maximum of 35 students and usually have only one - untrained - teacher, whose salary is paid by the parents. These private schools, arising from local initiative, are of low quality and usually appeals are made to the district council to take them over and to provide assistance.

Those who do attend the primary schools encounter an inequitable balance in the quality of teachers, and the provision of facilities and supplies. In 1979 there were only 3,053 classrooms but 4,768 classes, which caused many schools to operate morning and afternoon shifts, and some classes to be taught in the open air. Addressing this situation the GOB has issued guidelines for the location of primary schools which stress (a) the need to give first priority to providing classrooms for classes presently being taught outdoors; (b) the increasing need to make provision for small communities and lands areas and in some cases at cattle posts; and (c) the need to reduce the distance young people have to walk to school to about 5 km maximum where this is feasible.

Thirty-six percent of the 1979 primary teaching force of 4,870 persons were classified as untrained, implying they have never undergone a teacher training course during their careers. The Report of the National Commission on Education, Vol. 2 (1977) revealed that in 1976 approximately 50 percent of the teachers in large and small villages were untrained as compared to 27 percent in district headquarters and two percent in urban towns. This inequity between types of communities was further accentuated in the pupil to trained teacher ratio: 39 for urban towns, 47 for district headquarters, 72 for large villages and 64 for small villages. Since the establishment of the Unified Teaching Service on April 1, 1976 the GOB has sought to bring about a more balanced allocation of qualified teachers between districts. Because the long run solution is to have more trained teachers from the affected districts the GOB has introduced a system of quotas at TTCs for applicants from the most disadvantaged districts, e.g. those with a high percentage of untrained teachers and low examination results, of Northwest, Kgalagadi, and Ghanzi. Also the GOB intends to open a teacher training wing at the Maun Education Center and to expand the teachers' center at Maun, in Northwest District.

An analysis of the 1976 standard seven examination results (Report of the National Commission on Education, Vol. 2) illustrates the education disadvantage of rural Botswana. Grade A and B pass results were considered as a percentage of the total sitting candidates. Although Grade C is a pass grade, it is not sufficient to qualify its holder for admission to secondary school and therefore was excluded. The results show that 42 percent of the urban pupils gained an A or B grade; 32 percent of those in district headquarters, and 26 percent in both large and small villages.

Only about 20 percent of the primary school leavers go on to secondary school and a further five percent obtain some other type of formal education. Information in the Report of the National Commission on Education, Vol. 2 on students who receive an original offer of admission to secondary schools shows that no type of community has a disproportionate advantage in the actual enrollment of A students. However, it appears that B students from urban areas and district headquarters have a considerably better chance of being admitted to secondary schools than do their village counterparts.

The project will support the processing and analyzing of existing educational data and the collection of other key information. The results of this exercise will be provided to MOE planners to help them to more clearly identify key problems, particularly the various kinds of inequities which currently exist in the primary school system, and possible solutions.

## 2. Student Achievement and Related Factors

More females attend primary school than do males. Females accounted for 55 percent of the 1979 total primary school enrollment, and 60 percent of those in standard 7. The latter probably reflects a tendency for parents to divert boys from primary schooling into economic activities. Up to 1980 there was automatic promotion of primary school students: the only qualifying examination was given at the end of standard 7. This contributed to a significant percent of standard 7 students having low academic performance. In 1979 27 percent of those in standard 7 were repeaters, hoping to score higher the next time on their final examination. The medium age for standard 7 students is about 14 years and for standard 1 it is 7 years.

The following provides a profile and assessment of standard 7 students, based on a survey undertaken in 1976 for the National Commission on Education. About 58 percent of the students have fathers who are engaged in agriculture, whereas the rest of the fathers have either white collar or blue collar jobs. The latter group consists of a considerable number who are miners in South Africa. Twenty-two percent of the mothers have full-time paid jobs. In regard to education, 25 percent of the fathers and 22 percent of the mothers have no formal education; a further 27 percent and 30 percent respectively have less than five years of education. The students tend to come from families with four or more children. In the home, 81 percent speak Setswana, 12 percent Kalanga, two percent English and five percent other languages. Two-thirds of them have no books at home. These students have household responsibilities such as cooking, fetching water, collecting firewood and cleaning.

Factors related to the home background of the student influence academic performance. However, a path analysis using socio-economic background (father's occupation and parental education) and sex of the student as exogenous variables showed a decreasing power of explanation for every level of education (end of primary school, end of junior secondary school and end of higher secondary school). The variance explained was considerably more for Reading Comprehension than for Mathematics. Thus, socio-economic background is more related to performance in the primary schools than in further grades. Table 1 shows the relationship between

TABLE 1

Student Background Variables and Achievements in Reading Comprehension (RC) and Mathematics (Math) in Standard 7.

	RC	MATH
Region	+++	+++
Age of student	+++	+++
Sex	n.s.	n.s.
Student educational expectation	+++	+++
Student's expected occupation	+	+
Student's guardian	n.s.	++
Father's occupation	+++	+++
Father's education	+++	+++
Mother's education	+++	+
Family owns cattle	n.s.	n.s.
Family owns small stock	n.s.	n.s.
Father can read	++	n.s.
Father can write	++	n.s.
Mother has paid job	n.s.	n.s.
Parents taken correspondence course	+	n.s.
Number of children in the family	n.s.	++
Electricity in the home	+++	n.s.
Number of books in the home	+++	+++
Amount of time to get to school	+	+++
Breakfast before going to school	+	+++
Language spoken in the home	+++	+++
English used in the home	+++	+++
Listening to the radio	+++	+
Liking for school	+	+++
Number of students in classroom	+++	+++
Where homework usually is done	n.s.	n.s.
Hours of homework per week	n.s.	+++
Reading books for pleasure	+++	+++

+++ indicates statistical significance at the 0.1 percent level, ++ at the 1 percent level, and + at the 5 percent level.  
n.s. = non-significant

Source: Torsten Husén, "Pupils, Teachers and Schools in Botswana: A National Evaluative Survey of Primary and Secondary Education," Report of the National Commission on Education, Vol. 2, Gaborone, April 1977.

student background variables and achievements in reading comprehension and mathematics in standard 7. There were highly significant differences in attainments between various regions reflecting differences in the social and economic structure. Younger students in standard 7 performed better than older students, primarily because the older students tend to come from rural, disadvantaged areas. In relating achievements to father's occupation, those whose fathers are in the category of administrative and professional occupations scored higher than those whose fathers are in agriculture. Reading scores were significantly related to both father's and mother's education, and the number of books at home and the frequency with which English is spoken at home were closely related to achievement.

In the 1976 survey, since the teacher that the student had at standard 7 level might not have taught the student more than 3-4 months before the test was administered and because the assessed competence of the students cannot be entirely attributed to their standard 7 teacher, all teachers at a particular school were assessed related to student achievements at that particular school and other variables characterizing that school. The percentage of formally trained teachers at a particular school was found to be significantly correlated with aggregated student competence as was the teacher's self-assessed competence in English. Characteristics of the school, such as the existence of a school library, electricity, and water facilities, were also found to be significantly related.

An attempt was made by path analysis to discover to what extent the observed association between teacher competence and student achievements is a causal effect of teacher quality and outcomes or to what extent it is a reflection of the fact that teachers tend to be allocated and/or allocate themselves selectively to schools. It was found that the unique contribution of region to variance in student achievement was larger than the competence of the teacher. The teacher effect by itself tended to be substantially larger than that in industrialized countries and to be more than half the magnitude of the regional effect.

For the project, the data imply that it is addressing some critical variables which affect improvement in the quality of primary education. The regional variations should not be exacerbated by focusing on educational staff in those regions which are already advantaged; special effort must be made to reach staff in the disadvantaged areas. Also, the type and extent of in-service training needed by primary school teachers will probably vary according to region. Furthermore, a more refined analysis of data and project evaluations will help to pinpoint the most critical factors related to student achievement. The above data analyzes student achievement, which was tested in English, at the standard 7 level. However, Setswana is the medium of instruction in the lower grades, with the exception of a few urban schools. About 80 percent of the primary school pupils come from homes in which Setswana is used as the mother tongue. To improve the teaching of Setswana during the early grades it is important to understand the way language is used and taught in the home. Moreover, in the teaching of science and math, the differences between concepts and terms in Setswana and those used in the schools should be

noted to facilitate the learning of "modern" science and math. Under the project, a sociolinguist, preferably with knowledge of Setswana or another vernacular used in Botswana, will serve as a short-term consultant to work with Batswana educators to recommend more appropriate ways of teaching Setswana, math and science in the lower grades. The sociolinguist will also be responsible for investigating ways to improve the teaching of non-Setswana speaking pupils in the lower grades.

### 3. Profile of Primary School Teachers, Head Teachers, TTC Tutors and Inspectors

Teaching in primary schools does not carry much social status. People take up teaching when other job options are closed to them. Thus one mainly finds in the profession persons who did not pass their Form III Junior Certificate Examinations and those with lesser educational levels of attainment. Females comprise about 71 percent of the total primary teaching force, but they tend to teach primarily in the lower standards: 1976 data reveal that only 25 percent of the standard 7 teachers were females. The median age for primary teachers is below 30 years and about 97 percent are Batswana. Approximately one-half of the teachers have less than seven years of teaching experience, with one-quarter of these having taught less than three years. There is a high turnover of teachers: more than half of those in the primary school have taught less than two years at their present school.

About 29 percent teach in their home village, which facilitates a greater understanding of the students' environment and a greater ease in carrying out family and community responsibilities. At least half engage in additional community activities. Only 60 percent are provided housing and of these only about 24 percent classify the housing as adequate or good. There is a tendency for teachers to feel isolated from authorities and a lack of guidance in their work.

Thirty-six percent of the 1979 primary teaching force are untrained. There is a significant difference based on sex: 23 percent of the males compared with 42 percent of the female primary teachers are untrained. Among the untrained women, most of them only have a standard 7 education whereas many of the untrained male teachers have a Junior Certificate. Women however are increasingly enrolled in TTCs. In 1979 80 percent of the TTC students were female and the median age was 22. On the 1978 Primary Teachers Course Examination results, women did worse than men in those who received a distinction: three percent of the total number of women sitting for the exam compared to ten percent of the men. However, 90 percent of the women taking the test passed compared to 78 percent of the men. Thus, the TTCs are helping to bring into the primary school system trained female teachers.

In contrast to primary school teachers who are primarily female, three-quarters of the head teachers are male. Most of them are between 31-45 years old. About 37 percent have served in this position for under five years and an additional 41 percent have been head teachers for 5-10 years. Three-quarters of them have over ten years of teaching experience. Almost every head teacher has a teaching certificate and a few have attended teacher training courses in England or done correspondence courses.

Nevertheless, about one-third of the head teachers have no secondary school education and a further 11 percent have attended either form one or two. Fifty-three percent have a form 3 education and a few have further secondary education. Thus, in comparison to teachers the head teachers tend to be older, with more teaching experience and with some secondary school education.

Of the TTC staff totalling 52, about half of whom are Batswana, 35 are male teachers and 17 female. Less than half of these Batswana have a bachelors degree. Some TTC tutors eventually become inspectors.

The regional and district inspectors, whose average age is 46, tend to have more formal education than do the head teachers. Almost all have completed at least form 3 and about one-third have a diploma or degree. Almost all of the Batswana regional and district inspectors are male. These inspectors tend to visit about two-thirds of the schools in their area about once a year, although some schools in outlying areas go for 2-3 years without a visit. Usually the purpose of these visits is seen by headmasters as to "advise" and "assess" teachers.

#### 4. Motivation

Most of the educational staff associated with the primary schools program appear to have a positive view toward participating in in-service training courses and improving the quality of their work. In order for the project to achieve its purpose, a high level of motivation will be required, possibly encouraged by an incentive system.

The in-service component will include the establishment of leadership teams consisting of head teachers, deputy head teachers and senior teachers who will hold instructional courses for persons in similar educational positions. Members of the teams will be selected based on abilities and motivation displayed during a Phase I workshop and performance demonstrated in the training of teachers in their respective schools. Since the training of others in similar positions will be an additional role for members of the leadership teams, it is expected that they will be financially rewarded for their participation. This topic has been discussed with the MOE and when a detailed schedule is drawn up during Phase I, showing for example the amount of time required per annum, the location of the training, and the months it will be held, the MOE and the project chief of party will, if appropriate, submit a recommendation to the GOB.

Teachers, deputy head teachers and senior teachers will attend in-service courses and then be expected to hold similar sessions for teachers in their respective schools. These functions are already part of their present scope of work. Recently a career structure was introduced in the primary school system, rewarding those in these positions of responsibility. Instead of receiving a responsibility allowance, there are graded post salaries for head teachers, deputy head teachers and senior teachers based on the number of pupils in their respective school. Questionnaires completed by head teachers show that ninety percent feel that they have a chance for advancement, although only eighty percent report that they understand the criteria for promotion.

Teachers will attend in-service sessions given by their school teams, during which teaching techniques, use of instructional materials and content information will be taught. It is expected that most teachers will be motivated to use the knowledge and skills acquired to improve their classroom performance. Part of their motivation will stem from their students being able to demonstrate a higher degree of achievement.

Publicity will be given to the in-service program, particularly in its initial years, in the existing newsletter for primary school teachers. Coverage will be given to good school teams and teachers. Project evaluations will be summarized, highlighting teachers whose students demonstrate better performance as a result of the improved quality of teaching. A school's standard 4 examination scores will be one indicator over time of more effective teaching. Other tests will also be given to measure performance. Public recognition of achievement is expected to motivate teachers and school teams, who will be rewarded through an increase in status.

The GOB desires to make the primary school program a more appealing job option. The recent increase in salaries and the introduction of a career structure are steps in this direction. The GOB is open to considering an incentive system for persons who attend in-service courses. A proposal might be submitted on rewarding quality performance. Institutionalization of incentives will be further explored under the project.

In addition to the primary teaching force, the in-service project component will include inspectors, TTC tutors and TTC principals as workshop staff, resource persons and members of follow-up teams. These responsibilities are in accord with their normal scope of work. Some inspectors, however, appear to have a low level of motivation. Based on a recent study, only about 43 percent of the inspectors feel that they have a chance for advancement and about 90 percent feel that they do not receive fair pay for their job. Many of these persons are in a higher age group and have reached the top of their professional ladder. Under the project special attention will be given to possible incentives for this group.

##### 5. Local Participation and Appropriateness of Training Given

As discussed in the Background section of the PP, this project was identified and given form by persons at the UCB and MOE. An advisory committee was formed in October 1980 to work with the PP team. The PP was designed in close collaboration with members of the MOE, UCB and the advisory committee. Questionnaires completed by inspectors and head teachers also provided additional local input, used by the PP team sociologist.

In order for the project to achieve its purpose and goal, both the university degree program and in-service training must be suited to local needs and conditions. The focal point should be a realistic approach to the primary school classroom, its students and teacher, and their surrounding environment. Under the project in-service component, teams of specialists will be trained as trainers of head teachers, deputy

head teachers and senior teachers who will be responsible for instructing and supervising teachers in their respective schools. It is anticipated that during year 1 and 2 of the project and in-service training will focus on those topics which have already been locally identified and developed for dissemination. In particular, new curricula have been developed for standards 1 and 2 based on a lengthy and thorough consultative process of team work; these teams have been composed of primary school teachers, inspectors, head teachers and others. After the testing of the new syllabi and supportive materials, teachers will be trained under the project in their use and accompanying skills.

To guide development and implementation of the in-service training component, a committee will be established or the current advisory committee maintained. This committee will help identify topical areas and set priorities for in-service training. It will also advise on the course content, methods and location. Identification of topical areas will also be done through a study of primary teachers, based on questionnaires, observations and key interviews.

An advisory committee will also help guide the development of the curriculum for the Department of Primary Education. In order for the project to reach its purpose and goal, the training given for persons slated to be TTC tutors, inspectors and in other educational positions must instill an appreciation of the working conditions of teachers and making education appropriate to the Botswana situation. The BEd program will be designed to give students practical and applied work. For example, as part of their course work they would be asked to conduct observations in a primary classroom near their home and to interview the teachers and subsequently report on their findings in class. Also, they will be sent to the TTCs for observation, practical teaching and supervision of TTC practice teaching students.

Without substantial local participation in the development of the educational programs under the project, it is likely that it will be ill-suited to the Botswana situation. The training must focus on the real situation which teachers, especially primary teachers, encounter rather than the ideal situation, and the teaching of all subjects should be related to the real and practical world that children experience in Botswana.

#### B. SPREAD EFFECT

The in-service component is designed with the intent of having a multiplier effect in an effort to extend the benefits of improved, effective teaching to a large number of primary school pupils. Reaching and affecting the education of these pupils depends on some key factors. First, it is assumed that head teachers, deputy head teachers and senior teachers are the most suitable persons for carrying out in-service training of the teachers in their schools. This assumption is based on the premise that these educational personnel are motivated, have the

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1/ USAID has provided a curriculum advisor to the MOE under the SAMDP project since 1978. This specialist position will continue for at least another two years.

required abilities and are respected by their teachers as educational leaders. It is further assumed that given proper training the teachers will adopt those things taught. There will be careful monitoring, especially during years 1 and 2 of the project, to assess: (a) the effectiveness of head teacher, deputy head teacher and senior teacher teams in providing in-service training to others in these staff positions; (b) the effectiveness of head teachers, deputy head teachers and senior teachers providing training to personnel in their respective schools; (c) the extent to which primary teachers trained by their school team use in their classrooms the skills and information taught; and (d) the impact of the program upon student performance. Changes may occur in the multiplier strategy if weaknesses are evident in any of the above. Measures of student performance will indicate the appropriateness and effectiveness of the in-service program.

The in-service component will particularly focus on standards 1-4. Emphasis will be given to the lower grades because it is felt that this is the best strategy for achieving more efficiency, i.e. provision of a sounder basis of essential skills which will positively affect learning achievement in the higher grades, hence reduce repetition of grades by students, enrollment loss and per student cost.

Implementation of a successful multiplier strategy under this project is likely to influence the way that the MOE, outside the scope of the project, reaches primary and other teachers. Also, the committees which have been or will be established will provide a forum to discuss other critical factors related to increasing the access, efficiency and relevance of primary education.

### C. ROLE OF WOMEN AND PROJECT IMPACT

Girls form a small majority of pupils in primary schools and then are gradually outnumbered by boys in secondary school, after the Junior Certificate examination, and hence in the university. In 1979 only 39 percent of the Botswana UCB students were female. The wastage or the drop-out of girls from school is attributable to pregnancy and to low aspirations. A study conducted by Barbara Brown found that there is a marked difference in the aspirations of girls and boys in secondary school: sex differentiation appears in their educational and in their career aspirations as well as in their self-image as future parents. Even girls who received an "A" on their Primary School Leaving Exam tend to have the same job aspirations as those girls with lower passes. Both girls and boys regard certain jobs as generally appropriate for only one sex.

Although females form the largest group of primary school teachers, males predominate as head teachers, tutors, and inspectors. This may be due to a smaller percentage of females in primary education having the higher levels of education required for such positions. The tendency to view men as appropriate for "leadership" positions is probably another contributing factor.

Those who serve in outlying areas receive a local allowance, the annual amount based on whether the person is single or married. This tends to ignore the fact that single women may be responsible for dependents. A study in one rural area revealed that 49 percent of the single women had

dependents. While the proportion may not be as high among those in the teaching profession, nevertheless, the simple categorization used for local allowance works against single women with children.

The project will positively impact upon women in the following ways. First, as the in-service component aims at improving the effectiveness of the primary teaching force, particularly in standards 1-4, it will reach females who are the largest segment of that target group. Second, the admission of candidates for the Bachelor of Education in Primary Education program will encompass recruitment of persons who have already shown outstanding abilities as primary school teachers. In this way it is expected that women will be admitted into the degree program. Third, improvement of the quality and relevance of teaching in the TTCs, through provision of better trained tutors and modification in the curriculum emanating from that developed for the BEd in Primary Education degree program, will positively affect females, since they form a large majority of students at the TTCs. And, fourth, improving the effectiveness and appropriateness of teaching in the primary schools should affect the performance of pupils, the majority of whom are girls. If, however, the aim is also to have more female students in the higher levels of educational institutions, and subsequently obtaining positions of greater responsibility, attention will need to be given to raising their career aspirations and to provision of information on family planning techniques.

According to the Educational Act, parents must withdraw their daughters from school if they are pregnant. After one year following termination of pregnancy, the student may apply for readmission but not at the school previously attended. This regulation signifies a social stigma attached to pregnancy by the institution; however, in Botswana society no stigma is attached to pregnancy, including unmarried females.

#### D. BENEFICIARIES

The direct beneficiaries of the project can be classified into four categories. First, there will be those who enter and graduate from the Diploma and Bachelor of Education in Primary Education programs. Beginning in 1983 it is expected that approximately eight students per year will receive the diploma, and from 1985 approximately 17 per year will graduate from the BEd program. Some of these persons will be trained to assume higher level positions than they previously held, whereas others will be better qualified to perform the job which they had. Receipt of a degree or diploma will also provide them with greater upward mobility in the primary education system. Second, 17 Botswana will receive training to the Master of Education level in the United States or a third country, either under this project or under SAMDP. Four of these are expected to return to hold relatively high level positions in the MOE, such as In-Service Organizer and Coordinator, and Curriculum Development Specialists. The others will serve as UCB lecturers and instructors, some of whom will replace the U.S. project technicians. The MEd degree holders will benefit by acquiring further knowledge and skills and acquiring positions of status and

responsibility in the Botswana education system. Third, through in-service workshops and direct relationship with the Faculty of Primary Education the 52 TTC tutors, approximately half of whom are Batswana, will be able to enhance their effectiveness in teaching and supervising students. Fourth, the project will directly impact on about 414 head teachers, 414 deputy head teachers, 664 senior teachers and 35 inspectors who receive in-service courses from the project-related team through increasing their knowledge and skill base. Those who serve on the leadership teams, estimated to be 50 persons, may find that this role also enhances their status and mobility within the primary education system.

The above listed groups of direct beneficiaries are expected to positively impact upon about 1,600 primary school teachers and about 50,000 students, the project's indirect beneficiaries. Primary school teachers are expected to benefit from obtaining improved skills, and instructional materials from in-service courses given by leadership teams. Those undergoing a certificate program at the TTCs are anticipated to indirectly benefit from an improvement in teaching techniques and course content, and a more appropriate program. Overall, the above system is expected to impact upon primary school pupils by increasing their skill and knowledge levels which will result in better academic performance related to their real environment and experiences. The general impact upon the country shall be to facilitate the rate of localization as more people receive higher levels of education, as well as to improve the efficiency and appropriateness of the primary education system.

## PARTICIPANT TRAINING

The participant training program is an integral component of the Primary Education Improvement Project to establish a permanent capacity at UCB to provide an appropriate Diploma and BEd program in Primary Education and to strengthen the capacity of the MOE to organize and implement appropriate and effective in-service programs for supervisory staff and teachers involved in primary education. Through the participant training program, all positions held by U.S. project staff members will be localized.

The Primary Education Improvement Project provides for a total of 16 participants (ten long-term, six short-term) distributed as follows: eight who will study for the Master of Education degree (seven in the U.S. and one in an African university) and return to assume roles as primary education faculty members at the University College Botswana (UCB); two who will also study for the Master of Education degree in the U.S. and will return to assume roles in the Ministry of Education (MOE); and six who will participate in short-term courses of three-to-six months in the U.S. or in third countries. In addition to the ten long-term participants under this project, the Southern Africa Manpower Development (SAMDP - 0069) will support a total of seven Ministry of Education and UCB long-term participants. All 17 long-term participants are scheduled to work at the UCB or MOE in primary education or related fields. The attached chart shows the areas of study for the participants and the approximate training schedule.

The selection of participants will be a joint activity involving the MOE, the UCB and the USAID institutional contractor. The institutional contractor will have responsibility for ensuring that the training programs for participants are appropriate to the requirements of the Primary Education Improvement Project. Up to two years will be provided for participants studying for the MEd degree. Participants with advanced degrees returning to UCB and the MOE will be phased into their respective roles during an overlap period with their U.S. counterparts.

Short-term participants will be sent to the U.S. or to third countries for concentrated periods of study relating to specific problems in the improvement of primary education. The needs to be met through the short-term participant training program will be identified as early as possible by the institutional contractor in cooperation with the MOE and UCB. All short-term training will be scheduled insofar as possible to coordinate with the needs of the project.

### Detailed Training Plans

1. Participant selection requirements. The selection of participants will be a joint activity involving the MOE, the UCB and the USAID institutional contractor. All long-term participants will be candidates for the Masters degree; thus, they must possess the Bachelors degree, or equivalent, to be eligible for selection for either the MOE or UCB positions. Relevant professional education experience will also be an important requirement in the selection process. The TOEFL will

be administered as a part of the selection process. In instances where participant candidates would benefit from further language training, an intensive program in English will be required as a part of the student's program prior to beginning Masters level study.

2. Study Program for the Participants. The primary objective of the long-term participant training program will be completion of the Masters degree requirements. Participants will be expected to meet the same requirements for degrees given by the institutions as do U.S. and other foreign students. As much as possible within the institutional requirements, each trainee will have a program tailored to his/her individual needs. Thus, each participant's program will take into account the student's background and experience, preferences and abilities and the requirements and future needs of the GOB Primary Education Improvement Project.

The institutional contractor will have the responsibility for ensuring that the training programs for participants are appropriate to the Botswana role to be filled. The team leader will assume the task of conveying to the U.S. training institution, as an aid in developing the student's academic program, relevant information about his/her interests and abilities and the role to be assumed upon return to Botswana.

Generally, the Masters degree programs for participants will have three components: general educational foundations, a major area of study, and a research project. Educational foundations will include courses in the areas of the history, philosophy, psychology and sociology of education. The major area studies are directly related to the requirements of the position which the participant will fill upon return. The research component will be directed toward both the development of research skills in the candidate and potential improvements for Botswana education problems. In selected circumstances it may be appropriate for participants to complete all their coursework for the degree except the research component at the U.S. training institution, then return to Botswana to complete degree research requirements. Faculty members from the project team and UCB constitute resources for guiding research projects and examining candidates upon completion of the investigation.

In addition to the formal Masters degree coursework, arrangements will be made for candidates to participate in short courses, conferences, workshops and seminars related to major interest areas. Examples of such experiences would be for the in-service specialist to attend the annual national meetings of the Association for Supervision and Curriculum Development and for the language specialists to participate in meetings of the International Reading Association.

Practical experiences, such as visitations to schools, classrooms, intermediate units, state departments of education and professional associations, will also be an important part of the participant training program. The participants, as a matter of course, will be encouraged to join an appropriate professional organization while on their training program in the U.S.

3. Participant overlap with project staff. By the end of project, Batswana personnel will have assumed the roles and responsibilities carried out by the staff of the institutional contractor. A smooth and effective transition requires that the participants be phased into their roles immediately upon return from their U.S. training program. Ideally the overlap period with U.S. counterparts should be between 3-6 months. "Front-end loading" of the participant training schedule should provide that margin of overlap in most instances. In the case of UCB participants, overlap activities will include assisting with or teaching classes, preparation of class materials, supervising the clinical teaching practice internships, and working with the TTCs and MOE in curriculum development and in-service activities. Participants assigned to the MOE would be involved in primary school curriculum development activities, the planning, organizing and implementing of in-service education programs and assisting their U.S. counterparts and MOE officials with other related responsibilities.

The U.S. counterpart will have an important role to play in the transition period by providing both professional and psychological support to the Batswana personnel. The institutional contractor staff should recognize this period of on-the-job training of Batswana personnel as being a very important dimension of the localization process.

4. Short-term participants. Short-term participant training programs of three months or less will be provided under the project to six Batswana working in some facet of the primary education program. These intensive study programs, to be carried out either in the U.S. or a third country, will be focused upon a specific need or problem related to the improvement of primary education. The needs tentatively identified for short-term participant training include primary school evaluation, curriculum development, schools broadcasting, primary school administration and supervision, teaching English as a second language and educational materials development. Efforts will be made to schedule the short-term programs as early in the project's life as possible, taking into consideration the unique work schedules of the participants and the availability of appropriate study experiences.

5. SAMDP sponsored participants. The development of the pre-service program at UCB and the professional staffing of the MOE will be greatly enhanced under provisions of the Southern Africa Manpower Development Program whereby seven long-term Batswana participants will be trained in areas related to primary education. Two Batswana are now studying under SAMDP for Masters degrees in the U.S. (African languages and science education) and a third is scheduled to begin study in March 1981 (English/Language arts). A fourth Batswana has been identified for a year-long program of study with a starting date yet to be determined. Other tentatively identified primary education needs to be addressed through SAMDP participant training, to either the Bachelors or Masters levels, include the following: testing and evaluation; teacher training college development; primary school supervision; educational planning; and teaching aids development.

The selection of future SAMDP participants will be a responsibility

of the MOE and UCB in cooperation with USAID/B and the institutional contractor. The implementation of the SAMDP participant training program will be the responsibility of USAID/B, drawing upon the resources of the institutional contractor as appropriate.

PARTICIPANT TRAINING SCHEDULE

	1980	1981	1982	1983	1984	1985
<u>Project 0222 Support</u>						
<u>UCB Participants</u>						
1. TESL (Teaching English as a second language)		x		x		
2. Reading/Language Arts			x		x	
3. Science			x		x	
4. Mathematics			x		x	
5. Admin/Sup (Morad)			x		x	
6. Social studies <sup>1/</sup>				x		x
7. Early Childhood Education				x		x
8. Media Development	x			x		
<u>MOE Participants</u>						
9. Admin/Planning (In-service)	x			x		
10. Curriculum			x		x	
<u>Short-Term Participants (U.S. and Third Country)</u>						
11. Evaluation						
12. Curriculum Development						
13. Schools Broadcasting						
14. Supervision/Admin						
15. TESL						
16. Educ. Materials Devel.						
<u>Southern Africa Manpower Development</u>						
<u>UCB Participants</u>						
1. African languages (T. Masitara, MEd, Columbia)	x					

Scheduled to coordinate with the needs of the project.

<sup>1/</sup> Study at an African university.

	1980	1981	1982	1983	1984	1985
2. Science Education (R. Charahwa, MEd, Columbia)	x	—	x			
3. Eng./Language Arts (B. Mpotokwane, MEd, Ohio)		x	x			
<u>MOE Participants</u>						
4. Computer Programming (Mrs. K.N. Lecoge)		x	—			
5. Testing and Evaluation						
6. Primary Education Specialist (supervision)						
7. Primary Education Specialist (TTC)						
8. Educational Planning						
9. Primary Education (Teaching aids production)						

SUPPLEMENTARY FINANCIAL TABLESBasis for Calculation of U.S.  
Annual Technician Costs

(in US \$)

	<u>Contract Costs</u>	<u>Support Costs</u>
Salary	38,000	
Differential (10%)	3,800	
Local Non-Professional	1,900	
On Campus Salaries:		
Coordination and support	5,700	
Fringe Benefits (Retirement etc.) 20% Total	9,900	
Insurance 10% Off-Campus	4,200	
Overhead - On campus (65%)	3,705	
Off campus (35%)	15,295	
Office Equipment and Office Support	3,000	
Other miscellaneous costs	2,560	
Travel to Posts - including shipments (annualized over 5 years) <sup>1/</sup>	3,940	
	<u>92,000</u>	
Education allowances		8,000
Education travel		1,400
R & R travel		5,000
Utilities		4,200
Security Guard		4,440
Household maintenance		1,000
Medical costs (including travel)		1,000
One time costs for travel and housing requirements (annualized over 5 years) <sup>1/</sup>		11,490
Proportionate share of general support <sup>1/</sup>		<u>1,470</u>
	<u>38,000</u>	<u>38,000</u>
Total	<u>130,000</u>	

<sup>1/</sup> See breakdown next table.

Breakdown of Contract and Support Costs

(in US \$)

## Contract costs - Travel to Post

4 @ 1,500 Travel & Per Diem	6,000
4 @ 750 Unaccompanied Baggage	3,000
Household Effects	7,200
Automobile Shipment	2,500
Passport, Shots, etc.	<u>1,000</u>
Total	19,700
Annualized over 5 years 19,700/5	3,940

Support costs - One Time Costs for  
Travel and Housing

Housing Renovation	7,000
Supplemental Furniture and Equipment	12,000
Drapery Allowances	750
Home Leave and Return - mid-project	
Travel 4 @ 1,500 x 2	12,000
UAB 4 @ 750 x 2	6,000
Return at End of Contract	
Travel 4 @ 1,500	6,000
UAB 4 @ 750	3,000
HHE	7,200
Automobile	2,500
Misc.	<u>1,000</u>
	57,450
Annualized over 5 years 57,450/5	11,490

## Proportionate share of general support:

Several USAID projects share the services of the PASA/Contract Support Office. This covers project phase of operating costs.



COST ANALYSIS - GOB CONTRIBUTION

1. Technical Services

<u>Position</u>	<u>Salary</u>		<u>% Worktime on Project</u>	<u>Total p.a.</u>
	<u>Pula p.a.</u>	<u>§ Equiv. p.a.</u>		
<u>UBS Faculty of Educ.</u> <sup>+</sup>				
Dean	27,100	§ 36,856	1/4	§ 9,214
Other Faculty Lecturers (Av. Sal.)	22,962	31,228	1/4 x 8	62,456
<u>Ministry of Educ.</u> <sup>++</sup>				
Permanent Secretary	16,320	22,195	1/20	1,110
Dep. Perm. Sec.	15,012	20,416	1/20	1,020
Sr. Plan. Off.	11,592	15,765	1/10	1,577
Plan. Off.	9,012	12,256	1/10	1,226
CEO - Prim. Ed.	13,272	18,049	1/5	3,609
CEO - Curr. Dev. & Eval.	13,272	18,049	1/5	3,609
Sr. Ed. Officer	11,592	15,765	1/5	3,153
Educ. Off.	9,012	12,256	1/5	2,451
Prin. Inspector	11,592	15,765	1/5	3,153
Sr. Inspector	8,556	11,636	1/10	1,164
Inspector of Sch.	6,012	8,176	1/10	817
Curr. Eval. Off.	11,592	15,765	1/5	3,153
Test Dev. Off.	9,012	12,256	1/5	2,451
Research Test. Off.	9,012	12,256	1/5	2,451
In-serv. Tr. Off.	6,012	8,176	1/5 x 2	1,634

<sup>+</sup>Bursar, UCB

<sup>++</sup>Source: GOB Establishment Record, 1980-81.  
1 Pula = §1.36

GOB EXPENDITURES FOR LIFE OF PROJECT (in \$000)Recurrent and Capital Cost Breakdown

	<u>Capital or One-Time</u>	<u>Recurrent</u>
Technical Services		521
In-Service Education		294
Participant Training		480
Support to U.S. Team	20	50
Vehicles	50	32
Construction	906	
Operations		280
Other Costs		100
Total Base Costs	976	1,757
Inflation		650
Contingency	<u>98</u>	<u>241</u>
Grand Total GOB Costs	1,074 (29%)	2,648 (71%)
Grand Total AID + GOB = 11,014		

ORIENTATION APPOINTMENTS FOR OHIO UNIVERSITYTECHNICAL ASSISTANCE TEAMA. Government of Botswana Officials

K.P. Morake, Minister of Education  
 K. Masogo, Permanent Secretary, MOE  
 C.A.R. Motsepe, Deputy Permanent Secretary, MOE  
 Dr. N.O.H. Setidisho, ex-Rector, UCB  
 Dr. Thomas Tlou, Acting Rector, UCB  
 Mr. Ken Matambo, Director of Economic Affairs, Ministry of Finance  
 and Development Planning  
 C.O. Shaw, Director Unified Teaching Service  
 P.V. Sephuma, CEO (Primary and IT)  
 J.R. Swartland, CEO (Curriculum Dev. and Evaluation)  
 M.K. Mogasha, Principal Inspector, Primary Schools

B. Teacher Training Colleges

R. Ndwapi, Principal, Serowe TTC  
 L.G. Mothusi, Deputy Principal, Serowe TTC  
 S. Seemule, Principal, Lobatse TTC  
 C. Mhanda, Deputy Principal, Lobatse TTC  
 M. Kuswani, Teacher, Lobatse TTC  
 G. Pilane, Principal, Francistown TTC

C. Teacher Centres (In-service staff)

M. Lesolle, Director, Serowe Teacher Centre  
 K. Kgamane, Deputy Director, Serowe Teacher Centre  
 W. Muchow, Director, Maun Teacher Centre  
 M.K. Momoti, Director, Molepolole Teacher Centre  
 T.R. Hutton, Director, Mochudi Teacher Centre  
 G. Philips, Director, Lobatse Teacher Centre  
 M. Enqwal, Manu Teacher Centre

D. Inspectors

B.C. Marumo, Regional Education Officer  
 P.T. Moalosi, Regional Education Officer  
 D.K. Mongwa, Regional Education Officer  
 M.M. Mokgwathi, Serowe  
 J.M. Mqhum, Molepolole  
 M.F. Katse, Mochudi

E. Advisory Committee

P.V. Sephuma, Chairman  
 J.R. Swartland, CEO (Curriculum Dev/Education)  
 B. Swallow, In-Service Director  
 B. Perkins, Dean of Faculty, UCB

B.C. Marumo, Regional Education Officer  
 D. Selwe, President, Botswana Teachers Union  
 C.O. Shaw, Director, UTS  
 L.A. Lockhart, Senior Planning Officer  
 A. Whiteside, Ministry of Finance  
 J. Purves, Advisor, CEO for Primary and TT

F. Primary Schools (visited and observed)

<u>School/District</u>	<u>Headteacher</u>	<u>Deputy</u>
Ithuteng/Gaborone TC	L.R. Mmusi	A. Khunow
Camp/Gaborone TC	D. Selwe	C.G. Mphusu
Bathlokwa National/Tlkweng	H. Hlongwane	S.M. Segokgo
Hill/Lobatse TC	J.M. Segano	S.G. Kgosimore
New Look/Lobatse TC	G.I. Moate	F.S. Ndlovu
Canon Gordon/Kweneng	A.G. Koakae	M. Dikgang
Riverside/Central	J.B. Machangwane	L. Lefehaphane
Simon Ratshosa/Central	L.S. Segka	D.G. Lekang
Kgafela/Kgatleng	J. Makgatlhe	G.M. Lekoko
Isang/Kgatleng	M.M. Monyatso	S.O. Lebotse
Ramogotsi/Kgatleng	N.M. Pitse	B. Tau
Chanoga/Northwest	P. Thlobolo	M.G. Tshimolo
Bonatla/Northwest	C.M. Chalebgwa	U.B. Seretse
Thamalakane/Northwest	F.C. Tigere	B.B. Tsumele

Special classes observed: O.B. Seretse/M. Mohubitswane

G. Discussion at Maun Teacher Centre

<u>School</u>	<u>Headteacher</u>	<u>Deputy</u>
Bonatla	C.M. Chalebgwa	D.B. Seretse
Botswelelo	J.C. Madzima	T. Mpala
Sekgoma	C.A. Salani	L.M. Dichaba
Boseja	R.T. Selema	R. Disipi
English Medium	G. Philime	S.C. Mahube
Mathlhapeneng	M. Gaboitaolwe	D. Masidiwana
Moremi II	L.M. Sankwasa	D.K. Mayome
Shorobe	E. Matika	M. Mabhunu
Thamalakane	F.C. Tigere	B.B. Tsumele

H. University College of Botswana

B. Perkins, Dean  
 Prof. Otaala, Education  
 Prof. Moyo, History  
 Prof. Clegg, English  
 Dr. M. Muelhe, Science Education  
 Dr. B. Henderson, Director, Resource Center  
 Dr. H. Karuhije, Head, Department of Nursing Education  
 Dr. S. Pandey, Education Foundations  
 M. Dambe, Education Foundations  
 J. Suffolk, Maths

Prof. Kupa  
 Dr. Andrew Clegg, Science Education  
 Sister Reynolds, English

I. Others

1. Curriculum Development and Evaluation
  - R. Dodd
  - S. Khama
  - P. Ramatsui
  - L. Matlhaku
2. Unified Teaching Service
  - M. Kuswane, Deputy Director
3. World Bank
  - J. Scarce
  - L. Fisher
  - Ms. Bradenbaugh
4. Education Secretaries
  - M. Mosekiemang, Northwest District
5. Staff Discussions at TTCs
  - Francistown - 8
  - Lobatse - 22
6. TAPU (Teaching Aids Production Unit) - 5
7. Curriculum Development Workshop, 9 December 1980
  - Observation of subject panels in operation - 120

STATUTORY CHECKLIST6C(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

- |   |  |
|---|--|
| <p>1. <u>FAA Sec. 116</u>. Can it be demonstrated that contemplated assistance will directly benefit the need? If not, has the Department of State determined that this government has engaged in consistent pattern of gross violations of internationally recognized human rights?</p>  | <p>a. The project is designed to improve the quality of primary education, particularly in the rural areas of Botswana.</p> <p>b. No such determination.</p> |
| <p>2. <u>FAA Sec. 481</u>. 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?</p> | <p>No such determination has been made.</p>  |
| <p>3. <u>FAA Sec. 620 (a)</u>. 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?</p>   | <p>No.</p>   |
| <p>4. <u>FAA Sec. 620 (b)</u>. If assistance is to a government, has the Secretary of State determined that it is not controlled by the international Communist movement?</p>   | <p>Yes.</p>  |

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 without 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.
10. FAA Sec. 620 (1). 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 con-

government for this reason?

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?
- b. has complete denial of assistance been considered by AID Administrator?
12. FAA Sec. 620(q): 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 small police force. In 1977 a small defense force (army) was organized. For 1979-80, police and internal security expenditures represented approximately 6% of the GOB budget or about 4% of GDP. Less than 8% of foreign exchange reserves were spent on military equipment in the 1979-80 period and no money was 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 resumption? 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 are no 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 such 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 sales 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 notified concerning the project;

The congress was notified utilizing normal congressional notification procedures. Refer to FY81 Congressional Presentation Booklet, Annex 1, pages 454 and 464.

Yes.

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%)?

#### 2. FAA Sec. 611(a)(1). Prior to obligation in excess of \$100,000, will there be

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

Yes.

b. a reasonably firm estimate of the cost to the U.S. of the assistance?

Yes.

#### 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 required.

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?
- Not required because construction component does not exceed \$1 million.
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. 601(a); (and Sec. 201(f) for development loans). Information and conclusions whether the project will encourage efforts of the country to:
- increase the flow of international trade;
  - foster private initiative and competition;
  - encourage development and use of cooperatives, credit unions, and savings and loan associations;
  - discourage monopolistic practices;
  - improve technical efficiency of industry, agriculture and commerce; and
  - strengthen free labor unions.
- The project is designed to establish (1) a permanent capacity at the University of Botswana (UCB) to provide appropriate 2 year diploma and 4 year Bachelor of Education programs in Primary Education and (2) to strengthen the capacity of the GOB Ministry, in cooperation with the UCB to organize and implement in-service programs for supervisory staff and teachers involved in primary education.

8. FAA Sec. 601(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. technical assistance, U.S. university training, and U.S. commodities.
9. FAA Sec. 612(b); Sec. 636. Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the costs 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 37% 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?
- Botswana is 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 the GOB to increase access, efficiency and relevance of primary education. Emphasis is to be given to rural areas of the country. As primary education is strengthened, increasing numbers of Botswana can assume more productive social, economic, and developmental roles.

The Standard Item Checklist has been reviewed for this paper.

WaiversI. Waivers Required

A. A procurement source and origin waiver from A.I.D. Geographic Code 941 to Code 935 for the procurement of approximately \$180,750 of commodities.

B. A waiver of nationality requirements from A.I.D. Geographic Code 941 to Code 935 for the procurement of approximately \$169,000 of services.

II. Justification for Waiver for Source and Origin of CommoditiesA. Summary Waiver Information

Cooperating Country:	Botswana
Authorizing Document:	Project Authorization
Project:	Botswana Primary Education Improvement
Nature of Funding:	Grant
Description:	Office Supplies, typewriters and miscellaneous equipment
Probable Source:	South Africa
Total Value (Approximate):	\$180,750

B. Discussion

Commodities for which a source and origin waiver is being requested fall into two categories: (1) project commodities and (2) Commodities for contractor support.

1. Project Commodities

Typewriters, calculators, portable radios, generators and office supplies listed under "Equipment" in the Project Paper, pp. 43-44 (\$57,000) plus items listed under "Supplies, Maintenance and Communications" (p. 44): "Consumable supplies for teaching aids and in-service workshops" (\$10,000), and "Office supplies, postage, paper, etc." (\$15,000). Total: \$82,000.

2. Commodities for Contractor Support

Housing renovation, supplemental furnishing and equipment, and draperies listed in the Project Paper, Annex I, p. 2 under "Support Costs-One time costs for Travel and Housing". Total: \$98,750

All of these items will be procured from South Africa. Many of these materials are electrical in nature and U.S. equipment is not compatible. Further, the long lead time involved to procure from the U.S. those few items which are available from the U.S. would seriously delay the first year's implementation of the project. Also, there is a complete lack of repair service and spare parts for U.S. products of this nature in Botswana. Additionally, nearly all of UCB's current educational equipment inventory is South African and, therefore, it would be preferable to procure compatible equipment for further maintenance. This waiver is based on criteria numbers 2 and 7 on page 5-7 of Handbook I Supplement B.8.

III. Justification for Waiver of Nationality Requirements for Services

A. Summary Waiver Information

Cooperating Country:	Botswana
Authorizing Document:	Project authorization
Project:	Botswana Primary Education Improvement
Nature of Funding:	Grant
Description:	Residential utilities, security guards, household maintanence, medical costs and general repair and maintenance of project equipment.
Probable Source:	South Africa
Total Value (Approximate):	\$169,000

## B. Discussion

Services for which a waiver of nationality requirements is being requested also fall into two categories: (1) contract and support services and (2) project services.

### 1. Contract and Support Services

Security guard service, household maintenance and medical costs listed under "Supplementary Financial Tables" in Annex I of the Project Paper. Total: \$161,000

### 2. Project Services

General repair and maintenance of equipment listed in the Project Paper under "Supplies, Maintenance and Communications," p. 44. Total: \$8,000

All of these services will be procured either from South Africa or from South African owned firms. In the case of security guard service and household maintenance, these services are routinely provided by South African firms operating in Botswana. The general repair and maintenance of equipment for items manufactured in South Africa is generally done by South African firms operating both in Botswana and South Africa. It is not possible to distinguish between South African firms operating in Botswana and Botswana owned firms. Accordingly, a waiver is required for all project financed services. Thus, tests of beneficial ownership discussed in Handbook 1B:12 cannot be applied.

Additionally, for the small amount of services required, it is not feasible to require U.S. firms to provide them, since U.S. firms providing these services do not operate in Botswana. Also, no Code 941 firm would be interested since the services required are of limited magnitude and would not generate any interest.

DEPARTMENT OF STATE  
**TELEGRAM**

*Chris*

ACTION

AMEMBASSY GABORONE

STATE 301181

UNCLASSIFIED

PER C-3

Classification

AMI  
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TO RUEHOR/AMEMBASSY GABORONE PRIORITY 3851  
INFO RUQMNI/AMEMBASSY NAIROBI PRIORITY 4042  
BT  
UNCLAS STATE 301181

12 NOV 81

AIDAC, NAIROBI FOR REDSO

E.O. 12065: N/A

TAGS:

SUBJECT: REQUEST FOR WAIVER/IMPACT SUPPORT  
REFERENCE: STANFORD MEMO TO KOFBING DTD. OCT. 2

1. AFR/DF WITH GC/AFR AND SER/OTM REVIEWED SUBJECT MEMO ON OCTOBER 29. WE ARE MOST SYMPATHETIC TO PROBLEM POSED BY REDSO IN THE LARGE NUMBER OF TRANSACTIONS AGAINST WAIVER LIMIT. WE WOULD PROPOSE A MODIFIED VERSION OF OPTION 2, WHICH IS A POLICY DISFAVORING BLANKET WAIVER/IMPACT WAIVERS TO CODE 935. THUS, RATHER THAN REQUESTING A BLANKET WAIVER TO CODE 935 FOR ALL CONTRACT TECHNICIAN SUPPORT PROCUREMENT, WE WOULD PROPOSE THAT THE AA/AFR BE REQUESTED TO RAISE THE LIMITATION ON SELF ITEM PROCUREMENT FOR COMMODITIES HAVING THEIR ORIGIN IN CODE 399 BUT NOT IN CODE 941 TO THE TOTAL SUM BUDGETED FOR DIRECT CONTRACTOR SUPPORT FOR EACH PROJECT. SUCH WAIVERS COULD BE APPROVED BY AA/AFR FOR ONGOING PROJECTS AND SIMILAR WAIVERS COULD BE REQUESTED BY THE FIELD FOR EACH NEW PROJECT REQUIRING CONTRACT SUPPORT. THE FIELD WOULD BE RESPONSIBLE FOR IDENTIFYING THE SPECIFIC SUPPORT BUDGET AS A LINE ITEM IN THE OVERALL PP BUDGET. INDIVIDUAL TRANSACTIONS UNDER THESE WAIVERS WOULD HAVE TO BE RECORDED ONLY AS NECESSARY TO

ENSURE THAT TOTAL EXPENDITURES FOR EACH PROJECT FOR CONTRACTOR SUPPORT DO NOT EXCEED THE SUPPORT BUDGET. ANY NECESSARY PROCUREMENT FROM CODE 935 COUNTRIES IN EXCESS OF THE CONTRACT SUPPORT BUDGET WOULD HAVE TO BE SEPARATELY APPROVED BY THE AA/AFR.

2. IF MISSION CONCURS IN ALTERNATIVE DESCRIBED ABOVE, PLEASE ADVISE AID/W OF PROJECT SUPPORT BUDGET FOR ALL ONGOING ACTIVITIES WHERE SUCH A WAIVER IS NEEDED. REF. MEMO WILL BE UTILIZED AS JUSTIFICATION FOR REQUIRED WAIVERS. MUSKIF

UNCLASSIFIED

UNITED STATES GOVERNMENT

# Memorandum

TO : The Files (Proj. 0015, 0056, 0067, 0074, 0078)

FROM : J.C. Stanford, Controller (Waiver Control Officer)  
Mr. L.A. Cohen, Director *J.C. Stanford*

SUBJECT: Procurement Without Waivers

DATE: 11 February, 1980

1. Summary: Due to the unique nature of the PASA/Contract support operation in Gaborone, procurements of goods and services for technician support took place which, strictly according to Handbook guidance, should have been waived. They were not waived because Mission staff failed to view these procurements as transactions to which source/origin/nationality requirements applied. After the issue came to light, proper waivers were further constrained by the need to sort out proper charges for each project so that waivers by project could be written, and by the need to coordinate guidance from the Regional Legal Advisor and the Regional Procurement Specialist. Based upon this guidance, we are not issuing waivers to cover transactions which have already taken place. This is based upon AID policy that retroactive waivers should not be issued, and a General Counsel opinion that they may not be issued. We are instead documenting what took place in this memo, and using the appropriate amounts for each project to reduce the Director's waiver authority. Therefore, for control purposes they are being treated as though they had been waived.

Amounts by Project - Code 935 Procurement

<u>Project Number</u>	<u>Goods</u>	<u>Services</u>
633-0015	\$ 3,100.00	\$11,500.00
633-0056	\$10,200.00	\$ 7,000.00
633-0067	\$19,100.00	\$17,200.00
633-0074	\$ 6,900.00	\$ 9,500.00
633-0078	\$ -0-	\$ 100.00

2. Background: These projects in the Agriculture Sector (Projects 0015, 0056 and 0067) provided in their design for the assignment of long term technicians to implement the technical assistance activities under the projects. It was envisioned that these positions would be filled by either OPEX technicians or through an institutional contract. Under either of those arrangements, the OPEX or contractor would have been responsible for providing their own support, and Mission staff would not have been involved. Because of difficulties in



Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

recruiting and filling these positions, it was decided to charge them to PASA technicians provided from USDA. Originally USDA was to provide an administrative position in country to handle support for PASA technicians. However, AID/W required, because of a surplus of AID Direct Hire management staff, that the position be filled by an AID Direct Hire employee. Since this employee had no authority to commit or expend funds which were provided to USDA through a PASA, PTO/Ts which were to provide PASA funds were reduced, and the funds were established within the projects as separate support activities. These were to be support budgets using project funds, but directly implemented and controlled by the Mission. Since funds were originally available in only one of the projects, a memorandum of understanding was drawn up which specified that items would be charged there and subsequently redistributed to other projects as funding became available. Charging to the correct projects was further confounded by the fact that most of the charges were for renovations to houses and furnishings and appliances for houses at a time when it was not known which technicians would occupy which houses. Therefore there was no really accurate way to determine which project should bear the charges.

Once the activities had begun on the three projects mentioned above, it was found that it was a cheap, effective way to provide technicians support. Cheap in the sense that it does not require separate administrative arrangements under the different agreements and that support charges, since Mission controlled, are not subject to overhead charges. Effective in the sense that technicians do not need to make their own support arrangements and are therefore more effective in providing technical assistance. It was therefore decided to use this already established support mechanism to provide support to long term technicians under two new projects, 0074 and 0078.

In October of 1979, most technicians under the original three projects had arrived and were assigned housing. For the two new projects, technicians had either arrived and were housed, or we had determined which houses would be charged to which project. We were therefore able to complete an analysis and make a redistribution of the charges to the correct projects. Although data is available to actually make these transfers, we have opted to delay the actual transfer until after all accounting responsibilities are assumed by the Mission on April 1, 1980.

During the period when this activity was getting underway, Mission staff did not consider that these procurements of goods and services were subject to source/origin and nationality rules. This is because the procurements were for support of technicians, and not considered as "contracting for services" in the normal project sense. It is fairly evident that AID regulations dealing with the subject are focused on procurement of goods and services in direct implementation of project activities, and not towards providing support. Further, the sources of goods and services for this support are essentially the same sources

used for support of AID Direct Hire employees. Once the issue was raised, we began attempting to coordinate advice from the Legal Advisor and the Procurement Specialist on how best to resolve the situation. We have now accomplished that task and have agreed to take the actions detailed in the conclusion below.

3. Conclusion

(a) Based upon AID policy not to issue retroactive waivers, we will not issue waivers for procurements which have already taken place, although we believe that the waivers would be justified. We will instead insert a copy of this memorandum in each affected project file. To protect the integrity of the delegation of authority to the Mission Director, we will use the amounts of procurements involved to reduce the Director's waiver authority on each affected project. Therefore, the sum total of Mission issued project waivers plus the sums detailed above in the memorandum will not exceed the level of authority delegated to the Mission Director.

(b) Each project which provides support through this mechanism will be reviewed with the relevant project officer and the PASA/Contract Field Support Officer. Where additional procurements are involved which will require waivers, waivers will be prepared for each project giving detailed justifications to support the requirement and will be issued using the Mission Director's waiver authority.

(c) The Mission will prepare and submit to AID/W a detailed explanation of the unique nature of this situation and a request for a blanket waiver to cover the support problem.

FORWIFE: RChastain (draft)  
RHyden (draft)  
JMorris (draft)  
CGordon (draft)  
JPlancher (draft)

Mr. John Koehring, AFR/DR  
AID/Washington

2 October, 1980

J.C. Stanford, Controller, USAID/Botswana

THRU : Mr. Louis A. Cohen, Director, USAID/Botswana  
Request for Waiver - PASA/Contract Support Operations

1. Attached hereto is a memorandum which details an unusual situation existing in this Mission due to the unique nature of our support to PASA and Contract Technicians. Because of this unique situation, we are hereby seeking relief from procurement regulations for each of the projects involved and will include in future Project Papers which provide for this support mechanism requests for such relief.

2. The nature of transactions involved in these procurements are many and varied. Basically, the support mechanism works as follows:

(a) The PASA Agency or Contractor includes funding for costs involved in original assignment to post (Air Travel, Shipments, etc.).

(b) The support budget provides all other support costs (renovations to housing, drapery allowances, supplemental furnishings and equipment, education allowance or travel, residential utilities, return transportation at end of tour, etc.).

All transactions are very small in amount, but obviously by providing support to approximately 25 families through this vehicle, there are a very large number of transactions. Virtually all procurements are made in Botswana. However, almost nothing is manufactured in Botswana using local materials. Therefore, virtually all purchases are shelf items whose origin is most likely South African. Likewise, with services virtually all service firms able to provide services required for support are not locally owned firms.

3. Keeping an accurate record of these transactions for waiver purposes is a task which involves analyzing about 800 to 1,000 transactions a year, and recording these in a waiver control against shelf item or other waiver limits. This activity alone could consume a good share of the time of one FSN clerk and cannot be properly handled with existing staffing.

4. Further, we question whether it is the intent of the procurement regulations that they be applied to these types of transactions which are virtually identical to transactions for U.S. Direct Hire AID personnel. If support of this type had been provided by the PASA Agency or from the Contractor, purchases of goods and services would have been made in the same way and from the same sources yet we would not have been concerned about waiver authorities.

5. The alternatives we currently see are:

(a) Establish a waiver control record for these transactions, and record each transaction against the applicable limits. The only way to be certain that this is correct would be to record each transaction so the totals could be balanced against the project totals. This would require one additional FSN clerk.

(b) Obtain approval of a blanket waiver stating "Goods and Services purchased in support of project technicians through direct support budgets under projects in Botswana will not be subject to the source/origin requirements in AID's procurement regulations".

(c) Obtain approval of blanket waivers waiving source/origin to Code 935 for the full amount of the support budget for each project.

6. Our analysis of the options above is as follows:

Option A. We believe given the nature and value of the transactions involved, that it does not warrant the amount of time which would have to be devoted to a detailed control. We further believe that since this would require an additional FSN employee, it would be an extremely poor useage of manpower.

Option B. We definitely prefer this option because, as stated above, we do not believe it was the intent of the regulations to be applied to these types of transactions.

Option C. This option is workable as we would only have to monitor projects to determine that costs had not exceeded those provided in the support budget. Any amount less than this, however, would still require detailed monitoring as in Option A to be certain that limits had not been exceeded.

The only other possibility we can envisage would be to have GC provide a ruling that it is not the intent of procurement regulations that they be applied to transactions such as those explained above, and that the Mission therefore need not be concerned about source/origin requirements in administering these support budgets.

7. The Mission is prepared to take whatever actions you may suggest to resolve this issue. As we are considering whether to provide support through this support budget vehicle in upcoming new projects, we would appreciate early advice as to how it may be resolved. If you believe we should proceed with Option C, we will forward waiver requests by projects.

DRAFT:JCStanford:sbs

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**DEPARTMENT OF STATE**  
**TELEGRAM**

ANNEX M

AMEMBASSY GABORONE

UNCLASSIFIED

P 110734Z APR 80  
FM SECSTATE WASHDC  
TO RUEHOR/AMEMBASSY GABORONE PRIORITY 1092  
INFO RUQMNI/AMEMBASSY NAIROBI PRIORITY 5278  
BT  
UNCLAS SECTION 01 OF 02 STATE 094856/01

AIDAC, NAIROBI FOR REDSO/EA

E.O. 12065: N/A

TAGS:

SUBJECT: PRIMARY EDUCATION IMPROVEMENT PID - 633-0222

1. SUBJECT PID WAS REVIEWED ON MARCH 6. THE PID IS APPROVED. USAID/B EDUCATION OFFICER GANT'S PARTICIPATION AT THE REVIEW HELPED CLARIFY A NUMBER OF THE MAJOR ISSUES AND CONTRIBUTED SUBSTANTIALLY TO PID COMMITTEE'S DELIBERATIONS. THE PRINCIPAL ISSUES INVOLVE THE RELATIONSHIP OF THE TRAINING ACTIVITY TO THE DEVELOPMENT OF THE PRIMARY SCHOOL CURRICULUM AND THE EFFICACY OF THE TRAINING DESIGN. THESE ISSUES ESSENTIALLY REFLECT A CONCERN THAT THE PROJECT MAY NOT BE ABLE TO ACHIEVE ITS ULTIMATE OBJECTIVE, I.E., IMPROVED PRIMARY EDUCATION. THESE AND OTHER QUESTIONS AND ISSUES RAISED DURING THE REVIEW ARE SUMMARIZED BELOW FOR MISSION CONSIDERATION AND MUST BE ADDRESSED IN THE PP. COPIES OF THE ISSUES PAPER WERE POUCHED MARCH 24.

2. PROJECT DESIGN: THE PROJECT AS DESCRIBED IN THE PID WILL HELP IMPROVE PRIMARY EDUCATION THROUGH PRE-SERVICE AND IN-SERVICE TRAINING FOR HEADTEACHERS, INSPECTORS AND TUTORS. IN THIS REGARD THERE ARE A NUMBER OF QUESTIONS THAT MUST BE ADDRESSED. THESE INCLUDE: THE STATUS OF PRIMARY EDUCATION IN BOTSWANA; AN ASSESSMENT OF THE PRESENT CURRICULUM; THE QUALITY AND AVAILABILITY OF TEACHING MATERIALS; PRESENT AND

PROJECTED TEACHER/PUPIL RATIOS; AN ASSESSMENT OF TTCS AND THE SCHOOL OF EDUCATION AT UCB; THE AVAILABILITY OF BOTSWANA TO BE TRAINED UNDER THE PROJECT; AND THE RELEVANCY OF TRAINING SCHOOL INSPECTORS WHO MAY HAVE LIMITED IMPACT ON IMPROVING THE PROFESSIONAL COMPETENCY OF TEACHERS.

(A) CURRICULUM

IN-SERVICE AND PRE-SERVICE TEACHER TRAINING CANNOT BE CONSIDERED APART FROM THE DEVELOPMENT OF CURRICULUM AND TEACHING MATERIALS. THE PID DOES NOT DISCUSS THE CURRICULUM REFORM IN BOTSWANA WHICH WAS EVIDENTLY INITIATED IN 1978 THROUGH THE NEWLY-ESTABLISHED CURRICULUM AND EVALUATION UNIT IN THE MOE, A FACT BROUGHT OUT BY GANT. GANT ALSO INDICATED THAT REVISED PRIMARY TEACHING MATERIALS AND TEACHERS GUIDES HAVE BEEN TARGETED FOR DEVELOPMENT AND USE WITHIN THE NATIONAL DEVELOPMENT PLAN PERIOD 1980-85. PRIOR TO PP PREPARATION, AN ASSESSMENT MUST BE COMPLETED ON THE PROGRESS THAT HAS BEEN MADE IN THE DEVELOPMENT OF THE NEW

CURRICULUM, ITS RELEVANCY, AND WHETHER FURTHER REVISIONS WILL BE REQUIRED. THE PHASING OF TRAINING WITH CURRICULUM REFORM SHOULD BE CONSIDERED AS WELL AS THE POSSIBILITY OF READJUSTING THE SCOPE OF THE PROPOSED PROJECT WITH THE VIEW TO ACCELERATING THE CURRICULUM REFORM PROGRAM. SIMILARLY, AN EVALUATION OF THE NEW TEACHING MATERIALS SHOULD BE INCLUDED. AID/W CAN ASSIST IN IDENTIFYING QUALIFIED CANDIDATES FOR SUCH ASSESSMENTS SHOULD USAID/B SO DESIRE.

(B) TRAINING DESIGN

THE ROLES OF HEADTEACHERS, INSPECTORS AND TUTORS, THE PROJECT'S PRIMARY TARGET GROUPS, MUST BE DEFINED IN MORE DETAIL TO PROVIDE A BETTER UNDERSTANDING OF HOW THEY WILL IMPROVE THE QUALITY OF PRIMARY TEACHING. MISSION SHOULD REVIEW THE ASSUMPTION THAT HEADTEACHERS, IN THEIR CAPACITY AS PRINCIPALS OR SUPERVISORS IN THE PRIMARY SCHOOLS, WILL BE WILLING AND ABLE TO PROVIDE IN-SERVICE TRAINING FOR THEIR STAFFS IN ADDITION TO CARRYING OUT THEIR OTHER RESPONSIBILITIES. PP SHOULD REVIEW THE ADEQUACY OF INCENTIVES (E.G., SALARY INCREASES, PROMOTIONS, CERTIFICATES OF ACCOMPLISHMENT) FOR HEADTEACHERS AND TEACHERS TO BECOME INVOLVED IN EXTENSIVE AFTER-SCHOOL ACTIVITIES. THERE IS ALSO A QUESTION OF HOW INSPECTORS, ASSIGNED TO PROVINCIAL OFFICES, CAN IMPROVE TEACHING THROUGH PERIODIC VISITS TO THE SCHOOLS UNDER THEIR JURISDICTION.

(C) COORDINATION: INSTITUTIONAL RESPONSIBILITY AND MEANS FOR COORDINATION MUST BE FULLY ELABORATED IN THE PP. THE PROJECT, TO BE SUCCESSFUL, WILL REQUIRE CLOSE COOPERATION AMONG

THE VARIOUS DEPARTMENTS OF THE MOE AND THE UCB. PP SHOULD ANALYZE THE ABILITY OF THESE INSTITUTIONS TO WORK TOGETHER AND IDENTIFY WHICH OF THEM WILL HAVE THE PRINCIPAL RESPONSIBILITY FOR PROJECT IMPLEMENTATION. INFORMATION SHOULD BE PRESENTED ON THE PRESENT CAPACITY/EFFECTIVENESS OF THE TTCS AND THE SCHOOL OF EDUCATION AS WELL AS HOW THE TTCS RELATE TO THE SCHOOL OF EDUCATION.

(D) THE PID QUESTIONS WHETHER BOTSWANA CAN IDENTIFY EIGHT QUALIFIED CANDIDATES FOR POST-GRADUATE TRAINING UNDER THE PROJECT. IT IS UNCLEAR WHAT THE IMPACT OF A FAILURE IN THIS REGARD WOULD HAVE ON THE PROJECT. MISSION SHOULD CONSIDER IDENTIFYING SOME OF THE PROSPECTIVE CANDIDATES TO BE TRAINED PRIOR TO PROJECT APPROVAL TO BE FUNDED UNDER THE ONGOING MANPOWER PROJECT. SUCH ADVANCED ACTION COULD ASSURE AN EARLY RETURN TO BOTSWANA SO THAT THE PARTICIPANTS COULD MAKE A MORE MEANINGFUL CONTRIBUTION TO PROJECT IMPLEMENTATION. PP SHOULD CLARIFY WHETHER ALL EIGHT PARTICIPANTS WILL BE ASSIGNED TO THE SCHOOL OF EDUCATION OR IF SOME WILL SERVE AT THE TTCS.

(E) ON THE ASSUMPTION THAT OTHER DONORS ARE PRESENTLY INVOLVED IN ASSISTING PRIMARY EDUCATION IN BOTSWANA, PP SHOULD DETAIL THEIR EXPERIENCE AND HOW THE A.I.D. PROJECT WILL RELATE TO THEIR PROGRAMS.

(F) CONSIDERING THE ALREADY LARGE NUMBER OF A.I.D. AND OTHER DONOR PROJECTS IN BOTSWANA, THERE IS CONCERN ABOUT THE COUNTRY'S ABILITY TO ABSORB NEW ACTIVITIES. PP SHOULD ASSESS THE ABILITY OF THE GOB TO PROVIDE ADEQUATE MANPOWER AND FINANCIAL SUPPORT FOR THE PROPOSED PROJECT. HOW MANY NON-BATSWANA PRIMARY TEACHERS ARE NOW BEING SUPPORTED BY DONORS AND THE GOB? WHAT WOULD BE THE BUDGETARY IMPLICATIONS FOR THE GOB TO IMPLEMENT AN ACCELERATED LOCALIZATION OF PRIMARY SCHOOL TEACHERS?

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3. GOB COMMITMENT POLICY: SUCCESS OF THE PROPOSED PROJECT DEPENDS NOT ONLY ON THE DIRECTION OF A.I.D. ASSISTANCE BUT ALSO ON THE GOB'S COMMITMENT TO IMPROVE PRIMARY EDUCATION. CONSIDERATION MUST BE GIVEN TO THE ADEQUACY OF TEACHERS' SALARIES TO ATTRACT AND RETAIN COMPETENT PEOPLE. THERE ARE OTHER POLICY QUESTIONS TO BE CONSIDERED. PID INDICATES THAT THE MAJORITY OF HEADTEACHERS AND SCHOOL INSPECTORS TO BE TRAINED OR UPGRADED UNDER THE PROJECT ARE EX-PRIMARY SCHOOL TEACHERS WITH MANY YEARS OF EXPERIENCE AND SERVICE, AND WHO ARE ELIGIBLE TO RETIRE AT AGE 45. PID COMMITTEE EXPRESSED CONCERN THAT THE PROJECT MAY BE FOCUSING ON A TARGET GROUP THAT MAY HAVE ONLY A LIMITED NUMBER OF YEARS TO SERVE. WOULD IMPROVED SALARIES AND OTHER BENEFITS ENCOURAGE SUCH PEOPLE TO STAY ON BEYOND THE RETIREMENT AGE? MISSION SHOULD CONSIDER INCLUDING COVENANT IN THE PROJECT AGREEMENT TO ENSURE GOB'S SUPPORT IN AREAS (E.G., EDUCATION-RELATED WAGE SCALE) THAT WOULD ENCOURAGE RECRUITMENT AND RETENTION OF QUALIFIED TEACHERS AND TEACHER TRAINERS. THE RECURRENT COST IMPLICATIONS FOR THE GOB OF SUCH POLICIES SHOULD BE ANALYZED.
4. THE REVIEW COMMITTEE CONCURS WITH MISSION PROPOSAL TO SELECT A U.S. INSTITUTION FOR PP PREPARATION AND, IF POSSIBLE, PROJECT IMPLEMENTATION THROUGH THE PROCEDURES OUTLINED IN AIDPR 7-4-58.
5. INITIAL ENVIRONMENTAL EXAMINATION APPROVED AS SUBMITTED. CHRISTOPHER

UNCLASSIFIED

PROJECT AUTHORIZATION

Name of Country: Botswana                      Name of Project: Botswana Primary  
Education Improvement

Number of Project: 633-0222

1. Pursuant to Section 531 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Primary Education Improvement Project for Botswana involving planned obligation of not to exceed seven million two hundred ninety three thousand dollars (\$7,293,000) in Grant funds over a five year period from 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 cost for the Project.
2. The Project consists of assistance to the Cooperating Country to increase the access, efficiency and relevance of primary education. It will establish a permanent capacity of the University College of Botswana (UCB) to provide an appropriate and effective four year Bachelor of Education program in primary education and will strengthen the capacity of the Ministry of Education, in cooperation with the UCB, to organize and implement appropriate and effective in-service programs for supervisory staff and teachers involved in primary education. For these purposes AID will finance technical assistance, training, commodities, and shared construction expenses of a Primary Education Center (PEC) and student hostel.
3. The Project Agreement which may be negotiated and executed by the Officer to whom such authority is delegated in accordance with AID 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 AID may deem appropriate.
4. a. Source and Origin of Goods and Services

Goods and services, except for ocean shipping, financed by AID under the Project shall have their source and origin in the Cooperating Country or in countries included in AID Geographic Code 941 except as AID may otherwise agree in writing. Ocean shipping financed by AID under the Project shall, except as AID may otherwise agree in writing, be financed only on flag vessels of the United States or the Cooperating Country.

b. Prior to any disbursement, or the issuance of any commitment documents under the Project Agreement to finance the construction of the PEC or hostel the Cooperating Country will submit for AID approval, in form and substance satisfactory to AID, (1) final plans, specifications and bid documents for construction, (2) an executed contract for such construction with a firm acceptable to AID, and (3) evidence that appropriate land has been set aside for the site of the PEC or hostel.

c. The Cooperating Country shall covenant, in substance, as follows:

- (1) to make available qualified candidates for long-term academic training in the U.S. and to ensure by bonding or other means that such trainees are assigned upon their return to suitable positions within the Ministry of Education or the UCB and required to carry out assignments related to activities under this project, unless AID otherwise agrees in writing. Following normal GOB regulations the period required of service will be at least equal to the duration of the training financed under the project;
  - (2) that the equipment and motor vehicles procured under the project will be exclusively used for project activities, unless AID otherwise agrees in writing;
  - (3) that, pending construction of the PEC, the University will provide suitable temporary office space to the U.S. team assigned to the UCB;
  - (4) that, pending construction of the hostel, the UCB will provide housing at UCB for students enrolled in the Primary Education Program; and
  - (5) to provide permanent technician housing for two U.S. team members assigned to the UCB and one U.S. team member assigned to the MOE.
- d. The following waivers to AID regulations are hereby approved based upon the justification set forth in Annex L.
- (1) The requirement set forth in Handbook I Supplement B that commodities procured with grant funds have their source and origin in countries included in AID Geographic Code 941 (and Botswana) is waived to permit procurement of approximately \$100,000 of commodities and equipment which have their source and origin in countries included in AID Geographic Code 935. Exclusion of procurement of these materials from Code 935 countries would seriously impede attainment of U.S. foreign policy objectives and the objectives of the foreign assistance program.
  - (2) The requirement set forth in Handbook I Supplement B that the total amount of imported shelf item purchases from countries included in Code 899 but not in Code 941 may not exceed 10% of the total local costs financed by AID for the project, or \$10,000 whichever is higher, is hereby waived to permit shelf item procurement of goods and services in the amount of \$1,281,000 for direct support of project technicians. Exclusion of procurement of these goods and services as shelf items would seriously impede attainment of U.S. foreign policy objectives and the objectives of the foreign assistance program.



## INITIAL ENVIRONMENTAL EXAMINATION

### I. Project Description

The project will help to establish in Botswana a permanent capacity to provide appropriate and effective pre-service and in-service instructional programs to staff involved in primary education. Pre-service and in-service training to Teacher Training College (TTC) staff, primary school inspectors, and primary school head teachers, deputy heads and senior teachers will be provided through (a) a two-year diploma and a four-year degree program in a new Department of Primary Education at the University College Botswana (UCB) and (b) in-service workshops to be held at UCB and other locations. A U.S. technical assistance team will collaborate with UCB and Ministry of Education project staff to develop and teach the training programs. Botswana candidates for the UCB Faculty of Education project staff will be trained in the U.S. or a third country. The project will finance construction of an 84-bed hostel for the degree and diploma candidates in the primary education program and a classroom/office building at UCB. Construction will be completed by November 1982.

Training of Botswana staff, recruitment of a U.S. technical assistance team, construction of the hostel and classroom/office block and preparation of the training programs will begin in the first year of the project. The first in-service training program scheduled to take place at UCB is a workshop for approximately 35 inspectors in December 1981. In the second project year (1982 school year) 20 first-year students are expected to be enrolled in the Bachelor of Education degree program and 10 in the Diploma in Primary Education program. Beginning in 1982 two workshops per year are scheduled for inspectors and TTC tutors at UCB, and in addition one in-service workshop for head teachers, deputy heads and senior teachers is planned which may be held at either UCB, a Teacher Training College or Training Center. A maximum of 200 persons are expected to participate in these workshops each year, with approximately 40 in each workshop. In the third project year (1983 school year), 30 more students will begin their first year in the diploma and degree programs. Through attrition, only 8 diploma and 19 degree candidates are expected to be in the second year of the long-term program. In each of the fourth and fifth years (1984 and 1985 school years) another 30 students will enter the UCB degree/diploma program, 8 diploma and 19 degree candidates are expected in the second year, and 18 degree candidates in the third year. In 1985, 17 degree candidates should be in their fourth year. Total enrollments at any one time in the project training programs and in regular UCB classes are expected to be:

Project Year	1	2	3	4	5
School Year	1981	1982	1983	1984	1985
Project trainees					
Short-term	35	40 (x5)	40 (x5)	40 (x5)	40 (x5)

Project Year		1	2	3	4	5
School Year		1981	1982	1983	1984	1985
Long-term	1st year	0	20 (deg) 10 (dip)	20 (deg) 10 (dip)	20 (deg) 10 (dip)	20 (deg) 10 (dip)
	2nd year	0		19 (deg) 8 (dip)	19 (deg) 8 (dip)	19 (deg) 8 (dip)
	3rd year	0			18 (deg)	18 (deg)
	4th year	0				17 (deg)
Regular UCB Students		<u>1,070</u>	<u>1,197</u>	<u>1,262</u>	<u>1,324</u>	<u>1,324</u>
TOTAL		1,105	1,267	1,359	1,438	1,456
Project trainees as % of total UCB enrollment		3	6	7	8	9

The UCB campus is in the administrative section of Gaborone, between the central commercial area and the airport on the edge of the city. Existing buildings on the campus include fifteen administrative/service facilities, twenty-five academic buildings and sixty-four residential buildings. About two-thirds of the campus has been developed. Water, electrical and sewer services for the University are drawn from the city systems. Water is supplied by a reservoir and dam approximately two kilometers from the city center. Sewerage is treated in a waterborne aerobic system with two separated pond complexes.

## II. Discussion of Impacts

While training and primary education strategy development are the major purposes of the project, environmental impacts will result from two of the project activities. Construction of a new hostel and a classroom/office building will have an impact on land use. The additional trainees attending project training programs at UCB will place extra demands on services provided by UCB and the city.

New construction for the project is planned to be consistent with the UCB Master Plan for physical expansion of the University. The Master Plan identifies sites for future hostels and classroom/office buildings on unused land within the current boundaries of the University campus. The sites are level and covered with grasses and a few shrubs. Construction site plans will be developed, and the contract site works will be specified to minimize alterations to the natural drainage patterns and ground cover of the land. Standard plans developed for the University will be used for the construction, and the building designs will complement existing UCB structures.

The number of trainees enrolled in the training programs is projected to increase from 70 in the second year of the project (up to 230 trainees may attend project courses during the school year, but only 70 will be in courses at any one time) to a maximum of 132 in the fifth year. When the number of trainees is at its maximum, project enrollment will represent not more than 9% of total UCB enrollment. Project trainees and staff will place demands on dining, recreational, office, residential, teaching, health, laundry, water, electrical and sewer services at the University. An examination of (a) the existing UCB capacity to provide these services and (b) regular UCB expansion in the five-year plan was made for the project. The plan indicated a need for construction of new hostels and classroom/office buildings. One hostel and one classroom/office building will be constructed for the project. All other services are adequate to meet the demands created by the project. The extra demand created by the 132 trainees on city of Gaborone services will be minimal relative to the approximately 50,000 people already living in the city.

### III. Recommendation for Environmental Action

Project activities will impact on the environment by: (1) restricting land use at the University - a result of construction of the hostel and classroom/office buildings, and (2) placing added demands on numerous support services provided by the University and the City of Gaborone - a result of additional trainees enrolled at UCB. However, the environmental impacts are anticipated and planned for. The Master Plan for physical expansion of UCB systematically allots areas of the campus for future construction, including the new construction planned for the project. The five-year plan for expansion of UCB enrollment anticipates extra staff required for the project training programs and acknowledges (while not quantifying) the additional trainees enrolled in the programs. Because of this carefully planned expansion of facilities and enrollment, the project should not have any adverse effects on the environment. It is recommended that a Threshold Decision for a Negative Determination be made.

ANNEX P

TELEPHONE 13255

TELEGRAMS FINAN E

REFERENCE 06 71/6/43



MINISTRY OF FINANCE AND DEVELOPMENT PLANNING

PRIVATE BAG 008

GABORONE

REPUBLIC OF BOTSWANA

6th February 1981

Mr L.A. Cohen,  
Director of USAID,  
P.O. Box 90,  
GABORONE.

Dear Louis,

Primary Education Project

Over the past few months the Ministry of Finance and Development Planning, the Ministry of Education, the University College of Botswana and your Office have been involved in appraising and preparing the Primary Education Project. The improvement of primary education is a Government of Botswana priority and it is appropriate that there should be a well designed project to provide qualified Botswana teacher training tutors, and to improve the quality of senior staff in the inspectorate and other professional staff in the Ministry of Education. In addition the project will improve the quality of primary school teaching through an extensive in-service training scheme. The project as now prepared has the full support of the Government of Botswana and we request that you submit it to the AID headquarters.

We look forward to a favourable response.

Yours sincerely,

O.K. MATAMBO  
for/Permanent Secretary

c.c. Permanent Secretary, Ministry of Education  
Rector, University College of Botswana

ASSESSMENT OF PRIMARY CURRICULUM DEVELOPMENT IN BOTSWANA

June 9-13, 1980

In February, 1980, USAID/Botswana sent the Project Identification Document (PID) to AID/Washington for a proposed Primary Education Improvement Project. The basic objective of this project is to improve primary education through pre-service and in-service training for head teachers, inspectors and teacher training college tutors.

In reviewing the PID, AID Washington felt that the paper did not adequately cover the status of primary curriculum development in Botswana. The general view was that in-service and pre-service teacher training cannot be considered apart from the curriculum and teaching materials. Jon Gant (USAID/Human Resources Development Officer) provided the information that Botswana had initiated a primary curriculum development program in 1978 with the newly-established Curriculum and Evaluation Unit (CDU) at the Ministry of Education (MOE). In fact, an AID-supported curriculum advisory had been working at the MOE Curriculum Unit since 1978. Thus, it was agreed that, prior to the preparation of the final Project Paper (PP), an assessment should be completed on the progress that has been made in the area of curriculum development and teaching materials. The Project Review Committee also recommended that the Primary Education Project, to be effective, should have a direct linkage to the Curriculum Unit.

I. Charge given the Assessment Team: The assessment team (Dr. William Kromer, Chief of Party, Eastern Michigan Swaziland Curriculum Program, and Mr. Leonard Pompa, Chief, Botswana, Zambia, Southern Africa Regional Desk, AID/Washington), after considerable consultation, fact finding and interaction with major officials at the Ministry of Education and the University College of Botswana, has had the responsibility to complete a written report that covers the following:

1. Determine the status and progress of the GOB Primary Curriculum Development effort and suggest future directions.
2. Determine if the primary curriculum, and teacher guides and materials, generally follow and support the National Education Plan and MOE Primary Education objectives.
3. Identify training needs and capacity of the MOE Curriculum Unit to utilize long and short-term advisors.
4. Review and make suggestions for the phasing of training with GOB curriculum development plans and personnel.
5. Suggest long term strategy(s) for increasing GOB primary curriculum development efforts.

This report focuses not only on the status of primary curriculum development but also emphasises the need to establish a close relationship between the CDU activities and the proposed Primary Education Improvement Project.

## II. Summary of Curriculum Development Effort and Progress as an Outcome of the National Commission of Education Report (1977)

The Department of Curriculum Development and Evaluation has sought to implement the educational philosophy and mandates outlined in the Government Paper No. 1 of 1977 (National Policy on Education). Indeed, the entire effort of the subject panels which operate under the guidance of the Curriculum Development Unit has been directed toward developing draft syllabi and teaching/learning materials which reflect national philosophy and policy. Progress by the panels and the Curriculum Development Unit includes writing of draft syllabi for Standards 1-7, formation of subject objectives for Standards 1-7 as well as producing Teachers' Guides and pupil materials for Standard 1 in Setswana, Mathematics, English, Science, Social Studies and Religious Education. These draft materials are being trial tested in ten pilot schools during the 1980 school year.

Other initiatives and accomplishments of the Curriculum Development Unit include (1) research and testing to assess the effect of the draft teaching/learning materials; (2) assistance in determining appropriate data content for the Standard 4 achievement tests; (3) writing and publication of a circular on career opportunities in primary teaching; (4) assistance in improving the Primary School Leaving Examinations; and, (5) identification of future needs of the curriculum development program.

Unfortunately, no opportunity existed to train permanent Curriculum Development Unit staff because none was appointed by the Government, although two officers are scheduled to join the unit soon. These two officers were selected because they had completed training programs useful for their new responsibilities. The interrelationship of the Curriculum Development Unit and Teacher Training Colleges has been minimal.

To sustain the positive contribution of the curriculum panels and other curriculum development initiatives, a full time Batswana support staff is needed in the Unit. Indeed, Standard 2 materials will not be ready for trial in 1981 unless additional Batswana are posted in the Unit.

The accomplishments stated above were largely the efforts of the new Chief Education Officer (CEO) for Curriculum Development and Evaluation and the USAID-supported advisor who is leaving after two years of valuable service. The CEO has also left for a senior post at the University College of Botswana; however, he has been replaced with a capable Batswana educator who is new to the Unit.

The Curriculum Development and Evaluation Unit has made significant progress considering the lack of staff. A major start has been made to deal with the nineteen mandates given the Unit in the 1977

## National Commission on Education Report.

III. Observations

1. There is common agreement between MOE and University officials that Teacher Training, upgrading of Heads/Inspectors and other initiatives of the Primary Education Improvement Project must be linked to the ongoing Curriculum Development program.
2. The process of curriculum development underway in Botswana has emphasized crucial elements such as the active involvement of teachers, the establishment of subject panels as originators of reformed teaching/learning materials, close relationships with testing and evaluation and establishing the Panel Coordinating Committee. (Panels consist of teachers, head teachers, inspectors, TTC tutors, members of the Faculty of Education and where appropriate, local government representatives.)
3. The current progress and momentum in curriculum development is in danger of not keeping pace with the need to introduce an additional standard of draft materials each year because, realistically, panels cannot sustain the energy and productivity, year after year. Panel members are attempting to do two jobs simultaneously. Circumstances will force them to contribute less toward curriculum development as their regular job responsibilities suffer and as they are overcome with fatigue.
4. The loss of the USAID-supported advisor in the Curriculum Development Unit, unless replaced by an equally capable person, will further slow the momentum and progress.
5. The Ministry of Education officials appear to be both knowledgeable and supportive of the Curriculum Development program. A degree of advance planning is evident by such actions as the addition of five posts to the CD unit for the 1980-81 fiscal year.
6. The draft teaching/learning materials being trial tested in Standard 1 seem to be of superior quality and trial teachers are obviously using the materials with enthusiasm.
7. Considerable advance planning and policy determination will need to be thoroughly and quickly attended to as the current curriculum development initiatives do not include the following crucial activities. These include but are not limited to:
  - a. publication of the final, approved materials (cost, source of funds, who will publish, etc.)
  - b. distribution of the "published" materials (warehouses, schedules, inventories, delivery methods, etc.)

- c. introducing "published" materials to teachers (workshops, for inspectors, heads, teachers, etc.)
  - d. incorporating "published" materials in Teacher Training (pre-service, in-service, new syllabi)
  - e. cost effectiveness (CD Unit printing operation, inspectors as trainers, etc.)
8. Considerably more interaction and collaboration with the Faculty of Education (UCB) and the Curriculum Development Unit is needed.
  9. The assessment team feels that officials of the Ministry of Education have a wide perspective and pragmatic plans based upon the current needs in primary education.
  10. There appear to be differences of opinion between Ministry of Education officials and UCB faculty concerning availability of enough trained Botswana educators to fill future posts in Curriculum Development, Teacher Training Colleges and other ministry posts.
  11. The proposed Primary Education Improvement Project will require a clear MOE conceptualization of the intended outcomes and the means to be used. The control of the project by the MOE and the ability to adequately coordinate/supervise the various departments (CD and Evaluation, Primary Education, TTCs, UCB Faculty of Education) will be crucial to the project's potential success.
  12. It is recognized that the process of Curriculum Development requires a minimum of three years (if the Curriculum Development Unit is adequately staffed) to originate, test, revise and publish each Standard (grade) of materials.

## VI. Recommendations

The assessment team makes the following recommendations based on the rationale that curriculum development and teacher training should be considered as inseparable in relation to the potential success of the proposed Primary Education Improvement Project.

1. The selection and appointment of Botswana staff to fill the five new positions in the CDU (1980-81) should be pursued on a priority basis.
2. For some of the five CDU positions, consideration should be given to filling these positions with primary teachers or head teachers without the BEd but who possess background in a particular subject area. Of course, BEd personnel should be posted if they are available and have the prerequisite primary experience and subject background.

3. USAID/Botswana should consider providing continued assistance to the CDU by replacing the Curriculum Advisor who is leaving, with the understanding that additional Botswana staff also be added to the Unit.
4. A training plan and appropriate resources should be made available for the current and future CDU staff. This will especially be true if some posts are filled with primary teachers or heads.
5. Persons being trained as Teacher College tutors should have as part of their training some instruction that gives them an adequate knowledge base in curriculum development and allows them actual work experience in the panels, editing, revising, testing and other work of the CDU.
6. The proposed Primary Education Improvement Project should be designed to be complementary to curriculum development objectives and progress.
7. USAID/Botswana should review the composition of the long-term and short-term technical assistance services under the proposed project in light of the evidence that a major need exists to link curriculum development to the objectives of the project as now envisaged. Since there is evidence that the mandates given to the CDU are greater than its present resources, it may be necessary to allocate some of the project advisors to the Unit.

# REPUBLIC OF BOTSWANA

ANNEX R

