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**FOR CONSIDERATION**

**MEMORANDUM**

**TO : THE BOARDS OF DIRECTORS**

**FROM : Omar KABBAJ  
President**

**SUBJECT : BOTSWANA: REVIEW OF BANK ASSISTANCE TO THE EDUCATION  
SECTOR\***

Please find attached hereto, the above-mentioned document.

**Attch.**

**\* Questions on this document should be referred to:**

**Mr. G.M.B. KARIISA  
Mr. T.D. KOUASSI**

**Director  
Prin. Post-Evaluation Officer**

**OPEV  
OPEV**

**Ext. 4052  
Ext. 4514**

**African Development  
Bank**

**African Development  
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**REPUBLIC OF BOTSWANA**

**REVIEW OF BANK ASSISTANCE  
TO THE EDUCATION SECTOR**

**OPERATIONS EVALUATION DEPARTMENT**

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This post-evaluation report was prepared by Mr. T. D. Kouassi, OPEV, and Michael Morrissey, Consultant, following a mission to Botswana in September 1999. Questions on this document should be referred to Mr. G.M.B. Kariisa, Director, OPEV (Extension 4052).

## ACRONYMS AND ABBREVIATIONS

ADB	African Development Bank
ADF	African Development Fund
AIDS	Acquired Immune Deficiency Syndrome
BEPU	Boipelego Education Projects Unit (BEPU) of the Ministry of Education
BTVEP	Botswana Technical and Vocational Education Programme (BTVEP),
CJSS	Community Junior Secondary School
CSP	Country Strategy Paper (ADB)
DABS	Department of Architecture and Building Services, MWTC
DFID	Department for International Development (UK)
EDF	European Development Fund
EMIS	Education Management and Information System
EPCP	Economic Prospects and Country Programming (ADB)
ESPP	Education Sector Policy Paper (ADB)
EU	European Union
FRMU	Financial Risk Management Unit (ADB)
GOB	Government of Botswana
HIV	Human Immuno-deficiency Virus
HRD	Human Resource Development
IBRD	International Bank for Reconstruction and Development (WB)
IDA	International Development Agency (WB)
MFDP	Ministry of Finance and Development Planning
MLGL&H	Ministry of Local Government, Lands and Housing
MOE	Ministry of Education
MOF	Ministry of Finance
MOH	Ministry of Health
MTP	Medium Term Plan
MWTC	Ministry of Works, Transport and Communications
NDP	National Development Plan
NORAD	Norwegian Agency for Development
NPE	National Policy on Education, 1977
NTF	Nigeria Trust Fund
ODA	Overseas Development Agency (UK)
OCOD	Central Operations Department (ADB)
OCDS	Country Operations Department (South)
OPEC	Oil Producers Economic Council
PCR	Project Completion Report (ADB)
PIU	Project Implementation Unit
PTA	Parent Teachers Association
PTTC	Primary Teachers Training College
REC	Regional Education Centre
RMC	Regional Member Country (ADB)
RNPE	Revised National Policy on Education, 1994
SIDA	Swedish International Development Agency
SSS	Senior Secondary School
STTC	Secondary Teachers Training College
TAF	Technical Assistance Fund (ADB)
TTC	Teacher Training College
TVET	Technical and Vocational Education and Training

UA	Unit of Account (of ADB)
UB	University of Botswana
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
VTC	Vocational Training Centre

**BASIC COUNTRY AND OPERATIONS DATA**

**A. BANK OPERATIONS IN EDUCATION**

Beneficiary  
Executing Agency

Government of Botswana  
Boipelego Education Projects Unit (BEPU) of  
the Ministry of Education

PROJECT	COST UA million		APPROVED			SIG- NED	COM- PLE- TED	SLIP- PAGE	PCR (PPER)
	APP- RAI- SAL	ACT- UAL	AMOUNT UA million		DA- TE				
			APP- RAI- SAL	ACT- UAL					
Education I	9.57	7.81	ADF 7.37	6.34	9/81	3/82	5/87	3.0	ADF/OPEV/90/12 (ADF/BD/WP/91/108)
Education II	19.80		ADB 8.16 ADF 6.45	2.40 6.30	8/85	10/85	12/88	0.5	Report not available
Education III	57.70	50.83	ADB 25.50 ADF 18.81	25.50 17.68	1987	2/88	7/94	3.0	ADF/BD/IF/95/194
Education IV	41.61	34.72	ADB 25.07 ADF 4.61	19.24 4.60	3/89	5/89	6/95	1.3	ADF/BD/IF/97/35
Education V	28.06	20.06	ADB 11.50 ADF 4.90 TAF .46 OPEC 2.09	6.83 2.80 .45 1.30	10/9 0	5/92	12/97	3.5	ADF/BD/IF/98/61

Mean slippage in completion

2.3 years

	<u>At Appraisal</u> (UA million)	<u>Actual</u> (UA million)
Total cost of five projects	156.76	113.42
Total loan amount	112.82	91.69
TAF grant	0.46	0.45
Concessional lending (%)	37.4	34.2

**B. EVALUATION RATINGS**

Bank Performance  
Borrower Performance

Unsatisfactory  
Satisfactory

## **I. EVALUATION SUMMARY**

### **1.1 Purpose and Approach**

1.1.1 The purpose of this evaluation was to assess Bank's assistance to the Government of Botswana (GOB) in the education sector from 1981 to 1999. This assistance encompasses lending and non-lending operations. Lending assistance comprised five projects concerned primarily with the construction of primary and secondary school facilities, vocational training centres, teacher training institutions, and a university faculty. These operations also introduced computer education in senior secondary schools, commissioned two studies (on financing and maintenance), and strengthened project management facilities. Also evaluated was the Bank's non-lending mandate to promote policy dialogue, donor co-ordination and co-financing, and to provide technical assistance.

1.1.2 The evaluation compared results achieved against targets, using documentary evidence and a two-week country mission in September 1999. The mission included dialogue with senior Government officials, head teachers and teachers in Bank-financed schools, and other donors, as well as site visits to facilities in both accessible and remote parts of the country.

### **1.2 Background**

1.2.1 Botswana's education sector has been developed in accordance with policy formulated in 1977 and adjusted in 1994 to revolutionise access to primary and secondary education. These policies were translated into achievable targets in the planning cycle (five to six years) and targets have generally been achieved. The target for universal provision of basic education has climbed from seven years (up to 1977) to ten years (since 1997). Government has reached its current target of universal access to ten years of basic education. The Bank has supported this strategy since the beginning of its operations in Botswana, and Bank education operations (a total appraised value of UA 156.8 million inclusive of Government contributions) have almost exclusively focussed on the provision of basic education, with an emphasis on the establishment of one half of the country's 200 new junior secondary schools. IBRD and several bilateral donors have also provided considerable assistance to the education sector, but this support has dwindled in the 1990s as Botswana has become ineligible to grants and concessional lending (in consequence of its economic indicators and capital reserves).

1.2.2 Education operations in Botswana preceded the formulation of specific Bank policy for the sector, although this was in place prior to the appraisal of the last three projects. Botswana's macroeconomic policies and its social policies have been internationally acclaimed as exemplary, and great strides have been made in economic performance and social indicators over the period. Government has orchestrated improvements through a mix of conservative fiscal policies and model planning approaches, continuously reviewing its own performance and being responsive in policy adjustment and targeting to evolving circumstances. There are risks on the horizon, however, with the key diamond industry unstable and a catastrophic HIV/AIDS incidence.

### **1.3 Findings**

1.3.1 The Bank's lending operations were not inconsistent with the Bank's mandate and policies at the time of appraisal, and were fully consistent with country policies, plans and targets. The operations produced all agreed outputs and contributed to the achievement of all targets set at appraisal. Operations made significant contributions to the universalisation of



junior secondary education, improvement of primary, upper secondary, vocational and tertiary education, and the provision of teachers for primary and junior secondary schools. Rural areas were key beneficiaries. Gender disparities have been addressed. The operations were less successful in localising the teaching force, and in environmental sensitivity. The evaluation found that while internal efficiency had improved in terms of reduced repetition and drop out, other indicators were poor, Teacher:student ratios were low in junior secondary schools (1:17) with considerable variability across districts. Disparity between primary and junior secondary unit costs is high. Facilities' utilisation rates for junior secondary schools and teachers' colleges are low. Quality improvement and quality assurance mechanisms had not kept pace with access expansion.

1.3.2 The Bank's non-lending assistance to the sector was negligible. No clear strategies or targets were in place for this area of activity in country strategy papers, and the two examples of the provision of technical assistance and co-financing were ad hoc and related to lending operations. The Bank was not active in donor co-ordination and its effect on Government policy appears non-existent.

1.3.3 Despite Government's strong commitment to the social sectors (with Education consuming more than 25% of the recurrent budget), the gains made with Bank support are at risk from looming economic and social situations. On the economic side, Botswana's long-buoyant fiscal situation is under strain, and deficit financing of the budget is anticipated. The education sector's increasing share of the recurrent budget cannot be sustained. Community involvement in school maintenance is not operational, and Government does not have the financial and institutional capacity to maintain all educational institutions adequately. Vocational education policies had failed, but in this area Government is resuscitating the sector with strong EDF support.

1.3.4 It was found, however, that it is the social/health factor that presents the greatest risk to sustainability. An estimated thirty per cent of the adult population is living with HIV positive/AIDS, and the prevalence is rising. The demographic and economic consequences will be catastrophic and reverse gains in social indicators. The Government has been unsuccessful in reducing the spread of the virus and in the education sector has not planned for the eventualities. The implications of the pandemic for the sustainability of the education sector are analysed in Section 5.4 of this report. The conclusion is the HIV/AIDS will, unless policy is urgently reviewed and ameliorative action planned and implemented, increase the under-utilisation of facilities and unit costs of education, increase dependence on expatriates in the teaching force, reduce the capacity of communities to support the system, reduce net enrolment, and present the education system with a range of AIDS-related issues as yet un-addressed.

1.3.5 Bank assistance had negligible effect on institutional development in Botswana, except in project implementation. TAF investment in two policy studies on financing and facilities maintenance was ineffective.

1.3.6 Bank and Government's performance was satisfactory in identification and preparation (in the context of sector policies of the time), but was inadequate in terms of providing for co-ordination, appraising the feasibility of community commitment to financing, and planning for the monitoring and evaluation of operations. Government performed well overall in execution, although there were capacity weaknesses, particularly in earlier operations which resulted in serious delays. The Bank's supervision services were inadequate and did not contribute

sufficiently to the rapid resolution of implementation problems and to the ongoing monitoring of exogenous factors.

1.3.7 The evaluation of Bank performance was satisfactory in its lending operations, and unsatisfactory in non-lending services. If the two measures are combined, Bank's overall performance is adjudged unsatisfactory. The Borrower's performance was satisfactory overall. A number of lessons were learned from the assessment and these are presented in Section 9.2 to guide future Bank operations.

#### **1.4 Key Recommendations**

Key recommendations to the Bank include the implementation of the Bank's revised education sector policy, resuming of the preparation of a Botswana country strategy paper to fill the current void and strengthening of its content, commissioning of a major study on the implications of HIV/AIDS on Africa's education systems, and the provision of technical assistance to Botswana to address a number of urgent issues which put at risk its investments in the education sector. The detailed recommendations and follow-up actions are shown in Annex 1.

## II. BACKGROUND

### 2.1 Purpose, Scope and Methodology

2.1.1 *Purpose.* The main purpose of this evaluation was to assess Bank assistance to the education sector in Botswana on the basis of results and process. Anticipated results included outcome (relevance, efficacy and effectiveness), sustainability and institutional development impact. Process was evaluated in terms of Bank and Borrower performance.

2.1.2 *Scope.* The scope of the evaluation comprised the Bank's education sector policy, its country strategy for Botswana, and its instruments of intervention. Instruments comprise lending and non-lending assistance. Lending to Botswana comprised five education sector operations. Non-lending functions assessed included policy dialogue, technical assistance, co-financing and donor co-ordination. On the basis of findings, lessons learned were identified and recommendations made to Bank and Borrower in respect of future assistance.

2.1.3 Lending assistance evaluated comprised five ADF/ADB operations in Botswana for the improvement of the public system of education. The projects were the Secondary Teachers Training College Project (referred to hereinafter as Education I), the Secondary Schools and Vocational Training Project (referred to as Education II), Education III, Education IV, and Education V. There was one project start-up every two years between 1982 and 1991. The combined outputs are summarised in Annex 3. The cost, goals, objectives and planned outputs of each project is summarised in Annex 4.

2.1.4 Non-lending assistance to RMCs has been part of the Bank's mandate from the outset, although this instrument of assistance may not, in the past, have been at the forefront of Bank's country assistance activity. The assessment of this instrument is, nevertheless, essential to provide an overall evaluation of the Bank's contribution.

2.1.5 *Methodology.* The broad evaluation methodology used was to compare the results achieved as a result of Bank assistance against the targets set. For lending assistance, targets were set at project appraisal, and appraisal reports formed an important source of data. Project Completion Reports provided an element of results. The non-availability of the Project Completion Report for Education II (at Bank or GOB) was a gap in documentation. Lending assistance was assessed in terms of contributions made to improvements in education policy, access, equity and quality. Special attention was given to the sustainability of outcome. For non-lending assistance, Bank documents on country strategy would have been the ideal source to provide information on targets, but such documents for Botswana were not available pre-1991. Archival research on reports of Bank missions to Botswana over the period was unfeasible. Findings on non-lending operations were based, in the main, on inferences made from project documents and interviews.

2.1.6 Objective evaluation was hindered, however, by several factors. First, the Bank failed to clearly define in the past country strategy and operational targets by observable verifiable indicators. The country strategy papers and appraisal reports did not in consequence provide baseline data for monitoring and evaluation. Secondly, there is no guidance as to the relative weighting to be given to the Bank's lending and non-lending instruments. The latter was resolved by according the two instruments equal weighting in the absence of a any other formulation. Thirdly, attribution was difficult, as Government and other donors had also been active in the education sector, sometimes contributing the same inputs at the same or others

sites. Further, GOB had added further facilities to the core schools financed by the Bank. Fourthly, measures of cost-efficiency were not available from the Government's existing EMIS.

2.1.7 Project sites visited in Botswana were selected with Government to cover most of the levels of education assisted (primary, junior secondary, teacher training and university), with emphasis given to rural investments. At each site, the mission had discussions with head teachers and staffs of the institutions, but due to the complexity of travel arrangements to remote locations it was not possible for direct discussions with members of Boards of Governors and parents to be arranged in the tight time-frame of the mission. Interviews and dialogue were arranged with officials of the Ministry of Finance and Development Planning, Ministry of Education, Ministry of Health, and Ministry of Local Government, Land and Housing. Discussions were also held with international and bilateral agencies currently involved in the education sector, with local consulting agencies, and with Bank officials in OCOD and OCDS.

2.1.8 Discussions with head teachers, teachers and officials were structured to elicit information related to the broad areas of investigation to be covered by the study. The foci of discussions centred on the relevance, efficacy, effectiveness, sustainability, implementation performance, and institutional impact of Bank operations. Key questions guiding data collection and dialogue on mission included (i) whether the sectoral assistance strategy and operations of the Bank were consistent with Botswana's educational and economic development strategies, (ii) whether projects were cost-effective, (iii) whether the positive effects of the projects will be sustained, (iv) whether Bank and the Government ensured quality implementation of the projects, and (v) whether the projects contributed to developing institutional capacities and a sound sector policy framework.

## **2.2 Botswana's Economic Performance**

2.2.1 Botswana's Government has pursued sound macroeconomic management policies since independence in 1966. The average annual rate of growth in GDP between 1966 and 1996 was 9%, one of the highest rates of economic growth in the world. Between 1980 and 1990, the rate averaged 10.6% and between 1991 and 1998 it averaged 5.6% - still a strong but declining rate.

2.2.2 Botswana's economy is heavily dominated by the mining sector that contributed almost 37.6% of GDP and in 1997-98, compared with 1% in 1966. Diamonds comprised zero per cent of the value of exports in 1966, rising to 60% in 1980 and 70% in 1998. Manufacturing, construction and agriculture each contributed between 3% and 6% of GDP in 1997. There has been a steady growth in the trade and tourism, and financial services during the 1990s, to 17% and 10% respectively. Agriculture's share of GDP has declined from 4.4% in 1990 to 3.1% in 1997. The Central Government's contribution has hovered above 14% over the period. Most sectors have recorded strong and rising growth rates since the mid-1990s, except for the agriculture sector that has been subject to erratic rainfall and animal disease.

2.2.3 Botswana's high level of international reserves (the highest level of reserves per capita in Africa) was accumulated over years as a result of the surplus on the balance of payments account. This has released the country from long-term financing constraints for development activities. However, in 1998, the earnings of diamond sales fell by 25% in response to falling market prices (Government preferred to stockpile and ride out the market uncertainties). The

balance of payments fell to near deficit figures for the first time in the country's history, raising concerns about the high level of dependence on diamond exports. Government has aimed for two decades at economic diversification, and its basic and vocational training investments have been in part labour-market oriented, to develop skills to accelerate the diversification process. The diversification challenge is reiterated in the *Long Term Vision* (1997), but targets and strategies have still to be formulated.

2.2.4 Revenues from the country's diamond wealth have been used prudently by Government to finance a series of rolling national development plans (NDPs) to improve the social and physical infrastructure and expand services. Government's systematic approach to long-term and medium-term planning and budgeting is viewed as a model worth replicating by other developing countries. The result is that most people in 1999 had access to safe water, health, education and other public services. The current plan, NDP8, spans the six-year period 1997-2003.

2.2.5 Until 1999, recurrent expenditure had been kept in line with revenue. Economic activity had been growing. Government had prioritised human and physical capital development. Government's development themes over the years have been to improve the physical and social infrastructure, to reduce dependence on foreign expertise at all levels, and to ensure the sustainability of its investments. A key objective of Government's education sector action plan was to boost productivity by imparting scientific and technical training geared to industrial aptitudes.

2.2.6 Botswana remains beset, however, by its landlocked state, its vastness of territory, the semiarid climate, a dependence on revenues of diamond mining, a small population below 1.5 million, a high rate of urbanisation, a high rate of unemployment, an increasing rate of HIV/AIDS prevalence, and a persistent shortage of skilled manpower.

### 2.3 Botswana's Social Prospects

2.3.1 There have been sustained improvements in social indicators. The under-five mortality rate and the incidence of child malnutrition are particularly low. Access to educational services is high, for all levels of education. Government operates social safety nets for the needy (including groups affected by drought), for the elderly and for the destitute. Nevertheless, while the proportion of the population below the absolute poverty line has been reduced from the 1985-86 level of 59%, it was still at a high level of 47% in 1993-94. This proportion may even increase in the coming years (see **Section 5.4**). Poverty is concentrated in rural areas due to the difficult climatic conditions for agriculture and the paucity of other economic opportunities.

2.3.2 The eighth *National Development Plan* (NDP8) projected real economic growth averaging 4.5% over the 25 year period ending 2020 and a steady rise in per capita income. Yet a number of variables threaten this rate of growth, including uncertain diamond prices, declining employment in the private sector, declining numbers of Batswana employed in South African mines, slow growth in the agricultural sectors, and the AIDS threat to future population growth. Unemployment has risen to 22% of the active population, and may rise further. GOB's high level of investment in human resource development is its major strategy to alleviate unemployment, through the replacement of non-Batswana in the labour force by Batswana, and stimulating individual initiative in employment creation.

2.3.3 The high incidence of HIV/AIDS presents the most serious threat to the social indicators, as will be discussed later in this report. Botswana's rates are among the highest in the world. Although not widely realised, the pandemic will have an adverse effect on development and social indicators. It is projected that Botswana's population will begin to decline as early as 2003.

## 2.4 Botswana's Education System

2.4.1 ***Policy formulation and planning.*** Botswana has employed a sophisticated approach to policy development, planning and investment targeting, characterised by comprehensive and participatory sector reviews, policy formulation for the sector at government level, followed by incorporation of generally realisable targets in the investment planning cycle.

2.4.2 Over the period during which Bank operations were prepared (1980-91), education sector development policy was guided by the outcomes of the first National Commission on Education and the *National Policy on Education* (NPE) of 1977. NPE policy's guidelines formed the basis of targets and strategies for sector expansion included in three *National Development Plans*: NDP5 (1979-85), NDP6 (1985-91) and NDP7 (1991-97). NDPs were monitored at midterm, and education sector targets and strategies fine-tuned. NDP7 responded to some of the issues that had been identified in the late 1980s, modifying the policies and targets of the NPE. Each NDP evaluated targets *versus* achievements for the prior plan period (NDP8, for example, recorded a high level of achievement for the NDP7 plan period, with most targets met).

2.4.3 A second National Commission on Education was established in 1992 to comprehensively review the education system and it reported in 1993. The result was the *Revised National Policy on Education* (RNPE) of 1994. NDP8 (1997-2003) incorporated medium-term objectives of the RNPE. Government policy targeted the expansion of basic educational opportunities universally within the shortest possible time-frame.

2.4.4 ***Structure of Education.*** The current structure of public education is seven years of primary education, three of junior secondary, two of senior secondary, and four of tertiary (7+3+2+4). Pre-primary education, although not provided by Government, has been defined as of two years duration, beginning at four years of age. Vocational training follows junior secondary, and programming is being reformed to allow for variable duration not exceeding two years.

2.4.5 The current structure evolved over the period of the Bank's operations. Government vacillated from 1977 over the desirability of six or seven years of primary schooling, but the seven-year primary programme was never reduced, and was reaffirmed in the 1994 NPE. Junior secondary schooling was reduced for a decade from a three to a two-year programme, but a three-year programme was re-established in 1998. In consequence, the length of the senior secondary has modulated between two and three years in duration.

2.4.6 In summary, the structure of education has changed since public funding of the sector commenced as follows:

1963-77	7 + 5 + 4 (predicated on public provision of seven years of primary)
1978-88	7 + 3 + 2 + 4 (predicated on universal access to seven years of primary)
1989-97	7 + 2 + 3 + 4 (predicated on universal access to nine years of basic)
1998-present	7 + 3 + 2 + 4 (predicated on universal access to 10 years of basic)

2.4.7 The changes in structure had implications for the Bank focus on junior secondary facilities' expansion. Education II was appraised in anticipation of a three-year junior secondary programme, but subsequent operations anticipated a two-year programme. In the event, CJSSs have been changed back to three-year schools. Government's ability to finance, from its own resources, the expansion of individual CJSS facilities as the need evolved, without rigorous demand projections, has probably resulted in over-investment in the infrastructure for this level and consequent under-utilisation of facilities (see Section 3.3).

## **2.5 The Bank's Education Sector Policy**

2.5.1 A review of experience and lessons learned from the first ten years of Bank assistance in education resulted in the Bank's first *Education Sector Policy Paper* (ESPP), approved by the Board in 1986. Priority areas identified were basic education, manpower development (inclusive of teacher training and technical and vocational training) and institutional strengthening. Concern was expressed in the conclusion of the paper on the impact of education sector investments on the recurrent budgets of African countries.

2.5.2 The Bank had, in mid-1999, funded 176 education sector operations. The key lessons cited were (i) the importance of adopting an integrated approach in project design which incorporates both qualitative and quantitative aspects, and co-ordinates education projects with other development programmes, (ii) the importance of stakeholder participation at all stages to ensure sound planning and ensure ownership by the intended beneficiaries, (iii) institutional and human capacity building is a crucial component of education sector development to ensure the sustainability of project benefits beyond the implementation period, (iv) policy development should be supported by the Bank, and (v) Governments' project planning and supervision capacities should be enhanced with Bank support. The new ESPP improves Bank's potential strength in policy dialogue with Governments, and provides stronger criteria to guide project preparation.

## **2.6 Bank Country Strategy for Botswana**

2.6.1 Bank strategy for Botswana has never been formally developed in an approved *Country Strategy Paper* (CSP). The first CSP was under preparation in 1997, but was not finalised as GOB signalled its decision not to proceed with non-concessional loans (Botswana had, in 1992, been 'graduated' by the Bank from eligibility for concessional (ADF) financing). Broad country strategy was outlined in the *Economic Prospects and Country Programming* (EPCP) reports for 1989-91 and 1993-95. This supported GOB's main development objectives of diversifying the economy (from the over-dependency on the mining sector) and developing the country's human resources, through the expansion of infrastructure, improvements in institutional capacity, and skills development. A reduction in dependency on foreign experts was a key objective.

2.6.2 Proposals for education sector financing during the Bank's first decade of operations were judged at appraisal for consistency with the Bank's functions and country development goals. Human resource development was viewed as central to Bank assistance. No formal strategy existed for education, however. Secondary education accounted for 44.6% of total lending, tertiary education for 27.1%, primary education for 21.6%, and non-formal for 7.7%.

2.6.3 The 1993-95 EPCP report defined the Bank's objective for Botswana operations "to support and facilitate the attainment of long-term development", with broad strategies of skills training, infrastructure and private sector development, and undefined policy advice and studies. There was a shift in 1993 from the earlier broad support for human resource development and economic diversification to a narrower focus on transport and public utility infrastructure. The continuing high incidence of rural poverty was recognised, and the Bank proposed to seek bilateral grants and co-financing arrangements for future operations "to lessen the debt burden and assist in alleviating poverty". Country programming for 1993-95 excluded the education sector for the first time in ADB's Botswana operations. The commitment planned for 1993-95 was not realised, and no new lending operations have been prepared subsequently.

2.6.4 In its 1996-98 *Country Portfolio Review Report*, Bank focus narrowed seeking TA support for the identification of private sector investment opportunities, without a lending programme, but even this limited assistance programme was not actualised. The report referred to the 'need to make sustainable the substantial investment in five education operations, but made no provision to assist Government toward that objective.

2.6.5 The Bank's role in the education sector in the 1990s was limited therefore to the supervision and completion of existing lending operations. Policy advice, donor facilitation and other forms of technical assistance were not mobilised. Most recently (in mid-1999), a Botswana country mission recognised several continuing economic and social problems, and recommended to the Bank the fielding of a multi-sectoral mission - including Education - and the re-formulation of Botswana country strategy. This recommendation has yet to be implemented.

2.6.6 Based therefore on reports available from 1989, the Bank failed to specifically formulate its strategic objectives for assistance to Botswana's education sector. In the absence of articulated strategy it is not possible to make a judgement on relevance or efficacy in relation to country policy, strategy and needs. The absence of clear strategic targets with verifiable indicators for Bank assistance in Botswana makes its objective assessment problematic. *De facto* Bank strategy for education in Botswana for the two decades under review was to financially underwrite GOB's own strategy for sector development. Bank's failure to fully analyse the sector, and on that basis to formulate a clear strategy for its assistance, was unsatisfactory by current standards.

## **2.7 Bank Group's Education Sector Lending Operations in Botswana**

2.7.1 *Overview.* The Bank started operations in Botswana in November 1973. At the end of 1998, the Bank had approved 37 loans and five Technical Assistance Fund (TAF) grants. These operations amounted to UA 324.93 million, of which UA 229.90 million was from ADB, UA 84.82 million from ADF (UA 3.32 million for TAF) and UA 10.21 million from NTF.

2.7.2 Botswana's social sector received the 41.5% of total commitments. 34.7% of total commitments were for the education sector. Other sectors assisted were transport (33.2%), public utilities (15.1%) and agriculture (10.2%). Bank Group loan approvals to the Education sector for all countries amounted to UA 1755.83 millions as at the end of 1998, 6.4% of the value of which was to Botswana. Non-concessional contributions (ADB loans) represented 41.3% of approved Bank education loans, of which 9.7% was for Botswana alone.



2.7.3 Botswana was reclassified as an ADF Category C country, thus becoming ineligible for ADF financing during the ADF-VI Replenishment Period 1991-93. The reclassification was in recognition of Botswana's sound macroeconomic policy and its international reserve position. GOB policy has been to limit non-concessional borrowing to a minimum.

2.7.4 *Education sector operations.* Education was a focal sector in Bank support of GOB's development objectives. The Bank accordingly financed five education operations. Each project was in response to Government's request for Bank support to achieve the education sector targets outlined in the *National Policy for Education* (1977), the *Revised National Policy for Education* (1994) and three *National Development Plans* (NDPs 6 to 8).

2.7.5 The combined purposes of the five projects were to increase access to primary, secondary and tertiary education, to improve the quality of primary and secondary education, to increase the output of primary and lower secondary teachers, to reduce inequalities in rural areas, to improve the efficiency of secondary education (through policy studies) and to improve MOE capacity in project implementation. The combined planned outputs of the five operations, including amendments to original project agreements, are summarised in **Annex 3**.

2.7.6 The appraised value of the five projects amounted in total to UA 157.6 million, of which GOB contributed UA 41.9 million and OPEC UA 2.1 million. ADF/TAF financing totalled UA 43.3 million and ADB loans totalled UA 70.3 million. Project Completion Reports (PCRs) concluded that each project achieved its planned outputs.

2.7.7 The operations focused on the financing of facilities for primary, junior secondary, senior secondary, vocational, and tertiary education. Infrastructure amounted to over 95% of the combined output by value of the five operations. In addition, provision was made for the procurement of primary school learning materials, and the introduction of computer education in senior secondary schools. The main thrust of the series of projects was to support GOB's objective to achieve universal lower secondary education, and to this end Bank operations financed the construction of 82 CJSSs and extended 21 others, inclusive of hostel accommodation for students and housing for teachers. Details of the projects are given in **Annex 4**.

## **2.8 Other Donor Operations in the Education Sector**

2.8.1 In addition to the operations of the Bank, education sector development in Botswana was supported from the 1970s by the World Bank (IDA/IBRD), by several donors (including Sweden (SIDA), Norway (NORAD), United States (USAID), the European Union (EU), the United Kingdom (ODA/DFID) and the OPEC Fund) and by United Nations agencies, including UNICEF. Each element of support was co-ordinated by GOB to support specific NDP targets.

2.8.2 IDA/IBRD paralleled, until 1990, ADB financing of basic education facilities expansion, establishing 27 CJSSs and 2 VTCs, and constructing 500 primary classrooms under its fourth and final education operation between 1985 and 1990. USAID supported primary and junior secondary teacher training and curriculum development for the CJSS system, and provided TA for EMIS improvement (1985-91). SIDA supported primary facilities expansion, the national literacy programme, educational broadcasting, and research (1981-91). ODA/DFID provided TA in support of the Inspectorate, teacher training, school management training, and overseas teacher recruitment (1979-99). Total investment by the bilaterals over the 20 year period was in excess of US\$ 50 million, and in addition IBRD IV was a US\$ 40m

operation. With a total lending for the Botswana education sector in the order of US\$ 150 million, the Bank Group was the lead financier of education expansion in Botswana from the mid-1980s.

2.8.3 As a result of the country's sound economic performance, Botswana became, during the 1990s, increasingly ineligible for new grants or concessional loans, and donor assistance has dwindled. Government's position has been not to seek non-concessional loans from the development banks. There have therefore been no new ADB or World Bank operations - in any sector - for most of the 1990s.

2.8.4 Current donor support in education is limited to the EU, DFID and UNICEF. The EU is financing a major reform in technical and vocational education (which has implications for earlier Bank operations and will be discussed in section 4.2). DFID is co-financing with GOB the training of primary head teachers countrywide. UNICEF is implementing focussed research and pilot studies into specific issues of access for pregnant schoolgirls and remote area dwellers (RADS).

2.8.5 EU funding for a further TVET operation will be finalised in late 1999, and is likely to be approved under EDF8. DFID is currently conducting a feasibility study for a multi-sectoral multi-country AIDS mitigation project that may possibly include education sector components, but the prospect of specific assistance for Botswana under this initiative is currently unknown. Aside from these two initiatives under preparation, there are no other current prospects of donor assistance in education.

### III. EVALUATION OF OUTCOME: LENDING OPERATIONS

#### 3.1 Relevance

3.1.1 *Consistency with Bank policy.* Botswana's first two education loans preceded the Bank's 1986 ESPP, but the new sector policy was in place when Botswana's Education Projects III, IV and V were appraised. The focus on basic education provision was philosophically reaffirmed by the international community at Jomtien in 1989 and has been supported on economic and social grounds by all development banks. The 1999 guidelines provide a basis for reflecting on the extent to which Bank operations over the period were consistent with currently evolving policy on educational investment.

3.1.2 Education I and II supported GOB in the expansion of basic and vocational training, consistent with the Bank's broad HRD policies at the time. Education II, gave support to increasing the output of middle-level skills, as a basis for economic development, through the construction of two rural vocational institutions.

3.1.3 The 1986 ESPP gave high priority to support for whatever governments' prioritised in sector development, and did not view the Bank as an agent for assisting governments in sector policy formulation. The Bank responded to GOB's requests for financing of education sector expansion plans clearly articulated in approved national policies and medium term plans. The components of Education III, IV and V were consistent with the ESPP principle therefore of supporting the regional member countries' (RMCs') individual priorities. However, the ESPP identified focus areas inclusive of access, equity and financing, and prioritised basic education among the sub-sectors. In respect of these focuses and priorities, Bank operations in Botswana

fall short of all aspects of the 1986 ESPP as components included upper secondary and tertiary level expansion (in Education III and V) that were not supported as priorities in Bank policy.

**3.1.4 *Retroactive assessment based on the 1999 ESPP.*** All five operations complied with targeting criteria proposed in the 1999 paper with respect to rural, peri-urban, and female populations (these were GOB priorities). One of the operations, Education II, gave support to increasing the output of middle-level skills, as a basis for economic development, through the construction of two rural vocational institutions.

**3.1.5** In other respects a retrospective review of operations demonstrates that Botswana projects suffered from several of the weaknesses identified by the recent review of Africa-wide experience (see para. 2.2.5 above). As applied to Botswana operations, the weaknesses included the failure to (i) integrate qualitative and quantitative interventions in project design, (ii) co-ordinate education interventions with other development initiatives, (iii) develop institutional and human capacity alongside facilities development. Policy development was supported by the Bank only in Education V, and then in a very limited way and with inadequate follow-up. If the five operations were assessed retroactively on the basis of policy and strategy directions in the 1999 ESPP, few would be rated positively.

**3.1.6 *Consistency with Country policy and strategies.*** The appropriateness of Bank financing in the development of the education sector is unquestioned by any of the Government officials and senior education professionals interviewed at all levels of the system, and the Bank was lauded by GOB for having made a significant contribution to the attainment of the country's goals for Education. Bank operations were consistent with Botswana's national development aspirations and with education sector development strategies, priorities and plans. All Bank-financed operations were included in the public investment programme.

**3.1.7** The 1977 NPE gave highest priority to the universalisation of primary education and the improvement of its quality, and to the expansion of access to junior secondary education through "the development of low-cost day schools with significant community participation". It also gave priority to the training of teachers for primary and junior secondary levels, as the quality of teaching was regarded as the main determinant of the quality of education. Resource constraints dictated that access to senior secondary education would have to remain selective. No clear strategy was proposed for vocational and technical training in NPE and subsequent investment was piecemeal. Tertiary education was not within the scope of the first Commission.

**3.1.8** Bank operations clearly supported the priorities and strategies espoused by GOB. The first project provided for increased supply of junior secondary teachers, and all subsequent projects provided for increased access to primary and junior secondary education. Initially, Bank operations focussed on the junior secondary levels (Education I and II), whilst the World Bank provided financing for both primary and junior secondary expansion. When World Bank operations ended, ADB contributed to primary expansion and improvement in Education IV. In Education V, Bank operations returned to a near-exclusive focus on junior secondary expansion.

**3.1.9** Areas of investment other than basic education (namely, the establishment of two VTCs, university expansion, SSSs facilities improvements and SSS computer programmes) were peripheral to the main investment thrust of the series of operations and accounted for about 15% of their total appraised value. The corollary is that 85% of the total ADB operation in the

Botswana education sector focussed on expansion - and some support for quality improvements - in basic education, a situation fully consistent with GOB's 1977 NPE. The remaining 15% of investment was consistent with medium term objectives specified in the NDPs.

3.1.10 Although the country was building strong reserves and borrowing was not obligatory, there were other reported benefits from the loan for education sector development. The involvement of an external agency in the scale and phasing of projects, with agreed deadlines for completion, contributed to the pace of expansion. In turn, the experience contributed to GOB's capacity to plan and deliver major investments in the sector.

## 3.2 Efficacy

3.2.1 **Basic Education.** The projects played a major role in the achievement of the defined sector goal - accelerated achievement of universal basic education. The rate of expansion of access to primary and secondary educational opportunities, particularly in rural areas, has been remarkable, bringing Botswana into the top league among African countries for education sector indicators. Botswana was ranked fourth in Africa in the UNDP 1999 Human Development Index, with adult literacy at 74% and combined gross enrolment for all levels of education at 70%.

3.2.2 Between 1986 and 1997, primary enrolment increased from 236,000 to 322,000, and the net enrolment ratio reached 98.4% in 1997 for the 7 to 13 age cohort, the highest in Botswana's history. The progression rate from Standard 7 (the top primary grade) to Form 1 of the secondary system was 95.3% by 1997, indicative of near-universal access to lower secondary education. Government estimates that in 1999 progression has reached 100%.

3.2.3 Total enrolment in the first year of junior secondary education more than tripled between 1986 and 1996, from 11,090 to 36,102 (the 12 year-old cohort was just less than 40,000 in that year). CJSSs report a high progression rate through the three grades of junior secondary education, marred only by dropouts due to pregnancy. At the senior secondary level, the Government has reached its interim target of 50% progression.

3.2.4 Attribution of credit for the success for the near-achievement of universal basic education is complex, as the Government itself, and several donors other than ADB, have made significant contributions through grant and loan financing for basic education sector development over the same period.

3.2.5 **Vocational training.** The second Bank operation included the establishment of two rural vocational training centres at Jwaneng and Selebi-Phikwe, with an enrolment target of 278 students at each centre. Enrolment in 1996 was 469 and 337 respectively. While the original objectives were achieved and enrolment targets met, programming deficiencies were identified in the 1993 report of the National Commission on Education and other reviews. One estimate was that VTC facilities countrywide were "80% under-utilised" in 1999.

3.2.6 **Teacher training.** Investment in teacher training facilities has had less favourable returns. The Molepolole College of Education has maintained enrolment near to the 640-target set on the revision of the first Education project. For the Sorowe College of Education, the situation is of concern. The appraisal report for Education IV was not specific about the enrolment target for Sorowe ("to renovate and expand Sorowe TTC to accommodate the excess capacity of students from Lobatse"), but the PCR noted that Sorowe was at 100% capacity with

an enrolment of 300. At that time (1997) the annual trained output was 150, but the training programme has been lengthened from 2 to 3 years, and the accommodation reduced to 240 (by doubling the square metre allowance per student in the original hostels). Based on the current scenario, the annual output of trained teachers at Sorowe will average 80 per year, only about 50% of the output assumed at project appraisal.

**3.2.7 Tertiary education.** The University's Science faculty, financed under Education III, is more than fully utilised. Total enrolment anticipated for the expanded faculty at appraisal was 600. By 1997, enrolment was almost double that, and the 1999-2000 academic year, 727 were admitted to Year 1 of the 4-year programme alone - a situation "beyond saturation point", according to the faculty dean.

**3.2.8 Rural-urban disparities.** Project objectives included the elimination of rural disparities. Access to basic education has been successfully spread to the most remote areas; Bank-financed facilities were consistently targeted on rural areas. The operations have been particularly successful in contributing to the achievement of this target, as attested by near-universality in the provision of basic education.

**3.2.9** While physical facilities have reached remote communities, the lack of stability and continuity of the teaching staff of remote schools is likely to remain a difficult problem in the years to come. Mechanisms used by Government to recruit teacher trainees from, and to retain teachers in, the remoter parts of the country, in order to improve the quality of programme delivery in these areas, have not met with success.

**3.2.10** MOE policy provides some opportunities for CJSSs to adapt the national curriculum to respond to district and community needs. School-based assessment as part of certification mechanisms in theory supports the role of the school in ensuring curriculum relevance. The 1995 Curriculum Blue Print for the junior secondary level, however, makes no reference to the curriculum localisation concept, and presents a uniform national curriculum. There is little evidence that schools were being 're-created' by their Boards and professional staff into institutions responsive to the community settings. The contrary appeared to be more usually the case, a situation which raises concern about the long-term relevance of such institutions to rural communities, and therefore of their sustainability.

**3.2.11 Localisation.** An objective of the first Bank operation was 'progress toward the full localisation of the secondary teaching force'. At appraisal in 1980, non-Botswana accounted for 55% of secondary teachers (down from 80% in 1973). By 1988, non-Botswana accounted for 41%, and by 1997, 28%. In absolute terms, however, the total number of non-Botswana teachers increased from 349 in 1980 to 1,878 in 1997, a fivefold increase. As no objectively verifiable indicator was given in the 1981 appraisal report, it is difficult to know how much progress was anticipated, but the localisation objective cannot be considered achieved.

**3.2.12** GOB policies have been in part responsible for the delay in localisation, and this was recognised in the 1994 RNPE. Government commitment to improve junior secondary education, extending its length from two to three years, and expanding and enriching the curriculum to include a range of new subjects, inclusive of Computer Awareness, Design & Technology, Moral Education and Agriculture as core (required) subjects, and Business Education as a new option, is in part responsible for the shortage of qualified Botswana teachers. The teacher training system was unprepared to meet the demand created by the 1995 changes. The relationship with the University on programme approval has resulted in a slow

process of curriculum development, still incomplete in 1999. GOB has resorted to continuing its campaign of expatriate recruitment to fill the supply gaps, particularly in subjects referred to above.

3.2.13 The secondary Colleges of Education provides for specialist training of CJSS teachers in all the 15 subjects of the curriculum, and Guidance & Counselling and Library Studies specialists. However, on average per major subject basis, the national output is less than 25 new teachers per year, probably insufficient to meet attrition needs (discussed further in Section 3.3), and clearly insufficient to achieve localisation in the near future.

3.2.14 Bank operations made no reference to the localisation of the staff of teacher training colleges. These institutions remain dependent on non-Botswana. Expatriate staff for primary Colleges in 1999 was about 15%, but for secondary Colleges was 40%. The turn over rate for expatriates was reportedly high, affecting the stability of programming (the Design and Technology Department at Molepolole lost 8 of its 9 staff at the end of the 1998-99 school year).

3.2.15 **Gender.** It was reported that the reason why a very small percentage of children are not enrolled in basic education is due to cultural idiosyncrasies (of remote area dwellers, for example) and the prevalence of pre-adult pregnancy. GOB with UNICEF support is currently developing and piloting solutions to these issues. Policies related to pregnancy and participation in school have in recent years been relaxed by MOE, and approaches are being trialed to minimise the period of exclusion from school of pregnant schoolgirls. The involvement of students in unprotected sexual activity, and the prevalence of pregnancy among schoolgirls, remain issues to be addressed by society and Government. The need for solutions has become even more critical in the AIDS environment. Other than the case of student pregnancy, gender exclusion from schooling has largely been eliminated.

3.2.16 Girls were in 1997 fully participating in basic education with 50% of the enrolment at primary level and 54% at junior secondary level. At senior secondary level, the rate was 52%. In primary teacher training institutions, 66% of primary teacher trainees were female, an improvement in terms of gender equity for the situation in 1983 when 83% were female. The gender balance has been near equalised in secondary teacher training, with 55% female trainees in 1997. At the tertiary level, 48% of University of Botswana students was female in 1997 (although for the Science faculty only 28%). For the VTCs, females comprised 29% of the enrolment in 1997, an improvement on the 20% a decade earlier.

3.2.17 Female representation on the staff of teacher training institutions has improved to 62% for primary colleges, and about 40% for secondary colleges.

3.2.18 While these statistics are positive in terms of female participation, there is a danger that males may in the long term be marginalised, as has occurred in other developing environments, such as the Commonwealth Caribbean countries. Already in Botswana the progression rate from primary to secondary is higher for girls, and women outstrip men in enrolment in half of the university's faculties and in its part-time Centre for Continuing Studies. The primary teaching force is 77% female, and 43% of trained secondary teachers are female.

3.2.19 **Environment.** A uniform school design was used for CJSSs, and the 200 schools, which have mushroomed up around the country, are easily discernable from the air. The design used in ADB operations was similar to the original CJSS design employed in IDA/IADB

operations, but modified in the early 1980s to accommodate lessons learned and reduce costs. Environmental conditions throughout Botswana (rainfall, vegetation, slope, site conditions) vary little from place to place, and adjustments were made in foundations and layout of buildings to suit detailed site and soil conditions.

3.2.20 There were substantial benefits from the standardised approach in terms of procurement, contracting, pace of delivery, and project supervision procedures (in some years as many as 30 new schools were completed). In retrospect, there is concern, however, that the lack of community involvement in design and construction, and the lack of recognition of physical and cultural idiosyncrasies of individual communities in the physical appearance of the 'community' school, may in part be responsible for the widespread view that Government rather than community has ownership of the institutions.

3.2.21 Head teachers and staff generally viewed facility designs as functional and appropriate, with one exception widely voiced. The exception related to the design of outdoor cooking areas which were widely criticised. The original design was a major source of complaint on efficacy, cost and environmental grounds. A satisfactory replacement design has not yet been formulated, and interim arrangements have in some cases been worse than the original. The original design involved the use of firewood as fuel, a practice inconsistent with Botswana's forest conservation policies. Schools required a considerable amount of fuel-wood to meet daily demand for morning tea and lunch, and the cost of wood has been rising over the years. Communities did not supply the fuel; it had to be purchased out of school funds. It is viewed in retrospect as environmentally insensitive to have adopted firewood-fuelled ovens in the original plans.

3.2.22 Environmental assessments were not required for any of the education operations on appraisal. The PAC for the fifth project opined that the construction of the schools had not had any negative environmental impact. The provision of sanitary facilities in all primary and junior secondary facilities constructed under the ADB operations may be viewed as having a positive impact on the environment (although the current adequacy of such facilities was raised during site visits, a maintenance issue).

3.2.23 *Institutional development.* The efficacy of project components that focussed on policy development and capacity strengthening is assessed in Section VI.

### **3.3 Efficiency**

3.3.1 *Overall implementation.* BEPU-executed components were more timely in their implementation than those executed by other agencies, demonstrating the benefit of a dedicated project implementation for facilities' expansion. All projects were implemented below appraised costs as estimated by the Bank in UAs. Savings were due largely to exchange rate fluctuations, which reduced project costs in UA terms, and to the benefits of competitive tendering procedures established. Unexpended loan amounts were utilised to contribute to other NDP education sector targets. Education I's scope was widened, for example, following the construction of Molepolole College of Education to establish three CJSSs. Education II's surplus was used to expand selected CJSSs established under the project. The Bank agreed in 1999 that unutilised ADF funds under Education V could be utilised for computer equipment to support CJSS curriculum enrichment plans (as approved under the 1994 RNPE).

3.3.2 **Internal efficiency indicators.** Teacher-student ratios at primary level declined marginally over the period of Bank operations (1:30 in 1978, 1: 28 in 1997). The ratio ranged by district between 17 and 32. The total number of primary school repeaters declined from 13,000 repeaters in 1987 to below 10,000 in 1997 (50% of the 1997 repeaters in Grade 4). The ratio of repeaters to total enrolment over the period declined from 5% to 3%. The mean drop out rate in 1997 was 1.5%.

3.3.3 Teacher:Student ratios at junior secondary level declined over the period of Bank operations, from about 1:28 in 1978 to 1: 17 in 1997. The ratio for all Government secondary teachers to students varied by district in 1997, from 14 to 20. There was no provision for repetition at the junior secondary level. The mean drop out rate at secondary level was 2%.

3.3.4 No policies are in place to improve the teacher-student ratios or to reduce disparities among districts. The Bank-funded Financing study (see Section V) did not analyse the internal efficiency of the system and recommended that research in this area be undertaken. The study suggested *inter alia* that one strategy to address recurrent financing constraints would be to raise the teacher-student ratio to 1:40, but this has not been accepted by GOB.

3.3.5 **Unit costs.** There was no reliable system in place for analysing units cost by level of education, and for reviewing trends. The recurrent and development budgets for education sector activities are shared between two Ministries (MOE, MLGL&H). Primary education recurrent and development costs (expended by District Councils) are aggregated with other sectors. The Government had not developed a capacity to analyse education sector expenditure and monitor unit costs by level of education. Unit cost estimates were produced in the process of developing NDP8, but Government regards the resulting figures as unreliable. While these estimates suggested that the 1995-96 disparity between the unit cost of primary and junior secondary education was 1:2.3 and of primary and senior secondary was 2.67, it is probable that the disparity is much greater. Government's failure to produce and analyse education costs is a serious shortfall in Government capacity, particularly in a sector which consumes one quarter of the annual budget.

3.3.6 **Facilities utilisation for CJSSs.** Some schools established or extended with Bank financing are underutilised (enrolment less than capacity). This is, in part, due to physical planning deficiencies in demand projection, and to social and political pressures for the provision of facilities in certain communities. In some cases, underutilisation has resulted from population migrations responding to economic or climatic difficulties.

3.3.7 CJSS classrooms were designed to hold 40-45 students in single desks in comfort. Mean class (stream) size varied from 31 to 40 for a district. In 1997 the average ratio of student per classroom was 27. This ratio ranged (by district) from as low as 17 (in Kgalagadi South) to 34 (in Central Boteti, the only district in excess of 30 per classroom). The context of these ratios is that of near universal access, so utilisation ratios are unlikely to improve in the future (Section 6.3 projects a worsening situation). There is therefore widespread underutilisation of physical space constructed with Bank financing, by an overall 33% on the basis of a classroom capacity of 40.

3.3.8 Head teachers - whose facilities' management practices appear weak - do not compensate CJSS facilities underutilisation. Head teachers met on mission appeared unconcerned about escorting officials around facilities that were grossly underutilised. Of



concern also was that MOE was not reviewing utilisation data for CJSSs with a view to taking strategic decisions in cases where severe under enrolment will be sustained over the long term.

3.3.9 Although not financed by the Bank, the case of the provision of computer education facilities to CJSSs is illustrative. GOB invested in the construction of superb physical facilities to house computer laboratories in the mid-1990s. The 205 computer rooms have been locked and unutilised for three years. Trained teachers for the subject and the necessary computer equipment will not be available universally for many years to come. Only a few pilot schools are currently implementing the computer awareness programme. The case of Design and Technology and Home Economics is not much different, with additional laboratory space constructed far ahead of equipment provision or teacher production.

3.3.10 School facilities expansion in Botswana, supported by the Bank in four of its operations, is akin to a construction blitz, with insufficient consideration given to detailed demand analyses, school mapping procedures, population trends, and strategies to maximise utilisation. There are no plans for rationalisation to improve on current utilisation indicators, while GOB in development budgeting for 1999-2001 continues to provide for additional construction at junior and senior secondary levels.

3.3.11 *Teacher training efficiency.* Productivity at the teacher training institutions is low, both in terms of facilities and staff. The Molepolole College of Education is an enormous well-appointed campus, with an enrolment just more than 600, and annual output of secondary teachers of less than 200. The college administration conceded that in terms of instructional facilities, enrolment could easily be doubled (and there was an enormous demand for places: 4000 qualified applicants for 200 places in 1999). As an all-boarding institution, the constraint has been that hostel accommodation had not been increased as the campus had been improved, and policy prohibited the admission of 'day' students. Molepolole had a 1999 ratio of 1:5, with 123 academic staff and 622 enrolled students. Sorowe had an equivalent situation, with enrolment in 1997 at 238, a teaching staff of 45, and a ratio of 1:5. The ratio systemwide for the six Colleges of Education is 1:6. In comparison, the University of Botswana ratio was 1:11.

3.3.12 GOB is currently expending millions of pula in enhancing both campuses. It is planned to invest Pula 146 million (about UA 20 million) of development financing for Colleges of Education (primary and secondary) under NDP8 (1997-2003). Pula 21 million has been provided in the 1999-2000 budget. Yet administrations at the two colleges visited were unable to provide information on plans in place to increase their output of trained teachers (or to reduce their teaching establishments). NDP8 was mute on efficiency and output issues related to existing teacher training institutions, and plans to replace and expand the Francistown College as the only strategy to improve teacher supply. The plan, with a very conservative attrition rate of 3% (see discussion of AIDS below), maintains a shortfall of 700 trained primary teachers and almost 1800 trained junior secondary teachers at the end of the plan period (2003).

3.3.13 *External efficiency issues.* The operations contributed to the Government-led revolutionary transformation of the sector, through making secondary educational opportunities accessible by almost all in little over a decade. The emphasis on construction and access, however, has meant that programme development, while far from being ignored, has not kept pace with facilities expansion. Bank operations did not finance quality improvements in basic education. The ultimate test of efficacy is the level of attainment and the appropriateness of learning for individual and national advancement. Concerns have been raised on both counts.

3.3.14 Automatic promotion policies ensure efficiency of progression, but school programmes have not been adjusted for the full range of abilities. The adequacy of programming for preparation for work and life has also been questioned, as CJSS has been seen by many as a selection process for SSS. The CJSS curriculum's quality and the assessment system were criticised in the report of the 1993 Commission, and MOE has developed a new structure and is formulating the details. Colleges of Education are responding to these changes but there is a long lag between new curriculum and teachers trained to deliver it. MOE has been slow in reforming the assessment system. Quality assurance mechanisms are weak. Although not a focus of the evaluation, there are clearly external efficiency issues, some of which are being actively addressed by MOE. This aspect is more difficult to change than facilities supply, and improvements will be evolutionary rather than revolutionary.

## **IV. EVALUATION OF OUTCOME: NON-LENDING OPERATIONS**

### **4.1 Relevance**

The Bank did not articulate clear targets and strategies for its non-lending responsibilities in Botswana. The available country strategy information (in the 1989 and 1993 EPCPs and in the 1995 CPR) failed to define Bank's non-lending strategy either for the country or for the education sector. Although three education operations were active in 1993 EPSP, sector targets in respect of non-lending activities were not defined. More generally, Bank's distribution of effort between its lending and non-lending responsibilities was not referred to. Similarly, the 1996-98 CPR gave no targets for non-lending activity, in education or in any other sector. While the CPR concluded that the substantial investment made in the five education operations "needs to be made sustainable", responsibility for action was left to Government and no strategy for Bank assistance in this critical area was developed. Bank's decision to discontinue preparation of the first Botswana CSP in 1997 (when Botswana reaffirmed its decision not to seek non-concessional loans) is also instructive and emphasises the marginalisation of the non-lending role of the Bank in Botswana.

### **4.2 Efficacy**

4.2.1 Without an articulated strategy, and without access to archival material on supervision missions, it was difficult to judge efficacy. It is clear, however, that the Bank's non-lending assistance in Botswana's education sector was minimal. There was no evidence in available reports that the Bank was proactive in policy dialogue or in aid co-ordination in the sector over its near-20 years of operations in Botswana. The absence of policy dialogue is particularly noteworthy in view of the number of sector policy issues (e.g. on financing facilities' maintenance) that emerged during operations (summarised in the efficacy, efficiency and institutional assessments in this report).

4.2.2 There were instances of technical assistance and of co-financing in the fifth of the Bank lending operations, Education V. TAF was included in that project to finance two policy studies, and co-financing was accommodated (subsequent to project appraisal) to facilitate GOB in accessing an OPEC grant of UA 2.1 million. The studies were commissioned and completed, but the outputs have been un- or under-utilised.

4.2.3 Aid co-ordination was not promoted at the project preparation stage, nor in implementation. There was no attempt to interweave the components of other donors into projects prepared, even when parallel investments were being implemented by the same executing agencies. All projects were co-financed by Government, and while Bank blended its ADB, ADF, TAF sources with Government's financing for all projects, its catalytic role by mobilising from additional resources was not effective.

## V. SUSTAINABILITY ANALYSIS

### 5.1 Economic and Financial prospects

5.1.1 **Government commitment.** The focus of the five operations was facilities provision to provide for access expansion and teacher production. However, the 'intended useful life' of physical facilities was not defined at appraisal. In the dry, earthquake-free, hurricane-free and nearly war-free environment of Botswana, it may be assumed that a period of 75 to 100 years would be the intended life span of such facilities.

5.1.2 Government's continued commitment to the education sector, the consistency of its policy directions and the continued provision of adequate recurrent and development financing to the sector augurs well for the medium term sustainability. The functionality of facilities financed by the Bank was reiterated in the clearly defined policy and strategies for sector development in the 1997 Long Term Vision, *Toward Prosperity for All*, and in the 1994 RNPE, and by the medium term targets of NDP8. The proportion of the recurrent budget dedicated to the education sector increased from 19.5% in 1986-87 to 25.2% in 1996-97 (a tenfold increase in monetary terms from P113 million to P1018 million over the period).

5.1.3 There is community approval and demand for the increased education opportunities as evidenced in voluntary enrolment gains (education is not compulsory in Botswana). There is no political or social opposition to Government's broad sector development goals or strategies.

5.1.4 **Recurrent expenditure growth.** In spite of Government commitment, the recurrent expenditure burden of the education sector on GOB finances presents a risk. The sector study, commissioned in 1996 under Education V, raised the spectre of unsustainable increases in the demand for recurrent expenditure by the education sector. The analysis projected that, even without the incorporation of the extra costs associated with the 1994 RNPE, the share of total GOB budget for education would rise from 20.1% in 1995 to absorb all government revenue (mineral and non-mineral) by 2003 or 2005 (depending on which projection model was used). When the costs of RNPE were taken into account, the education budget was projected to reach 50% of total government revenue by 2001, on the basis of the more conservative model.

5.1.5 The implication of the study's findings was that such a rate of growth in education sector spending would lead to skewed sectoral allocations and - within a few years - to deficit financing of the budget (something Botswana has scrupulously avoided and been praised for by the development community for its fiscal policies). The recurrent cost situation was assessed as totally unsustainable. The report recommended improved financial management, cost reduction and cost sharing, but its proposals were indecisive and un-costed. The report failed to provide clear guidance on how the situation should be addressed (at minimum risk to advances made in educational services). The report's recommendations were reflected in NDP8 only in the sense that the plan indicated the need to "explore methods of cost sharing in

future education provision". The plan then proceeded to project an annual 6.1% growth in sector recurrent requirements through 2003, in contradiction to its position that financing needed to be diversified.

5.1.6 GOB is yet to face the serious sector financing issue and find a long-term solution. There is growing consensus that levies required of CJSS students and rental levels for staff housing should be standardised upward, but such measures will have little impact on the overall financing needs of the sector. No support for the concept of cost sharing at primary level was found. At the junior secondary level, head teachers generally supported the concept of increased direct parental contributions for school maintenance and supplies, once safety-net provisions are made for families below the poverty line (perhaps half of all families). General elections due in late 1999 made political decisiveness on cost sharing in education an off-limits area of dialogue. GOB had not undertaken in-depth analysis of recurrent cost issues and has delayed effort to resolve them.

5.1.7 *Implication of commodity price fluctuations.* The high dependence of Botswana on income from the diamond industry was noted above, and presents a significant risk to project sustainability. The demand for diamonds became sluggish in 1998 (attributed to the Asian economic slump) and did not recover in 1999. In 1998 total sales of diamonds dropped by 25% and exports fell by 12%. If this commodity's price continues to stagnate over a long period, GOB revenues will be seriously impaired and its recurrent expenditure put under severe strain.

## 5.2 Institutional and Maintenance Issues

5.2.1 *Physical facilities.* The technical specifications of the Bank-financed junior secondary schools, centre-pieces of the five project Bank programme, as well as of primary and teacher training facilities, were sound. All facilities have lasted well for the first 10 to 15 years of their lives, without the major maintenance or repairs. GOB's initial investment in the late 1970s and early 1980s in good designs and detailed specifications, and the BEPU's procurement of quality supervision services, appears to have ensured junior secondary school structures of lasting quality, without structural faults and with minimal maintenance requirements. If maintained, the physical facilities should provide durable service for educational programmes. However, schools have a backlog of minor maintenance requirements unattended to.

5.2.2 *Facilities' maintenance.* The 1996 financing study, referred to above, concluded that the intended role of the community in developing and sustaining school facilities and staff housing has not (in the main) materialised, and this was borne out in the evaluation. The roles of community, Boards of Governors, PTAs and head teachers in ongoing facilities maintenance and enhancement are currently limited or non-existent (the situation varies from school to school).

5.2.3 There is a growing awareness of the need to employ new strategies to ensure the full maintenance of educational facilities, although these strategies are not yet agreed. GOB, at central or district levels, is currently shouldering full financial responsibility and most of the implementation responsibility for school maintenance. Contrary to Government's decentralisation policies, provision for CJSS maintenance was centralised in 1999 under BEPU and its regional clerks of works. Current maintenance policies and provisions present risks for the continued quality of the facilities.

**5.2.4 School management quality.** Capabilities of head teachers at primary and secondary level have lagged behind facilities expansion, but GOB has put strategies in place to ameliorate the situation. This has included investment since 1993 in strengthening secondary school management, since institutionalised with management advisers appointed in each region. A programme for the training of primary school heads (co-financed by DFID) was initiated in 1999 and will involve 30 trained management advisers and international TA. However, the exercise in training head teachers will not be effective in improving facilities' maintenance unless policies are resolved and incorporated in training programmes.

### **5.3 Vocational Training Policy**

**5.3.1** Government desire to diversify the economy and create an industrial environment resulted in support for the development of a publicly financed vocational training system. However, its 1980s vocational training policies, and the training programmes delivered in VTCs, were increasingly questioned from the early 1990s. The 1993 National Commission on Education concluded that vocational and technical training in Botswana was in a critical situation. Criticisms related to inadequate policy framework, poor programming, unstandardized and unintegrated certification and award procedures, inadequate coordination between providers, weak curricula, poor teaching, inadequate monitoring and too narrow a financing base. The apprenticeship-based vocational training system in place when Bank-financed VTCs were constructed under Education II, could not be sustained. Nevertheless, need remained for an improved approach to vocational education, more responsive to the economy's demand for skills and the population's demand for further educational opportunities for primary and junior secondary completers. Government initiated corrective measures in the mid-1990s, determined to create a more relevant and sustainable system.

**5.3.2** Government has received EU grant support in taking action to address these issues and create a workable vocational education system. The first EU-financed project (under EDF7) is currently supporting MOE in remodelling approaches in a new *Botswana Technical and Vocational Education Programme* (BTVEP), developed in partnership with leading employers. A second project (under EDF8), expected to be approved by the end of 1999, will establish at Francistown a College of Technical and Vocational Education to train 180 TVET teachers annually in a one year programme, to supply CJSSs and the new BTVEP. GOB anticipates that these initiatives will create an effectiveness and sustainable vocational education system. The new College will also improve the skill output of the junior secondary sub-sector. In conclusion, while Bank investment in TVET may be viewed as at risk, it is expected that the facilities will by 2001-02 be producing benefits even more appropriate than those anticipated at appraisal.

### **5.4 Consequences of the HIV/AIDS Pandemic**

**5.4.1 HIV/AIDS Prevalence.** The AIDS pandemic, not anticipated at the design stages of the operations, presents the most critical threat to sustainability of outcome. The findings of 1999 UNDP-funded studies on the impact of HIV/AIDS on the demographic characteristics of Botswana present an alarming situation. Key documents utilised for the analysis below were (i) "The Impact of HIV/AIDS on Current and Future Population Characteristics and Demographics in Botswana", prepared by Abt Associates Inc & Metropolitan Life Ltd, August 1999 and (ii) "Macroeconomic Impacts of the HIV/AIDS Epidemic in Botswana", prepared by the Botswana Institute for Policy Analysis, August 1999. While both are draft reports (under

review by GOB), key findings pertinent to the education sector are summarised and discussed below.

5.4.2 The HIV prevalence rate among the total population of Botswana was estimated in 1999 to be between 15 and 17%. The rate for the adult population (aged 15-59 years) was estimated at 30%, or 240,000 people. As it is increasingly unlikely that effective interventions to reduce transmission will be found in the short-term, prevalence is expected to rise to about 20% of the total population by 2004. The ratio of affected women to men is estimated at 1:0.83. It is further estimated that about 15% of children aged 0-4 were infected. AIDS will be responsible for 64% of deaths of children under five by the year 2000, offsetting much of the country's impressive child health progress.

5.4.3 The pandemic has affected the entire country, with relatively minor regional variations. The situation in the north is most critical, with an overall adult infection rate of 44%. The south has a rate of 36% (39% in Gaborone) and the rural west a rate of 30%. The prevalence rate in rural areas is 82% that of urban areas (much higher than the 50% differential assumed for most countries in sub-Saharan Africa). It is anticipated that adult prevalence rates will level off for all areas of the country at between 40 and 45% by the early 2000s.

5.4.4 Full-blown AIDS cases are estimated to be 2% of the adult population at the beginning of 1999. By 2009, 5% of the adult population will be living with full-blown AIDS. By 2001, there will be more than 15,000 AIDS deaths per annum, overtaking all other causes of death and effectively doubling the crude death rate. By 2010, cumulative AIDS deaths from 1991 will be about one quarter of Botswana's current population. These estimates are based on current HIV infection rates and will not be affected by current preventive interventions.

5.4.5 *Demographic consequences.* Life expectancy will dramatically fall to about 35 years for males and females by 2010. Pre-AIDS pandemic projections based on 1990 census data were that life expectancy would rise from 50 to 68 years for males, and from 60 to 74 years for females between 1980 and 2020. According to the most recent projections, however, Botswana's population will begin to decline in 2004, due to the prevalence of AIDS. It is currently projected that the population will peak near to 1.6 million in 2003, and begin to fall thereafter. In 2000, 50,000 children less than 15 years of age will have lost their mothers to AIDS ("AIDS orphans"), and this number will rise to between 150,000 and 200,000 by 2010.

5.4.6 *Macroeconomic consequences.* Rising morbidity will result in (i) a reduction in productivity per capita, (ii) an increase in public expenditure on health care, replacement training, and sick pay, and (iii) a reduction in national investment (due mainly to reduced domestic savings). Rising mortality, also due to HIV/AIDS, will result in reduction in the size of the labour force, and a loss of experience and skills. The negative impact of HIV/AIDS on labour, capital and productivity will reverse the growth of GDP, which the country has achieved in recent years. The shortage of both skilled urban labour and unskilled rural agricultural labour will have a negative impact on rural household food security and income, and worsen the poverty situation.

5.4.7 For the average household, there will be an income loss through the death or sickness of breadwinners, and increased expenditure on health care and funeral arrangements. The fiscal impact will be to increase Government health care expenditure to meet the growing needs, and reduce the tax base. The growing size of the population of AIDS orphans has economic as well

as social implications. Without policy interventions, AIDS orphans could become a socially disruptive force resulting in rising levels of crime and discouraging investment.

**5.4.8 *Government's response.*** GOB was quick to respond at the outset of the HIV/AIDS epidemic, and within two years of the first known death from AIDS in 1987, had established a national preventive programme with donor support based in MOH. The second of the medium term plans (MTPII, 1997-2002) is currently being implemented with a focus on prevention and a multi-sectoral mandate. MOE was not, however, represented in the steering committee which drafted MDPII in 1997, and was also omitted from the multi-sectoral National AIDS Committee (NAC) established to implement MTPII. There is no specific reference to the role of the formal education sector in strategies and interventions outlined in MTPII.

**5.4.9** While GOB, in concert with donors led by the UNAIDS, is mobilising efforts to address selected AIDS issues, the education sector - viewed by many as key to the preventive effort - has not developed strategies to respond to what is now a pandemic. Mission observations and interviews with head teachers and MOE officials confirmed that the formal education sector had not been harnessed in the national AIDS prevention and mitigation programmes, and individual schools had been less than proactive in this critical area. An informant, describing the sector's lack of response, used the expression 'in denial'.

**5.4.10 *Consequences of the HIV/AIDS pandemic for the education sector.*** The risks presented by the pandemic for Bank-financed education facilities in Botswana, and for the education system as a whole, are considerable. The 1999 HIV/AIDS projections presented above were applied as part of this assessment to the most recent education sector data. **Annex 6** summarises the findings. One of the consequences is that demand for primary places will begin to decrease markedly from 2005, and for junior secondary school places from 2010. This will exacerbate the under-utilisation of existing junior secondary schools. There will be an increasing attrition of the teaching force as a consequence of AIDS-related illnesses and death. Dependence on externally recruited teachers will increase. The number of children living with HIV or AIDS, and the number of AIDS orphans, enrolled in schools grow exponentially.

**5.4.11** Government faces a number of critical issues as a consequence, and will have to review its current policies in respect of (i) the curriculum for schools and colleges, (ii) selection procedures for teacher training in respect of HIV status, (iii) the output of teacher training institutions to meet an increasing demand for replacement teachers, (iv) increasing poverty and reduced community resources for expenditure on schooling, and (v) health procedures in educational institutions to minimise new infections. Unless current prevalence indicators change, 40 to 50% of students admitted to school in the coming decade will eventually become infected with the AIDS virus, and have a substantially reduced life span. This will have negative consequences for the country's social and economic sustainability, as well as for the quality of life of its people. In terms of the sustainability of outcome of Bank assistance, the pandemic presents critical risks to (i) further gains in the localisation and stability of the teaching force, (ii) improved facilities' utilisation, and (iii) increased community contributions to education financing.

## **5.5 Donor Support**

An over-arching issue is that social progress is lagging behind national economic development, and poverty remains a serious issue for GOB in spite of gains in national per capita income. The graduation of Botswana from most sources of technical assistance and aid

is viewed as problematic when the development process is still unconsolidated. Technical assistance in education sector policy reform, management and decentralisation may be invaluable in support of GOB's sound governance and policy practices.

## VI. INSTITUTIONAL DEVELOPMENT

6.0.1 *Planned impact.* The five Bank operations made minimal provision for institutional development. All projects made some provision for project implementation capacity through physical and training support for BEPU. Education V financed studies in the areas of school maintenance and education sector recurrent financing. No other component was designed to have direct impact on capacity. There is evidence of a wider indirect (unintended) impact only in the area of project management, and bank operations have had no impact on Botswana's educational management and planning capacity.

6.0.2 *Project implementation capacity development.* Bank operations supported the strengthening of GOB's project implementation mechanism for secondary school facilities' development. BEPU's establishment preceded ADB operations, having been set up to implement IDA/IBRD operations in the late-1970s. The PCR for Education III was critical of the continuing dependency on expatriates in key project implementation roles. Provision was made in Education IV for overseas training of two national counterparts, and Education V for overseas training in education financing. The respective PCRs are silent, however, as to the implementation of these minor capacity building components. In 1999, after 20 years in existence, and 19 years from the commencement of preparation for the first Bank operation, the BEPU directorship is still entrusted by GOB to an expatriate on contract. While the appointee is held in high regard by Government, the continuing situation exemplifies the lack of attention paid to human capacity development and institutional strengthening in Bank operations.

6.0.3 BEPU's overall effectiveness outweighs procedural criticisms raised in Project Completion Reports, and its role is institutionalised (although not expanded to cover primary facilities). Other GOB line ministries, in considering mechanisms to achieve higher levels of implementation performance, view BEPU as a model. The Bank's Education operations have also contributed, indirectly, to the development of GOB's internal procedures in project appraisal, procurement, supervision, and project performance audit.

6.0.4 *Policy development.* The *Facilities Maintenance and Management Study* took the form of a detailed and comprehensive manual for use by regional education authorities, and the Board of Governors and head teachers of CJSSs. The manual was approved in 1995 and was distributed. It is doubtful whether the manual has contributed to improved school maintenance. The *Resource Mobilisation and Management Study* was completed in 1996, and focussed on financing and cost sharing mechanisms. There were no direct follow-up actions by MOE or MFDP on the study or its recommendations; the central recurrent cost issue raised remains unaddressed. No provision was made in the design of Education V for policy dialogue and training activities in connections with the two studies. These initiatives had little impact, therefore, on GOB policy development.



## VII. PERFORMANCE

### 7.1 Bank and Borrower Performance in Project Formulation and Appraisal Processes

7.1.1 *Identification.* The operations were well identified in the context of country development priorities at the time each project was formulated. All components were supported by policy makers and beneficiary communities, and intended student and trainee beneficiaries.

7.1.2 *Preparation.* In the preparation of Education II to V, the Bank should have been able to utilise lessons learned from previous operations in the sector. However, weaknesses and narrowness of project supervision and delays in project completion (and therefore of PACs), resulted in the absence of analysis to learn from. The appraisal report for Education V is the only one which referred to lessons learned and attempted to address them in the design of the final operation.

7.1.3 When viewed retrospectively against contemporary thinking, all projects had design weaknesses. Not one of the five projects integrated qualitative and quantitative developments of the sector. All failed to integrate facilities expansion with means for improving the quality of output, and the means of improving management, planning and financing capabilities. Each project consisted of stand-alone components, for the most part providing financing for GOB's sector infrastructure expansion plans. The single qualitative improvement among the five projects (the introduction of computer awareness in SSSs in Education V) was itself unrelated to any of its other components.

7.1.4 Institutional and human capacity building was not included in any of the operations (with the minor exceptions assessed in Section V). The 1999 ESPP viewed capacity building as a critical component for project sustainability. Although the Bank was criticised in the PCR of Education I for omitting a capacity building component at design stage, the omission was not corrected in subsequent designs, and only one official was ever trained under the series of five projects.

7.1.5 *Coordination with related investments.* The Bank, in concert with other donors, now espouses the concept of sector-wide approaches in respect of education sector investment. There is no evidence that such a concept under-girded the design and appraisal processes for the operations under review. Nevertheless, Government coordinated donor resources in the macro sense, and there was no reference in PCRs to overlap or duplication in the use of donor resources. No references to mismanagement of donor resources were reported to the evaluation mission.

7.1.6 At the micro (project) level, however, Government and Bank's failure to articulate how its operations would be coordinated was a serious weakness of preparation and appraisal. There was for several projects the need to articulate both (i) coordination in project execution between different ministries and agencies, and (ii) coordination with related existing or planned donor initiatives. An example of the consequences of the failure to analyse the coordination risks and plan to minimise is provided by Education IV. While it was recognised at appraisal that the primary component (30% of the UA41.6 million project) would be implemented by "the various District Councils" there were no details of implementation arrangements or of the relationship between BEPU, MLGL&H and District Councils. There was also no review of the capacity of the implementing agencies to undertake an ADB component in addition to

concurrent World Bank and SIDA facilities projects. As a result, the slippage was serious and the primary component completed 2.5 years longer than appraised.

**7.1.7 Community involvement.** An overarching objective of national educational policy has been “to improve the partnership between school and community in the development of education”. It was asserted in the 1994 RNPE that “the participation by the community in the development and management of education is important for the purposes of its democratisation, quality assurance and relevance”. While project designs anticipated certain community contributions toward the establishment of the CJSSs (including the contribution of the school site, co-financing the cost of dining halls and staff housing, and a key management role of the Boards of Governors), community contributions and involvement were not fully realised. This can be viewed as overambitious at strategy and design stage on the part of GOB, or a failure in project implementation to mobilise the community contributions. The review mission’s observations confirmed the uncertainty and variability of the community’s financial role and participation in the very junior secondary schools dedicated - in their name - to community ownership.

**7.1.8 Monitoring and Evaluation.** Project designs were devoid of rigour in monitoring and evaluation mechanisms. None of the projects provided for the development of GOB capacity to monitor and evaluate the efficacy and effectiveness of its investments. Absent from the five project designs was (i) utilisation of the logical framework approach or a similar systematised method of defining purpose and intended results, (ii) baseline surveys to identify and measure key indicators at commencement, (iii) precise, quantitative targets agreed at the outset of the project by Bank and Government as a basis of measuring success, and (iv) sources of reliable, independent and quantitative monitoring information. In consequence, while this report concludes that operations were highly satisfactory in increasing access to basic, vocational and tertiary education (Section VII), the absence of specific quantitative targets made it difficult to make this judgement with certainty.

**7.1.9** There was no budgetary allocation for monitoring and evaluation in any of the five projects (in Education V, reference to ‘monitoring’ implies sub-project site supervision, and not monitoring of the attainment of the project’s outcomes). In none of the projects was provision made for external evaluation, other than the project supervision and completion exercises (which are more concerned with efficient disbursement than with evaluating whether underlying sector goals are being efficiently achieved).

## **7.2 Borrower Performance in Implementation**

**7.2.1 Execution arrangements.** GOB executed junior secondary expansion through the BEPU, a unit also given responsibility for overall coordination of Bank projects. Components other than junior secondary facilities were executed by other agencies. The Ministry of Local Government, Land and Housing (MLGL&H) and the District Councils executed primary education components. The Department of Architecture and Building Services (DABS) in the Ministry of Works had responsibility for execution of the senior secondary component. The University Development Committee was responsible for executing the Faculty of Science component.

**7.2.2 Good Practice.** GOB demonstrated many aspects of good practice in its performance. Governance has been characterised by democratic processes, accountability and transparency. Good governance provided a supportive context for project implementation. Government was

proactive in co-ordinating donor inputs, integrating aid into its sophisticated planning system. Government was also financially prudent in all project costing and procurement, and achieved cost savings in all operations without sacrificing quality. It established a sound implementation unit, the BEPU, which provided continuity and progressively improved its capacity to operate in compliance with Bank procedures. The relative continuity of top personnel in the project implementation unit ensured that skill acquisition was retained. An open partnership was developed with the Bank, and this has survived the end of lending operations. GOB's caution in respect of borrowing at non-concessional terms is also a result of its prudent approach and reluctance to add to the national debt.

7.2.3 All facilities and other components included in the five projects were provided as planned. In the case of most projects, additional facilities or materials were provided utilising unexpended funds. This is a particularly strong record in project implementation and the success of GOB in realising all project outputs must be underscored. Reports attested to improvements in reporting, accounting and maintaining schedules over the cycle of the five projects, and GOB adopted many Bank procedures into its internal mechanisms as a result of lessons it had learned from joint operations with the Bank. Infrastructure and consultancy contracts were performed satisfactorily, with the exception of the initial contract for the University Science Faculty.

7.2.4 *Implementation issues.* A number of performance issues related to project execution were raised at project completion, particularly in the earlier projects. Performance shortfalls included (i) a lack of capacity to co-ordinate the components executed by other Government agencies involved in project execution, particularly during Education II and III, (ii) delays in meeting conditions for loan effectiveness, (iii) weak reporting capacity in relation to Bank requirements and agreed procedures, (iv) inefficient procurement and distribution systems for furnishings and equipment. A result was that loan disbursements were delayed, and there was slippage in project completion by a mean 2.3 years for the five operations

7.2.5 Councils for seven districts, in association with MLGL&H, had responsibility for executing the primary school facilities component of Education IV. Their capacity to do so efficiently has been seriously questioned. Implementation delays were caused by weak procurement procedures, local-level political influences on prioritisation and contracting decisions, and poor contractor pre-selection procedures (resulting in a high level of defaults). The situation has been aggravated by the absence of zoning (with variable utilisation of primary facilities based on community perception of school quality), and a lack of capacity to meet maintenance scheduling. As a result, the Councils have persistently under-expended annual school maintenance allocations, and allocations by MFDP have been regularly reduced in consequence.

### **7.3 Bank Performance in Supervision**

7.3.1 The Bank's performance in project supervision and the provision of technical assistance was criticised in project completion reports. Reports present a litany of issues critical of Bank performance in project implementation, some of which are repeated at the completion of each project.

7.3.2 Of key importance was the view that the Bank's desk and field supervision and monitoring services were irregular and inadequate, and that supervision missions failed to monitor the broader project objectives, focussing only on civil works implementation. Another

oft-repeated criticism of the Bank related to the adequacy of the guidance given (in the form of handbooks or training) to project implementation personnel on Bank rules and procedures, particularly in respect of procurement and disbursement, and the inadequate provision for capacity building in project implementation.

7.3.3 Other failings reported related to (i) inadequacies in the Bank's own project management information systems, (ii) ambiguity in project completion mechanisms, (iii) cumbersome procedures for determining the utilisation of unexpended funds, and (iv) inadequate internal mechanisms for ensuring that outcomes of financial negotiations with the Borrower were implemented by the Bank's financial operations. Government officials observed that the utilisation of loan savings involved protracted negotiations with the Bank, and this contributed to delays in project completion.

7.3.4 The broad implication of the analysis is that the Bank shared with Borrower responsibility for delays in project implementation and completion. Improved Bank project supervision and improved internal Bank procedures would, in all likelihood, have facilitated project completion in a time-frame closer to original scheduling.

## VIII. EVALUATION RATINGS

### 8.1 Bank Assistance

8.1.1 Annex 5 presents the indicators used to score performance, and a score for each indicator is given based on the findings of the evaluation. Four tables are used to assess Bank activities: The first on Bank strategy (Table 1), the second on the outcomes and sustainability of Bank's lending assistance (Table 2), the second on its provision of non-lending assistance (Table 3), and the third on its performance in lending operations (Table 4).

8.1.2 **Bank strategy.** The assessment of Bank strategy was stymied by the absence of documented strategy, although *de facto* it was relevant to the Bank's mandate and policy at the time. The strategic objectives were defined in vague terms and did not contain verifiable indicators, which would have allowed for an objective evaluation of the efficacy of the Bank strategy. It is rated unsatisfactory.

8.1.3 **Lending assistance.** The assessment of the Bank's role in lending to Botswana's education sector was evaluated as satisfactory (a mean score of 2.2). While scores were satisfactory on the relevance and efficacy of its operations, the efficiency of outcome was unsatisfactory and sustainability was uncertain, the latter in part due to exogenous factors. The impact of Bank operations on institutional development was judged unsatisfactory. The outcome of Bank assistance was judged as highly unsatisfactory in the areas such as terms of localisation, facilities utilisation, unit cost minimisation, teacher training efficiency, financial sustainability and institutional strengthening. The low ratings on the efficiency, institutional, and sustainability counts is the result in part of Bank failure to (i) take an integrated, forward-looking approach to sector investment and its sustainability, and (ii) recognise exogenous factors posing serious risks and be proactive in addressing them.

8.1.4 **Non-lending assistance.** Bank performance on non-lending assistance was **unsatisfactory**. The Bank has had no impact on policy development and was inactive in aid

coordination. Mobilisation of technical assistance and the identification of co-financing opportunities was unsatisfactory.

**8.1.5 Performance.** The Bank's performance in the implementation of operations was assessed as **unsatisfactory** (with a mean score of 1.5). Ratings given for its activities in preparation, appraisal, supervision and evaluation are unsatisfactory. The design of the project components was assessed as satisfactory.

**8.1.6 Overall evaluation.** The Bank has not yet determined the relative weighting to be given to its strategy, lending and non-lending activities in making an evaluative judgement on its assistance. On the basis of an arithmetic average of the indicators relating to strategy, lending and non-lending activities and Bank's performance, Bank's performance was marginally unsatisfactory (at 1.95, just below OPEV's 2.0 cut-off for a 'satisfactory' interpretation). If the mean score for the four areas (Strategy, Lending Assistance, Non-lending Assistance, and Bank's Performance) are averaged, Bank's performance is more clearly unsatisfactory (with a mean of 1.6). On both counts, therefore, Bank performed **unsatisfactorily**.

## **8.2 Borrower Performance**

Annex 5 Table D assesses the Borrower's performance, providing a overall assessment that performance was **satisfactory** (with a mean score of 2.8). The Borrower provided quality inputs in preparation, and executed the operations satisfactorily. Reporting performance was weak initially but improved over time. Slippage in scheduling was the most serious weakness in Borrower performance.

# **IX. CONCLUSION AND RECOMMENDATIONS**

## **9.1 Conclusion**

**9.1.1** Botswana has attempted to bring about revolutionary, rather than evolutionary, changes to its public educational services in a short period of time. It has in overview been successful. Few countries in Africa have succeeded in such impressive gains in a decade or two. This assessment focuses on the contribution of Bank assistance to the country's effort to radically improve the provision of education and to establish conditions for gains to be sustained in the future. The instruments of Bank assistance consist of lending and non-lending components. The assessment concluded that lending activities were satisfactory while non-lending assistance was unsatisfactory. These conclusions are based primarily on its lending assistance role.

**9.1.2** The partnership between Bank and Government in financing and operationalising the projects had the benefit of an external appraisal of investments and contributed sound procedures in procurement and supervision which enabled the education system to rapidly expand with quality facilities in a short period of time. Bank projects have contributed to increasing access to all levels of education in Botswana, with a particularly significant role in respect of the universalisation of junior secondary education. They have also contributed to the reduction of disparities in educational opportunities across urban and rural communities, and to gender equity. In so doing, the projects have provided conditions for the improvement of the health and well being of the population, for the reduction of poverty, and for social enhancement

9.1.3 However, Government is faced with many challenges in consolidating gains achieved and in meeting targets set in its RNPE. There are serious risks to the sustainability of the investments posed by recurrent financing constraints and the catastrophic level of HIV/AIDS infection. Efficiency indicators require considerable improvement. The underutilisation of Bank-financed facilities is widespread and utilisation levels may fall further.

9.1.4 An overarching issue is that social progress is lagging behind national economic development, and poverty remains a serious issue for GOB in spite of gains in national per capita income. The Bank's decision to exclude Botswana from concessional lending and technical assistance (when its development process remains far from complete and unconsolidated) is questioned. The concern is heightened as exogenous factors now threaten sustainability of the achievements. In urgent need of support is education sector policy reform, management strengthening at all levels of the system, actualising decentralisation, determining the role of the privatisation policy directions for the sector, and the articulation of education services with future economic prospects and skills' requirements. Bank's vision now focuses on human resource development and poverty alleviation. This evaluation has identified a need for further assistance to the education sector in Botswana to maximise returns from past investments and to address the looming economic and social risks to sustained sector performance.

## 9.2 Lessons Learned

9.2.1 The following key lessons are based on the findings:

- (i) **Sector Strategy:** Lack of emphasis on sector integration, efficiency and sustainability in an education operation will result in risks to desired outcome (3.1.5).
- (ii) **Country Strategy:** The absence of a well-formulated country strategy inclusive of education will result in (a) an overemphasis on lending assistance and (b) a lack of balance in the lending operations themselves, such as overinvestment in facilities; neglect of capacity strengthening (3.1.3, 6.0.1).
- (iii) **Appraisal:** If appraisal focuses on facilities' construction rather than educational outcome, critical components of the sector will lag seriously behind and sector inefficiencies will result (3.3.5, 3.3.12, 7.1.3).
- (iv) **Community contributions:** Community contributions in the financing of a Bank operation need to be realistic and compliance mechanisms included at the design stage (5.2.2).
- (v) **Supervision:** Poor quality Bank supervision services will result in implementation and completion delays (7.3.2, 7.3.3).
- (vi) **Environment:** Poor quality environmental impact assessment results will result in the deterioration of fragile ecosystems (3.2.22).
- (vii) **Maintenance:** Centralised school facilities' maintenance arrangements will result in neglect and creeping deterioration at school level (5.2.1, 5.2.3).

- (viii) **Sector Financing:** Commissioning policy studies without follow up activity (dialogue, marketing, change support) will not result in policy change (6.0.4).
- (ix) **Endogenous and exogenous factors:** Weakness in monitoring and formulating mitigation action in respect of endogenous and exogenous factors critical to the sector (e.g. the HIV/AIDS epidemic, commodity market uncertainties) will result in uncertain sustainability prospects (5.4.11 – 5.4.14).
- (x) **Institutional capacity:** The neglect of sector capacity development in Bank operations will result in low ability in Government to analyse and address education sector efficiency and sustainability issues (3.1.5, 3.3.4, 6.0.2).
- (xi) **Sustainability:** Benefits of operations are jeopardised if the long-term recurrent financing requirement is not adequately analysed and provided for (5.1.4 – 5.1.7).
- (xii) **Policy dialogue:** The Bank's will not be able to meet its non-lending assistance responsibilities without investment in representation, analysis and dialogue (4.1.1, 4.1.2, 4.1.4).
- (xiii) **Technical assistance:** Bank's failure to mobilise technical assistance will result in a backlog of key issues for Government to resolve (e.g. related to the efficient and sustainable utilisation of Bank-financed sector infrastructure) (3.3.8, 4.1.2, 5.1.6, 5.2.3, 5.4.11).
- (xiv) **Donor coordination:** Failure to analyse and address donor coordination issues when planning operations in a sector will result in implementation delays and overinvestment (4.2, 7.1.6).

### 9.3 Recommendations

#### 9.3.1 It is recommended that in respect of **Bank policy and strategy:**

- (i) Bank's draft ESPP should be reviewed and finalised to improve the framework for identification and preparation of future assistance.
- (ii) In the preparation of Guidelines related to the 1999 ESPP, the Bank should elaborate on priorities and strategies to ameliorate effects of HIV/AIDS on a country's education system for the 2000-20 period (see Recommendation 6).
- (iii) Bank should prepare a country assistance strategy for Botswana that includes targeting of the education sector and identifies strategies to address critical fiscal, social and environmental issues.
- (iv) Bank's country strategy should specify verifiable objectives and measurable indicators, to ensure accountability and allow effective monitoring.
- (v) Bank strategies for education in Botswana should be determined after a comprehensive analysis of the education sector, including higher education.

- (vi) Bank should increase the frequency of its missions to, and provide for in-country representation in, Botswana (a) to facilitate its analytical and policy dialogue responsibilities to the country, and (b) to effectively implement the country assistance strategy recommended (in Recommendation 3).
- (vii) In the formulation of a new country strategy for Botswana and in the selection and prioritisation of lending and non-lending operations, Bank assistance should be consistent with and contribute to broader policy reforms agreed for the country or sector.

9.3.2 It is recommended, in respect of addressing critical **sustainability issues**, that:

- (viii) Bank should initiate a multi-country study to analyse the likely impact of the HIV/AIDS pandemic on the sectors and development priorities of RMCs, including the education sector, and formulate strategies in risk mitigation. (ii) Bank should formulate strategies to mainstream response to critical HIV/AIDS issues in sector operations, including education assistance.
- (ix) Bank should critically review the Botswana education sector financing study submitted in 1996, together with this report and recent financial and sector data, and make recommendations to Government on dialogue, action or further analysis of the issues therein.
- (x) Government should analyse the recurrent unit cost at each level of education and identify realistic and sustainable cost reduction and cost sharing mechanisms for early implementation.
- (xi) Government should identify ‘safety net’ measures for children in poverty, to ensure their continued access to education in spite of a general introduction of cost sharing policies.
- (xii) At preparation, projects which include physical capacity expansion should also provide for physical planning capacity enhancement (to ensure that investment prioritisation responds to long-term enrolment demand projections).
- (xiii) Bank should mobilise technical assistance to support Government in developing a capacity-strengthening plan of action for education sector planning and management, and to prepare a feasible financing and implementation plan.
- (xiv) Bank should mobilise technical assistance to assist GOB to address urgently environmentally destructive ovens established in 200 junior secondary schools and equally problematic interim solutions provided to some of these schools.
- (xv) Bank should mobilise technical assistance to analyse the institutional and financial arrangements for the maintenance of primary and junior secondary facilities, with particular attention to evolving country and Bank policies on cost-sharing, decentralisation, and privatisation.



9.3.3 It is recommended that in respect of improving **performance** in lending operations:

- (xvi) Government should analyse its efficiency and cost indicators for all levels of education, establish new targets for increased cost-effectiveness, and phase the achievement of those targets.
- (xvii) Bank and Government should develop a more proactive approach in country operations to monitor exogenous factors that present potential risks for programme and project outcome and sustainability.
- (xviii) On the identification of such factors, Bank should ensure thorough analysis, dialogue on findings, and determine response mechanisms to minimise risks.
- (xix) In project preparation, facilities' expansion should be integrated with other development needs of the sector.
- (xx) In project preparation, projects should provide for strengthening of institutional capacity at central, district and school levels (to maximise benefits to be accrued from physical or programmatic investments).
- (xxi) Plans for investments utilising Government's Development Budget or the resources of other donors in the sector should be carefully analysed at feasibility.
- (xxii) Articulation arrangements between the Bank operations and other contemporaneous projects in the sector should be rigorously appraised.
- (xxiii) In the preparation of projects involving several executing agencies, the role and responsibilities of each agency and the coordination mechanisms between them should be clearly articulated.
- (xxiv) In planning for policy improvement as a project activity, the follow up activities necessary for effectiveness (such as provision for senior level dialogue, social marketing, institutional change support) should be provided to maximise the chances of actualisation of the required change.
- (xxv) The adequacy, feasibility, reliability and sustainability of community support for school development and maintenance should be carefully appraised both in principle, and at the level of the individual community/facility targeted for investment.
- (xxvi) Bank conditionality in loan agreements related to facilities development should include actions required of Government to ensure that related institutional and programmatic shortfalls are addressed on a timely basis (and thus minimise the risk of ineffective and inefficient use of the new facilities).
- (xxvii) Governments should ensure that capacity is rapidly developed to comply with Bank conditions, reporting requirements and procurement rules, to accelerate disbursement and project completion.

- (xxviii) In the provision of supervision services, Bank should ensure that assistance is provided to accelerate the Borrower's performance in meeting conditions for loan effectiveness, in complying with Bank procurement and disbursement procedures, and in determining the utilisation of unexpended balances.
- (xxix) Bank and Government should give more attention to the on-going monitoring of the achievement of the educational goals and objectives of sector operations, and utilise findings and lesson to inform the design of subsequent projects.



**BOTSWANA - REVIEW OF BANK ASSISTANCE**  
TO THE BOTSWANA EDUCATION SECTOR:

RECOMMENDATIONS AND FOLLOW UP MATRIX

<b>PRINCIPAL OBSERVATIONS</b>	<b>RECOMMENDATIONS</b>	<b>PROPOSED FOLLOW-UP ACTIONS</b>	<b>RESPONSIBLE UNIT</b>
<b>BANK STRATEGY</b>			
1 Bank's operations in Botswana did not focus on educational outcome, did not integrate non-facilities' elements in design, and were inadequate in attention given to sector efficiency and sustainability issues.	1.1 Bank should improve the framework for identification and preparation of future assistance.	1.1.1 Review and finalise 1999 draft ESPP, and prepare related guidelines.	Central Operations Department (OCOD)
2 Strategic objectives were vaguely defined in the EPCPs, without measurable indicators. The preparation of the first CSP was interrupted in 1997.	Prepare CSPs and strengthen their content	2.1.1 Resume preparation of the first CSP  2.1.2 Develop measurable indicators to monitor long term development objectives  2.1.3 Clearly define the measurable strategic objectives to achieve	OCDS  OCOD/FSPR  OCDS
3 Bank's strategy makes no reference to the consequences of the HIV/AIDS pandemic on the education sector and does not prioritise ameliorative action.	3.1 In the preparation of Guidelines related to the 1999 ESPP, the Bank should elaborate on priorities and strategies to ameliorate effects of HIV/AIDS on a country's education system between 2000-20.	3.1.1 Formulate strategies to mainstream the amelioration of HIV/AIDS consequences in Education sector operations.  3.1.2 Utilise the results of the HIV/AIDS study proposed at 6.2 and the HIV/AIDS sector strategy (at 2.1.1 above) into operational guidelines for the ESPP.	HIV-AIDS Task Force, OCOD  OCOD

<p>4 The absence of well-formulated Bank country strategies for Botswana resulted in isolated investments not co-ordinated with related sector needs, an over-investment in physical facilities, and a neglect of capacity strengthening and sector consolidation requirements.</p>	<p>4.1 Bank strategies for education in Botswana should be determined after a comprehensive analysis of the education sector, including higher education.</p> <p>4.2 Bank should prepare a country assistance strategy for Botswana that includes targeting of the education sector and identifies strategies to address critical fiscal, social and environmental issues.</p> <p>4.3 Bank's country strategic objectives should specify verifiable indicators, to ensure accountability and allow effective monitoring</p>	<p>4.1.1 Undertake detailed economic and selected sectoral studies for Botswana (inclusive of the education sector) to determine priorities for Bank country strategy.</p> <p>4.2.1 Prepare and finalise a country strategy for Botswana, based on the detailed economic and sectoral studies, inclusive of assistance to education.</p> <p>4.2.2 Identify bilateral grant financing available to regional members through the Bank to provide technical assistance to Botswana's education sector.</p> <p>4.3.1 Identify performance indicators for sectoral objectives.</p>	<p>Country Operations Department: South (OCDS)</p> <p>OCDS</p> <p>OCDS</p> <p>OCDS/OPEV</p>
<p>5 The absence of a Bank strategy for Botswana, the lack of representation in-country, the infrequency of missions and strategic agenda, and the failure to analyse risks in depth, has impaired the Bank's capacity to fulfil its non-lending obligations to the country, including policy recommendations to Government.</p>	<p>5.1 Bank should enhance the frequency of its missions to, and its in-country representation in, Botswana (i) to facilitate its analytical and policy dialogue responsibilities to the country, and (ii) to effectively implement the country assistance strategy recommended (see 3.1).</p>	<p>5.1.1 Formulate a preliminary work plan for Botswana, including activities in the education sector.</p> <p>5.1.2 Speed up establishment of Bank representation in Gaborone.</p> <p>5.1.3 Resume and reinforce policy assistance to GOB.</p>	<p>OCDS</p> <p>OCDS</p> <p>OCDS</p>
<p>6 While Bank lending operations were consistent with country policies at the time of appraisal, the outcome is not consistent with emerging country policy directions such as decentralisation, selective privatisation, and selective cost sharing.</p>	<p>6.1 In the formulation of a new country strategy and in the preparation of lending and non-lending operations, Bank assistance should be consistent with and contribute to broader policy reforms agreed for the country or sector.</p>	<p>6.1.1 Include a review of the implications for Botswana's education sector of GOB macroeconomic policy changes (as part of the proposed sector wide analysis (at 3.1 above).</p>	<p>OCOD/OCDS</p>

<b>SUSTAINABILITY</b>			
<p>7 The HIV/AIDS pandemic presents a most serious risk to the sustainability of gains made in the education sector, and will affect all countries with high levels of prevalence.</p>	<p>7.1 Bank should initiate a multi-country study to analyse the likely impact of the HIV/AIDS pandemic on the sectors and development priorities of RMCs, including the education sector, and formulate strategies in risk mitigation.</p>	<p>7.1.1 Mobilise a major study on effect of HIV/AIDS pandemic on sustainability of education sectors and response mechanisms.</p>	<p>OCOD/HIV-AIDS Task Force/OPEV</p>
	<p>7.2 Bank should formulate strategies to mainstream response to critical HIV/AIDS issues in sector operations, including education assistance.</p>	<p>7.2.1 Prepare an HIV/AIDS Sectors Strategy Policy Paper, to prioritise and guide amelioration assistance policy, including to the education sector</p>	<p>OCOD/HIV-AIDS Task Force/</p>
<p>8 GOB has not adequately harnessed the education sector in its HIV/AIDS prevention strategies, although this sector may be viewed as potentially the most significant in terms of potential to promote values, form attitudes and change behaviour as children develop into sexually capable young adults. MOE and its institutions at all levels and its teacher training system is not currently implementing a strategy to change the pre-adult population's sexual behaviour. There is an inadequate level of involvement of MOE in GOB's MOH-led HIV/AIDS prevention strategy.</p>	<p>8.1 MOE and all public and private educational institutions be fully integrated into the national strategy to reduce over the long term the level of HIV/AIDS prevalence in the Botswana population.</p>	<p>8.1.1 Analyse the potential of the education sector at all levels to contribute to the long term national strategy to reduce the level of prevalence of HIV in the population</p>	<p>GOB</p>
		<p>8.1.2 Provide GOB with TA to fully inform and dialogue on experience world-wide and lessons learned from the involvement of the education sector in national HIVS/AIDS prevention strategies</p>	<p>OCDS</p>
<p>9 Despite the intervention of the Bank in financing a policy study on sector recurrent cost prospects, the benefits of the education sector operations are in increasing jeopardy, as the long-term recurrent financing issues have not been.</p>	<p>9.1 Bank should critically review the Botswana Education Sector Financing Study submitted in 1996, together with this report and recent financial and sector data, and make recommendations to Government on dialogue, action or further analysis of the issues therein.</p>	<p>8.1.3 Based on the analysis, revise the Medium Term Plan for HIV/AIDS prevention to fully integrate the education sector (GOB).</p>	<p>GOB</p>
		<p>8.1.4 Implement with urgency the education sector role in the revised plan (GOB).</p>	<p>GOB</p>
		<p>9.1.1 Review the Botswana education sector recurrent costs study, and provide GOB advice based accordingly.</p>	<p>OCOD/OCDS</p>
		<p>9.1.2 Incorporate findings and recommendations of the review in proposed country strategy (recommended at 3.1).</p>	<p>OCDS</p>

<p>10 There was a total absence of capacity building components in Bank operations. The assessment suggests that GOB has need for capacity enhancement in analysis and planning, to be able to (among other things) (i) analyse and address critical education sector efficiency and sustainability issues, including the production and utilisation of efficiency, (ii) ensure maximum utilisation of current facilities, (iii) plan investment in new facilities effectively.</p>	<p>9.2 Government should analyse the recurrent unit cost at each level of education and identify realistic and sustainable cost reduction and cost sharing mechanisms for early implementation.</p>	<p>9.2.1 Analyse unit recurrent cost by level of education (primary, junior secondary, senior secondary, vocational, teacher training, university).</p> <p>9.2.2 Determine (i) means by which unit cost can be reduced, without a loss in quality, for each level of education, (ii) mechanisms to increase parental / community contributions to the cost of education for each level of education, and (iii) how to phase in cost reductions and increased parental / community contributions</p>	<p>OCDS</p> <p>GOB</p>
	<p>9.3 Government should identify ‘safety net’ measures for children in poverty, to ensure their continued access to education in spite of a general introduction of cost sharing policies.</p>	<p>9.3.1 Establish mechanisms to protect families below poverty line in respect of the increased contribution to the cost of education as a result of cost sharing policies to be introduced</p>	<p>GOB</p>
	<p>10.1 At preparation, projects which include physical capacity expansion should also provide for physical planning capacity enhancement (to ensure that investment prioritisation responds to long-term enrolment demand projections).</p>	<p>10.1.1 Endorse sector management capacity building as a priority area as proposed in 1999 draft ESPP.</p>	<p>OCDS</p>
	<p>10.2 Bank should mobilise technical assistance to support Government in developing a capacity strengthening plan of action for education sector planning and management, and to prepare a feasible financing and implementation plan.</p>	<p>10.2.1 Assess training needs for education planning for Botswana within public service training needs analysis in 3.1 above, including public service training needs analysis and planning specialist in the multi-sector review mission proposed</p>	<p>OCDS</p>

<p>11 The poor quality of environmental impact assessment in the appraisal of junior secondary school cooking areas design has resulted in damage to Botswana's fragile ecosystem and resource base.</p>	<p>11.1 Bank should mobilise technical assistance to assist GOB to address urgently environmentally-destructive ovens established in 200 junior secondary schools and equally problematic interim solutions provided to some of these schools.</p>	<p>11.1.1 Prepare TORs for a specialist in environmentally-sensitive school cooking facilities design and mobilise specialist.</p>	<p>Environmental and Sustainable Development Unit (OESU)/OCDS</p>
<p>The Bank financed the construction of quality school infrastructure with low maintenance requirements. However, its lack of analysis, foresight and follow-up action throughout operations on the related issues of on-going school maintenance and community contributions (raised in several reports) has contributed to the lack of clear and implementable policies in this area and puts at risk the long-term sustainability of this infrastructure. The financing of the school maintenance manual (1995) did not have an impact on underlying policy issues and responsibilities.</p>	<p>12.1 Bank should mobilise technical assistance to analyse the institutional and financial arrangements for the maintenance of primary and junior secondary facilities, with particular attention to evolving country and Bank policies on cost-sharing, decentralisation, and privatisation.</p>	<p>12.1.1 Include a school facilities maintenance policy specialist in the multi-sector review exercise proposed in 3.1 above.</p>	<p>OCDS</p>



<b>PERFORMANCE</b>			
<p>13 The operations were effective in meeting all appraised output targets, and contributing significantly to expanding educational access at all levels, increasing teacher training capacity, eliminating gender inequity in basic education, and reducing urban-rural. Repetition and dropout rates have been significantly reduced. However, teacher and facilities' utilisation indicators are low and uneven, and teacher training institutions markedly so.</p>	<p>13.1 Government should analyse its efficiency and cost indicators for all levels of education, establish new targets for increased cost-effectiveness, and phase the achievement of those targets.</p>	<p>13.1.1 Review, as part of the mid-term review of NDP8, the efficiency indicators at all levels, and set targets for improvement.</p>	<p>Government of Botswana (GOB)</p>
<p>14 The Bank's and Government's weak monitoring record in respect of exogenous factors critical to sector sustainability (inclusive of factors such as the impact of the HIV/AIDs epidemic, and the fall in diamond prices) has resulted in failure to take action to mitigate the effects of such events.</p>	<p>14.1 Bank and Government should develop a more proactive approach in country operations to monitor exogenous factors which present potential risks for programme and project outcome and sustainability.</p>	<p>14.1.1 Review guidance on strategy, programme and project monitoring procedures to ensure adequate attention to exogenous factors.</p>	<p>OCOD/OCDS/GOB</p>
<p>15 The failure in Botswana education sector lending operations to integrate non-facilities components (necessary to achieve the desired educational objectives) resulted in a reduction of the efficacy/efficiency of physical investments and a serious time-lag in the improvement of related areas (e.g. curriculum, teacher production, examinations reform).</p>	<p>15.1 In project preparation, facilities' expansion should be integrated with other development needs of the sector.</p> <p>15.2 In project preparation, projects should provide for strengthening of institutional capacity at central, district and school levels (to maximise benefits to be accrued from physical or programmatic investments).</p>	<p>15.1.1 Future Bank operations should be underpinned by sector-wide integrated approaches, and that the organisation and management of the education sector be one of three Bank priorities.</p>	<p>OCOD/OCDS</p>
<p>16 There was a lack of attention given by the Bank to donor co-ordination issues in planning the Botswana operations, even in cases where other donors had plans or operations contributing to the same objectives contemporaneously (This resulted both in implementation delays and probably in over-investment).</p>	<p>16.1 Plans for other related investment in sectors selected for Bank assistance (e.g. from Government's development budget or other donor resources) should be carefully analysed at feasibility.</p> <p>16.2 Articulation arrangements between the Bank operations and contemporaneous activities in the sector should be rigorously appraised.</p>	<p>16.1.1 Analyse current donor activity in Botswana directly or indirectly related to the education sector (e.g. indirectly: AIDS, privatisation, scholarships).</p> <p>16.2.1 Appraise critically the articulation of Bank and other donors' activities in the preparation of the Botswana country strategy (proposed at 3.1 above).</p>	<p>GOB/OCDS</p> <p>GOB/OCDS</p>

<p>17 There were serious delays in project implementation and completion in Botswana when execution was shared and individual agency responsibility was unclear.</p>	<p>17.1 In the preparation of projects involving several executing agencies, the role and responsibilities of each agency and the co-ordination mechanisms between them should be clearly articulated.</p>	<p>17.1.1 Appraise critically the articulation of co-ordination mechanisms between executing agencies involved in project execution.</p>	<p>GOB/OCDS</p>
<p>18 Policy studies commissioned in Education V were ineffective.</p>	<p>18.1 In planning for policy improvement as a project activity, the follow up activities necessary for effectiveness (such as provision for senior level dialogue, social marketing, institutional change support) should be provided to maximise the chances of actualisation of the required changes.</p>	<p>18.1.1 Appraise the provisions made for effective policy development when policy assistance is included in future operations.</p>	<p>OCDS</p>
<p>19 The expectation of significant community involvement and contribution to junior secondary schools' financing and maintenance was not fully realised, and the involvement of communities in early facilities' expansion was not sustained throughout the operations.</p>	<p>19.1 The adequacy, feasibility, reliability and sustainability of community support for school development and maintenance should be carefully appraised both in principle, and at the level of the individual community/facility targeted for investment.</p>	<p>19.1.1 Appraise critically the provision of community contributions within project financing.</p>	<p>OCDS</p>
<p>20 Disbursement conditionality in Botswana operations was limited to procedural requirements and site acquisition and did not require Government to take actions necessary to ensure efficacy and efficiency in outcome.</p>	<p>20.1 Bank conditionality in loan agreements related to facilities development should include actions required of Government to ensure that related institutional and programmatic shortfalls are addressed on a timely basis (and thus minimise the risk of ineffective and inefficient use of the new facilities).</p>	<p>20.1.1 Determine at loan negotiations conditionality for disbursement essential to maximise educational returns from the investment.</p>	<p>OCDS/GOB</p>

<p>21 The timely completion of operations was impaired by weaknesses in project implementation capacity, and the Bank’s technical and capacity building support in this area was judged (at the time) inadequate. Poor quality Bank supervision services contributed to implementation and completion delays.</p>	<p>21.1 Governments should ensure that capacity is rapidly developed to comply with Bank conditions, reporting requirements and procurement rules, to accelerate disbursement and project completion.</p> <p>21.2 In the provision of supervision services, Bank should ensure that assistance is provided to accelerate the Borrower’s performance in meeting conditions for loan effectiveness, in complying with Bank procurement and disbursement procedures, and in determining the utilisation of unexpended balances.</p>	<p>21.1.1 Ensure quality performance in project implementation unit related to Bank procedures and requirements.</p> <p>21.2.1 Determine the organisational setting, management resources and technical assistance requirements for project implementation.</p> <p>21.2.2 Provide periodic training in Bank’s operational procedures for project management staff.</p> <p>21.2.3 Seek timely consensus on utilisation of unexpended funds at completion.</p>	<p>OCDS/GOB</p> <p>OCDS</p> <p>OCDS</p> <p>OCDS/GOB</p>
<p>22 Project Completion Reports focussed on implementation, disbursement and the agreed physical outputs; Bank did not provide an opportunity (prior to the post-evaluation exercise reported herein) for a broader assessment of outcomes and their sustainability.</p>	<p>22.1 Bank and Government should give more attention to the on-going monitoring of the achievement of the educational goals and objectives of sector operations, and utilise findings and lesson to inform the design of subsequent projects.</p>	<p>22.1.1 Review requirements for project completion exercises to ensure inclusion of full analysis of outcome, institutional development and sustainability, and institute measures to address issues identified.</p>	<p>OCDS/GOB</p>

## BOTSWANA: SELECTED ECONOMIC AND SOCIAL INDICATORS

Indicator	1981	1985	1990	1995	1997	1998
GDP Growth Rate, %	9.5	6.9	5.5	2.7	7.2	8.3
Real per capita GDP growth rate, %	3.4	3.2	4.9	0.3	4.5	5.7
Rate of Inflation, %	12.5	8.1	11.4	10.5	8.9	6.5
Current Account Balance, % of GDP			1.2	7.6	15.5	(1.8)
Overall fiscal surplus/deficit, % of GDP	(2.1)	16.8	10.5	1.9	7.1	
Mining share of GDP.%	38.7		41.0	34.1	37.6	
Diamonds share of total Exports of Merchandise	60.4	75.7	78.7	67.0	73.8	69.8
Agricultural share of GDP, %		6.5	4.7	4.1	3.4	3.1
General Government share of GDP	13.3		16.1	15.4	16.0	
Total Debt Service, % of Exports of Goods and Serv.	2.1	6.1	4.8	3.4	2.8	3.9
Education expenditure as share of Budget, %	18.6		16.5	22.5	24.1	24.2
Education expenditure as share of GDP, %			7.6	9.5	10.2	11.5
Persons below poverty line, %	59.0			47.0		
UNDP HDI Rank descending to 174			95	97	122	
Life expectancy at birth, years	59.8	61	54.3	50.4	47.4	
Classrooms Level 1, number	3631		6172	7177	7466	
Classrooms Level 2, number	583		2189	2244	3703	
Adult literacy rate, %	34.0		54.0	68.9	74.4	
Net enrolment rate, Primary, %	86.0		93.7	96.7		
Net enrolment rate, Junior Secondary, %	11.9		35.3	45.3		
Net enrolment rate, Upper Secondary, %	4.2		13.8	19.9		
Female participation, Level 1, %	54.0	52.4	51.6	50.1	49.9	49.7
Female participation, Level 2, %	55.0		53.8	53.3	53.2	
Female participation, Vocat. and Tech. Training, %		35.6	27.2	31.3	36.6	
Female participation, Teacher Training, %	28.0		53.9	64.8	62.1	
Female participation, University, %	40.1	45.0	44.0	52.6	48.4	
Female teachers Level 1, %	73.9	77.9	79.8	82.2	81.6	82.0
Female teachers Level 2, %	40.0	37.0	56.2	64.8	61.7	
Female net enrolment in Education Levels 1 & 2, %	60.5		69.2	71.9		
Pupils per trained teacher Level 1, number	49.4	42.5	36.3	31.3	30.6	29.9
Pupils per trained teacher Level 2, number	27.8	32.5	24.5	21.1	19.9	22.9
Infant mortality rate, per thousand	64	57	55	56	54	
Under five mortality rate, per thousand	10.9		5.6	5.6		
Adult HIV prevalence, %	0.0		19.3	32.3		
Unemployment rate, %	10.2		13.9	22.2		
Income distribution, share of lowest 40%, %	10.7			11.7		
Annual population growth rate, %	3.4		2.7	2.4	2.4	2.6
Population share of rural areas, %	82.3		54.3	52.3	51.8	
Total fertility rate, number of children	7.1		5.2	4.7	4.6	

Source: Statistical Bulletin, December 1998, Central Statistical Office; Annual Economic Report, 1998, MF&DP; Selected Statistics on African Countries, ADB; World Development Indicators, 1997, World Bank

**COMBINED OUTPUT OF BANK EDUCATION  
SECTOR LENDING OPERATIONS IN BOTSWANA**

*Teaching facilities and Accommodation for students and staff*

Primary Schools

480 primary classrooms and related administrative, school feeding, and sanitary facilities constructed; 33 primary schools furnished, equipped and provided with basic reading materials; 240 teachers' houses built for primary teachers

Community Junior Secondary Schools

82 CJSSs established in rural towns (10 replacement schools, 9 new schools) and another 26 extended; 402 housing units for CJSS teachers

Senior Secondary Schools

23 SSSs renovated and expanded

Vocational Training Centres

2 rural regional post-primary VTCs established; 4 hostel blocks constructed for the Jwaneng VTC; 34 housing units for vocational teachers

Colleges of Education

Molepolole STTC established and Serowe PTTC expanded; Serowe Education Centre's facilities and hostels expanded; 60 housing units for STTC teachers (Molepolole 54, Serowe 6)

University of Botswana

Science faculty facilities expanded and improved; student housing expanded

*Non-facilities components*

Quality improvements

Computer education introduced in 23 SSSs

Computers for 25 CJSSs under procurement under Education V residual

Policy development

Two education financing studies undertaken (sector recurrent costs, facilities' maintenance)

Capacity development

BEPU strengthened and supported

**SUMMARY OF THE FIVE BANK EDUCATION PROJECTS**

<b>Project &amp; Cost (UA millions)</b>	<b>Goal</b>	<b>Objectives</b>	<b>Outputs</b>	<b>Activities</b>															
<p><b>Secondary Teacher Training College Project (Education I)</b> 1982-88</p> <p><u>Appraised Cost</u></p> <table> <thead> <tr> <th></th> <th><u>At Appraisal</u></th> <th><u>Actual</u></th> </tr> </thead> <tbody> <tr> <td><b>Total</b></td> <td><b>9.57</b></td> <td><b>7.81</b></td> </tr> <tr> <td>GOB</td> <td>2.21</td> <td>1.48</td> </tr> <tr> <td>ADF</td> <td>7.37</td> <td>6.34</td> </tr> </tbody> </table>		<u>At Appraisal</u>	<u>Actual</u>	<b>Total</b>	<b>9.57</b>	<b>7.81</b>	GOB	2.21	1.48	ADF	7.37	6.34	Improved human resources	<p>Increase access to secondary education</p> <p>Reduce critical manpower shortages</p> <p>Replace expatriates with nationals</p> <p>Increase the supply of science and mathematics teachers with a view of to improving the quality of instruction for these subjects.</p>	<p>Molepolole STTC established, with staff and student housing</p> <p>Three CJSSs established in rural towns, with teachers' housing</p> <p>Increased learning materials in secondary schools</p> <p>PIU strengthened</p>	<p>Design</p> <p>Production of tender documents</p> <p>Tendering and award of contracts</p> <p>Construction</p> <p>Procurement of furniture and equipment</p> <p>TA for PIU</p> <p>Project management and supervision</p>			
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**EVALUATION RATINGS**

*Interpretation of scores*

- 4 Highly satisfactory
- 3 Satisfactory
- 2 Unsatisfactory
- 1 Highly unsatisfactory

**Table 1. Bank Assistance: Strategy**

<b>Element</b>	<b>Component Indicators</b>	<b>Score</b>	<b>Rating Justification</b>
<b>STRATEGY</b>	Relevance of country strategy	2	No education policy defined before 1986. Bank's strategy consistent with GOB's and Bank's education policies thereafter until suspension of preparation of strategy paper in 1997.
	Efficacy of country strategy	1	Vague definition of strategic objectives. Verifiable indicators missing.
	<b>OVERALL SCORE</b>	1.5	

**Table 2. Bank Assistance: Lending Activities**

<b>Element</b>	<b>Component Indicators</b>	<b>Score</b>	<b>Rating Justification</b>
<b>OUTCOME Relevance</b>	Consistency with Bank Education Sector Policy 1986	3	Some components of Education III and IV not consistent with Bank's basic education policy
	Consistency with Bank's Country strategy	2	Goals and specific projects objectives consistent with Bank's when available.
	Consistency with Botswana's development strategies	4	All components consistent with NPE, RNPE and NDPs
<b>Efficacy</b>	Achievement of physical facilities goals	4	100% achieved
	Contribution to the reduction of gender and rural disparities	4	Rural focus of civil works, and gender disparities reduced
	Contribution to increasing access to basic, vocational and tertiary education	4	Improved ratios over period attributable to infrastructure provision
	Contribution to poverty reduction	2	Projects not specifically poverty-targeted, but rural focus poverty related
	Contribution to protecting the environment	2	Fuel issue resulted in some negative environmental impact
	Achievement of increase in teacher production	2	Facilities underutilised; output stagnated at planned level despite increased need
	Achievement of localisation of the teaching force.	1	Not achieved due to poor productivity of STTCs



**Table 2. (Cont'd) Bank Assistance: Lending Activities**

<b>Element</b>	<b>Component Indicators</b>	<b>Score</b>	<b>Rating Justification</b>
<b>Efficiency</b>	Efficiency of internal indicators for junior secondary schools	2	Reduced Teacher:Pupil ratio over period
	Efficiency in utilisation of junior secondary school facilities	1	Underutilised overall; plans for additional civil works and AIDS may increase underutilisation
	Achievement in minimising unit cost for junior secondary schooling	1	No cost monitoring by MOE; recurrent costs reportedly unsustainable
	Achievement of external efficiency in junior secondary education	2	Curriculum and examinations reform have lagged behind civil works
	Efficiency of internal indicators for teacher training institutions	1	Staff:student ratio 1:5
	Efficiency in utilisation of teacher training facilities	1	Gross underutilisation of excellent teaching facilities
	Achievement in minimising unit cost for teacher training	1	No strategy in place to reduce high unit cost
	Efficiency in utilisation of vocational training facilities	2	Facilities reportedly underutilised
	Efficiency in utilisation of university science facilities	4	Facilities reportedly maximally utilised
<b>SUSTAIN-ABILITY</b>	Likelihood that Government commitment to sector will continue	4	Latest policies, plans and budgets confirm commitment
	Likelihood that access ratios will be maintained at current levels	2	Uncertainty due to financing risks and repercussions of AIDS epidemic
	Likelihood that current levels of recurrent financing will be maintained	1	Reportedly unsustainable
	Likelihood that current levels of facilities utilisation will be maintained	1	Highly unlikely as a result of AIDS epidemic
	Likelihood that vocational education policies/strategies will be improved	3	MOE with EU support committed to improve vocational sub-sector
	Likelihood that current levels of facilities maintenance will be maintained	2	Centralised maintenance policies unlikely to provide maintenance over long term
	Likelihood that institutional capacity will be maintained	2	Threatened by AIDS and migration of skilled personnel to other sectors

Table 2. (Cont'd) Bank Assistance: Lending Activities

<b>INSTITUTIONAL DEVELOPMENT</b>	Impact of operations on the project management capacity of MOE	3	Expatriate still in top management position
	Impact of operations on education system management capacity	1	No provision in operations
	Impact on GOB policy development	1	Financing study made no impact
	<b>OVERALL SCORE</b>	<b>2.2</b>	

Table 3. Bank Assistance: Non-lending Activities

<b>Element</b>	<b>Component Indicators</b>	<b>Score</b>	<b>Rating Justification</b>
<b>POLICY DIALOGUE</b>	Contribution to development of sector policy	1	GOB determined components based on NDPs. No evidence that Bank contributed to policy
<b>TECHNICAL ASSISTANCE</b>	Mobilisation of TA to improve project activities' performance in the project cycle	1	None mobilised outside project provisions
	Mobilisation of TA to provide assistance for institutional capacity building	1	None
<b>CO-FINANCING</b>	Successful promotion of co-financing opportunities	2	No evidence that Bank pro-active, except for facilitation OPEC disbursement in Education V
<b>AID COORDINATION</b>	Proactive role in respect of co-ordination of donor aid, in relation to areas of Bank investment	1	No evidence that Bank pro-active
	<b>OVERALL SCORE</b>	<b>1.2</b>	

**Table 4 Bank Performance**

<b>Element</b>	<b>Component Indicators</b>	<b>Score</b>	<b>Rating Justification</b>
<b>PREPARATION</b>	Quality of situational analysis	2	No sector-wide analysis; focus on components identified
	Quality of component design	3	Inadequate planning for community contributions and maintenance
	Co-ordination of components with related GOB of donor investments	1	Not articulated in designs
	Quality of monitoring and evaluation mechanisms	1	No indicators. Attainment of objectives not monitored
<b>APPRAISAL</b>	Adequacy of appraisal of recurrent cost and maintenance requirements	1	Not undertaken
<b>SUPERVISION</b>	Quality of supervision services	2	Criticised in all available PCRs
<b>EVALUATION</b>	Scope of project completion assessments	1	Limited to completion of project activities and disbursement
	Quality of PAC review of sustainability issues	1	Issues not considered
	<b>OVERALL SCORE</b>	<b>1.5</b>	

**Table 5 Borrower Performance**

<b>Element</b>	<b>Component Indicators</b>	<b>Score</b>	<b>Rating Justification</b>
<b>PREPARATION</b>	Relevance of interventions in respect of national policies and strategies	4	<u>Fully</u>
<b>IMPLEMENTATION</b>	Quality of execution arrangements	3	PIU performance improved over time, all projects 100%
	Timely compliance with covenants	3	Some delays, but full compliance
	Adherence to schedule	1	Serious delays in completion
	Adherence to cost	4	All activities within budget
<b>REPORTING</b>	Compliance with Reporting requirements	2	Weak initially, but improved over time
	<b>OVERALL RATING</b>	<b>2.8</b>	

**BOTSWANA : IMPLICATIONS OF HIV/AIDS PREVALENCE  
FOR THE EDUCATION SECTOR**

The following projections are based on the analysis of latest HIV/AIDS projections and education sector statistics:

1. Demand for primary places will begin to decrease markedly from 2005, and for junior secondary school places from 2010, increasing the under-utilisation of facilities.
2. Assuming that the 15,000 Botswana teachers are representative of the general adult population, the number living with AIDS is 300 in 1999 and will rise to 750 in 2009. The number of teachers who will die of AIDS will be 200 in 1999, rising to more than 500 in 2009. Current levels of teacher production by the Colleges of Education and the University's Faculty of Education will by 2009 not even cover losses in the teaching force that result from AIDS incapacitation and death.
3. The country's dependence on teaching staff recruited externally will not be reduced over the next decade as planned. Dependency is more likely to increase, not only due to the morbidity and mortality rates for Botswana teachers, but also because teachers will shift to other sectors to fill positions vacated by AIDS deaths.
4. About 7,500 children out of the 50,000 admitted to Standard 1 every year from 1999 will be HIV positive and in need of educational provisions consistent with their reduced life expectancy and special health problems.
5. The education system will by 2010 be accommodating between 100,000 and 130,000 AIDS orphans, 10,000 to 13,000 every year from Standard 1 to Form 3. There is also likely to be considerable child internal migration (within district and country) in search of care and sustenance, which will have further consequences for facilities utilisation rates in areas of in-migration and out-migration.
6. Teacher training institutions (Colleges and University) do not currently discriminate in the admission of students irrespective of HIV/AIDS status. GOB similarly does not discriminate in the award of overseas scholarships for teachers and teacher trainers. There are reportedly a growing number of AIDS deaths during the course of such programmes, and infection prevalence among present trainees can be assumed to be at national levels. Current policy implies a shortened teaching life-span of 30 to 40% of trained teachers (of between 0 and 10 years), and therefore a low rate of return from teacher training investments.

Other implications of the analysis are as follows:

7. The percentage of the population below the minimum poverty line is anticipated to increase, and food security may put at risk achievements made in the universalisation of basic education.
8. As a consequence of the pandemic, households and communities will have reduced financial resources. The cost-sharing mechanisms in the sector, identified as long-term measures to improve sustainability, will be difficult to implement.
9. The presence of persons in schools, colleges and tertiary institutions (head masters, teachers, students, ancillary staff) who are living with HIV positive status or AIDS pose potential risks to the rest of the school population. Infection may be inadvertently or deliberately transmitted within the school environment unless sound policies and practices are developed to minimise this risk.
10. If the education sector is, in the future, to play a significant role in HIV/AIDS prevention strategies, the curricula of teacher training institutions, in-service teacher training programmes, management training programmes, and all levels of primary, secondary and vocational schooling will have to be revised to integrate reproductive health education. Training will have to be provided at all levels to ensure effective delivery.
11. Unless current prevalence indicators change, 40 to 50% of students admitted to school will eventually become infected with the AIDS virus, and have a substantially reduced life span, with negative consequences for the country's social and economic sustainability, as well as for the quality of life of its people (both those with and without HIV/AIDS).