

## CHAPTER 15

### EDUCATION AND TRAINING

#### INTRODUCTION

15.1 In line with the theme of sustainable and diversified development through competitiveness in the global market, the Ministry of Education will continue with the implementation of the Revised National Policy on Education (RNPE) Government Paper No. 2 of April 1994 during NDP 9, in order to provide quality education and training. Emphasis will be placed on equipping learners with skills to enable them to enter into self-employment as well as create an opportunity for lifelong learning. Government will continue to provide resources for the expansion of educational facilities.

15.2 The continued and sustained improvements in the relevance and quality of education, as well as access to education as pronounced in the RNPE lie at the core of the Long Term Vision for Botswana: Vision 2016. Building the future Botswana as envisaged in the Goals of Vision 2016, demands a massive effort by all members of the society and partners in the provision of education to make Botswana a learned society.

15.3 The provision of education that meets the needs of all learners has become a challenge in that society is becoming more diverse in terms of culture, religion, economic activities and social interactions. Education is, therefore, core to sustained and diversified development. It is, therefore, important that Government continues to invest in education and training in order to improve access and

build human capacity for employment, including self-employment and income generation.

15.4 Government has committed itself to improved access to pre-school education, provision of ten years of basic education for all, increase access to senior secondary education, expansion of vocational and technical training and promotion of lifelong learning, and through Vision 2016 to, among other goals, building “an educated and informed nation”. Therefore the education system will focus mainly on providing programmes that will lead to higher quality of human capacity and productivity during NDP 9, leading to a better quality life and prosperity for all.

15.5 The programmes will combine knowledge, skills, values and attitudes in a form that prepares learners for changes in the world around them, for the world of work and lifelong learning. These should lead to the realisation of the educational vision as expressed in the Ministry of Education Strategic Plan 2001-2006, which is “To offer equitable lifelong education and training that is relevant and responsive to the rapid technological development and the changing socio-economic environment, and that produces knowledgeable, skilled, enterprising and independent individuals.”

## DEVELOPMENTS DURING NDP 8

### The Revised National Policy on Education

15.6 The Revised National Policy on Education (RNPE), Government Paper No. 2 of April 1994, guided the programme activities of the Ministry of Education in terms of curriculum reforms and ongoing improvements in the education system during NDP 8. Its implementation of the RNPE was intended to cover a timeframe of 25 years given that its recommendations

had been classified for implementation in the short, medium and long term, respectively.

15.7 The following key recommendations of the RNPE have been implemented.

- Re-introduction of the three-year Junior Certificate Programme.
- Achievement of universal access to 10 years basic education.

**Table 15.1 - Primary Education Targets and Achievements**

	1997	NDP 8 Target	Actual (2002)
<b>Standard 1 Enrolment</b>	52,683	57,803	53,061
<b>Population of 6-year olds</b>	38,932	-	45,297
<b>Total Enrolment</b>	323,923	354,191	332,346
<b>School Age Population (6 - 12)</b>	272,144	337,468	290,994
<b>Trained Teachers</b>	10,174	10,837	10,810

Source: i. Enrolment figures and teacher figures by Ministry of Education  
ii. Population figures by Central Statistics Office

- Review of the basic education curriculum and development of core instructional support material.
- Introduction of the three year Diploma in Primary Education Programme and phasing out of the former two-year Primary Teachers Certificate (PTC) in all the primary colleges of education.
- Localisation of the senior secondary examinations through the introduction of the Botswana General Certificate of Secondary Education (BGCSE).
- Diversification of the Vocational Education and Training curriculum through

introduction of competency-based and modular programmes like the Botswana Technical Education Programme (BTEP), as well as increasing access to this level of the education system through expansion of technical colleges.

- Increased access to senior secondary education beyond 50%.
- Establishment of the Tertiary Education Council (TEC) to co-ordinate the development of tertiary education.
- Establishment of the Botswana Examinations Council to manage and co-ordinate the conduct of all national

examinations/assessment programmes.

- Establishment of the Botswana College of Distance and Open Learning (BOCODOL).

15.8 The Ministry of Education has done a lot in terms of awareness on HIV/AIDS through infusion of HIV/AIDS matters into the school curricula but there appears to be no improvement. Current efforts have not resulted in any behavioural change and a new approach will be required for NDP 9.

#### **Examinations, Research and Testing**

15.9 During NDP 8, the Examinations, Research and Testing Division focused on the following focal areas:-

- Developing the criterion-referenced testing assessment procedures for the primary and junior secondary levels;
- The localisation of the Cambridge School Certificate Examination;
- Developing the Botswana National Examinations Processing System;
- Developing appropriate assessment procedures for learners with disabilities;
- The establishment of a fully-fledged autonomous Botswana Examinations Council;
- Construction of a purpose-built facility for the Examinations Council.

#### **Curriculum Development and Evaluation**

15.10 During NDP 8, the revised curriculum and support services focused on: -

- Developing programmes for the Ten Year Basic Education and Senior Secondary Education with emphasis on providing learners with skills applicable to work situations;
- Diversifying the curriculum and increasing the number of practical subjects that can provide orientation to technology;
- Using the infusion and integration approach to accommodate emerging issues such as HIV/AIDS, Environmental Education, Population/Family Life Education, World of work, Gender issues and Information Communication Technology (ICT);
- Providing comprehensive guidance and counselling services;
- Producing educational radio programmes, educational publications and teaching aids to support the curriculum.

#### **Pre-primary Curriculum**

15.11 The draft policy was developed with the collaboration of key stakeholders such as Ministry of Local Government, Non Government Organisations and UNICEF. It is still going through Government consultative machinery.

#### **Primary Education Curriculum**

15.12 Development of a new primary education programme, which is under

way will ensure articulation with junior secondary education within the basic education cycle. Accordingly, the curriculum for the lower primary education, Standard 1 to 4, was reviewed and revised. Implementation of the revised curriculum started with the January 2002 Standard 1 cohort. The curriculum was re-packaged at lower primary to introduce new learning areas: Cultural Studies, Environmental Science and Creative and Performing Arts.

### **Secondary Education Curriculum**

15.13 The review and revision of the junior secondary programme started in 1996 and all new subjects recommended in the RNPE were introduced with the exception of a Third Language. New subjects introduced at this level were Computer Awareness, Business Studies, Music and Physical Education. A Third Language consultancy to study local languages started towards the end of NDP 8 to inform the Ministry of Education on directions to follow in terms of introducing Third Language teaching in schools. French was introduced in 15 junior secondary schools on a pilot basis.

15.14 During NDP 8, the Department of Curriculum Development and Evaluation set out to localise syllabuses for the senior secondary level. By 2002, 24 syllabuses had been localised and the exercise will be completed by end of NDP 8.

### **Support Services**

15.15 An evaluation of the Guidance and Counselling Programme was conducted to guide its future development. A feasibility study on the establishment of Career Resource Centres was conducted and the recommendations have been reviewed

to guide the establishment of the centres during NDP 9. The centres will ensure that young people in Botswana have access to career information and receive professional psychological support.

15.16 To facilitate establishment of educational television, a consultancy was engaged towards the end of NDP 8 to define the scope of the project.

15.17 The Educational Publications Division continued producing various publications to supplement the curriculum. In accordance with Recommendation 120 of the RNPE, a consultancy was undertaken during NDP 8 to comprehensively inform and advise on how the Publications Division could be strengthened to perform a consolidated public relations function for the Ministry of Education.

## **PRIMARY EDUCATION**

### **Pre-School Education**

15.18 The following have been achieved during NDP 8:

- A Partnership has been established with the Ministry of Local Government for a shared management system in pre-school education. The Ministry of Education is responsible for policy formulation while the Ministry of Local Government is responsible for policy implementation.
- A draft Policy on Early Childhood Care and Education has been developed to address implementation strategies for the pre-primary programme.
- The Ministry of Education provides an enabling environment through pre-school grants to Non-Governmental Organisations (NGOs) and Community-Based Organisations (CBOs) as well as

the coordination and professional support of the programme. Training of teachers continues to be offered at Lobatse Day Care Training Centre at the level of certificate.

### Primary Education

15.19 During NDP 8, a number of achievements were made in:

- The provision of resource units in select primary schools to meet the needs of disabled learners;
- The upgrading of Primary Teachers Training Colleges (PTTCs) from Certificate training into Colleges of Education offering post-secondary diplomas, has enabled increased production of teachers trained at a higher level;
- In addition, serving PTC holders are being upgraded to diploma through distance education offered by the University of Botswana.

### SECONDARY EDUCATION

15.20 During NDP 8, a 100% transition rate from primary education to junior secondary education has been achieved. This means that universal access to ten years of basic education is now possible. The main emphasis during NDP 8 has been to improve the quality of education by provision of additional facilities and equipment through the upgrading of all

Community Junior Secondary Schools (CJSSs).

15.21 Diversification of the curriculum has been vigorously implemented at both junior and senior secondary education. A computer awareness programme was introduced in some junior secondary schools and will be offered in all junior secondary schools by the beginning of NDP 9. The senior secondary curriculum has also been diversified to include more practical and business subjects. The department is also working towards complete decentralisation of the supervision of secondary schools.

15.22 The major problems experienced are shortage of professional staff for supervision both at regions and headquarters; insufficient teacher supply in new subjects introduced by RNPE; shortage of housing for teachers and insufficient facilities.

### TEACHER EDUCATION

15.23 During the NDP 8 Plan period, several projects on quality improvement and upgrading of teaching facilities in colleges of education could not be implemented due to shortage of financial resources. Only one Education Centre at Kanye was constructed.

**Table 15.2 - Colleges of Education Enrolments, 1995-2002**

	1995	1996	1997	1998	1999	2000	2001	2002
Tonota	638	637	637	640	637	639	782*	865*
Molepolole	635	623	624	630	630	633	720*	795*
Tlokweng	308	305	301	294	310	313	361	365
Francistown	305	276	249	236	204	298	338	391
Lobatse	250	271	107	311	315	331	368	396
Serowe	302	288	218	206	308	320	339	264

Source: Department of Teacher Training and Development, 2002

\*Increase due to off-campus students

**Table 15.3 - Colleges of Education Output, 1995-2000**

	1995	1996	1997	1998	1999	2000
Tonota	201	209	195	213	213	195
Molepolole	216	214	168	199	199	193
Tlokweneng	107	108	110	94	110	107
Francistown	150	156	123	125	Nil*	122
Lobatse	79	173	Nil*	103	108	118
Serowe	137	165	123	Nil*	107	103

Source: Department of Teacher Training and Development, 2002

\*Nil - no graduates as colleges were upgraded from 2 year Certificate to 3 year Diploma Programme.

## TEACHING SERVICE MANAGEMENT

15.24 During NDP 8, the performance of Teaching Service Management against stated objectives was as follows:

- As recommended by the RNPE, the Department of Teaching Service Management (TSM) established a special annual awards programme for excellence and long successful service in an effort to improve the motivation of teachers. Annually, the Minister of Education presents a total of some 180 awards on a specially designated Teachers' Day which is on the first Thursday of June.
- Major functions of teacher management such as confirmations, acting appointments, postings, granting of study leave, promotions and transfers up to Senior Teacher Grade I, were decentralised to the regional level in order to improve communication and service between teachers and TSM. However, the absence of senior supervisory officers at this level has inhibited the decentralisation of more sensitive functions.
- TSM established an efficient computerised management information system based on the Infinium Human Resources

Management application. This automation has made retrieval of teacher management information easier and quicker, thus improving the productivity of the Department in terms of accurate personnel record-keeping and for improved public relations.

- A Transfer Policy was developed to facilitate deployment of teachers on a fair, rotational basis around the country.
- Both short and long-term training of teachers was intensified, guided by clear and long-term plans.

## UNIVERSITY EDUCATION

15.25 During NDP 8, University of Botswana undertook the following activities:-

- Implemented new undergraduate degree programmes in Nursing Science and Special Education, a Postgraduate Diploma in Statistics and 19 new Graduate programmes at Masters/MPhil/PhD level in a number of disciplines. Approved for implementation in 2002/2003 are new undergraduate programmes in Educational Management, Population Studies, Information Systems, and Finance and new semesterised curricula across all Faculties;
- Continued to enhance the capacity of the Centre for Continuing

Education through the construction of a new building.

- Commenced a major physical expansion of the library.
- Achieved the target staff-student ratio of 1:16 across all Faculties and reached a localisation rate of 59% citizen staff in the academic establishment, against a target of 70%, and developed a staff training policy and training plans;
- Established three new departments to strengthen institutional and academic support – Research and Development, Institutional Planning and the Centre for Academic Development;
- Established the University Foundation; initiated a number of privatisation pilot projects;
- Established partnership agreements with four South African medical schools, which commenced in 2002 and enrolled 29 students in medical studies programmes;
- By 2001/2002, enrolled 72% (31,822) of NDP 8 enrolment target of 43,946 full-time undergraduate students;
- By 2001/2002, graduated 73% (7,979) of NDP 8 enrolment target of 10,872 full-time undergraduate students.

## **VOCATIONAL EDUCATION AND TRAINING**

15.26 Another project undertaken during NDP 8 was the development of the Botswana Technical Education Programme (BTEP). The programme was developed to foundation and certificate levels and covered the following vocational areas: Electrical and Mechanical Engineering, Building Construction, Information and Communications Technology, Multimedia, Business, Clothing Design and Textiles, Hospitality Operations, Tourism with Travel,

Hairdressing and Beauty Therapy. These programmes have been developed in cooperation with the employers and the private sector in Botswana to meet the local industry demand.

15.27 A vocational teacher-training programme was started in interim facilities in Gaborone pending the completion of a College of Technical and Vocational Education in Francistown. An advanced certificate programme of high quality has been designed and is presently undergoing assessment by the University of Botswana for the purposes of UB-affiliation/accreditation.

15.28 Privatisation was introduced, most extensively at Gaborone Technical College where kitchen, security, garden and cleaning services have been privatised. Some cost-sharing measures were introduced. For example, the cash allowances for technical college students were discontinued as well as the free toolboxes in the brigades. Cost-recovery fees were introduced for all foreign students while the fees for short courses for industry and the general public were increased. Brigades with hostel facilities introduced boarding fees. Studies were conducted and a proposal was developed to improve utilisation of existing facilities. The proposed measures include more staff and shift allowances to allow for extension of college opening hours.

15.29 Some efforts were made to open up technical education to previously disadvantaged groups. A departmental equal opportunities policy was developed, awareness workshops were conducted and new admission policies in line with the policy have been implemented.

15.30 The brigades' movement underwent a comprehensive evaluation. The evaluation was intended to find a solution to the problem of poor management and mis-management of funds in the brigades. The report recommends that Government take over the operation of the training units in the brigades. External audits were introduced as one of the measures to improve on financial management in the brigades training institutions.

15.31 One of the successes under NDP 8 was the human resource development programme, see Table 15.4 below. The project aimed at upgrading technical and vocational lecturers and support staff to diploma and degree level. So far, about 15 % of all the staff has had the opportunity to upgrade their qualifications through this programme.

**Table 15.4 – DVET Staff Development Project**

	NDP 8 target	NDP 8 actual (number trained)
Training Overseas (HND, BEd, MEd.)	50	56
SADC training (HND, BEd, MEd.)	30	74

Source: DVET, 2002

15.32 The National Policy on Vocational Education and Training was passed by Parliament in 1997; the National Training Act was passed in 1998 after which the Botswana Training Authority (BOTA) was established in year 2000. The Authority is still in the process of recruiting staff needed to fulfill its functions.

### **SPECIAL EDUCATION**

15.33 During NDP 8, the goal of the Division of Special Education was to increase access to education and training for learners with special

educational needs. A notable achievement during NDP 8 was the establishment of additional special education units within the conventional school system to ensure inclusive educational provision.

15.34 The expansion of the Francistown Centre for Deaf Education owned by Botswana Society for the Deaf (BSD), a Non-Governmental Organisation, increased the school enrolment from 70 to 100. This is a practical example of Government/NGO collaboration in the provision of education.

**Table 15.5 - Special Education Enrolments, 1997-2002**

Year	1997	1998	1999	2000	2001	2002
Enrolment	536	599	696	698	756	799

Source: Division of Special Education, 2002

15.35 The Division also offers sponsorship to children with severe and multiple handicap for placement in South Africa and Zimbabwe where appropriate facilities exist. The number of children who benefited from the bursary scheme for placement in South Africa and Zimbabwe rose from 10 in 1997 to 24 in 2002.

15.36 A degree programme in special education was introduced at the University of Botswana during NDP 8. The number of teachers trained in special education increased from 45 in 1997/98 to 170 in 2001/2002. Some efforts were made to increase access to tertiary education during NDP 8, which resulted in 50 students with various disabilities being offered sponsorship to pursue diploma and degree programmes in the country, region and abroad.

#### **NON-FORMAL EDUCATION**

15.37 The Department of Non-Formal Education fully achieved the de-linking, expansion and transformation of the Distance Education Programme and the establishment of the Botswana College of Distance and Open Learning and the objectives that specifically addressed the Distance Education Programme were shifted to BOCODOL for implementation. However, it was not able to adequately achieve all the objectives laid out for NDP 8 relating to transformation and expansion of the national literacy programme due to capacity constraints.

#### **BOTSWANA COLLEGE OF DISTANCE AND OPEN LEARNING (BOCODOL)**

15.38 BOCODOL was established by an Act of Parliament in 1998 and the institution became operational in

November 2000. The mandate of BOCODOL is to extend education and training for out of school youth and adults using distance education learning methods.

#### **STUDENT PLACEMENT AND WELFARE**

15.39 As the output of school leavers has grown due to the expansion of the secondary school system, so too has the demand for Government sponsorship for tertiary education. The Department has continued to give priority to areas of critical need and those, which will assist in the diversification of the economy. Additional places for Medicine and allied health programmes have been sought in medical schools particularly in Australia, Norway, the Caribbean and the Republic of South Africa. In addition, quotas for the following training areas have been increased in order to support sustainable and diversified development: Hotel, Tourism and Entertainment Management, Art and Music, Media Studies, Computers, Information Technology and Finance.

15.40 In 2001, the Department had to contend with the challenge presented by the abolition of Tirelo Sechaba, which resulted in a double intake and increased sponsorship to local institutions by 10%. In the Republic of South Africa, student numbers increased from 400 in February 2000 to 5,306 by February 2001.

15.41 The recovery of student loans has also commenced. As the initial beneficiaries of the Grant/Loan Scheme began completing their studies, a system of loan recovery had to be implemented. The Department has continued to reduce placement of

students in costly countries such as the United Kingdom and the United States of America. However, some placement for science-based courses that are not available in the SADC region will continue abroad. A milestone for the Department has been the Organisation and Methods Review, which has improved the staffing establishment of the Department, particularly at middle management level.

### **Information Technology**

15.42 During NDP 8, the Ministry of Education developed ICT communication infrastructure linking regional sites to headquarters. Some systems were also developed to improve the management of the sector. The most noteworthy systems are the Teacher Management System, the Student Selection System used for processing and placement of student in tertiary institutions while an Education Information System was initiated. Computer laboratories in secondary schools were also equipped so that the Basic Computer Awareness course could be introduced. At the technical colleges, campus networks have been established to enable students to access the Internet.

### **National Council on Education**

15.43 The National Council on Education (NCE) was established during NDP 8 with the primary goal of monitoring implementation of the RNPE and advising Government on the development of education and training. As quality in education was a major objective of NDP 8, the NCE directed that quality assurance and quality monitoring mechanisms be put in place.

15.44 Under the guidance of the NCE, the Tertiary Education Council,

Botswana Examinations Council and the Botswana Training Authority were established. The NCE also determined the need for a higher-level co-ordinating framework to bring all parts of education and training under one unifying umbrella in the form of a National Qualifications Framework. This strategy is consistent with the aspirations of Vision 2016 to promote a culture of learning as a lifelong pursuit. The framework will also facilitate mobility within the education and training system. It is also consistent with the SADC Protocol on Education and Training. A Regional Qualifications Framework is being developed for the SADC region to facilitate mobility of learners and qualifications across the region. This initiative is facilitated by UNESCO/ILO support.

15.45 Botswana has also participated in regional and international studies aimed at monitoring the quality of education at the primary school level. These studies have provided the Ministry with valuable baseline data against which progress in future can be measured. They have also given the Ministry an indication of how Botswana learners are performing relative to their peers in the region and internationally.

### **EDUCATION STRATEGY FOR NDP 9**

15.46 In order to meet the challenges of a rapidly changing world, it is important for everybody to learn throughout their lifespan. This principle is enunciated in *Vision 2016*, which states that 'All Botswana will have the opportunity for continued and universal education... Education must be made more flexible, so that people can enter and leave the education system at different times in their lives.'

Lifelong learning will, therefore, be a central element of the education strategy for NDP 9. The Ministry of Education, in conjunction with relevant partners, will develop policies, programmes and projects that will enhance the environment for lifelong learning.

15.47 The strategies to be put in place by the Ministry of Education to promote lifelong learning will include shared use of resources, access to part-time courses through the use of varying modes of learning, such as distance and open learning and e-learning. Programmes will be designed to facilitate easy access to learning packages, such as introducing modularised programmes to enable people to build up qualifications. As one of the strategies to ensure quality lifelong learning, a National Qualifications Framework will be developed and implemented to provide linkages and pathways between education and training and ensure quality delivery at all levels of the education and training system.

15.48 Another major challenge that the Ministry will have to address during the Plan period is access to and quality in post-secondary education. This is in view of the increased output of senior secondary school leavers that have to be processed for further education and training. In this respect, technical and vocational education and training is seen as an important avenue through which the secondary school leavers could be prepared for gainful activities that relate to the needs of both the formal and informal labour sector. In particular, the opportunity for technician/diploma level training will be substantially increased.

15.49 Whilst noteworthy achievements have been made in

regard to implementation of the Revised National Policy on Education, there are nonetheless challenges that are still to be addressed in the context of the policy. One such major challenge is the need to pay further attention to the area of Special Education in terms of expansion of educational programmes for the special needs learners, as well as increasing access to this level of the education system. This is important if the country's education system is to be equitable and all-inclusive.

### **Administration of Education**

15.50 The responsibilities of the Ministry of Education have become very large. The increased emphasis on technical and vocational education, the expanding bursaries system and the need for a second University, are some of the activities that have contributed to a very large workload. Thus at the start of NDP 9, there will be need to carry out an O & M review of the Ministry of Education to look into the possibility of splitting the Ministry of Education into two; one Ministry for Basic Education and the second one Ministry for Tertiary Education.

### **Tertiary Education Council**

15.51 The Tertiary Education Council (TEC) was established by an Act of Parliament passed in April 1999. The TEC was constituted in June 2002 and will be responsible for co-coordinating the development of tertiary education and for determining and maintaining standards of teaching, examinations and research at this level. Its functions are as listed in Box 15.1.

### **Box 15.1 – Functions of the TEC**

1. To formulate policy on tertiary education and advise Government accordingly;
2. To co-ordinate the long term planning and overall development of tertiary education;
3. To liaise with both public and private sectors of the economy on all matters relating to human resources development and requirements;
4. To plan for the funding of tertiary education and research, including the recurrent and development needs of public tertiary institutions;
5. To receive and review budgets for public tertiary institutions and make recommendations to Government;
6. To promote co-ordination among tertiary institutions;
7. To advise Government on the establishment of public tertiary institutions;
8. To receive and approve applications from persons seeking to establish private tertiary institutions;
9. To review and approve programmes of study in respect of private tertiary institutions;
10. To accredit private tertiary institutions;
11. To ensure that quality assurance procedures are in place in all tertiary institutions;
12. To ensure the audit of physical facilities and the assessment of their adequacy in tertiary institutions;
13. To advise on any other matters related to tertiary education.

**Source: Ministry of Education**

### **Cost Sharing and Cost Recovery**

15.52 In keeping with the spirit of the Mid-term Review of National Development Plan 8, one of the critical areas that the Ministry has to address during NDP 9 is cost recovery/cost sharing in the provision of education. This is in realisation of the fact that the level of investment in education that Government has made over the years can no longer be sustained unless alternative avenues for complementing Government efforts are established. In the past 20 years, the Ministry of Education's share of the national budget has consistently been over 20%. In the Financial Year

2002/2003, it reached a record 28%. This level of expenditure is not sustainable in the long run.

15.53 Whilst it is acknowledged that Government would continue to have a major stake in educational development, it must be accepted that though the policy on free education has served the country well, the policy is no longer sustainable. Government on its own can no longer afford the full cost of providing education. It is on this basis that payment of school fees by foreign students was introduced. It has also become necessary to put in place cost sharing measures for Batswana children as well. It should, however, be stressed that introduction of cost-sharing measures in education should not result in the exclusion of Batswana children whose parents/guardians are unable to pay school fees. There would be need for Government to have safety nets through the social welfare system for those children who come from needy backgrounds. Besides payment of school fees as a cost-sharing measure in the provision of education, there is need to look into other areas of the education system where cost-sharing measures could be affected. One such area is the payment of students' allowances in the tertiary education system. Given the ongoing increase in the number of secondary school leavers who have to be sponsored by Government for tertiary education and training payment of such allowances is no longer sustainable nor justified.

15.54 The spirit of self-reliance needs to be revived in order for parents and other stakeholders to complement Government's efforts in providing education. There will be need to strengthen the social welfare services under the local authorities in order to assist in identifying those who are

unable to pay school fees and give them the necessary assistance.

15.55 Consultations are ongoing on the best way to proceed with cost-sharing/cost-recovery. To date, the efforts made in this area have been in the removal of the trainee allowances for technical and vocational trainees, the removal of the free toolkit for completing Brigades trainees and the introduction of fees for foreign students and trainees. Other areas that lend themselves to cost sharing are the introduction of examination fees, stationery fee, and caution fee. Other areas will be explored.

15.56 In pursuant of the recommendations of the Revised National Policy of Education (1994), the Department of Secondary Education has introduced payment of a standardised development levy of P60 per year at Junior Secondary level.

15.57 It has been evident from the growing numbers of fee-charging private schools at different levels that the majority of parents have the capacity to contribute towards the education of their children, especially when they are guaranteed that it will be good quality education. Experience has shown that free education has encouraged undesirable behaviour in some students who happen to be oblivious of the huge investments that government has made in their education.

15.58 BOCODOL will progressively increase the fees paid by secondary education out-of-school learners as part of cost sharing. However, the fees will remain modest so that they are affordable to most out-of-school learners. The contracted vocational, management, professional and post-basic extension courses will, as much

as possible, be offered on a full cost recovery basis. Where these courses target disadvantaged sectors of the community, collaboration with the private sector and donor community will be sought, for the latter to assist in payment of fees.

15.59 The Examinations, Research and Testing Division will introduce nominal fees to cover examination costs for junior and senior secondary examinations.

### **Information Technology**

15.60 During NDP 9, major projects will be to develop an Education Data Network (EDN) so that computer laboratories in schools could be connected to the Internet. ICT education will be intensified during this Plan period to ensure that all students acquire the key skill of computer literacy during their basic education period. Acquisition of hardware and training of personnel will be intensified so that officers can make full use of the system that has been developed.

### **HIV/AIDS**

15.61 Another major challenge that must be addressed during the Plan period is the HIV/AIDS pandemic, which if left unchecked is bound to reverse the gains that have been made in the development of the education system. The two studies conducted during NDP 8 on the impact of HIV/AIDS on the education sector showed enrolments to be adversely affected and productivity of teachers being affected by increased morbidity, absenteeism and mortality. In this respect, the Ministry will, during the course of NDP 9, strengthen its HIV/AIDS campaign, increasingly

moving away from awareness to programmes that promote behaviour change, prevention and mitigation. This will be done by:

- Infusion of HIV/AIDS concerns in the curriculum and school guidance and counselling programmes.
- Promoting behaviour change by employing more interactive pedagogical methodologies of delivering reproductive health education.
- Strengthening the School Health Programme.
- HIV/AIDS materials development and production for students and teachers.
- HIV/AIDS awareness and information dissemination campaigns and programmes.
- Developing HIV/AIDS work place support programmes.
- Collaboration with other stakeholders in the HIV/AIDS prevention and mitigation programmes under the auspices of the National AIDS Council (NAC).
- Developing a district level monitoring mechanism to track the impact of HIV/AIDS on the education system.

### **Privatisation**

15.62 During NDP 9, the Ministry of Education will hive off to the private sector those activities that are not the core business of education and training. Advantage will be taken of new institutions and facilities to target some activities for privatisation.

Office cleaning, security services, catering, gardening are areas that have been identified for privatisation and currently piloted at Gaborone Technical College. Private catering piloted in some institutions during NDP 8 will be evaluated.

15.63 Because of the difficulty of attracting and retaining IT staff and the specialist and diverse skills needed for systems development not needed on a day-to-day basis, the Ministry will rely on out-sourcing these as and when required.

### **Private Education**

15.64 The private sector plays a pivotal role in providing education to many Batswana. The Ministry of Education registers and monitors all private schools in order to ensure that quality is maintained. Institutions that operate illegally and those that fail to conform to or maintain the required standards are closed in accordance with the Education Act. The Act will be reviewed to ensure that curriculum offered in all private institutions is properly regulated.

### **Performance Management System**

15.65 The Ministry of Education has adopted the performance management system and developed a strategic plan that guides the implementation of various programmes and activities in order to improve productivity and service delivery. The core business of the Ministry is reflected by its Key Results Areas (KRA). The specific goals and strategic objectives are indicated in detail in the Ministry's Strategic Plan.

**Box 15.2 - Ministry of Education Key Result Areas (KRA) and Goals**

<b>KRA 1:</b>	<b>A HIGH LEVEL OF HIV/AIDS AWARENESS</b>
<b>KRA 2:</b>	<b>A COMPETENT NATIONAL HUMAN RESOURCE</b>
<b>KRA 3:</b>	<b>QUALITY AND RELEVANT EDUCATION AND TRAINING</b>
<b>KRA 4:</b>	<b>OPEN ACCESS TO AND EQUITY IN LIFE-LONG EDUCATION AND TRAINING</b>
<b>KRA 5:</b>	<b>USE OF UP-TO-DATE TECHNOLOGY IN EDUCATION AND TRAINING</b>
<b>KRA 6:</b>	<b>RESPONSIVE AND RELEVANT POLICIES</b>
<b>KRA 7:</b>	<b>EFFICIENT AND EFFECTIVE EDUCATIONAL MANAGEMENT</b>
<b>KRA 8:</b>	<b>AN ENABLING LEARNING ENVIRONMENT</b>
<b>KRA 9:</b>	<b>EFFECTIVE PARTNERSHIPS AND STAKEHOLDER SATISFACTION</b>

Source: Ministry of Education Strategic Plan, 2001-2006

## **MINISTRY MANAGEMENT**

### **National Council on Education**

15.66 The National Council on Education has directed that during NDP 9, a robust Education Management Information System (EMIS) be developed to improve the monitoring of the development of education and training in a more rigorous manner. A system of Education Development Indicators will be developed to support decision-making and planning.

### **Public Relations**

15.67 During NDP 9, human and financial resources will be required to transform the Educational Publications Division of the Department of Curriculum Development and Evaluation into a fully-fledged public relations function of the Ministry of Education in accordance with Recommendation 120 of the RNPE.

## **Transport Requirements**

15.68 With the decentralisation of fleet procurement and management by CTO to Ministries, there is need for the Ministry to plan its fleet requirements for NDP 9. The planned projects and programmes are such that the Ministry will need to expand its fleet in order to meet its mandate. The geographic spread of educational institutions dictates decentralisation of major functions to district and regional levels for effective provision of support services. This involves monitoring of the implementation of educational programmes such as school inspection, in-service teacher training and distribution of supplies and educational materials. The possibility of outsourcing this activity to the private sector will be looked into.

### **Botswana National Commission for UNESCO**

15.69 During NDP 9, the objectives of the Botswana National Commission for UNESCO will be to:-

- Strengthen the linkages with UNESCO Secretariat in Paris and other Field Offices so that Botswana can benefit from its membership of UNESCO;
- Implement and harmonise UNESCO Medium Term Strategy 2002-2007 with Botswana Government National Priorities;
- Establish Centres of Excellence in Early Childhood Education and Care (ECEC), Hydrogeology, Energy, Computer Science, Centre for Peace and Conflict Research and Training, Information & Communications Technology;

- Co-ordinate, Monitor and Evaluate the implementation of the Education For All (EFA) Dakar Frame work for Action;
- Strengthen the Human Resource Capacity;
- Strengthen the coordination and management of UNESCO Programmes and Activities;
- Advise Government on effective participation and contribution towards UNESCO supported programmes and activities.

## **EXAMINATIONS, RESEARCH AND TESTING**

15.70 The main objectives of the Division for NDP 9 are to:-

- Implement criterion-referenced testing procedures at primary and junior secondary levels;
- Develop appropriate assessment procedures for learners with disabilities;
- Complete the construction of the purpose-built facility for the Botswana Examinations Council;
- Complete the establishment of the Botswana Examinations Council.

### **Development of criterion-referenced testing for Primary and Junior Secondary**

15.71 The need to change from Norm-Referenced Testing (NRT) to Criterion- Referenced Testing (CRT) was endorsed by the RNPE when it became apparent that NRT was no longer compatible with changes in the national curriculum. The CRT procedure is now fully established in the Primary School Leaving

Examination (PSLE). Meaningful reports are generated which provide feedback into the system. However, for the Standard Four Attainment test, introducing CRT will start during NDP 9, following the review and revision of the curriculum for lower primary by the Department of Curriculum Development and Evaluation.

### **Localisation of the Cambridge School Certificate Examination**

15.72 During NDP 9, the Division will continue to rely on the University of Cambridge Local Examinations Syndicate for the printing of question papers and the processing of the results. The Division does not yet have the capacity to process the results, but a deliberate effort will be made to train officers who will take over this function.

### **Developing appropriate assessment procedures for learners with disabilities**

15.73 Although the Division had set itself the task of developing appropriate assessment procedures for learners with hearing impairment during NDP 8, this was contingent upon the modification of the curriculum. A consultancy which will undertake the modifications will start work before the end of NDP 8. Upon completion of the study, the Division will then proceed with the development of the assessment procedures.

### **Establishment of the Botswana Examinations Council**

15.74 The legislation for the establishment of the Examinations Council has been passed by Parliament and the Division will assume the new status before the end of NDP 8. The

National Assessment/Examinations programmes that will be coordinated by the Botswana Examinations Council are presently coordinated through the Examinations, Research and Testing Division under the Ministry of Education Headquarters. It is intended that the Examinations, Research and Testing Division will be phased out following the establishment of the Examinations Council.

## **CURRICULUM DEVELOPMENT AND EVALUATION**

15.75 The main objectives for curriculum development and evaluation in NDP 9 are to:-

- Develop pre-primary curriculum;
- Improve performance within the department leading to provision of high quality services and productivity;
- Collaborate with all stakeholders in the provision of relevant, appropriate and quality curriculum and support services;

### **Pre-primary Education Curriculum**

15.76 The pre-primary curriculum will be developed in line with the Policy on Early Childhood Care and Education during NDP 9. The Curriculum Development Division will need extra human resource capacity in order to develop the curriculum for this level.

### **Primary Education Curriculum**

15.77 Full implementation of the revised lower primary curriculum will be achieved during NDP 9 through provision of professional support to teachers, improvement of facilities and provision of support material and equipment.

### **Secondary Education Curriculum**

15.78 Evaluation of the programme at this level will be undertaken with the objective to fine-tune the curriculum through research and evaluation.

### **Guidance and Counselling**

15.79 Implementation of the Guidance and Counselling programme is to be strengthened through the following activities:

- At least five Career Resource Centres will be established in accordance with recommendations of the feasibility study done during NDP 8. The Career Resource Centres are a major requirement for ensuring that all in and out-of-school Botswana youth, irrespective of their geographical area, access career information and receive professional psycho-social support.
- Field support will be expanded to respond to the service delivery needs of the Guidance and Counselling programme at regional level.
- Culturally sensitive psychometric tests will be developed to enable vocational assessment and placement of learners into appropriate careers. A consultancy is to be engaged to assist with the development of the tests.
- Counselling rooms are to be provided in all schools and situated where they will be accessible to all the students.
- All schools will develop and set up comprehensive school guidance and counselling programmes that are systematically coordinated.
- During NDP 9, there will be rationalisation of guidance and counselling support services within

the Ministry of Education among Departments of Secondary Education, Primary Education, Curriculum Development and Evaluation, Student Placement and Welfare and Vocational Education and Training to establish a support service structure that will enable proactive and efficient multi-disciplinary remedial responses to ensure maximisation of resources.

### **Teaching Aids Production**

15.80 The Teaching Aids Production Division will acquire improved equipment and train technical staff to equip them with skills such as pattern design and model making. This will facilitate production of various patterns and designs of teaching aids. This should assist make impact on subjects and areas that have hitherto been difficult to do.

### **Educational Broadcasting**

15.81 The Educational Broadcasting Division will continue reviewing and revising radio programmes that are curriculum based for the basic education cycle and other programmes like Current Affairs and Educational Forum for consumption by both teachers and the general public. With the advent of Botswana Television (BTV) providing a national television service, the Division will augment the educational radio programmes with educational television broadcasts.

### **Educational Publications**

15.82 The Division will, through its various publications, also reinforce the upper primary level curriculum, and capture topical and emerging issues that are critical to national development.

## **PRIMARY EDUCATION**

### **Pre-Primary Education**

15.83 The main objectives for pre-school education during NDP 9 are to:-

- Improve quality of the pre-school education programme through the implementation of the Early Childhood Care and Education Policy;
- Improve the quality and effectiveness of the Pre-school management system;
- Develop strategies for effective supervision of the pre-primary education programme;
- Develop strategies for community empowerment to participate in Early Childhood Care and Education Programme;
- Provide an enabling environment to the programme through training of pre-primary teachers and development of pre-school curriculum.

15.84 Partnership between the Ministries of Local Government and Education will be strengthened for effective management of the Pre-school Education Programme. The Pre-school supervisors from Ministry of Local Government will be trained to provide effective and quality supervision of the programme for the 0-4 year olds while the pre-primary school supervisors will be identified and trained from the Ministry of Education to provide effective supervision of the programme for the 4-6 year olds.

15.85 The quality of the pre-school programme will be improved through

capacity building of the Pre-school Development Committee and the relocation of the training of the pre-school teachers to the Department of Teacher Training and Development.

15.86 The members of the community will be empowered to continue to provide pre-school programme through establishment of pre-schools. Government limits its participation to creating an enabling environment by providing effective supervision and management of the programme. The Lobatse Day Care Training Centre will be reviewed to provide quality training for Caregivers, while pre-primary teachers will be trained to the level of a diploma in the Colleges of Education.

15.87 The Pre-school Development Committee will be strengthened in order to develop early stimulation education programmes for Baby Care Services and development of strategies for inclusion of children with special needs.

## **Primary Education**

15.88 The main objectives for primary education during NDP 9 are to:-

- Increase access and equity, in order to achieve universal access to primary education;
- Improve the quality and effectiveness of primary education;
- Improve the internal efficiency of primary education.

15.89 The achievement of Universal Primary Education (UPE) will be pursued through building more primary schools and additional classrooms where appropriate to keep up with increasing enrolments and reduced class size from 40 to 30. Where conventional schools are inappropriate for delivery, non-formal means of education provision will be used. The non-formal programmes will be designed in such a way as to make it possible for pupils to transfer to formal schools when an opportunity arises.

**Table 15.6 - Primary Schools Enrolment Projections for NDP 9**

	2002	2003	2004	2005	2006	2007	2008
Standard 1	53,061	53,592	54,128	54,669	55,215	55,768	56,325
Standard 2	49,708	50,205	50,707	51,214	51,726	52,244	52,766
Standard 3	46,960	47,430	47,904	48,383	48,867	49,355	49,849
Standard 4	50,122	50,623	51,129	51,641	52,157	52,679	53,206
Standard 5	45,350	45,804	46,262	46,724	47,191	47,663	48,140
Standard 6	44,568	45,014	45,464	45,918	46,378	46,841	47,310
Standard 7	41,889	42,308	42,731	43,158	43,590	44,026	44,466
Special Education	730	737	754	772	800	835	877
<b>TOTAL</b>	<b>332,346</b>	<b>335,669</b>	<b>339,026</b>	<b>342,416</b>	<b>345,841</b>	<b>349,299</b>	<b>352,792</b>
Population projection (6-12)	290,994	298,810	307,411	316,113	324,231	331,897	339,554

**Source: Ministry of Education, 2002**

**Note: The 2002 figures are actual figures and have been used as the base year.**

**Source for population projection 1991-2021– Central Statistics Office**

15.90 Table 15.6 gives primary school projections up to the year 2008. The projections cover all known and registered schools, i.e. government, government aided, and private schools, including schools for the disabled. It is projected that primary school enrolment will increase at an annual growth rate of 1.0% p.a. The total projected increase of 6.2% between 2003 and 2008 is lower than the 11.2% projected over the NDP 8 period, and much lower than the total projected increase of NDP 7, which was 16.7%.

15.91 A number of measures will be put in place to ensure improved quality and effectiveness of primary education. In this regard, professional support for teachers in the field will be intensified through training of supervisory personnel for skill upgrading and through a reduced ratio of Education Officers to schools. Some gradual efforts to integrate pre-primary into the mainstream of primary education will be made. Through the Ministry of Local Government, facilities of

primary schools will be improved by adding libraries and other specialist rooms, providing electricity and improving procurement and distribution of school supplies.

15.92 To improve the efficiency of primary education, efforts will be made to improve the living conditions of children of the remote area dwellers (RADs). Research projects will be undertaken to determine precisely the causes of dropping out of primary schooling and the possible measures to reduce the incidence.

15.93 Cooperation, collaboration and consultation between the Ministries of Education and Local Government will continue to ensure the smooth management of primary education and efficient provision of infrastructure, equipment and supplies among other services.

## SECONDARY EDUCATION

15.94 The main objectives for secondary education for NDP 9 are: -

- To provide universal access to junior secondary school education;

- To give all school leavers employable skills or life skills;
- To expand senior secondary education.

**Table 15.7- Secondary School Enrolment Projections for NDP 9**

	2003	2004	2005	2006	2007	2008	2009
Form 1	40,674	41,081	41,492	41,907	42,326	42,749	43,176
Form 2	41,308	40,430	40,835	41,243	41,656	42,073	42,493
Form 3	40,454	41,061	40,187	40,590	40,996	41,407	41,821
<b>CJSS Total (a)</b>	<b>122,436</b>	<b>122,572</b>	<b>122,514</b>	<b>123,740</b>	<b>124,978</b>	<b>126,229</b>	<b>127,490</b>
Population Projection (13-15 yrs)	115,022	115,966	117,204	118,479	121,049	123,871	127,334
Form 4	19,928	20,227	20,531	20,094	20,295	20,498	20,703
Form 5	18,326	19,789	19,938	20,387	19,953	20,153	20,354
<b>SSS Total (b)</b>	<b>38,254</b>	<b>40,016</b>	<b>40,469</b>	<b>40,481</b>	<b>40,248</b>	<b>40,651</b>	<b>41,057</b>
<b>Grand Total (a) + (b)</b>	<b>160,690</b>	<b>162,588</b>	<b>162,983</b>	<b>164,221</b>	<b>165,226</b>	<b>166,880</b>	<b>168,547</b>

Source: Department of Secondary Education, 2002

- Notes:
1. Average dropout rates for the last four years were used
  2. 50% transition rate to be achieved by 2003
  3. Repetition rates are insignificant and therefore not applied
  4. Attrition rates applied to JC and Senior Secondary are 0.6% and 0.7% respectively.
  5. Population projections:1991-2021 - Central Statistics Office

15.95 During NDP 9, upgrading work will be completed at Moshupa, Letlhakane, Lobatse and Seepapitso Secondary Schools as well as construction of four new Senior Secondary Schools. Additional facilities such as staff houses, equipment for practical subjects, incinerators, vehicles and sports facilities will be provided. A senior secondary school will be identified to

be modified to cater for learners with special educational needs in the north of the country.

15.96 During NDP 9, construction of new CJSSs in major centres will be carried out. In addition, there is need to upgrade a number of existing schools in various parts of the country where primary school enrolments are rising significantly. Additional

facilities such as staff houses, classrooms, Design and Technology workshops, and equipment for practical subjects, vehicles and sports facilities will be provided in all schools. A community junior school has been identified in the North that is going to be modified to cater for students with special needs. Currently some of these students are crowded in one school in the south. In addition to a diversified curriculum, computers have been installed in all junior secondary schools and computer awareness will now be integrated into the core curriculum. All senior secondary schools will introduce computer studies, a subject that promotes employable skills and that prepares youth both for formal employment and self-employment. A major function of the department is quality assurance and control. Technical Assistance will be provided through EU to assist the department to improve its quality assurance system and procedures to ensure a high international standard and to place more responsibility with the institutions themselves.

### **TEACHER EDUCATION**

15.97 The objectives for teacher education for NDP 9 are to:-

- Improve the quality of education through provision of quality teacher education programmes, quality facilities to meet set standards for accreditation and affiliation to the University of Botswana and providing opportunities to serving teachers to upgrade their knowledge base and skills;
- Explore cost effective ways of skills provision and upgrading;

- Develop institutions to be Resource Centres;
- Upgrade management skills of Heads of Schools, Colleges and Education Centres to ensure the effective management of the education system and maintenance of quality;
- Increase access to teacher education;
- Contribute to an AIDS-free generation by 2016 through provision of in-service training, pre-service training and using multi-media to disseminate information on HIV and AIDS as well as use it as a training tool for interactive teaching;
- Provide in primary colleges of education specialist training for infant, middle, upper standards and subject specialists;
- Introduce basic Computer awareness courses and Computer Studies at all Colleges of Education.

15.98 To realise these objectives, several projects are earmarked for implementation during NDP 9 as indicated in the thumbnail sketches.

15.99 The new basic education college, which will have an enrolment of 720, of which 320 places will be for junior secondary and 400 for primary level, will also increase access and output. Increase in enrolment will increase output and this will reduce the number of expatriates in the teaching force. At primary level, where localisation is over 90%, the focus will be on specialisation while at secondary, the focus for teacher production will be on scarce skills

subjects such as Business Studies, Music, Agriculture, Design and Technology, Home Economics, Computer Studies and Physical Education.

**Table 15.8- Colleges of Education Enrolments, 2002-2008**

	2002	2003	2004	2005	2006	2007	2008
Francistown	392	392	392	392	500**	600	720
Tonota	848	850	850	850	850	850	850
Serowe	361	368	375	455*	464	464	464
Lobatse	395	395	395	395	402	410	418
Molepolole	818	820	820	820	820	820	820
Tlokweg	365	365	365	372	379	387	400
<b>TOTAL</b>	<b>3,179</b>	<b>3,190</b>	<b>3,204</b>	<b>3,284</b>	<b>3,415</b>	<b>3,531</b>	<b>3,672</b>

Source: Department of Teacher Training and Development, 2002

Notes:

\*\* The enrolment of Francistown will increase to close to 500 with additional intake of the secondary students. The target is 720 for the college by the end of NDP 9.

\* Serowe will have an increase of 80 students with the completion of the new hostel

A small increase of 2% is used for enrolment increase to cater for off-campus students

The target for primary colleges except for Francistown is to have them mover to 400 in-campus students

Lobatse will maintain the enrolment during 2003-2005 (while new facilities are being constructed)

Secondary Colleges of Education will maintain their enrolments at the current level as no new hostels are planned

15.100 Along with all these developments, the teacher education curriculum will be reviewed and revised to meet the challenges of a diversified economy and skills development for competitiveness in the global market. Processes, procedures and related guidelines will be revisited to help develop an environment conducive for developing an educated, informed, prosperous, productive, innovative, compassionate, just and caring nation in accordance with Vision 2016. Co-curricular activities will be revamped to help develop an AIDS-free generation of the future.

### Teaching Service Management

15.101 During NDP 9, the development of human resources will be intensified through the following objectives:

- Intensify both short and long term training to ensure teacher motivation;
- Improve teacher motivation through providing better conditions of service and other incentives;
- Further develop an efficient computerised management information system (Infinium) to carry out the responsibility for projections of human resource growth, job analysis and other related administrative functions;
- Continue decentralising major functions of Teaching Service Management to ensure better management and support services to teachers;

- Enhance the Teacher Establishment Register for effective rationalization of the teaching force.

## UNIVERSITY EDUCATION

15.102 The University has identified the following strategic priorities for focus in NDP 9:

- Access and Participation
- Quality Academic Programmes
- Scholarship, Research and Graduate Studies
- Engagement
- Enhancing Capabilities

### Access and Participation

15.103 Expanding **access** to education and increasing educational opportunities for the citizens of Botswana is a national priority for advancing the economic development of the nation in a global economy. Increasing student enrolments is the key priority for the University during NDP 9, while maintaining quality academic programmes.

15.104 The University will respond to this priority as follows:

- Increase student enrolment to a target of 15,000 full-time;
- Increase opportunities for access to the University by expanding the number of part-time degree level

qualifications and professional programmes, both on and off campus through Centre for Continuing Education, which target school leavers and non-traditional students.

### Quality Academic Programmes

15.105 As a learning organisation, the University is challenged to provide quality, relevant academic and professional programmes responsive to national needs, which provide students with a broad, well rounded education as well as the fundamental tools for life long learning to prepare them to contribute to the national socio-economic development.

15.106 The University will respond to this priority as follows:

- Implement a student enrolment management plan that will grow the numbers of students across all Faculties with a key objective to increase the proportion of students enrolled in Business and Information and Communications Technology, maintain the current proportions in Science, Technology, Health and Education, and decrease the proportions of students enrolled in Humanities and Social Sciences;

**Table 15.9 - Student Enrolment data for NDP 8 and NDP 9**

Area of Discipline	Full-time student enrolments in 2001/2002		Targeted full time student enrolments by the conclusion of NDP 9	
	Actual	% of total	Targets	% of total
Business Information and Communications Technology	1,005	10	3,000	20
Science, Engineering Technology, Health Sciences	2,679	27	4,050	27
Social Sciences and Humanities	3,949	40	4,500	30
Education	2,025	20	3,000	20
Graduate Studies	319	3	450	3
<b>TOTAL</b>	<b>9,977</b>	<b>100</b>	<b>15,000</b>	<b>100</b>

Source: University of Botswana, 2002

- Develop new undergraduate academic programmes that are responsive to societal needs in areas such as biotechnology, biochemistry, industrial design, architecture, mining engineering, ICT applications and telecommunications, human resource management, tourism and hospitality management, creative and performing arts, psychology, media studies, gender studies, with others to be identified through further needs analysis;
- Reorganise academic programming in ICT to establish a programme focus in ICT applications, communications and telecommunications through bringing existing programmes together and developing and implementing new ones;
- Review the University's current academic organisational structure (Agriculture, Business, Education, Engineering and Technology, Humanities, Science, Social Sciences) from the perspective of strengthening programmes through an interdisciplinary approach;
- Review the current organisational relationships with associated and affiliated institutions to enhance the institutional and academic programme capacity and with particular reference to Botswana College of Agriculture/Faculty of Agriculture and its position in the UB system;
- Strengthen the life long learning, critical thinking and communication skills of students through a refocus of the General Education programme;
- To meet the burgeoning health needs of Botswana, reorganise academic programming in Health Sciences and related fields around a nucleus of existing programme capabilities in Nursing Science and pre-Medical Training, and further develop to include new programmes and departments in biomedical, medical and allied health professions such as Physiotherapy, Occupational Therapy, Speech Therapy, Health Informatics, and Environmental Health. Expand Nursing Science at the undergraduate level, develop a doctoral programme in Nursing Science, and increase recruitment into the pre-Medical Training programme. This programme

development will be aimed at a long-term objective of establishing a Faculty of Health Sciences;

- Establish the Faculty of Engineering and Technology on the main campus, rationalisation of the certificate and diploma level programmes offered by UB and DVET, and create a Centre for Mining Engineering;
  - Create a Leadership and Entrepreneur Centre for business support and leadership development through external funding;
  - Develop a discipline specific Teaching and Learning Strategy with a complementary Learning Resources Strategy that ensures an integrated portfolio of diverse educational delivery systems and learning resources, and which promotes the concept of the Library as a Learning Resource Centre.
- Enhance institutional research capacity through the development of strategic relationships with academic, industry, and community partners, establish joint projects and secure external funding. Develop strategic partnerships and external funding to develop Harry Openheimer Okavango Research Centre (HOORC) as an international wetlands research centre;
  - Set an enrolment target of 3% of the overall full-time student enrolment for graduate students, facilitate the enrolment of citizens through the establishment of a Graduate Scholarship Fund and create graduate teaching and research assistant posts to develop research capacity and capabilities;
  - Undertake a comprehensive review of existing graduate programmes with a view to ensuring that they represent unique strengths and societal needs and demands. Establish new graduate programmes in fields of study where there are qualified research faculty, particularly focusing on new and emerging interdisciplinary fields of study, which are in consonance with institutional strength and societal need.

### **Scholarship, Research and Graduate**

#### **Studies**

15.107 The University will respond to this priority as follows:

- Establish the University as a research leader both nationally and internationally through the development and funding of strategic research areas, develop centres of excellence in specific interdisciplinary areas and other strategic research disciplines that address Botswana's social and economic potential; establish a Centre for Science and Technology;
- Ensure that Research and Graduate Studies are championed at the highest level of executive management by the establishment of a new position of Deputy Vice Chancellor (Research, Innovation and Graduate Studies) with policy responsibility for and general oversight of UB research activities, graduate education, intellectual property, commercialisation of research and liaison with industry.

## **Engagement**

15.108 The University will respond to this priority as follows:

- Strengthen the University's contribution to Botswana's social and cultural heritage through community engagement in support of artistic creative and cultural activities;
- Develop a Centre for HIV/AIDS to serve the needs of the campus community and to guide the nation in programme and policy development; and research, a center for Science and Technology by natural need and priority.
- Strengthen academic departmental boards to help them establish work placements, plan fund raising initiatives, provide service to the community, and advise on academic curricula;
- Strengthen the University's outreach efforts in responding to the needs and demands of society by providing service and advice in areas of social and economic need;
- Through the UB Foundation and Alumni engage individuals, business, industry, and donor agencies in Botswana and the international community to support the growth and development of the University;
- Strengthen efforts to 'internationalise' the campus by continuing to target 10% of the student enrolment for international students, developing programmes, projects and other activities that have a wider regional perspective

with reference to the SADC Protocol on Education and Training, encouraging the number of linkages with international faculty and academic institutions, and promoting the campus as a centre for hosting international events.

## **Enhancing Capabilities**

15.109 The University will respond to these priorities as follows:

- Design and implement programmes for developing student leadership, culture, sports, citizenship and social responsibility;
- Strengthen orientation, academic advising, counselling and personal tutoring to ensure that students receive proper direction with regard to their academic programme and learning needs, and provide support services for international students;
- Maintain overall staff-student ratio of 1:16;
- Develop a discipline and programme specific academic staff resource model based on Association of Commonwealth Universities (ACU) benchmarks that ensures that Faculties are optimally engaged in their core activities and that the academic area is staffed to promote the delivery of quality teaching, learning and scholarship in an efficient and effective manner;
- Establish an on-going professional development programme, which will focus on job development and job satisfaction and will ensure the implementation of the performance management system;

- Further developing the citizen staff recruitment programme to intensify the employment of citizen staff, working to achieve a localisation target of at least 70% in the academic area;
- Developing citizen staff to assume positions of responsibility and leadership as faculty and support staff to assume positions of academic and institutional leadership with specific focus on gender equity;
- Ensure that ICT is a key institutional driver to promote efficiency, effectiveness and productivity through a strategic alignment of ICT with the University's management processes, unit level functions and jobs;
- Implement a comprehensive programme and supporting facilities, to improve the quality of campus life – physical, social, health, aesthetic, cultural, sporting, recreational, safety and security, and support services on campus to improve the student experience, build the morale and productivity of faculty and staff and enhance institutional capabilities;
- Undertake a comprehensive review of the UB Act and governance and decision structures to clarify accountabilities and responsibilities with the goal of achieving organisational effectiveness;
- Implementing a financial management strategy, which includes programmes for self-resourcing, cost reduction and cost sharing in order to secure and efficiently manage the financial resources necessary for the University to fulfil the aspirations, objectives and actions of the NDP 9.

**Table 15.10 - University of Botswana Student Enrolment Projections for NDP 9**

FACULTY	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09
Business and ICT	1,376	1,610	1,883	2,203	2,578	3,000
Science, Engineering Technology, Health sciences	3,010	3,191	3,382	3,585	3,800	4,050
Social Sciences and Humanities	4,109	4,191	4,275	4,360	4,447	4,500
Education	2,275	2,412	2,557	2,710	2,873	3,000
Graduate studies	352	369	388	407	427	450
<b>Total</b>	<b>11,121</b>	<b>11,772</b>	<b>12,484</b>	<b>13,266</b>	<b>14,125</b>	<b>15,000</b>

Source: University of Botswana, 2002

**Table 15.11- University of Botswana Student Output Projections for NDP 9**

<b>FACULTY</b>	<b>2003/04</b>	<b>2004/05</b>	<b>2005/06</b>	<b>2006/07</b>	<b>2007/08</b>	<b>2008/09</b>
Business and ICT	275	322	377	441	516	600
Science Engineering and Technology, Health sciences	361	383	406	430	456	486
Social Sciences and Humanities	863	880	898	916	934	945
Education	956	1,013	1,074	1,138	1,206	1,260
Graduate studies	116	122	128	134	141	148
<b>TOTAL</b>	<b>2,571</b>	<b>2,720</b>	<b>2,882</b>	<b>3,059</b>	<b>3,253</b>	<b>3,440</b>

Source: University of Botswana, 2002

### **MEDICAL SCHOOL**

15.110 The pre-medical programme was started at the University of Botswana during NDP 8. It will be upgraded to a full Medical School to cater for the training needs in the medical and para-medical areas. At present, all this training is conducted externally at great expense with limited placement of students because of limited slots made available for Botswana students.

### **SECOND UNIVERSITY**

15.111 Work on the second university started in the last year of NDP 8 with a feasibility study, conceptual framework and master plan. This project will be accorded priority because of the need to cater for the growing number of senior secondary school enrolments and the urgency of providing training locally and thus reducing the costs incurred through external placement.

### **TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING**

15.112 The goal of the Department during NDP 9 is to ensure improved

access to high quality technical and vocational education and training (TVET), with a view to producing a competent, innovative and internationally competitive National Human Resource with ability to contribute to the socio-economic and technological advancement of the country, the creation of employment and the reduction of inequity.

15.113 The challenge facing the sector is the need to reach out to all out-of-school youth and adults in need of vocational education and training to ensure that they are provided with the skills they need to make a living. In addition, the sector also needs to provide technical and vocational education and training that meets the needs of the local labour market, developed to high international quality criteria and that incorporates the latest developments in technology. This is in line with Vision 2016 which calls for increasing the nation's 'capacity to offer options for vocational and technical training' and for setting 'the highest possible standards for the same'.

15.114 The main objectives for the NDP 9 period are to:-

- Ensure that all graduates of the system have the necessary skills to enter into self-employment;
  - Increase the training opportunities at the technician/diploma level;
  - Invest in infrastructure for technician/diploma level training, thus reducing the cost of and the reliance on training provided outside Botswana at that level;
  - Diversify curricula to accommodate key economic activities of the national economy;
  - Increase access to technical and vocational education and training, through upgrading physical facilities and other means, while ensuring equity through appropriate admissions policies and range of programmes;
  - Increase training opportunities for out-of-school youth and people in employment through the development of distance education and e-learning packages in partnership with BOCODOL, as well as through the construction of Learning Resource Centres;
  - Reduce the cost per trainee through cost-recovery and improved cost-effectiveness in the delivery of programmes;
  - Further strengthen the links with industry, in particular with regard to work attachments for both teachers and students;
  - Continue the staff development programme to ensure quality delivery of programmes and staff in post meeting the criteria of the scheme of service;
  - Enhance access to Information and Communications Technology and use of state-of-the-art technology to improve both the quality and delivery of technical education programmes through improved networks, internet access and e-learning solutions;
  - Put in place mechanisms to ensure that staff with technical and scarce skills qualifications are remunerated adequately in order to attract and retain them as TVET professionals and lecturers;
  - Mobilise support and monitor employer-based training programmes (BOTA);
- 15.115 The Department will continue the development of the college-based Botswana Technical Education Programme (BTEP) to cover technician/ diploma level qualifications. The partnership with the Scottish Qualifications Authority will continue for local capacity building and for external quality audits. This is to ensure that all BTEP qualifications are developed and delivered to a high international standard, as well as being designed to support lifelong learning.
- 15.116 Thus, the priority in terms of development projects will be the establishment of Colleges of Applied Arts and Technology.
- 15.117 All students in BTEP programmes are also trained for self-employment. Apart from an entrepreneurship-training module, they all take a number of important key skills such as communication, numeracy, information technology, problem solving and personal/interpersonal skill to enable them to become ‘independent, productive and innovative entrepreneurs with cutting edge skills’ as required by Vision 2016.
- 15.118 Technical education, by its nature, is very expensive and ways must be found to control the cost per trainee. The Department is planning two measures:

- to improve effective utilisation of facilities by keeping the technical colleges open for extended hours and to ensure every facility is used throughout the day, evening and part of the weekend;
- to provide some of the learning modules as distance education courses and e-learning packages.

15.119 In terms of cost sharing, further measures will be implemented, starting with a boarding fee in 2003. All support services (kitchen, security, garden and cleaning services) in the new colleges will be privatised in line with the privatisation guidelines.

15.120 A major strategy during NDP 9 will be to reach out to the out-of-school youth and people in employment using distance education and e-learning. The BTEP programme, being fully modularised, lends itself well to this development. This initiative will also be facilitated with the establishment of an e-learning resource centre and learning resource centres linked to technical colleges around the country. Technical assistance will be sought to address these new areas of development.

15.121 While technician training is a priority, the training at the lower level is also important from a social point of view. Vision 2016 states that 'vocational and technical training must be available to all as an alternative to academic study'. For students with JC only, the options currently available are the technical colleges and the brigades. These options must therefore remain until there are enough places to take all students through to senior secondary school. The intention is to build more technical colleges in the

rural parts of the country. At the same time, Government must take over the running of the brigade training units to ensure that the training is brought up to Government standard and to a level that meets current labour market needs.

15.122 Salaries for Technical and Vocational Education and Training staff will be reviewed to enable recruitment from the private sector and industry. Staff houses and an intensive human resource development programme will also serve as incentives. The College of Technical and Vocational Training will come into full operation during NDP 9 and provide all lecturers with professional teaching skills, using both full-time courses and distance/e-learning delivery.

15.123 The links already established with industry will be further developed and used. The issue of substantial periods of work attachment has to be addressed and solved. Botswana Training Authority (BOTA), in particular, will assist industry to improve the training for their employees.

15.124 The Botswana Training Authority (BOTA) will establish quality assurance structures and instruments to ensure that training providers meet international standards for those engaged in work based training. The Botswana National Vocational Qualifications Framework will be established with the necessary structures and the development of competency-based modular training will be supported. A vocational training fund will be established through a levy grant system to mobilise resources for training efforts thus realising cost sharing between the private and public sectors. The training levy is intended to promote training

initiatives in the private sector. The Authority will also monitor labour market needs and trends in relation to training.

15.125 Through the Ministry of Labour and Home Affairs, the apprenticeship scheme will be modernised and modularised to provide quality, flexible, competency-based skills development programmes based on occupational standards, which provide work based training opportunities provided by all employers for school-leavers and graduates from the technical education system. The Construction Industry Trust Fund (CITF) will continue to serve the construction industry through its flexible programmes and enhance its operation in terms of range of programmes and national coverage. During NDP 9, the CITF will be transformed into a statutory body, the Construction Industry Training Centre.

## NON-FORMAL EDUCATION

15.126 The main objectives for the Out of School Education in the Department of Non-Formal Education during NDP 9 will be to:-

- Plan, design, develop, and implement the Adult Basic Education Programme, the Post-Literacy and Life Skills Programme and the Out of School Children's Education Programme that are accredited;

- Restructure and develop human resources required for the implementation of the three programmes;
- Strengthen the support system for learners and facilitators;
- Create and sustain a literate environment by planning, designing and developing materials;
- Strengthen the infusion and management of HIV/AIDS/STD education in the Department of Non-Formal Education Programmes;
- Strengthen the Departmental operations particularly in the provision of transport, residential and office accommodation at the district, sub-district and village levels;
- Facilitate the diversification of educational radio broadcasts into the medium of television and re-design and strengthen marketing strategies for the Department.

### Programme Development

15.127 The National Literacy Programme (NLP) which was launched in 1981 to eradicate illiteracy amongst an estimated 250,000 persons, was realised to be inadequate, as evident from the decline in enrolment in Table 15.12 below.

**Table 15.12 - Enrolment Figures for Non-Formal Education, 1980 - 2000**

1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
7,676	23,630	18,779	27,935	36,068	38,660	35,354	29,999	26,200	33,226	25,905
1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
19856	26,119	29,667	16,497	20,956	11,072	17,588	15,917	14,474	12,004	n.a

Source: Department of Non-Formal Education, 2002

15.128 During NDP 9, the NLP will be transformed into three out of school education programmes, which are: the Adult Basic Education, the Post-Literacy and Life Skills and the Out of School Education for Children. Curricular, instructional and other learning materials will be developed for the three programmes.

15.129 Development of these new examinable programmes calls for development of monitoring and information management, examinations and assessment systems for such out-of-school education programmes. During NDP 9, the review of the National Literacy Programme information management, examination and testing systems and establishment of new systems commensurate with the new programmes will be undertaken. This will include establishment, equipping and staffing of units for information management and examinations.

15.130 The Department will construct, equip and staff six out-of-school education resource centres (one per region) to support these out-of-school education programmes.

15.131 Programme delivery will take advantage of all available technologies, including ICT, to ensure the best possible means of reaching learners in all parts of the country in this category.

15.132 To facilitate the transformation of the NLP, the Department will undertake a review of the organisational structure and launch a vigorous programme of staff development, redeployment and upgrading commensurate with the new programmes to develop the necessary human resource for implementation. NDP 9 will expedite the decentralisation further to the sixth

Regional Office and to the district and village levels. Provision of transport and office and residential accommodation for both district and village level offices will be strengthened.

#### **Programme Marketing**

15.133 Vigorous programme marketing and social mobilisation initiatives will be launched to support the new programmes. This will include the Department's contribution towards educational television broadcasts and the procurement of a mobile TV/radio studio for the Department.

#### **HIV/AIDS and Out-of-School Education**

15.134 During NDP 9, the Department will strengthen the management of the HIV/AIDS/STD programme. This will include the establishment of a Unit for Guidance and Counselling.

#### **BOTSWANA COLLEGE OF DISTANCE AND OPEN LEARNING (BOCODOL)**

15.135 Developments and activities of the College during NDP 9 will be guided and shaped by its mandate as stated in the RNPE, Vision 2016, as well as the mission statement for the organisation. The mission of BOCODOL is to empower Batswana with education and skills through open access to quality, innovative distance learning programmes and the promotion of a culture of lifelong learning. The strategic objectives for BOCODOL during NDP 9 are to:-

- Design and develop appropriate educational and skills development courses which will enhance the knowledge base, enhance productivity and income generating capability of learners;

- Deliver quality courses and programmes through the provision of self study materials and technologies as well as a network of nationwide learner support facilities and services to optimise success rates;
- Adopt business and management practices which promote efficiency, financial sustainability and the development of Open and Distance Learning (ODL) products and business opportunities;
- Increase the number of people enrolled in ODC programmes to reduce Batswana unable to access tertiary education and employment by targeting learners who wish to attain secondary education;
- Develop and deliver a range of customer driven courses aimed at equipping Batswana with appropriate applied skills and competencies to raise productivity and unlock potential;
- Access and contribute to best practices in ODL through networking and partnerships with appropriate organisations, institutions and individuals which would enhance the capacity of BOCODOL to deliver quality programmes;
- Pro-actively initiate research and development of ODL products, services and technologies to maximise BOCODOL's ability and potential to meet customer needs;
- Create an enabling environment, which encourages continued capacity building, professional and technical development of staff, recognition and reward, to promote performance excellence.

15.136 Construction of Palapye, Francistown and Maun regional offices will be undertaken during NDP 9. An important aspect of open and distance education is learner support. The new system is meant to promote retention of learners following their enrolment as well as optimise numbers of those who finish programmes successfully. Each regional office will, on average, support a cluster of 15 study centres.

15.137 The cumulative enrolment of BOCODOL starting 2000 for secondary level courses is 6731. Given the rate of enrolment in 2001/2002, the expected annual enrolment rate for NDP 9 is 4000 learners. Assuming a throughput of 1000 each year of NDP 9 and a maximum drop out rate of 15%, the enrolment is projected in table 15.13 below.

**Table 15.13 - Enrolment Projections for BOCODOL**

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Enrolment	6,731	8,412	9,747	12,147	14,547	16,947	19,347	21,747	24,147	26,547

Source: BOCODOL, 2002

### **Programme Development**

15.138 BOCODOL will continue to offer secondary school equivalence courses, for which material will either be freshly developed or constantly reviewed to enhance their instructional effectiveness. BOCODOL will progressively shift its dependence from print to multi-media learning packages.

15.139 In view of the need to collaborate with other more established institutions and the need to urgently open access for Botswana to high quality learning materials of varying levels, BOCODOL will forge links with local, regional and international Open and Distance Learning (ODL) providers.

### **ICT and Media**

15.140 BOCODOL, as a distance education provider, will increasingly integrate other media with print to diversify delivery of courses. The use of ICT to provide on-line learning and teaching will form part of the methods of providing education to selective learners during NDP 9. Furthermore, BOCODOL will need to develop its own data network, with e-mail and Internet facilities.

### **Transport requirements**

15.141 As the College expands and consolidates its operations during NDP 9, in a bid to ensure access to education by all interested citizens, irrespective of their geographical situation, there will be need for the college to be sufficiently resourced in terms of transport for the regional offices and headquarters for their support functions. In addition, Kang and Maun regional offices will require specialist vehicles equipped with audio-visual aids for their specialised remote learner services.

### **Manpower Implications**

15.142 BOCODOL has had to come up with an organisational structure, which reflects its full professional and support staff complement once fully functional. The implementation of the structure has been phased such that it would be commensurate with the evolution of the College over time. The first phase consisting of about 100 posts was fully implemented by end of NDP 8. Following completion of the construction of headquarters and regional offices, the number of fulltime posts will progressively increase to 130. The infrastructure will bring new functions of Information and Communications Technology and Media support, libraries and general support services.

15.143 In addition to full time staff, BOCODOL will have to engage part-time staff to man the study centres. At 12 tutors per centre, a total of 900 tutors will be engaged for an average of 6 hours per month and paid hourly rates.

### **SPECIAL EDUCATION**

15.144 The specific objectives for special education during NDP 9 are to:-

- Develop special education as an integral part of the regular education system to promote inclusive practices;
- Increase access and equity to education and training for learners with special educational needs;
- Continue to provide advice and support to other Ministry of Education Departments and

Ministry of Local Government for the development of relevant policies and inclusive educational programmes and establishment of special education programmes;

- Decentralise some of the Division of Special Education activities to regions;
- Collaborate with the Department of Curriculum Development and Evaluation to develop early childhood education programmes for young children with special educational needs ;
- Strengthen collaboration with the Department of Vocational Education and Training and Non-Governmental Organisations to increase access to vocational skills training for youth with special educational needs.

15.145 Efforts will be intensified to establish School Intervention Team (SIT) programmes in schools to meet the educational needs of children with learning disabilities.

15.146 During NDP 9, early childhood education programmes targeting special educational needs will be developed. Bursaries for learners with severe and multiple disabilities will continue to be offered until such a time when a local facility has been established. Financial support to Non-Governmental Organisations offering special education will continue during NDP 9. To address the HIV/AIDS pandemic, the Division will continue to build capacity and will continue to conduct workshops to empower officers (infected and affected) with knowledge to fight against HIV/AIDS.

## **STUDENT PLACEMENT AND WELFARE**

15.147 The demand for sponsorship for tertiary education continues to grow in proportion to the expansion of the secondary school system. In order for the Government to meet this demand and ensure maximum benefit to the economy, there is need for co-ordinated human resource planning. This will identify areas of shortage and access to assist in deciding on those areas of study on which to focus. The Department will identify these areas in consultation with the Ministry of Finance and Development Planning and other stakeholders.

15.148 Currently, a large number of school leavers aim at getting into academic degrees programmes as these are the only ones available in the country. At the same time, there remains a shortage of manpower at technician/technologist levels. With the increasing demand for tertiary education, special focus will be on technician level training programmes. The Department will therefore support placement of more students at local technical colleges. With the establishment of the Tertiary Education Council to assure quality in institutions, placement of students may even be extended to local private institutions.

15.149 Increase in the demand for tertiary education puts pressure on the limited resources for sponsorship. To ensure sustainability of the scholarship fund, cost-recovery measures will be intensified. The disbursement and recovery functions will be outsourced.

15.150 Sensitisation and support strategies on HIV/AIDS for students on training abroad, which began in

NDP 8, will be intensified during NDP 9.

15.151 In view of the above, the Departmental objectives for NDP 9 will be to:-

- Review the grant/loan scheme;
- Continue efforts begun in NDP 8 to combat the HIV/AIDS pandemic;
- Align the award of sponsorship with national human resource needs and respond to emerging needs;
- Develop a sustainable scholarship scheme through effective loan recovery and explore the possibility of some

privatisation of the scholarship fund;

- Continue to seek means of maximising training opportunities by reducing placements in costly countries abroad in favour of local and regional placement;
- Support placement of students in local technical colleges and explore opportunities for placement in private local institutions.