# International Bureau of Education

# THE DEVELOPMENT OF EDUCATION

National Report of Botswana

By

**Ministry of Education** 

21/05/01

The Education System at the end of the twentieth century in Botswana: an overview

#### Introduction.

This report provides information on the development of the education system in Botswana in the period 1990 – 2000. The Education Act provides a legal framework for proper development of education and matters concerning it. The Act had two revisions since it was first in acted in 1966 to accommodate changes in the policy. The education system evolved from two major reforms. In 1976 the first National Commission on Education was appointed to review the education system of Botswana. Its mandate was to formulate the country's philosophy of education and set goals for the development of education and training. The outcome of the Commission's work was the first National Policy on Education of 1977, Education for Social Harmony or (Education For Kagisano).

The main aim of the review was to make education available to a much wider section of the population and to breakaway from the pre-independence education system that was a legacy of Botswana's colonial history that restricted access to quality education to the privileged few.

*Education For Kagisano* sought to promote the four national cardinal principles democracy declared in the country's Third National Development Plan (1973-78): development, self-reliance and social justice. Its strategy was to give priority to quantitative and qualitative improvements in primary education; provision of nine years of basic education and a re-orientation of the curriculum to embody the cardinal national principles and to emphasise acquisition of basic knowledge and skills needed for national development.

In 1992 the Botswana government appointed another National Commission on Education. This Commission was mandated to review the entire education system and to advise on how best to ensure that the system was responsive to the needs and aspirations of the people of Botswana in view of the country's complex and ever changing social and economic situation. The Commission took the form of a comprehensive national consultation process, and a study of some other education systems in both the developed and developing world. After thirteen months of work the Commission reported to government in July 1993. The Commission's strategy for the development of education and training into the twenty-first century was based on the fundamental assumption that the nation's major resource is its people and that investment in their education and training is a necessary condition for national development.

The Commission's report resulted in the development of a Revised National Policy on Education (RNPE), approved by the National Assembly in April 1994. The policy is fairly ambitious and far-reaching in an attempt to take the education system into the twenty-first century. In this regard it seeks to prepare the people

of Botswana for transition from an economy based on traditional agriculture to one anchored on industry. To this end it is considered that access to basic education is a fundamental human right. The philosophy of the policy emphasises investment in human resources for national development, and the development of moral and social values, cultural identity and self-esteem, good citizenship and desirable work ethics. Among the key issues identified for successful educational development is the improvement and maintenance of the quality of education at all levels. Some of the main aims and objectives of education in the RNPE are to:

- Implement broader and balanced curricula geared towards developing qualities and skills needed for the world of work;
- Emphasise pre-vocational orientation of the school curricula in preparation for a strengthened post-school technical and vocational education and training;
- Emphasise science and technology;
- Assume effective control of the examination mechanisms in order to ensure that the broad objectives of the curriculum are realised,

In order to achieve relevant and quality education in accordance with the above aims and objectives, the school curricula had to be completely overhauled at all levels. Following commencement of implementation of the Revised National Policy on Education, a Presidential Task Group was established in 1997 to come up with a long-term vision for the country. The outcome was the adoption of a report entitled 'Vision 2016: Towards Prosperity for All'<sup>1</sup> (popularly known as "Vision 2016"). The main goals of the national Vision, including 'building an educated and informed nation', fully subscribe to the philosophy, aims and objectives of the education policy. Improvements in the relevance, the quality and access to education lie at the core of the Vision for the future.

# 1.0 Major Reforms and Innovations

This section will examine the major reforms and innovations introduced in the last ten years by each department.

# 1. 1 Department of Curriculum and Evaluation.

In the last decade one of the major reforms and achievements in the education system has been to extend universal access to ten years of basic education to

<sup>&</sup>lt;sup>1</sup> Vision 2016

all. The school curriculum had to be re-designed to provide for a continuum from the seven-year primary education to the three-year junior secondary within the ten-year basic education programme. At the basic education level, educational programmes are designed to provide quality-learning experiences for individuals with special learning needs, from those academically gifted to those with physical or learning disabilities. Basic education seeks to promote the principles of national development, which are sustained development, rapid economic growth, economic independence, social justice and a desire for continued learning. It incorporates a sound pre-vocational preparation through comprehensive knowledge and selected experience of the world of work, and provides a foundation that enables individuals to cultivate manipulative ability, positive work attitudes, and to make optimum choices for future careers.

The components of basic education necessary for providing quality are as follows:

**Foundation skills**. A variety of foundation skills applicable to work situations, such as decision-making and problem-solving, self-presentation, team-work and computing are being developed through the use of cross-curricular approaches to teaching and learning which stress process skills as well as subject content.

**The vocational orientation of academic subjects**. The academic subjects are to be taught in such a way that they are related to the world of work. Whenever appropriate, teachers will demonstrate to students the practical application of concepts, knowledge and processes to various jobs available to students once they complete the basic education programme.

**Practical subjects**. The curriculum is to include a number of practical subjects that can help students develop an understanding and appreciation of technology, manipulative skills and familiarity with tools, equipment and materials.

**Readiness for the world of work**. Curricula and co-curricular activities are being developed to provide students with an awareness and understanding of the world of work and an appreciation of the values and attitudes towards all types of work. This includes knowledge about the economy, the processes and organisation of production, and the demands of working life. The curriculum includes subjects such as Commerce with planned co-curricular activities like structured visits to companies, work simulations such as minienterprises, productive activities like school gardens, and community projects. Hands-on experiences and the involvement of people from industry and the community are most likely to develop work-related values and attitudes.

**Careers guidance**. Students need to understand the range of occupations available and to identify their own potential areas of interest and aptitude.

They should know the educational and training requirements of particular occupations. Careers guidance is therefore offered with the aim of equipping students with the necessary skills and knowledge that will enable them to make informed decisions about their occupational development and other aspects of preparation for life. Occupational decisions must be related to the students' real abilities, values, and interests and not based on preconceptions, parental and/or society's expectations or sexist stereotypes.

#### **1.2 Primary Education Department.**

# a) The organization, structure and management of the Primary Education system:

The development of Primary Education falls under the responsibility of the Ministry of Education and Local Government through its local authorities. The ministry is responsible for the professional development of the department including staffing of schools with trained teachers, curriculum development and supervision of schools while Councils are responsible for the provision of infrastructure as well as all school supplies.

For purposes of effective management and supervision, the country is divided into six Primary Education Regions. A Principal Education Officer II commonly known as Regional Education Officer heads each region. A team of Senior Education Officers who supervise and inspect schools under their respective inspectoral areas assist the Regional Education Officer.

Inspectors make regular full school inspections as well as pastoral visits and produce comprehensive reports. This is a good indicator to the efficiency and effectiveness in the delivery of services at the local level.

# b) Objectives and principal characteristics of current and forthcoming reforms.

i) In 1993/94 government carried out an Organisation and Method exercise, which aimed at finding out how, among other departments, Primary Education Department can be expanded to increase its capacity in terms of executing the expected functions. Following on recommendations of this exercise, the Department has had divisions with respective definite roles such as Inspectorate, Support Services, Needs Assessment, Pre-school and Departmental Management.

- ii) Decentralisation as an organizational reform which has been introduced at all levels of aims at taking services nearer to the people at the local level and thus improving on the quality and delivery of services. The other aspect of decentralisation that will further improve delivery of services is the creation of the Unitary Regional Structure, which will go a long way in integrating education departments currently represented in the regions thereby eliminating demarcations and ensuring efficient and effective utilization of resources.
- iii) Coinciding with the Jomtien Resolutions on basic education, the RNPE together with the NDP8 and the country's Vision 2016 have helped Botswana to again redefine the concept of basic education. It now refers to seven years of primary education plus three years of junior secondary education, making up to **ten-years of basic education** programme. The basic education programme whose focus is on the aforementioned dimensions takes teacher education and curriculum development as fundamental areas. It is more concerned with basic learning needs, which are acquisition of skills and knowledge, development of attitudes and appreciation of values that are necessary for one to survive and improve one's quality of life.

## **1.3 Department of Vocational Training**

A major strength for the education and training system is the availability of policy document to direct its activities. The National Vision 2016 together with the RNPE provides a long-term strategy within which education and training have a pivotal role. In support of the national vision, the education sector receives the lion's share of the national budget, 29 % of the recurrent budget for 2001/2002 financial year.<sup>2</sup> Although the emphasis in the past has been on general education, there is now a shift towards increased financial support for technical and vocational education and training.

The National Development Plan 8 provides a 6-year action plan and a commitment of development funds in support of the above policies. Two major focus areas for the plan period are: (i) to increase the opportunity for access and (ii) to improve the quality of the training provision. The commitment for TVET developments for the Plan period is over P 600 million and includes the construction of several new colleges, which will double the available training places; it also includes the development of new programmes to meet globally recognized standards, and special project to upgrade the qualifications of lecturers in technical and vocational institutions. The country is also fortunate to have European Union support for several of these development activities (see also section 1.2 below).

<sup>&</sup>lt;sup>2</sup> Republic of Botswana, 2001, Estimates....

The Vision for TVET<sup>3</sup>, as declared by the Department for Vocational Education and Training in the Ministry of Education in January 2001, is " to have a competent, innovative and internationally competitive National Human Resource with ability to contribute to the socio-economic and technological advancement of the country." In order to achieve its vision, the department has identified eight key result areas and thirty strategic goals. These are detailed in Appendix 2:

The responsibility for TVET is shared amongst several providers, both public and private. The Department of Vocational Education and Training is the main provider for secondary level TVET, while third level TVET is shared amongst a number of Government Ministries and the University of Botswana. The Ministry of Labour and Home Affairs is responsible for the delivery of apprenticeship and industrial training and a recently established semi-independent body, the Botswana Training Authority, will be responsible for the promotion, monitoring and coordination of employer-based training.

The Ministry of Education plays a leading role in the policy development and planning for the Human Resources Development Sector in the nation and, as such, is responsible for compiling the Education and Training chapter for the National Development Plans. The private sector involvement in training is on the increase and the NGOs have traditionally played a very substantial role.

## 1.4 Special Education Department

The education of children with special educational needs though still in its infancy in Botswana, has enjoyed rapid growth over the last 10 years. School enrolments have increased by 46%. This has been made possible by the implementation of the Revised National Policy on Education (RNPE). The policy gives priority to the education and training of children with special educational needs. It should however be pointed out that even before the adoption of the RNPE, some progress had already been made between 1990 and 1993 in this area. Outstanding among these are the setting up of the Assessment and Resource Centre through SIDA's support in 1991 and the elevation of the then unit of special education to division in 1993.

Since the establishment of the CRC (assessment centre) assessment is now recognized as a basic requirement for special education provision. Screening and diagnostic tools are being adapted and developed for educational assessment as a multi-disciplinary activity. About 1000 (one thousand) children are referred to the CRC, assessed and placed appropriately every year.

Due to its elevated position, the Division of Special Education now enjoys the status of a fully-fledged department reporting directly to the Deputy Permanent

<sup>&</sup>lt;sup>3</sup> Department of Vocational Education and Training, Draft Strategic Plan 2001-2006, Gaborone

Secretary (Education Services). Its overall responsibility is to provide leadership in the education and training of learners with special educational need across all educational levels. It serves an advisory organ to other Ministry of Education Departments, Government Ministries as well as Non Governmental Organisations.

The RNPE has come up with recommendations that propose new goals for special needs education and these are:

- a. To ensure equity of access to educational opportunities by all including those with special educational needs.
- b. To prepare children with special educational needs for social integration by integrating them as far as possible with their peers in ordinary schools;
- c. To ensure a comprehensive assessment that is based on the child's learning needs, and not group of norms and which is followed by individualized instruction;
- d. To promote early intervention which will ensure maximum success of the rehabilitation process;
- e. To enable all children with special educational needs to become productive members of the community by equipping them with survival skills and relevant opportunities and promote self-reliance;
- f. To ensure that there is support and active participation of children, parents and community through an education and information campaign.

The fore mentioned the Rehabilitation Policy on Care compliments goals for People with Disabilities of the Ministry of Health, which was released and adopted by Parliament in 1996. The policy commits the individual ministries to develop specific services for people with disabilities.

## **1.5 Non – Formal Education Department.**

The report of the National Commission on Education of 1994 recommended a revitilisation and reorganising of out –of-School Education by mandating the Department of Non formal Education to do the following:

- Continue the National Literacy Programme and review the level of payment and conditions of employment of its part-time cadre of teachers called Literacy Group Leaders;

- Carry out an evaluation of the National Literacy Programme after the results of the National Household Literacy Survey.

- To solicit resources for the promotion and monitoring of Out-of-School at Primary Education level for rural and urban children;

- To give priority to Post-Literacy activities in relation to the development of a literate society and support for productive activities in agriculture and the informal sector;

- To introduce an Adult Basic Education course to provide adults with the equivalent of standard seven schooling;

- To organise and develop a staff development programme that is commensurate with these new responsibilities and the department's new structure.

# Ongoing activities include the following:

- Adult literacy classes throughout the country;
- Literacy at the workplace for some companies and organisations
- English As a Second Language classes;
- Literacy Group Leaders Initial and Refresher Courses;
- Enrolment of some Adult Education Assistants in certificate in Adult Education through the distance education mode;
- There are learners who have embarked on income generating projects;
- Some children and adults have graduated from literacy classes and have joined the formal system and are progressing to higher levels of the education system.

# 1.6 Department of Teacher Training and Development.

# Legal Framework of Education –

Academic and Non Academic Regulations for teacher training programmes were amended to address among others disciplinary issues as they related to the Act. The Pregnancy Regulation was also amended to make it gender sensitive.

New Regulations for the Diploma in Primary Education were developed. This was in view of upgrading Primary Colleges of Education to diploma offering institutions.

#### Organisation, Structure and Management.

a) – An Organisation and Method (O&M) exercise was undertaken during which Colleges of Education Management was restructured to have two deputy Principals, one in-charge of Academic issues and the other Administrative issues.

In-service was restructured to include both Primary and Secondary under one department to ensure that the service is more effective and addresses different levels of the education system. The service was also taken to the clients through a network of in-service centres.

b) When the Revised National Policy on Education was adopted, it provided a framework for education programme development. Work on the development of a Training Policy for Ministry of Education officers started; and to-date we have a report and recommendations to refine into a training Policy. The responsibilities for training officers were allocated to MoE Headquarters to ensure equity, co-ordination in the implementation of the Training Policy.

# c) Objectives and Principal Characteristics of current and forthcoming reforms –

The accelerated Design and Technology Teacher Training programme designed to address Human Resources Development for D&T at the Secondary School level was developed. The programme aims to have a pre-service and an in-service component to allow teacher trainees to train as they provide services in the schools. The first year will be pre-service, the second year in-service and the last year back at College. The programme will be ready for implementation once resources are available.

A Reading Project aimed at upgrading language acquisition levels with special reference to remote schools was piloted. The project focuses on those areas where there is a third language problem.

To take services to the schools, a school based staff development programme was started. Its main aim was to empower teachers and give them the responsibility of coordinating their own training programmes in their respective schools and cluster levels. It also focuses on school based curriculum development efforts to ensure that the varied needs of schools are attended.

## *d)* Evaluation Policies, Methods and Instruments –

The Primary School Management Project, a joint Government of Botswana – DFID Projects was designed and it is being implemented. It aims at equipping heads, deputies and senior teachers in Primary Schools with skills and knowledge to get them to take responsibility to act as instructional leaders in improving classroom practice through systematic school based in-service training. The goal is to improve the quality of primary education.

## 2.0 Major Achievements attained Over the Last Ten Years.

### 2.1 Primary Education Department

### a) Access to Education

Botswana effectively mobilizes resources towards development of education. It is through this pulling of resources together between government ministries and non-governmental organizations that the country heads towards achieving access and equity in primary education. The RNPE came at a time when the 1991 Census had shown that 17% of primary school going age children was still missing in the formal education system. It was also found that, of the pupils who were completing primary education only 19% would reach senior secondary education. In response to the recommendations some efforts have been made to address the issue of access to primary education through: -

- I) The establishment of Primary Schools, which have pupils enough to be handled by one to two teachers. The minimum intake of such a school is 10. The idea behind such a development is to bring schools as close to the children as possible to avoid walking for long distances a problem which often deters children from going to school.
- II) The construction of hostels in some primary schools for the remote area dwellers. This is a project run in partnership with UNICEF to get remote area dweller children into schools. The whole project involves the development and improvement of day care centers and hostels. The Day Care centers will help young children get used to the idea of going to school while at the same time it provides a solution for working mothers.
- III) The provision of clothing such as uniform to children from very poor families.
- IV) More special units for the disabled are to be built in the existing schools. And some efforts are being made in this regard.

The education system has further introduced the Guidance and Counseling programme and teachers are being developed to service learners. Teachers are also being trained in handling children with learning difficulties.

## b) Equity in Education:

- To ensure equity, employment, management and distribution of teachers to schools these are done in close consultation with the supervisory department; and it has been possible to place trained teachers as evenly as possible in the country.
- At primary as may be the case with other levels, boys and girls are given equal attention and treatment to achieve gender equality.

## (See table below)

	1994	1995	1996	1997	
First Level-Primary Schools					
Male	153,789	156,560	159,502	161,497	
Female	156,339	157,133	159,127	160,771	
Total	310,128	313,693	318,629	322,268	

#### Table 1 Enrolment for Primary Schools 1994 – 1997

The introduction of the training plan and the systematic and transparent selection of teachers for further training have ensured that every teacher who qualified for training has an opportunity irrespective of where he/she is in the country.

## c) Quality

The RNPE, NDP 8 and Vision 2016 are strong advocates of quality issues in the education system. Issues of quality are those that focus on improved curriculum, improved teacher training, improved infrastructure, resourced schools with modern educational equipment and materials, rationalized teacher-pupil ratio and improved school support services within and outside school system. Regarding the teacher-pupil ratio, class sizes have been reduced from 45 to 40 pupils and ultimately we hope to reduce them to 30.

The RNPE calls for re-training to upgrade primary school teachers to a minimum of Diploma in Primary Education. As a result of the policy proclamation, the country is engaged in teacher up-grading programmes

through both full time and distance learning modes. At least 5% of the teaching force in basic education is granted study leave every year in full time programmes ranging from diploma to post graduate courses in the local colleges of education, the University of Botswana and at some institutions in SADC countries and abroad.

The Curriculum is being reviewed with the intention of making it provide more work-related skills including communication, language and numerical skills. Each school is also required to provide a well-coordinated guidance and counseling programme. This is an effort towards making, learners aware of themselves, their surrounding so that they develop some degree of personal adequacy and self-effectiveness.

### d) Participation by society in the process of educational change:

Every effort is made to encourage the community to be involved in the Education of children through, among other things, Parents Teachers Association; and there are many primary schools that have working PTAs.

The RNPE recommended the establishment of the Pre-school Division. This has been established in the department of Primary Education. Consequently, the Early Childhood and education Policy has been produced and is waiting to be launched late July 2001.

## 2.2 Secondary Department.

To increase access at secondary level over 100 schools were built between 1990 and 1999. For instance, in 1994 there were 165 Community Junior Secondary schools and this figure has now risen to 205. At Senior Secondary level, in 1994 there were 23 government and government-aided schools. Four schools have since been opened bringing the total to 27. An upgrading programme of all the senior schools was started in the mid-nineties, which is expected to be completed by the end of the current National Development Plan. In the programme all schools are being provided with additional classrooms, laboratories, hostels (where applicable), teachers' houses, and equipment including computers. When completed, all senior schools will have capacity of either 36 streams or 42 streams.

## Transition Rates

The transition rate from primary education to junior secondary education was 69.3% in 1991. It increased to 93.3% in 1998 and is now almost 100%. For 2000/2001 the transition from junior secondary to senior secondary stands at 49.1%, 22.0% for 1994 and 37.6% for 1998. The increases are attributed to the expansion of facilities that took place during those years.

# Participation by Society

All secondary schools have Boards of Governors appointed by the communities and approved by the Minister of Education. Initially Boards of Governors were only found in the community junior schools until 1994 when the Revised Policy on Education recommended that all schools should be included. The boards are responsible for the appointment of the ancillary staff as well as for the maintenance of teachers' houses. Through the boards, communities are able to raise funds to provide additional infrastructure. In addition, schools receive donations from private companies as well as from those that are in partnership with the government.

### 2.3 Department of Vocational Training.

Access to TVET has been, and still is, very limited and many young people are excluded due to lack of physical training places. The Technical Colleges typically receive 100 applications for each training place. The adult and working population are excluded due to lack of flexible learning opportunities. The range of programmes has, in the past, also limited opportunities for training. At the level of craft training, an apprenticeship programme based on the German model was the main form of training. A requirement for following the training programme was a contract with sponsoring employers. The industrial base in Botswana is still very small and has not able to support such a training model to any significant level. The apprenticeship scheme only absorbs 1,5 % of the school leavers.

The views of the employers were that the programmes were not meeting the needs of industry. A recent evaluation of the apprenticeship programmes, commissioned by the Ministry of Labour and Home Affairs<sup>4</sup>, recommended that the scheme be modernized and made more flexible to accommodate ongoing training for workers as technology and skills requirements change. The Revised National Policy on Education (1994)<sup>5</sup> directed that new programmes be introduced to cater for the growing number of school leavers to prepare for both formal employment and informal sector activities. The policy states that government should cater for the initial broad-based training, while the employers should provide the specialized skills training.

A study carried out by UNESCO/ILO in Botswana on the Vocational Education and Training Needs<sup>6</sup> stressed the need for '*educated multi-skilled technicians*'. The report stated that those going into TVET should ideally have 12 years of basic education before embarking on skills training. Vocational programmes should provide a broad skills base as well as allow for specialization to make workers more versatile on the job and less prone to retrenchment. The need for higher-level skills and increased focus on technician training was also stressed.

<sup>&</sup>lt;sup>4</sup> MLHA, ...

<sup>&</sup>lt;sup>5</sup> RNPE

<sup>&</sup>lt;sup>6</sup> UNDP...

A longstanding problem has been the poor status of TVET as compared to academic education. This is a real problem in Botswana and many people who took the vocational route found themselves in a cul-de-sac with regard to progression. This problem can only be improved through higher financial investment in TVET, the development and delivery of programmes of higher quality, and by ensuring that such programmes open opportunities both for employment and further and higher education and training.

The new Botswana Technical Education Programme (BTEP), which is being launched this year (2001) by the Ministry of Education, has been designed to address the above problems while incorporating all the essential features of a modern TVET system. The programme is college-based, includes both project work and a period of work attachment, was developed and is being implemented with the support of industry, includes a range of key skills modules in addition to the vocational core and elective modules, is accessible and flexible, designed to a high international standard, includes strict quality assurance measures, prepares for first employment, opens doors for further and higher education, and provides a base for lifelong learning.

The government, through the Ministry of Education, is now preparing to step up technician level training. The BTEP courses have initially been developed at Foundation Certificate and Certificate levels (secondary level), but are now also being developed to Advanced Certificate and Diploma levels (third level). The Ministry of Education courses will cover areas critical to the economy and which are not covered by other Ministries or Organisations. Some Technical Colleges, currently offering secondary level programmes, are already equipped to take on third level programmes. At the same time a new institution specifically for training technician and technologists is being constructed, referred to as a College of Applied Arts and Technology.

The issue of access to TVET is being addressed in a variety of ways. The government is doubling the number of physical training places through an intensive construction programme. But this measure will still not be enough to meet the economic and individual demand for training. It will therefore be necessary to find new and more innovative ways of delivering education and training. Our number one strategy is to use our institutions more efficiently. A project is now being implemented for TVET institutions to be open and used throughout the day, evening, weekend and vacation time. Our second approach will be to determine what needs to be learnt in a classroom or workshop and what could be learned by distance education. The provision of modular education and training (applicable to all our programmes under development) provides new opportunities in this regard. Students could cover a number of modules by themselves using libraries, learning resource centres, company training centres and would only need to fill an institutional training place for a smaller number of modules. The plan is to combine this development with the use of information

and communications technology (ICT), i.e. distance education delivered through interactive electronic means, using multimedia and videoconferencing as well as CD-ROMs, through Internet and Intranet direct access or download. A joint Government of Botswana/ European Union project is in place to pilot this approach at the College of Technical and Vocational Education, a technical teacher training college, to be located in Francistown designed with electronically linked remote learning centres in four other locations across the country. The work on this project started last year with implementation in January 2004.

# 2.4 Special Education Department

Since the adoption of the RNPE, significant developments have been achieved (in special needs education). These are discussed under two themes;

- 1. Access and equity
- 2. Quality and relevance

# 1. Access and equity to education

In a bid to increase access and equity to education for children with special educational needs, the following measures have been introduced;

- The division of special education has formulated policy guidelines for the establishment of special education facilities for the central and local government. The guidelines for example recommend pupils/student ratio for various disabilities, type of materials and equipment required to support the learners. This development has led to the establishment of additional facilities including one unit for the hearing impaired students at secondary school level. 9 (Nine) additional special education facilities have been established within the last 10 years. This includes both government owned NGO centres (units, resource classes, simulation and rehabilitation).
- In recognition of the important role the non-governmental organisations play in the provision of special needs education the government provides an annual subsidy in a form of grants to all NGOs offering special education. 15 NGOs are benefiting from this scheme. P6 357 520.00 (six million three hundred and fifty seven thousand five hundred and twenty Pula) has been spent. In addition the NGO Botswana Society for the Deaf (BSD) has been assisted to expand one of its schools at the cost of P1.5 Million to increase its capacity to enrol more children with special needs. A further noteworthy achievement has been the introduction of the bursary scheme in 1997 for the severely and multiple handicapped children to study in the neighbouring countries where facilities exist to meet their educational needs. 23 children have since benefited from this scheme.

- Efforts are made to increase access to education for children with special educational needs not only at primary and secondary school level but also at tertiary level. The number of children with special educational needs enrolling in tertiary institutions both locally and abroad continue to increase steadily every year since 1994.
- A Computer Braille Unit was also established at the CRC. This significant development has resulted in the production of teaching and learning materials as well as the adaptation and modification of the national examinations for the visually impaired children. This is a major break through in that textbooks and set books are brailed and reach schools on time unlike in the past when they were brailed in another country.

## 2. Quality and Relevance

In an endeavour to address quality and relevance the following have been achieved:

- All colleges of education have introduced special needs education as part of the education and method courses. The course aims to create awareness with a view to enabling teachers to identify children with special educational needs and to work collaboratively with special education teachers.
- Two special education programmes, a diploma and degree have been started at the University of Botswana in 1995 and 1999 respectively. About 200 teachers have since graduated and joined the teaching service to staff both ordinary schools and special schools.
- The Division of Special Education has also embarked on an in-house training programme to impart rare skills to teachers and their assistants. This is done through a franchised Braille Competency course from Morray House University of College of Scotland. The course aims among other things to improve teachers' skills to enable them to provide quality education for the blind children.
- A school intervention programme commonly referred to as SIT has been developed. These are three one-week intensive training workshops targeting two teachers per school. The focus of the workshops is on basic assessment and use of inclusive teaching strategies and methods for children experiencing learning difficulties.

#### 2.5 Non - Formal Education Department.

The National Literacy Programme (NLP) is the largest sustained adult education programme in Botswana and according to the 1993 Report of

the First National Survey on Literacy in Botswana, the programme had absorbed 89.1 % of its total learners of 29 968. The programme is more popular among females, accounting for 69.5%: however, there are more males participating in the programme in prisons or reformatory literacy programmes, perhaps due to accessibility and availability of the programme as well as predominance of men in such institutions. The national adult literacy rate is 68.9 percent, with 66.9 and 70.3 percent for males and females respectively. Data from the Survey indicated high literacy rates in Francistown and other small urban centers of Orapa, Jwaneng and Sowa whilst lower literacy rates (for females than males) were registered in the North East North West, Gantsi and Kgalagadi Districts).

YEAR	MALE	FEMALE	TOTAL
1990	10 175	15 730	25 905
1991	7 277	12 579	19 856
1992	8 722	17 397	26 119
1993	7 139	13 528	20 667
1994	5 602	10 895	16 497
1995	4 475	7 912	20 956
1996	6 506	11 921	18 427
1997	6 189	11 399	17 588
1998	5 457	10 768	16 225
1999	5 116	9 358	14 474
2000	4 651	7 353	12 004

# A table below shows a picture of enrolment in Botswana by year and sex during the last ten years.

The figures above show a fluctuation over the last ten years. When the decade (1992-2000) started the figures showed an enrolment of 25 905 and in 1991 the figure went down to 19 856 and went up to 26 119 the following year (1992). This might have been due to the impact of the social mobilisation workshops carried out during the early decade. From 1993 to year 2000 figures continued to fluctuate and started going down as the decade progressed. A great decline has also been experienced at the end of the decade. Various reasons for the decline are due to the constraints listed below.

#### 2.6. Department of Teacher Training and Development.

a) **Access to Education** – over the past ten years access to teacher education has not increased. At Secondary Colleges of

Education the enrolments had not changed until 2001 when out of campus students were enrolled.

In Primary Colleges of Education enrolment dropped due to change in infrastructure. In 2000 enrolments increased with the introduction of the distance education programme. By 2001 the programme had enrolled over 1000 teachers. Out of campus students have also increased enrolments in the colleges.

Access to in-service education increased with increased number of Education Centres. We have to-date a network of 12 Education Centres strategically located in different parts of the country.

- b) Equity There has been an increased participation of males at Primary Colleges of Education – 27% to 41.6% during the period 1995 to 1998. The curriculum offered at Colleges of Education also provide for equal opportunities for subject selection for trainees.
- c) **Quality** The Primary Teachers' Certificate programme was upgraded to diploma in an effort to improve the quality of Primary Education. Entry qualifications for this course were also upgraded to Cambridge School Certificate.

College Curriculum for both primary and secondary programmes was reviewed for quality and relevance. Emphasis was put on inclusion of emergency social issues through infusion and integration.

Two centres, the Media Centre and the National Learning Resource Centre were established to provide teachers with support and to promote the introduction of IT into teacher education.

d) **Participation of Society** – Attachment programmes for teacher trainees were organised to help them relate their training to the world of work and to help them in the delivery of concepts to students.

Teacher Education Programmes are designed to allow for integration with communities. Community members are invited to sit in or attend workshops and seminars. Community members also serve on College Boards.

#### 3.0 Lessons Learned in the Process of Reforms

#### 3.1 Department of Curriculum and Evaluation

One of the most important lessons from implementation of the 1977 National Policy on Education, Education for Kagisano, was that there was no systematic follow-up of the Commission's recommendations. Therefore, on the one hand, some recommendations were never implemented and on the other, problems arising from implemented recommendations were never checked. The 1992 National Commission on Education considered educational reform through intermittent Commissions appointed once in 15 years inappropriate, taking into account the pace of socio-economic development as well as the resources and time it takes to conduct a Commission. Thus the Revised National Policy on Education 1994 provided for establishment of the National Council on Education as a standing body with responsibility for the review of education policy on an ongoing basis. This policy provision was made on the belief that it is desirable to have a mechanism which, firstly, monitors the implementation of the Commission's recommendations according to plan; secondly, evaluates whether recommended goals are being achieved in relation to stated norms and indicators; lastly, reviews progress on targeted goals and makes amendments as necessary.

At the level of the ministry, responsibility for the monitoring and supervision of the process of implementation of the policy lies with a committee made up of senior management and all Heads of Departments. In the early stages of the policy implementation a Coordinator was appointed at a senior level to oversee the process.

#### 3.2 Non – Formal Education Department

Education by its nature stimulates social change: again education and adult literacy in particular should aim at changing people's lives. It is true, that "if we take an over-all look at the evolution of educational activity through time, we soon see that progress in education accompanies economic progress and consequently evolution in production techniques, although it is not always easy to discern the respective cause among the complex interacting element.

Also the role literacy plays in life generally is being given greater recognition and its links with health, fertility, good governance and economic competitiveness are receiving intensive debate by experts at various fora throughout the world and the discussion should be encouraged by all.

It is well known that the technological era brings undeniable benefits and opens vast new prospects. The Department would want to take advantage of the scientific technological revolution which has simultaneously conquered the mental world, with its transmission of information over any distance and its invention of increasingly perfected gadgets: We should also do all this bearing in mind that, the problems involved in educating and instructing people of all ages, require us to use a multiplicity of out-of-school forums of learning. However, over several years of its existence it became evident that by their nature literacy needs were varied and more than what the programme initially predicted. For example children of Primary School going age (i.e. Less than 10 years) also needed the services of the programme particularly in areas where there are no Primary Schools. With a growing number of these "missing children" who in 1993 was estimated at 17%, the curriculum of the programme needed to be expanded beyond just providing basic literacy in order to meet the literacy and educational challenges of today's world. It was therefore discovered that functional literacy and productive skills are required simultaneously and many other learning needs that may be expressed by learners themselves.

## 3.3 Department of Teacher Training and Development

The following are difficulties encountered in our reform process.

- Lack of, or inadequate resources; financial and human resources impacts negatively on the implementation of reforms.
- Lack of indicators of success leads to lack of information on performance.
- Lack of human resources leads to poor follow ups, monitoring and evaluation of programmes and this leads to failure to identify success or causes of failure in implementation.
- The rate at which reforms are implemented impacts negatively on proper documentation and evaluation of reforms.

#### Strategies:

The cascade mode of training compromises quality of implementation.

The Participatory Approach can be problematic if the stakeholders involved come from outside organisation, as one has no control over them. This leads to conflict and mismatch of priorities, resulting in poor implementation.

# 4.0 Main problems and challenges facing education in the 21<sup>st</sup> century

#### 4.1 Department of Curriculum and Evaluation.

The school curriculum is now highly diversified to meet the needs of the country in the 21<sup>st</sup> century as dictated by both the Revised national Policy on Education

and the Vision 2016. There is emphasis on pre-vocational preparation and in this regard practical subjects such as Design and Technology, Art and Home Economics are being made more widely available to students at the secondary level; new subjects like Business Studies, Physical Education, Music, Moral Education and Computer Awareness are available. The major difficulties with implementing the curriculum relate to resource constraints, including appropriately qualified teachers. Introduction of Computer Awareness in the basic education curriculum is a step towards application of Information and Communications Technologies and use of the computer as a tool in the delivery of the curriculum. Emerging issues such as Environmental Education and HIV/AIDS Education have been infused and integrated into the school curriculum but the challenge is effective delivery of the concepts at the school level.

# 4.2 Primary Education Department.

- Inadequate supply of instructional materials to schools.
- Poor feeding programme in primary schools.
   Poor provision of infrastructure in primary schools
   There are shortages of classrooms in most districts and a substantial backlog has been created over the years. This backlog will get worse before it gets better because of the recommendation from the RNPE to reduce the teacher/pupil ratio from 1:45 to 1:30.
   There is also a shortage of housing for teachers, a point that has often been cited as a reason for teacher dissatisfaction. However, the Ministry of Local Government is working to clear the backlog.
- Low financial ceiling for the department.

## 4.3 Secondary Education Department.

## (a) Increasing access at Senior Secondary Level

Currently, all students who graduate from primary school level are able to find places in junior secondary schools. Thus, it has been possible for the country to acquire 10 years of basic education. At Senior Secondary level, the target is a 50% transition rate from junior to senior. Considering the current rate, it will be possible to achieve the 50% rate in the following year. This is taking into consideration the expansion work that is taking place in the senior schools. When the rate is reached, it will still leave out 50% of the students who will then have to compete with those who have graduated from secondary education for the few places available in the vocational schools.

## (b) Provision of Quality Education

The quantitative development of the secondary schools has not been adequately marched with improvements in quality. There has been a great concern about the

quality of the product of our secondary schools. The big challenge is to put in place mechanisms to address the question of quality because if indeed we want to compete globally then the products of our education system should initially be able to fit well in the job market locally.

# (c) Educating the student of the 21<sup>st</sup> Century

The influence of the Television and Media has rendered the administration of the schools difficult. Recently there has been students' unrest in a few schools causing extensive damage to school property. There are continuing cases of vandalism. School administrators are now faced with problems that are more complex than those experienced in the early nineties. This calls for a more rigorous training programme for school heads and those in the management of schools.

## (d) Information Technology

The Revised National Policy on Education recommends that all students should be exposed to computer awareness during their stay at school, junior level and/or senior level. Now the Ministry has managed to build one computer lab in each of the 232 schools. Only 36 of the junior schools and eight of the senior school have been equipped with computers. The challenge is to equip the remaining schools as well as to be able to replace computers, as they become obsolete. In addition, one computer lab with 20 computers installed is not adequate to cover all students especially that some of the schools have enrolments exceeding 1500. It will become necessary very soon to provide more computers and their peripherals to made exposure to IT more meaningful and beneficial to students.

#### 4.4 Department of Vocational Training and Development

To have a wide range of TVET providers without an overriding Human Resource Development Strategy, a coordinating body or a national qualifications framework, has resulted in fragmentation of the education and training system. The Revised National Policy on Education (1994) recommended the establishment of Tertiary Education Council to coordinate the policy, planning, funding, management and standards in all tertiary level institutions. It also recommended the establishment of a Botswana Training Authority to perform a similar function for employer-based training, to encourage and promote such training through a levy/grant system, and to introduce a national vocational qualifications framework. Through enactment, both the Tertiary Education Council and the Botswana Training Authority are now established although it will still take some time before they will be operational and effective. A third body is in the process of being established, the Botswana Examinations Council to accredit general and vocational education qualifications. These establishments, when operational, will thus improve the standardisation and mobility within their respective sectors. What these establishments may not do though, is to facilitate movement from a vocational training programme to an academic programme and vice versa. Universities and Colleges may not recognise work-based skills acquisition and employees who need higher academic qualifications with increased technology and responsibilities find themselves unable to progress. This constraint was already pointed out in the National Policy on Vocational Education and Training (1997)<sup>i</sup>, which states that *'it is therefore recommended that a National Qualifications Framework and an appropriate mechanism for establishing equivalence should be developed'*. This is one of the main challenges to be addressed over the next few years.<sup>7</sup>

### 4.5 Special Education Department.

#### a. Shortage of manpower

Recruitment of qualified personnel in this area continues to be difficult as there are very few locals trained.

#### b. Lack of specialised materials and equipment

There is lack of specialised materials and equipment in schools consequently some children with special educational needs are unable to access the broad curriculum. This is partly due to the fact that such materials and equipment are not available locally and therefore have to be procured from outside the country. Both costs and distance are inhibiting.

#### C Vocational Skills Training

Most of the children with special educational needs have not been able to access vocational skills training. The main problem is that the vocational skills instructors are not skilled enough to handle such children.

#### Challenges

As more children with special educational needs access education and training, there is now a need to adapt and modify the curriculum to provide quality and relevant education for them. There is also a need to continuously develop other policies to remove barriers that are still inherent in our education system.

#### 4.6 Non – Formal Education Department

<sup>&</sup>lt;sup>77</sup> Nganunu I M, 2000, Lifelong Learning – a Key to Development, paper presented at Botswana Symposium on the Harnessing of Science and Technology for Development, Gaborone July 2000

Therefore National Literacy Programme should aim to develop skill and confidence in using more participatory two ways communication methods that can promote the development of cognitive, social, initial skills. The quality of any learning programme depends on the quality of teachers, material resources and its relevance to the needs of the learners and society. However, these vital ingredients have been inadequate in the literacy programme. Many Literacy Group Leaders (teachers) are not adequately trained to handle the task of teaching adults. The majority of them are standard seven leavers with very low pedagogical background. The curriculum is centrally designed and materials are centrally produced. As a result they do not address the different learning needs of the various geographical groups and consequently does not give learners more pedagogical freedom.

The other issue that causes concern is the language one. Some reports and forums like the literacy forum held in June 2000 stressed the provision of education in mother tongue at the initial stages. The National Literacy Programme like the whole education system, medium of instruction is Setswana. There is a suspicion that these could be a contributory factor towards low participation in the literacy programme especially in non-Setswana speaking areas.

Although the teaching method does not encourage rote learning, some group leaders often teach learners in a manner that encourages rote learning. The Literacy Group Leaders are volunteers and can leave the programme as, and when they feel like. This makes planning for the programme cumbersome. The fact that Department of Non formal Education does not have enough infrastructure is also a constraint to the programme for the department has to beg for facilities e.g. meeting places.

It is hoped that the above constraints will be looked at and some measures devised to overcome them. We are also optimistic that recommendation 77 of the Revised National Policy on Education that calls for shared use of resources will pave the way for the Department to have access to all educational facilities.

#### 4.7 Department of Teacher Training and Development

Assessment for Curricula of the 21<sup>st</sup> century poses problems as these curricula are behavioural change focused. There is need therefore to provide teacher training that is sensitive to these changes.

Teacher Education Programme delivery is another problem. Strategies have to be found to train teachers today for tomorrow's programmes, for what is current today may be outdated tomorrow.

As programmes change there is need to change infrastructure to fit their needs. This calls for forward planning so we design institutions, which could easily be changed in a cost-effective way to meet the new needs.

As we join the global village we are faced with competition and this will bring about problems of staff/skill retention as officers have opportunities to get jobs in other countries. We need to develop a conducive environment for continuing education that would also motivate officers intrinsically and extrinsically.

There is a need to look into how best privatisation could be used to alleviate some of our infrastructure problems.

We have to modularise and semesterise our programmes to facilitate the development of unitary programmes where credits could be carried across programmes.

Practical and emerging subjects currently suffer from lack of human resources. We need to develop a cadre of officers/lecturers for these. Teacher Training programmes are to be designed and planned to ensure availability of lecturers at the start of implementation of new subjects.

### II) Educational Content and Learning Strategies for the Twenty-first Century

To address issues of decision- making, planning, design processes, learning strategies and assessment policies, it should first of all be appreciated that curriculum development in Botswana is centralised. Government through the Department of Curriculum Development and Evaluation within the Ministry of Education does this. It must be noted, though, that the Ministry of Education supports participatory curriculum development and therefore there are structures used to ensure ideas from the stakeholders are also incorporated during the development of curriculum programmes.

Education in the 21<sup>st</sup> Century is more challenging, as the consumers are more sophisticated as dictated by the environment within which they have to operate. The products of education face a world that has since changed from the traditional agricultural base to a more technological base. The role of education in society is viewed as a vehicle for further development of the individuals and also the synergistical development of the nation through individual contributions. Apart from these challenges, issues of equity, quality, access and relevance also need to be addressed to ensure that all benefit from the education system.

# The decision-making process and Curriculum planning

The planning of curriculum is based on needs of the country and the economy as identified through consultation with all stakeholders. National consultation on educational reform takes the form of a Commission of Enquiry. A Commission is thus set up to gather information from the nation through conferences, seminars, traditional gatherings (*kgotla*) and meetings, as well as written or verbal submissions by individuals. The Commission is also allowed to visit other countries to learn from their experiences in order to make informed decisions in their recommendations to government. It is through these commissions that educational reforms and education policies are formulated to guide educational development. It can therefore be claimed that the decision making for curriculum development is at national level.

Curriculum planning looks at the needs of the nation in accordance with the provisions of the National Education Policy. The Revised National Policy on Education, Government Paper No. 2 of 1994, has been used to guide curriculum development for all levels of the education system from pre-primary up to the tertiary levels. The policy outlines key issues that are vital for the future development of education in the country which are

- Access and Equity
- Effective Preparation of students for life, citizenship and world of work.
- Development of training that is responsive and relevant to needs of economic development
- Improvement and maintenance of quality of the education system
- Enhancement of the performance and status of the teaching profession.
- Effective management of the education system
- Cost-effectiveness/cost sharing in the financing of education

The philosophy outlined in the RNPE is to make education a fundamental human right. It further states, "The education system must develop moral and social values, cultural identity and self-esteem, good citizenship and desirable work ethics". The philosophy also states the overall objectives of the national education system.

It is on these guidelines that curriculum planning is based. It then entails the production of blueprints by the Department of Curriculum Development and Evaluation, which are used to guide and inform the curriculum development process for the different subject areas.

It is at this stage that the global goals of the Educational Policy are translated into aims and objectives at the different levels; i.e. Pre-primary, Basic Education (standard one to form 3) and senior secondary level. Each subject area therefore will draw from the general aims and objectives to come up with subject aims and subsequently the subject objectives. Consultations are then carried out with other policy makers to ensure that the developments are in line with the guidelines laid out in the National Policy on Education.

It is the subject aims and objectives that provide direction for the selection of content and reflect what the learner should have achieved in a given period. The prevailing environment and the needs of the nation for which it is being developed determine the content of education.

To develop subject aims and objectives, consultation is embarked on through taskforces/panels, which are composed of varied membership from all stakeholders. The teachers and the education officers form the core of these groups. Thus feedback from all over the country is solicited through the involvement of the teachers.

After the production of the syllabuses, further consultations are embarked on to reach as many teachers of the specified level as possible. These processes are time consuming but are very necessary to enable all affected to buy into the programme and allow for smooth implementation.

### **Design Processes for Curricula.**

It may be important to start with the question, 'What is curriculum design?' An article entitled "Relating Technology Education Goals to Curriculum Planning" by Karen F. Zuga, Journal of Technology Education, has quoted several authors defining curriculum design as follows:

"Curriculum design refers to the way the subject matter is conceptualised and how its major components are arranged, in order to provide direction for curriculum development (Ornstein & Hunkins, 1988)."

"Eisner and Vallance (1974) identified five orientations toward curriculum: academic rationalism, the development of cognitive processes, curriculum as technology, self-actualisation, and social reconstruction-relevance."

"Joyce (1980) provided four models for curriculum design: social interaction, information/processing, personal, and behavior modification and cybernetic models."

"Saylor, Alexander, and Lewis (1981) appeared to have achieved a temporary synthesis with the five designs: subject matter/disciplines, specific

competencies/technology, human traits/processes, social functions/activities, and individual needs and interest/activities."

Curriculum design in Botswana is not on any specific category as stated above, but is a combination of a number of them as they are found to be exclusive. In order to come up with a proper curriculum design, the department had to look at the following aspects:

- Foundation skills applicable to the world of work such as decision making and problem solving, Vocational orientation of academic subjects, practical subjects, academic, social reconstruction, humanistic, intellectual processes and content or subject matter.
- The design also looked closely at the learner-centred approach that has been prescribed by the Revised National Policy on Education. It is our belief that "the learner comes into any new situation with prior knowledge based on past experiences. New knowledge is learned through integration with prior knowledge."

Vocational orientation made a strong component toward making education relevant to the costumers and the world of work. The infusion of other components of the curriculum was also used in order to address all emerging issues using the already identified content or subject matter. Issues mainly infused are HIV/AIDS, Information Communication Technology, Gender and Environmental Education, with an allowance for other emerging issues. The design also looked at the learner as a social being who needs to co-exist with others in their daily activities both national and international, thus issues of globalisation were also deliberately incorporated.

In summary, in designing a curriculum, the following must be taken into consideration:

- Changes in societal needs. Education is seen as a means of providing the best chance for social and economic mobility and access to good life. The learners are therefore provided with skills, knowledge, experiences and attitudes they would need to make the curriculum relevant.
- Changes in the quantity and quality of knowledge/subject matter this has made countries realise that it is impossible for teaching to continue with an encyclopaedic cover for all knowledge. To try and solve the advancement of knowledge, educationists have had to identify central skills, concepts, aptitudes, attitudes and behaviour patterns the learner needs to acquire.
- Learners' individual needs the curriculum still has to be relevant to the individual needs of the learners.

## Learning strategies and assessment policies and instruments.

The curriculum design above lends itself to the strategies that have been stipulated in the curriculum blueprints for each level of education, i.e. the Ten Year Basic Education and the Senior Secondary curriculum blueprints. The design strongly emphasises learner-centred approaches that also recognises the knowledge that learners bring at each of the levels.

Some of the strategies as stipulated in the Ten Year Basic Education blueprint are: -

- 1. A learner-centred approach where curricular materials and learning and teaching strategies are responsive to the needs and interests of the child rather than those of the teacher and where the teacher is viewed as a facilitator and guide rather than a reservoir of knowledge.
- 2. Reinforcement and success will be recognised by teachers as two of the best motivators in learning.
- 3. Active learning (learning by doing) will be recognised as much more effective than passive learning (listening).
- 4. The progress of children will continually be evaluated, learning diagnosed and remediation provided as needed.

Evaluation and monitoring of all the programmes is on going. The initial step is to carry out some formative evaluation, as the programmes are being developed so as to improve them before implementation.

At the subject level, the following will be put in place:

- Criterion-Referenced Testing is replacing norm-reference testing. Continuous assessment in form of course work will form part of the examination and thus contribute towards certification.

- Performance standards will be set to provide teachers with criteria to measure student achievement. This is already evident in the new primary curriculum.

- Examination syllabuses have been developed for the senior secondary level to provide teachers with guidelines on objectives to be tested.

- Differentiated examination papers will be developed to cater for a wider ability range of learners.

Botswana Republic of (1993): "Report of the National Commission on Education". Government Printers; Gaborone.

Faure E. etal; Learning to be: "The World of Education today and tomorrow". UNES CO– Paris – 1972.

Botswana Republic of (1993): "The first National Survey on Literacy in Botswana", Government Printers. Gaborone.

Botswana Republic of (1994). "The Revised National Policy on Education".

Sekhobo S and Mazebedi M: "The Development and Experiences of the Botswana Non Formal Education from 1973 – 2001". A Paper Presented at the National Forum on Non formal Education Council – Ministry of Education – Lesotho – Maseru – 1-6 April 2001. Department of Non formal Education. Gaborone Motiki A: Department of Non formal Education Annual Report 2000.