

**ADEA Prospective Stocktaking Capacity Building Study:
A Focus on Human Resource Development for the
Ministry of Education Botswana**

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BACKGROUND

Botswana was ruled by the British from 1889 to 1966 when it was granted self-rule. At independence little had taken place with regard to both infra-structural development and human resource development. Botswana was one of the poorest countries of the world with a per capita income of about US\$ 80.00. It had no fully-fledged Ministry of Education but only a department of education within another Ministry, 9 secondary school, about 251 primary schools, and less than 10 Batswana with first degrees countrywide. Expatriates held virtually all professional senior positions. The education sector and the education department were by no means different. The success recorded here is that the country has reached near self sufficiency for most of the critical cadres required within the Ministry of Education. Botswana shares on how she made substantial progress toward the development of human resources for the education sector with specific focus on personnel under the direct employment of the Ministry of Education.

Botswana's success in human resource development for the education sector is located within the overall national post-independence policy on attaining self-sufficiency in qualified and trained personnel across all sectors of the economy. The determination to take the country to this level of self-sufficiency was expressed by President Khama as a foreword to the Transitional Development Plan. President Khama made this commitment at a time when by all judgements, it was an unattainable goal.

Most of the departments, divisions and units that exist to carry out the functions of the Ministry of Education were non existent at independence. The evolutionary development of the department of education to a ministry of education goes back to the late 60s. 1969 saw the establishment of the division of Vocational Training to formulate and implement a national plan for vocational training. This division was later, in 1994 reconstituted to be the department of Vocational Education and Training. In 1976 the Unified Teaching Service (UTS) was established to co-ordinate the teaching force through out the country. This was to ensure equitable distribution

of the teachers, centralisation and better management of the teaching force and better planning for human resource development for the teaching sector. The UTS later evolved to be the department of Teaching Service Management. With the 1977 National Policy for Education the department of Curriculum Development and Evaluation was to be established to provide leadership in curriculum. The department evolved to have 7 units which later split to create the Examinations Research and Testing Division and the department of Curriculum Development and Evaluation. A unit was to be established to be responsible for non-formal education and it is now the department of Non Formal Education

The implementation of the first national Policy on Education also saw to the establishment of the Department of Teacher Training and Development as separate from the department of Primary Education. In 1984 the Special Education Unit was established. The Unit was upgraded to a Division in 1994. The Bursaries Section has since evolved to be Student Placement and Welfare. Another division, which came into existence, is the Division of Planning, Statistics and Research. Today the Ministry of Education has 9 departments and 3 divisions. Appendix A shows the different departments and divisions, their responsibilities and reporting lines. Provision for staff for these departments and divisions is reflected in Appendix B.

The Ministry of Education's prominent role is to equip learners with effective knowledge, skills, attitudes and behavior so that they can fully participate in a rapidly changing society. The Ministry of Education (MOE) was also charged with a major responsibility of providing skilled workers for all sectors of the economy. To fully implement these tasks, MOE is staffed by trained and qualified staff. The Minister who is also a Member of Parliament (MP) heads the ministry. The top civil servant of the ministry is the Permanent Secretary (PS) who is a local. Below the Permanent Secretary are two Deputy Permanent Secretaries (DPSs). One is responsible for educational developments (EDS) and the other is responsible for support services (SS). The two posts of DPS are fully localised. Also at the top of the ministry's hierarchy is the post of the Coordinator of Education Policy (CEP).

The functions of MOE are shared by the various departments which report either to the DPS (EDS) or to the DPS (SS). The Under Secretary is in charge of the Ministry of Education's management, and there is also a Senior Education Officer (SEO) responsible for the training needs of the ministry.

Each of the departments/divisions specialises in particular functions of the ministry and has professional staff members ranging from a Director to an Education Officer. At the moment the posts of Directors are all localised. Education officers are professionals and generally they have administrative, supervisory and advisory roles to play in varying degrees at both national and regional offices. Entry into the cadre of Education Officer is by those who have a university degree in a relevant subject area, a teaching qualification plus at least six years of teaching experience, three of which should have been in a position of responsibility. Another factor that is taken into consideration is that the officer must have demonstrated the ability to initiate programmes to improve the education system.

The Botswana education system follows a 7+3+2 structure. There are seven years of primary education at the end of which pupils write the Primary School Leaving Examinations (PSLE). Most of these pupils proceed to Form One, which is the first year of the three years of the junior secondary school course. At the end of the Junior Certificate (JC) programme students write examinations which determine entry into senior secondary education. In 1999, 45.7 per cent of those who wrote JC examinations in 1998 proceeded to Form Four. The senior secondary school curriculum is covered in two years. Those who do not meet the JC Examinations requirements find themselves out of the education system, although some enrol in vocational and technical institutions such as the brigades training centres.

Enrolments at all levels of education have increased tremendously in the last ten years. The 1987 education statistics figures indicate that enrolment at primary school was 248,823 (49.3 per cent boys and 51.7 per cent girls). Enrolment at secondary was 39,375. According to the Report by Central Statistics (CSO), 1997, there was a total enrolment of 322,268 pupils at primary level (50.1 per cent boys and 49.9 per cent girls). The total enrolment at secondary school was 116,076 (47 per cent boys and 53

per cent girls). This indicates an enrolment increase of 29.5 percent at primary and 295 per cent at secondary between 1987 and 1997.

Botswana's literacy rate has also improved over the last ten years. The CSO Report 1993 on the First National Survey on Literacy in Botswana indicates a national adult literacy rate of 68.9 per cent and 70.3 percent for males and females respectively compared to 1981 which was 32.0 per cent and 36.0 per cent for males and females respectively.

Botswana's education system, like those of many countries in Africa, has and still faces serious challenges. The key challenges to the education system that Botswana had to address over the last ten years are:

- Issues of access and equity
- Relevance of the education system in the context of Botswana's changing economy
- Responsiveness of the education system to the cultural set-up
- Quality of teaching/learning at all levels of education (improve and maintain it)
- Effective management of the education system
- Enhancement of the status of the teaching profession

To address these challenges, the MOE has built more schools at all levels. To date there are 725 primary schools, 205 junior secondary schools 27 senior secondary schools and six colleges of education as compared to 557 primary schools, 57 junior secondary schools and 24 senior secondary schools in 1987. This indicates that between 1987 and 1999 primary schools increased by 30.1 per cent, junior schools by 260 per cent and senior schools by 12.5 per cent. All senior secondary schools are being upgraded to increase their intake. To cope with increased enrolments, more teachers had to be trained and deployed. While there were 7704 primary school teachers (7450 Botswana and 254 expatriates) in 1987, there are now 12385 teachers and of these, 42 are expatriates.

In answer to the new challenge of quality, the Department of Curriculum Development and Evaluation has come up with new subjects and infused themes and issues into the existing curriculum at all levels of education. Some of the subjects that address curriculum relevance to economic changes are Business Studies and Computer Awareness at JC level. Population, Family Life Education has also been infused into the curriculum. Cultural Studies have been introduced at senior secondary level. The curriculum and examinations at senior secondary level are being localised to meet local needs. To prepare for the localisation of the senior secondary school examinations, experienced teachers and education officers have and are being trained in phases to mark the localised examinations. The target is to have fully localised the examinations by the year 2003.

To prepare teachers for the challenge the Department of Teacher Training and Development (TT&D) has phased out the two-year Primary Teaching Certificate and introduced a three-year Diploma Course. Colleges of Education now only offer diploma courses. Plans are at an advanced stage to upgrade serving primary school teachers trained at certificate level to a minimum of diploma level. To have school heads, who are effective instructional leaders and managers, thirty school heads have been sent for post-graduate training in UK to train in educational management.

Botswana has made noticeable achievements in expanding schools and school facilities, and developing a curriculum that addresses issues of quality, relevance and preparation for the world of work. The ministry has also increased the number and capacity of departments/divisions/units to support its work, and above all, teachers, school heads, education officers and others have been and are being trained to meet the changes introduced. The country has put substantial effort in developing its human resources for education.

ACHIEVEMENTS

The achievement presented in this section highlights interventions which were introduced, processes that were followed and some of the constraints experienced. The major achievement under analysis is increasing the number of trained teachers for various levels of the education system and increasing the number of non-teaching staff for the Ministry of Education to provide support services and also to run the 8 departments and 3 divisions of the Ministry of Education. Several interventions were introduced to reduce the number of untrained teachers at both primary and secondary levels.

When Botswana got independence in 1966 its education system was inadequate to meet the country's trained and educated manpower. Many teachers at primary level were untrained while at the secondary level the system relied mostly on expatriate teachers. The challenge then was to create in the shortest time possible, a stock of trained local manpower. The strategy adopted was to give priority to expanding secondary education. The thinking behind the strategy was that a crop of secondary school leavers would be trainable and this would allow the country to train for different needs of the economy including training for the education sector.

At Primary Level

As secondary school outputs increased access to teacher training colleges was increased. Secondary school leavers enrolled in colleges to train to be teachers at the primary level. To accommodate these large numbers at pre-service level Teacher Training Colleges were expanded and new ones built to increase intake. This increased access to teacher training colleges and improved on the outputs of the colleges. At the in-service level, serving unqualified teachers were upgraded through a distance education programme to Elementary Teachers Certificate (ETC). The programme involved residential sessions and distance mode of learning. The other intervention introduced was focused on helping those serving teachers who could not make grades to enter teacher training colleges. Those who could not satisfy entry qualifications to training colleges were upgraded through some crash courses aimed at preparing them for entry qualification. Out of a target of 480 teachers 428 enrolled in

the crash programmes and only 89 failed to meet the entry requirements. In this way serving teachers were assisted to get into colleges to get qualifications.

Through partnerships the government put in place projects which aimed at improving the skills and knowledge base of teachers. In 1981, in partnership with USAID, the government of Botswana put in place the Primary Education Improvement Project (PEIP). The project aimed at improving the quality of teaching services at primary level. It aimed at

- establishing at the University College of Botswana a permanent capacity to provide appropriate pre-service training through the creation of a four year professional Bachelor of Education.
- strengthening the capacity of the Ministry of Education in co-operation with the University College of Botswana to organise and implement effective in-service programmes for supervisory staff and teachers involved in primary education.

By 1996 the PEIP had trained 328 degree holders who were distributed among the various services of the Ministry of Education. Thirty one were inspectors, 10 headteachers, 6 deputy heads, 37 senior teachers and 10 teachers. The rest were lecturers in primary colleges of education.

At the end of the Project in 1989 a separate department of Primary Education was established at the University of Botswana and it continues to produce diploma holders, degree holders and master of education holders to serve the education sector. Between 1981 and 1997 the University produced the following degree, and diploma holders.

Table 1: Output University of Botswana Department of Primary Education

Year	Graduates	
	BEd	Diploma
1982/83	-	-
1983/84		10

1984/85	20	10
1985/86	22	10
1986/87	22	10
1987/88	19	11
1988/89	22	16
1989/90	23	15
1990/91	22	15
1991/92	8	10
1992/3	13	12
1993/94	31	13
1994/95	20	22
1995/96	30	18
1996/97	29	17
Total	281	189

Source: University of Botswana

In 1965 the Report of the Ministry of Overseas Development on Economic Survey Mission reported that there were 1651 teachers employed at primary level and 791 (47.9%) were untrained. By 1976 there were 3 921 teachers with 38% unqualified. By 1996 the number of teachers had grown to 12 782 and the percentage of untrained teachers reduced to 18.56. By January 1999 the number of teachers at primary level was 11 871 while the percentage of untrained teachers had dropped to 8.4. This clearly reflects a progressive decrease in the number of unqualified teachers in the system at primary level.

To address qualitative improvements, innovative programmes were introduced into the system e.g. Breakthrough to Setswana; a first language programme was introduced in 1982. The project helped children breakthrough in Setswana thus giving them a language to use as a medium of instruction during the first four years of primary level. The Project Method was introduced to help teachers create conducive environments for those children who had broken through and to give them an opportunity to explore their environments and integrate learning. The Botswana Teaching Competency Instrument (BTCI) was introduced in 1985 to help teachers identify components of good teaching so they could improve on their teaching. From 1978 teachers were involved in curriculum development and examination work, this provided them skills and understanding of the curriculum they were to teach.

With the implementation of the Revised National Policy on Education, the focus has moved from quantity to quality. The Ministry is now upgrading primary certificate

teachers to diploma level. This is done through the pre-service colleges of education and plans are advanced to introduce a distance education programme that would be implemented in partnership with the Centre for Continuing Education at the University of Botswana.

To improve the quality of primary teaching, the Ministry has embarked, in partnership with DIFD, on the training of primary school heads to be instructional leaders and effective managers. Through the Primary school Management Development project, 30 primary school heads have been trained abroad as primary school management advisors and they are now back to be trainers of primary school heads. These 30 advisors operate from the twelve education centres. In this way they will sustain the programme beyond the project phase. Consultations are ongoing with the University of Botswana to provide training in-country in Education Management for the primary school heads. This will also sustain the programme beyond the project phase.

At Secondary Level

In 1965 there were 66 secondary school teachers for the 9 secondary schools and an enrolment of 1 325 students, of these 66, forty three (43) were graduates, 21 matric trained and 2 were higher primary, of the graduate teachers only 6 were Batswana. Between 1965 and 1987 the number of teachers increased to 1 820 with 915 Batswana teachers. In 1996 out of a total of 6 132 teachers there were 4 353 Batswana teachers. The percentage of untrained teachers moved down from 35% in 1965 to 27.7% in 1985 and to 15.2 in 1995. The number of teachers has increased to 8 420 with 6 895 being Batswana (81.8%). This shows an increase in Batswana teachers from about 14% in 1965.

To attain this level of achievement, the University of Botswana doubled its capacity of teacher certificate courses. From 1978 an annual intake was increased to 70 students. In 1985 and 1990 the Ministry of Education built two Colleges of Education both offering a three year diploma in secondary education. The output of the colleges is between 400 and 420 per annum. The University also introduced a BEd programme in Science for diploma holders in Science and humanities. About 28 teachers were upgraded to BEd level. To ensure continued supply of teachers at this level the

Ministry put in place a training plan for teachers. Below is a Training Plan for the four-year period 1996 - 1999

Table 2: Training Plan for Secondary Teachers 1996 - 1999

Year	No. of teachers recommended for training	Diploma	1st Degree	Masters Degree
1996	118	10	108	13
1997	177	-	159	18
1998	310	-	246	38
1999	341	16	257	68
Totals	886	26	770	139

Source: Secondary Department Ministry of Education.

To implement this training plan the Ministry got into partnerships with local institutions, Donor Agencies and bilateral agreements. The Junior Secondary Education Implement Project (JSEIP) was established to increase the quality and efficiency of the expanded basic education system. It also assisted in institutionalising the capacity to develop, manage and support the junior secondary education system. Teachers were sent for training to upgrade their qualifications and skills.

The Ministry has experienced problems with the provision of Mathematics/Science teachers for some time. A Pre-Entry Science programme (PESC) was introduced in the 70s to improve on the qualification of secondary graduates to help them enrol for science. Though the programme existed for sometime and increased enrolments in science it did not increase the number of science graduates. Another intervention used to address shortage of science/mathematics teachers was the introducing a certificate in Science Education. The programme targeted qualified non-science teachers. A 30 weeks course was designed to help them teach the subject at junior secondary. The certificate in Science Education did not have that much impact as nearly all its graduates went back to teach their original subjects.

A challenge still remains to train in these areas. At junior secondary level the colleges of education are producing teachers for Mathematics and Science and the number of expatriate teachers has been reduced. The problem is with senior secondary and colleges of secondary education where the requirements are first degree and masters degrees in science respectively. The system does not produce enough graduates at these levels resulting in shortages. New subjects are also putting demands on the system. Teachers for these new subjects are not available and the Ministry still has to recruit externally.

Along the development of training teachers, efforts were directed towards the training of teachers for children with special needs. Between 1966 and 1976 the Ministry had no special education teachers. The provision of education for children with special needs was in the hands of Non Governmental Organisations and the donor community. Between 1976 and 1986 only four teachers were trained but between 1986 and 96 the number grew to 44. Between 1996 and 1999 the Ministry trained 38 teachers and to date we have 82 special education teachers. The target is to reach 700 teachers so that each school would have a special education teacher. To reach this level of training, the Ministry of Education established bilateral agreements, partnerships with the NGO community at the local, regional and international levels to finance special education projects.

To ensure continued flow of trained special education teachers, a diploma programme in special education was introduced at the University of Botswana. Some elements of special education are also taught at Colleges of Education. To upgrade teacher skills study tours and attachments were also put in place through partnerships. An enabling environment has also been developed through articulating inclusion of special education in the 1994 Revised National Policy on Education. To ensure continued partnership with NGOs there is also provision for financial support for institutions providing education to children with special needs. To motivate teachers for special education provision of teaching-learning materials was improved and a resource centre built to provide support.

To address quality at this level the Ministry has continued to provide in-service training in partnership with DIFD. The Botswana in-service and pre-service Programme (BIPP) was implemented with the aims of improving:

- the performance of in-service training officers of the Ministry of Education in English, Mathematics, Science and Design and Technology
- the quality of the teachers produced by the two colleges of Education (secondary) at Molepolole and Tonota, especially in English, Mathematics, science and Design and Technology.

Through this project the Ministry of Education has been able to train teachers both in-country and abroad. In partnership with Northern College in Arberdeen, Scotland, 30 teachers trained at masters level, 2 at diploma level and 1 at certificate level through distance education. The project also allowed the Ministry to put in place structures to sustain professional development of teachers. These included training staff development co-ordinators and putting in place clusters to support in-service training at regional and school level.

Colleges of Education

From 1966 to the early 80s colleges of education in Botswana depended on expatriate lecturers. There were very few qualified locals lecturing in the colleges. The establishment of PEIP in 1981 brought a change. The graduates of the 4 years professional degree now lecture at colleges of primary education. By the end of the project 83 teachers had graduated from the project. To date primary colleges have 88.7% local staff. The 6 Colleges of Education (2 Junior Secondary and 4 Primary) have a total staff of 416 and 308 (74%) are locals while 108 are expatriates. Locals head all 6 colleges.

The 1994 Revised National Policy on Education called for a diversified curriculum, some of the subjects which were offered as options (Design and Technology) now have to be offered as core subjects and new ones have to be introduced. This has led to a shortage of teachers in these fields and the Ministry of Education has been

recruiting expatriate teachers. Expatriate teaching force at colleges of education is 26%. The current strategy is to staff the colleges with qualified lecturers to ensure that the output and quality of Colleges are higher. It will take time to address fully the problem of scarce skills. To retain teachers and lecturers with these scarce skills the government has introduced a scarce skills package to motivate the teachers to remain in the system

Managers of Secondary Schools

The expansion of secondary education called for more managers/school heads and deputies at this level. Initially the Ministry of Education did not have enough qualifying teachers to be promoted to this level. In partnership with the University of Bath, in-country in-service training in Education Management was organised over a period of three years. The in-country course is offered through residential sessions and distance education mode. A total of 54 heads was enrolled. Along the in-country training, some school heads were sent on full time training. A total of 40 heads trained through this option.

To ensure continued skills training of the teachers and heads, staff development co-ordinators have been identified and the strategy adopted is to train these co-ordinators as trainers so that they could train at regional and school level. The cascade model of training is used to train a few who will then train others.

To sustain these developments the Department of Secondary had to be restructured to have in place a Management and Training Division responsible for co-ordination and monitoring of training. It also supports training activities at regional and school level. The University of Botswana has been brought in to train at this level and starting in 2000 it would be offering the same programme that was offered by the University of Bath. This will sustain the programme beyond the project phase.

Through these training efforts the Ministry of Education has been able to provide 99.9% of the 230 secondary schools with Batswana heads.

Literacy Group Leaders and Distance Education Instructors

The National Literacy Programme (NLP) run by the Ministry of Education was launched in 1981 as a project with the aims to

- * eradicate illiteracy and enable an estimated 250 000 illiterate adults and youth (40% of the population aged 15 - 45 years) to become literate in Setswana and numeracy within a period of six years (1980 - 1985).
- enable participants to apply knowledge in developing their cultural, social and economic life.
- enable participants to perform community duties on one hand and to exercise the rights and obligations of citizenship on the other

The challenge for the project was to provide human resources to implement the project. There was need to train Literacy Group Leaders (LGLs) who are actual literacy teachers and Adults Education Assistants (AEAs) who are their trainers and supervisors. Between 1980 and 1981 the Ministry of Education trained 1427 Literacy Group Leaders to teach 23 630 learners, and 105 Adult Education Assistants to supervise the LGLs. This put the ratio of Literacy Group Leaders to learners at 1:17 and that of AEA to LGLs at 1:14.

Training of LGLs and AEAs has continued to rise and fall due to other factors e.g. during droughts, learners join the drought relief programmes and do not turn up for classes. On the other hand the LGLs also move to find more stable and better paying jobs. The attrition rate for these two groups is high and tends to shadow the developments in the areas. Though the enrolment in the National Literacy Programme has generally decreased the LGL to learner ratio for the 1998 year was 1:18, a slight improvement but the challenge still remains to keep the learners, the Literacy Group Leaders and the Adult Education Assistants in the system.

Along the National Literacy Programme the Ministry of Education is implementing a distance education programme catering for junior secondary and senior secondary

levels. The Ministry has continued to train for these programmes. The University offers part time certificate, diploma and degree programmes. Graduates of these courses go into the field to implement the programme and cater for the diverse needs of the learners. Secondary teachers are used to support the distance education programme. The department of Non-Formal Education responsible for the distance education programme is currently staffed by 160 trained adult educators, 25 at degree level, 32 at diploma and 103 at certificate level. These are located around the country to provide services at the grassroots level.

Partnerships have played a major role in the development of human resources for this section. The Ministry has also bought into international programmes e.g. literacy decade activities to refocus and intensify its plans and activities.

Vocational Technical Education

The history of vocational education dates back to 1969 when the Division of Vocational Training was established in the Ministry of Education through the support of UNDP. The main aim of government then was to produce skilled workers in a short time. The challenge has been to staff training institutions so they could train skilled manpower.

One of the important developments in the area of vocational education in Botswana is the establishment of the Brigade movement. Brigades are community based training institutions aiming at vocational training oriented to the needs of communities. The movement started in 1965 and by 1976 there were 30 brigades throughout the country. Brigades had received support from government for sometime but they experienced problems related to unavailability of trained Botswana instructors and managers. The Ministry established the Brigades Development Centre (BRIDEC) in 1977 to assist the Brigades in training local staff and to offer training and guidance on management. In 1994 the BRIDEC and department of Technical Education merged to form the Department of Vocational Education and Training.

The department of Vocational Education and Training was set to meet the manpower demands of the nation for artisans, technicians and professionals and assist in the co-

ordination of other vocational and technical training in Botswana. The department has to assist the Brigades in the training of co-ordinators and instructors. There are currently 45 Brigades and 41 co-ordinators in place, 33 of these co-ordinators are locals while 8 are expatriates. At the instructor level, there are 407 instructors and 256 are locals.

The department co-ordinates six vocational centres and is responsible for the staffing of these centres. Out of a total of 326 staff for vocational centres 36 are expatriates. The challenge for the department is to train more locals to fill these posts. To address this challenge the department has partners who assist. Twelve officers were trained through the support of ILO. The department has a training plan for the NDP 8 period to train 40 officers per year. The officers are to be trained as follows: 10 are to be trained overseas, 10 in the region and 20 locally. The plan was implemented from 1997 and the table below shows the number of officers on training abroad.

Table 3: Officers on Training

Year	Number of Officers
1997	11
1998	23
1999	27
Total	61

Source: Department of Vocational Education Training

Training for Non Teaching Staff to Support Programme Implementation

With the expansion of the education system and the establishment of new departments the Ministry of Education had to recruit and train non- teaching professional staff to support the programmes. Officers recruited to this cadre of education officers have to have a degree or its equivalent, a teaching qualification and a minimum of 6 years teaching experience. The officers are then given specialised training in the different areas required by the departments, e.g. curriculum, guidance, inspection, special education, examinations and testing, monitoring and supervision, etc.

In 1978 the Department of Curriculum Development and Evaluation was established to provide leadership and co-ordination of curriculum planning, design and development for the education system. When the department was established it had only 5 officers with specialisation in the area of curriculum, and today the department has 19 officers with specialised training. The number of specialised, trained officers has fluctuated as officers move on transfers or resign from the service to join the private sector. In 1988 for example, of the 24 posts that the department had, 10 posts were filled by trained officers but most of these have since moved out of the department. The department currently has 67 professional posts requiring this specialised training and 42 of them are filled 19 by officers with specialised training. The challenge in this area is that of retaining trained personnel. Once the officers are trained they become more marketable and they leave for better paying jobs.

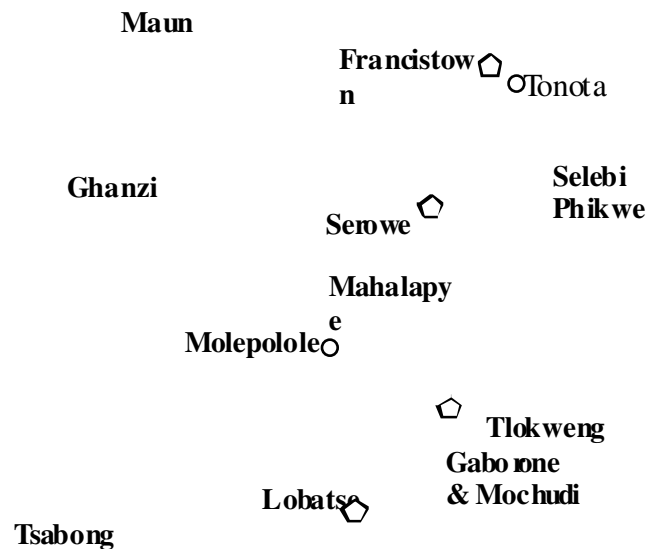
The Division of Special Education was established in 1984 and at that time there were no specialised officers to support it. To date the Division has 10 Education Officers with specialised training 3 in the area of Mental Handicap, 1 in learning difficulties, 1 in low vision therapy, 1 in hearing impairment, 1 in visual impairment, 1 in transitional programmes and 2 in braille competency. The challenge still remains to train more as 10 officers are not enough to provide support to close to 1000 schools in the system. The population of children with special needs in the schools is increasing as parents become aware of services available for their special needs children.

The Department of Teacher Training and Development was established in 1989 to improve the quality of education through developing and implementing pre-service and in-service education for teachers. The department has 2 training units, Pre-service and In- service and 3 support units, Policies and Programmes, Institutional Development and Management and Departmental Management. The Pre-service Unit is a smaller Unit comprising of a core of 6 subjects specialist who provide guidance and leadership to the colleges in the area of programme development and implementation. The unit is staffed by locals there is only one vacancy for head of unit.

The In-service Unit is the larger one and has the largest staff. It operates with 12 Education Centres located in different parts of the country, 1 Media Centre, 1 National Learning Resource Centre and 6 Special Projects. All these, except for 1, are headed by local, qualified staff. At the regional level, the centres and schools are serviced by a cadre of Education Officers (In-service). Out of a total of 62 posts, locals occupy 44 posts which is 71 %.

Education Centres and Teacher Training Colleges

Kasane



- ◡ Primary Teacher Training
- Education Centre
- Secondary Teacher Training

To reach this level of achievement the Ministry of Education went into partnerships with other organisations. Through PEIP, JSEIP and Botswana In-service Pre-service Project education officers were sent for training or enrolled in distance education programmes that led to their qualifications. The distance education mode has proved to be very useful as it allows learners to learn in context and apply skills immediately.

The challenge facing the department is to recruit enough officers to cover the whole country.

In 1993 the Department of Curriculum Development and Evaluation was split to establish a new division, Examination Research and Testing. The new division was to develop and administer examinations as an integral part of the overall education system and to ensure through Research and Testing that examinations corresponds to the mental development and abilities of clients. To attain this objective the division was restructured and human resources mobilised to provide for services. It became clear that the division staff could not deliver on their own. Teachers had to be brought in. Between 1993 and 1999 the division has trained the following teachers for the following tasks as indicated in Table 4.

Table 4: Trained Manpower for Examinations.

Year	# of Teachers Trained For What Purpose	
	Marking	Educational Assessment
1993	104	
1994	101	7
1995	61	5
1996	84	
1997	50	4
1998	100	4
1999	285	
Total	785	20

Source: Examinations Research and Testing Division

The above training has allowed the Division of Examinations Research and Testing to embark on a phased-in implementation of the localisation of the senior secondary examination.

To sustain the levels of manpower training the Ministry has bought into regional partnerships. The Ministry is participating in the SADC Teacher Management

Support Programme that is part of the ADEA's Working Group on the Teaching Profession. The programme aims at improving capacity building through resource materials development, developing confidence among professionals and providing resource materials for training. The programme recognises that "improving instructional work in schools and raising the performance of both teachers and pupils rests with all the key actors in the education enterprise including; head-teachers, teachers, parents and school inspectors/advisors. School inspectors must therefore be carefully recruited and selected, and above all, be well trained to perform their functions effectively in accordance with set norms." (*Resource Materials for School Inspectors - Module Two*) Botswana has participated in the development of training materials and has used the materials to train its education officer cadre.

Conclusion

The staffing situation of the Ministry of Education has improved over the past 33 years. New departments, divisions and units have been established and staff trained to carry out their functions. Targets for manpower have been set through National Development Plans, manpower estimates, and Establishment Registers. These have assisted the Ministry of Education in planning its human resources development. Appendix B gives a picture of how manpower planning and provision has been like during the period 1989 - 1999.

PROCESSES THAT CONTRIBUTED TO SUCCESS

Several factors explain the progress toward the level of human resource development attained by Botswana. The following are some factors and processes that are being followed:

Policy making process that is highly consultative and informed by national priorities. A combination of highly focussed and consistent policies, planning, consistent reviews of performance against plans with focussed adjustments and follow-through. Since the Transitional Plan, National Development Plans have consistently prioritised human resources development across all sectors. What have shifted over time are the types of human resources and skill mix that is prioritised within a specific Development Plan period. In essence however, the focus on human development has been stable, sustained, relentless and tenacious.

Central to these achievements is the manner in which the Government approaches its planning process. The planning process identifies national priorities at all levels and matches these with financial and human resource commitments. It also involves target setting and projecting outputs. Consultation and consensus building at all levels are undertaken through feasibility studies to ensure ownership and sustainability of programmes. The planning process also involves the structured development of partnerships, development of conducive environment for all stakeholders and development of monitoring instruments such as annual and Mid-term review of programmes. Restructuring of the Ministry through Organisation and Methods studies has ensured improved deployment of staff.

Articulation of a strategy with a regenerative potential for enhanced human resources development. Against much international opinion, Botswana chose the strategy to focus human resources development efforts on secondary and tertiary education first and then worked backwards to lower levels. This strategy was selected because graduates of these higher levels would then be relied upon to produce human development at the lower levels. Though not with total neglect of the lower levels, the development of the education system was sequenced from top down.

Another contributing factor was preparedness to invest heavily in human resources development even in times of economic austerity. A key factor throughout Botswana's history has been its preparedness to invest even borrowed and aid money on its human resources. High standards of tertiary education, mostly acquired overseas were therefore adhered to. With reference to funding, Botswana has managed to invest donor funding very well and direct it to nationally identified priorities. This has been demonstrated by the bilateral partnerships developed for the development of the education sector. The key point has been to retain steadfast focus on national priorities and to insist that donors focus on those priorities or hold their support. Strong leadership and confidence of the government technocrats has therefore focused donor support where it mattered from the Botswana perspective, not external perspective. Donor help was to assistance Botswana attain its targets and not the other way round.

The growth of the education sector further impelled the need for more human resources. Between the period 1986 and 1996 the focus was to expand access to basic education. Basic education has moved from nine years to ten years over this 10-year period. The expansion of access to 10 years of basic education was accompanied by the diversification of curriculum. Additional subjects had to be introduced while existing ones changed status from being option subjects to core subjects. This called for more human resources and the elaboration of post-basic education opportunities to provide for the basic education school leaver.

Related to expansion of the sector, there has been the organisational elaboration of the education delivery system starting from the headquarters of the Ministry of Education to schools. That also demanded the development of a wide range of human resources.

Another critical factor has been the institution of incentive systems that have managed to keep pace with the cost of living. That has helped to retain the educated and trained human resources in the Ministry's employment. Botswana has managed to progressively expand professional cadres of the civil service while improving their conditions of service. Examples of these incentives includes competitive salaries,

opportunities for further education and training, medical aid policies, car and housing loan schemes, provision of equipment, facilities and materials that make the work environment attractive and rewarding

As stated in the beginning, Botswana started with nothing so there was a clear sense of urgency that derived from real and felt identified needs. This was accompanied by strong, committed and political leadership to address the aspirations of Botswana and their identified needs.

One of the national principles of Botswana is self-reliance; this is one factor that promoted the development of partnerships at grassroots level. These contributed to the development of education and indirectly to human resource development. e.g. When the Government of Lesotho took over the University of Botswana, Lesotho and Swaziland, Botswana were mobilised through a project with a slogan "*One man one beast*" to make contributions in cash and in kind towards the building of the university which is now the main producer of our human resources.

The government has ensured the existence of a conducive environment for all partners in the field of education. Policies were developed; clear and transparent agreements were put in place to facilitate the involvement of all in the development of education. These clearly articulated the roles of partners, the use of resources, and other spheres of operations. Partnerships were structured in such a way that at the beginning of joint projects, the external funding was higher but reduced with the years to ensure sustainability. This is a key feature of project planning for education in Botswana. The principle of cost sharing between and among partners is well established.

Over the years the Ministry moved from projects to programmes. The design of projects was done in such a way that at the end on the project life they become part of the mainstream programmes. This ensured that support was built into existing, ongoing activities. This further ensured sustainability and ownership of programmes.

A detailed localisation plan with target dates was developed and closely monitored. This added a sense of urgency and commitment to human resources development. It also ensured skills transfer from expatriates to local officers.

LESSONS LEARNT

The development of human resources for the Ministry of Education has brought to light a lot to be learnt by the implementers of programmes. It came to light that there is need for joint setting of the project agenda when dealing with donors to ensure that national priorities are maintained. If a joint agenda is not agreed upon before the start of the project the focus of the project may differ from national interests. Joint setting of agenda involves participation of locals in initial consultation meetings and in the drafting of the agreements.

It came up during projects implementation that there is need for quality environment if programmes/projects are to succeed. Policies are to be in place to provide clear direction on how things are to be done. Resources (facilities, funds, personnel, equipment, etc) are to be provided to allow for a conducive working environment and guidelines have to be developed to assist the implementers to stay on track.

An important thing to consider during planning is the need for setting feasible and realistic targets matching national capacity. There is need for setting a pace and time frame that will match national capacity. This is important so things are not left hanging at the end of the project, as this would be resource wasted.

Experience from implementing projects has brought to light the need for ongoing monitoring and evaluation of projects. Monitoring and formative evaluation of projects/programmes during implementation ensure that if they move off course they could be put back on track on time. It is therefore important to have as part of the project monitoring and evaluation components.

For externally funded projects to have continued usefulness there is need to build into them some elements of sustainability. Adopting a design that has a phased decrease of external funding and phased increase of local funding best does this. This ensures that the host country is in a position to sustain the activities initiated by the project.

We have during the implementation of our projects/programmes come to realise that training improves performance and trained personnel are more mobile. There is, therefore need to provide incentives to retain officers and to train more officers to absorb attrition.

When we started on the expansion of the education system we had no trained managers and our solution was to take our best teachers to run the schools. It was not long before we realised that not all good teachers are good managers. There is, therefore need to train education managers to run the schools.

We have also observed that in some cases inputs alone do not determine success, It is the management and use of these inputs that will determine the level and the quality of your outputs.

The development of training plans should be responsive to the needs of the system to ensure that there is no under or over training. Continuing education and staff development should also take note of the needs of the system. If training is not designed and planned as such it leads to draining the resources and promoting brain drain as officers are trained for what they are not needed for and end up leaving the system.

CHALLENGES FACING THE SYSTEM

A lot has been achieved in the development of staff for the Ministry of Education. These achievements have been accompanied by the following challenges:

Staff Retention. Over the years we have come to realise that it is difficult to retain trained staff in a competitive market. As officers are trained they become more skilled and marketable and move into other areas. We therefore have to find strategies and means to retain our staff and avoid high turnover.

Providing quality human resources. As the system expanded we had to provide teachers to run it and this meant we had to find a quicker way of training them. The quicker training lead to more focus on producing more teachers and less on producing quality teachers. The result has been qualitative development in our education system has not been in line with the quantitative development. Therefore we have to find ways to improve on the quality of our education system. We have to upgrade all of our certificate teachers to diploma level so as to improve their quality. The challenge is therefore to explore strategies to attain this upgrading within the shortest time possible.

Costs for training. The Ministry of Education has up to date been providing free education and training to officers and teachers. Training is becoming very costly and we therefore need to develop cost-effective and more targeted strategies for human resources development for the education sector.

Small population of the country. Botswana has small and scattered population in a very large country. It is not cost effective to provide services and facilities to the population. We therefore need to explore none conventional ways to reach the marginalised e.g. provision for children with special needs, reaching children in remote areas, etc. The system has been centralised over the years and this does not allow us to provide for the local needs for some of the remote areas and therefore we have to decentralise.

Management of Human Resources. One of the criticisms levelled against the Ministry of Education has been the redeployment of its staff. Some people feel we do not deploy people into positions they are trained for. The challenge therefore is to ensure that staff trained at great expense is deployed in such a way as to bring maximum benefits to the system.

Upgrading of skills to meet the changes – Information Communication Technology (ICT) is a new development in our lives. Most of our human resource was developed before the ICT era. There is therefore need to train our human resource in this field to make them competitive globally.

HIV/AIDS Pandemic - Botswana had achieved a lot in the area of staff training and development but this resource is now been lost to the HIV/Aids pandemic. The country is one of the worst hit by the scourge. The challenge is therefore to find ways of reducing the spread of the virus. We also have to explore strategies of capturing data on this problem so it could inform planning and decision making for human resource development.

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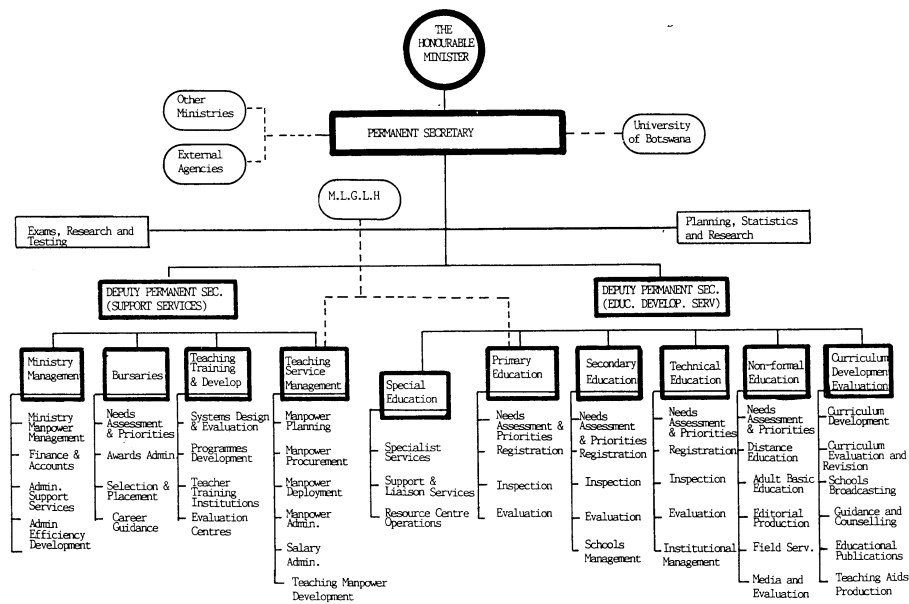
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APPENDIX A

Organisation & Management Structure: Ministry of Education



MW/KK/November, 1991

APPENDIX B

ESTABLISHMENT AS PER FINANCIAL YEARS 1989/90 AND 1999/2000

Departments	Education Officers	Qualified (1999/2000)	Unqualified (1999/2000)	Establishment 1989/90	Target 1999/2000 Establishment Register
Head Quarters	Permanent Secretary	1		1	1
	Deputy Permanent Secretary	2		1	2
	Co-ordinator Education Policy	1		-	1
	Co-ordinator Performance Management Systems	1		-	1
	Education Officer Training	1		1	1
Teacher Training & Development	Director	1	-	-	1
	CEO	1	-	1	1
	In-service Officers	71	-	23	89
	Pre-service Officers	5	-	-	6
Curriculum Development & Evaluation	Director	1	-	-	1
	Chief Education	Vacant		1	1
	Curriculum Officers	14	-	12	28
	Publication Officers	3	-	-	5
	Guidance Officers	7	-	-	13
	Educational Broadcasting	6	1	-	9
	Teaching Aids Production	2	-	2	3
Secondary	Director	vacant		-	1
	CEO	1	-	1	1
	Regional Education Officers	5		-	5
	Education Officers	32		47	58
Primary	Director	1	-	-	1
	CEO	vacant		1	1
	Education Officers	52	-	47**	52
Vocational Education & Training	Director	1	-	-	1
	CEO	1	-	1	1
	TEO	30		2	63
Planning Statistics & Research	CEO			-	1
	Planning Officers	2	-	-	1
Special Education	Education Officers	8	-	-	10
Teaching Service Management	Director	1	-	1	1
	Deputy Director	1	-	1	1
	Assistant Directors	5	-	-	5
	Teachers (Primary)	12 504		8837	12 539*
	Teachers (Secondary)	6 895		3217	8 420*
	Lecturers (Colleges of Education).	308		381	416*
Non Formal Education	Director	1	-	-	1
	CEO	2	-	1	2
	Education Officers	23	-	21	25
Student Placement and Welfare	Bursaries Secretary	1	-	1	1
	Deputy Bursaries Secretary	1	-	-	1
	Professional Staff	9	-	1	9
	Education Attache	3	-	-	3

*Total Number of teachers including Expatriates

** Primary department had officers servicing TT&D

- For the 1989/90 Financial year these cadres did not exist.