

NGAPVA
TGAPVA

HSRC RESEARCH OUTPUTS

6796

Statistical Bulletin

Botswana: Education

David Hemson

August 2010

Measuring Service Delivery in Southern Africa Project

Study 3: Developing measures and methods for measuring progress towards service delivery targets

Progress towards education goals	2
Country Political and Socio-Economic Context	3
Education and human development	3
Completing primary school	4
Achieving gender equity	7
Gender equity in education	8
Gender Parity	10
Adult literacy	11
Appendix 1	12



Progress towards education goals

Key targets and indicators from the Millennium Development Goals (MDGs), which are also contained in the Regional Indicative Sustainable Development Plan (RISDP), have been clustered to review progress in the education sector in the four countries included in the study: Tanzania, Botswana, Malawi and South Africa.

The following Goals from the MDG are included in reviews of the education sector, which focus on:

- Target 2.1: Ensure that all boys and girls complete a full course of primary schooling; male and female primary completion rate;
- Indicator 2.1: Net enrolment ratio in primary education;
- Target 2.3: Literacy rate (male and female) 15 and above; and
- Target 3.1 Gender Parity Index (GPI).

In addition another important indicator, which is school life expectancy, is presented.

The progress made against targets has been measured and a weighting system linked to the colour coding. Table 1 below, illustrates the progress made towards goals related to the education sector and educational outcomes drawn from the MDGs.

Table 1. Botswana Education Goals

Goal 2: Achieve universal primary education	
Target 2.1 Male and female primary completion rate	
Indicator 2.1 Net enrolment ratio in primary education	
Target 2.3 Literacy rate (male and female) 15 and above	
Goal 3: Promote gender equality and empower women	
Target 3.1 Gender Parity Index	

KEY	
0	No Progress in meeting target (0/10)
5	Some progress but will not meet MDG target (5/10)
10	Target will be met in 2015(10/10)

Projections from the available data on the 4 indicators reveal that the MDG targets are either reached or will be reached in 2015 in 2 of these indicators (male and female completion rate and gender parity). In the net enrolment ratio in primary education and literacy rate, progress is being made but not at a sufficient pace to meet the MDG target.

In summary, on the basis of the projections of present trends, the education sector appears geared to reaching the MDG. However, there are indications that all is not well with the education system in Botswana and the quality of learning for the majority is now in doubt and becoming a focus of concern.

Country Political and Socio-Economic Context

Botswana is a landlocked, semi-arid country with an approximate area of 582, 000 square kilometres with a population of 1.9 million.

The Botswana Democratic Party (BDP) government has been in power since 1966. Over the last three decades diamond mining and tourism have driven considerable economic growth resulting in Botswana being classified as an upper middle income country. Over the last three decades there has been fairly consistent growth in the country's economy. The recent global economic downturn has, however, impacted on the economy and led to a decline in Gross Domestic Product (GDP).

Since April 2009, government has adopted MDG-based district development planning in an effort to intensify commitment to achieve the MDGs and the pillars of Vision 2016. This is an important indicator of political will to achieve the MDGs. The National Strategy for Poverty Reduction adopted in 2003 also takes account of the MDGs. Since the adoption of the MDGs by the Botswana Government, there has been a MDG Status Report (2004), which concluded that Botswana was on track to achieve many of the MDGs.

Education and human development

Education, and particularly the education of women and girls, is widely identified as a critical element in human development. The MDG and other international programmes target the improvement of education in developing countries as an essential aspect of poverty reduction. Debates over fees and the need for more open access to schools and higher levels of education have led to policies of reduced or no fee schools. International finance institutions which had previously espoused fees are now ambiguous about their application and this will likely hamper improved access.

It is in this context that the MDGs include objectives in schooling and education as central to reducing poverty and other key objectives.

The main driving force in terms of developments in education is public perception, which it is one of the key cornerstones of national development and therefore one of the top priorities in Botswana. The Revised National Policy on Education (RNPE) of 1994 places emphasis on access and equity; effective preparation of students for life, citizenship and the world of work; 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; and cost effectiveness and cost sharing in the financing of education.

These policies are based on the intention to develop a type of education that allows for competitive and productive human resource development which will lead to the transformation and diversification of the economy. The government has embarked on implementation of the National Human Resource Development Strategy and Tertiary Education Policy since 2009. It is hoped that this will guide training and facilitate matching of skills with the labour market. It will also transform the economy from a resource to a knowledge based economy.

Government considers access to basic education a fundamental human right, and has invested significantly in basic education, which is now defined as ten years of schooling. This is evident in the allocation of resources, which has rested at approximately 23 percent of the total annual budget allocation since 1991.

Access to education in MDG

Selected MDG & RISDP Goals and Indicators
Goal 2: Ensure that all boys and girls complete a full course of primary school by 2015.
Goal 3: Eliminate gender disparity in primary and secondary education preferably by 2005, and at all levels by 2015

Completing primary school

The completion of primary education is common both to the MDG and RISDP. Specifically Goal 2 of the MDGs includes a gender dimension that all boys and girls should complete a full course of primary school by 2015.

Figure 1: Botswana: Primary Completion Rate

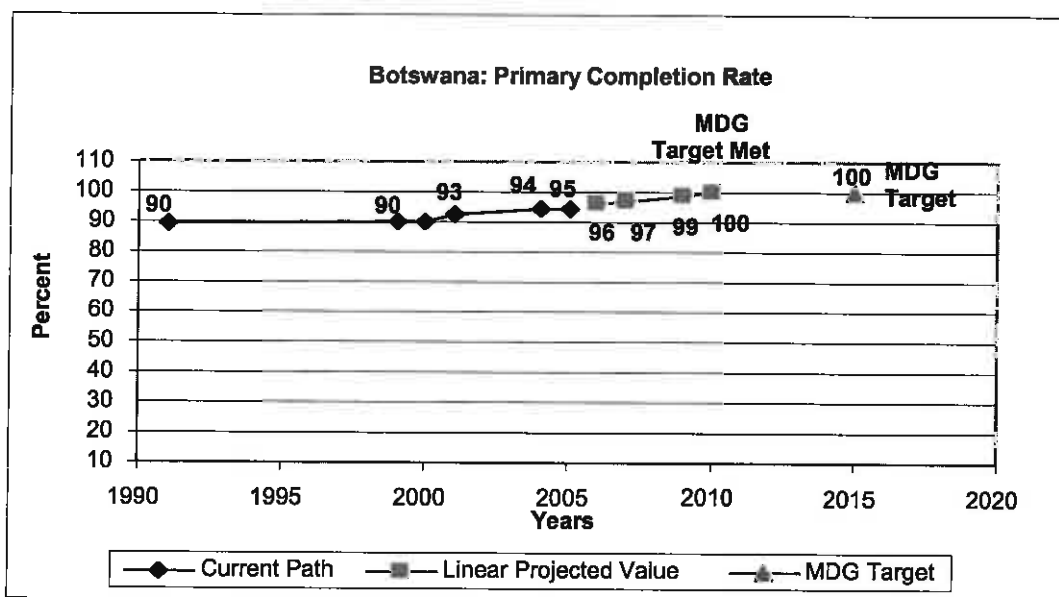


Table 2. Botswana: Primary Completion Rate

	1991	1999	2000	2001	2002	2003	2004	2005
Primary completion rate, both sexes	90	90	90	93	94	94	94	95
Primary completion rate, boys	82	87	88	90	92	92	92	91
Primary completion rate, girls	97	93	92	95	96	97	97	99

Source: Botswana Census. Surveys and UNESCO Institute of Estimates

URL: <http://mdgs.un.org/unsd/mdg/Data.aspx>

Figure 1 represents data on the primary completion rate in Botswana. The figures show that the completion rate has remained over 90 percent for both boys and girls since 1991 and increased to 95 percent in 2005.¹ Based on this data the projections in Figure 1 show that at the current rate the MDG target of 100 percent enrolment will be met before 2015.

Analysis and comment:

The projected attainment of the MDG can be attributed to several factors. Generally the budgetary commitment since 1991 has significantly grown to allow for considerable improvement in primary and secondary school facilities, human resource development and the geographical spread of educational institutions.

Specifically, there has been a greater availability of better infrastructure such as toilets, water, class room furniture, play equipment, a clean environment, trained human

¹ These figures have been recently adjusted and indicate a higher net enrolment

resource, especially guidance and counseling teachers in schools and contact with social workers. Attention has been given to improving the pupil teacher ratio.

Furthermore, active parent participation in school as well as the introduction of more avenues for participation has contributed to a higher completion rate in the country. Schools undertake career fares (job shadowing) in which students can be exposed to and appreciate various possible careers. Well trained teachers are in a better position to assist students with personal problems. The increase in the numbers of primary schools has increased the geographical educational coverage, which has been a factor that has improved completion rates.

In conclusion due to these factors that have contributed to the increase in primary completion rate, it can be said that based on the projection of the current trend that the MDG target of 100 percent primary completion would be reached in 2010, earlier than the targeted 2015.

Achieving gender equity

Greater equality among boys and girls in terms of access to education is a necessary precursor to girls obtaining the full benefit from education. There are three indicators of gender equity reviewed here; the net enrolment ratio in primary education, school life expectancy, and gender parity index in secondary school.

These have been employed in assessing Goals 2 and 3, which set out the target of equal access among boys and girls and the elimination of gender disparity.

Figure 2: Total Net Enrolment Ratio

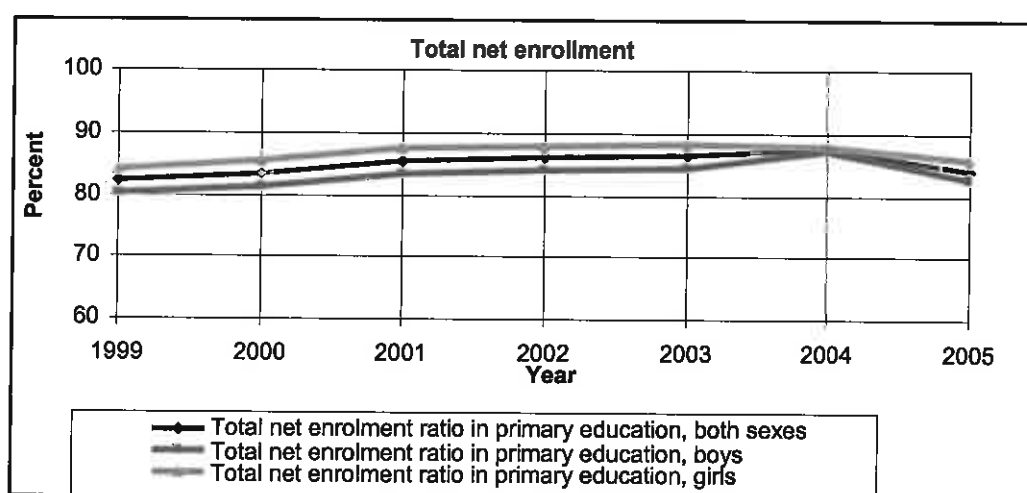


Table 3. Total Net Enrolment Ratio

Total net enrolment ratio in primary education,	1999	2000	2001	2002	2003	2004	2005
Both sexes	82	83	85	86	86	87	84
Boys	80	81	83	84	84	87	82
Girls	84	85	87	88	88	88	86

Source: Botswana Census. Surveys and UNESCO Institute of Estimates

URL: <http://mdgs.un.org/unsd/mdg/Data.aspx>

One of the major achievements of the Revised National Policy on Education (RNPE) is the high enrolment figures rising to 87 percent enrolment in 2004. However, there has been a recent appreciable *decline* in the level of enrolment shown in 2005. Due to this and it is not clear whether the net enrolment ratio will reach 100 percent in 2015.

Analysis and comment:

The situation is better in urban areas because there are structural inequalities due to a lag in the development of rural areas. This also applies to issues of quality facilities and human resources.

The level of net enrolment in primary education has increased over the period 1999-2004 from 82 percent to 86 percent but declined from 2004-2005 to 84 percent. Girls have had a higher level of access than boys, this steadied in the period 2002-2004 before declining to 86 percent in 2005. The level amongst boys also steadied in the period 2002-2003 at 84 percent before declining to 82 percent in 2005.

The reasons for these variances requires further explanation. A net enrolment rate of less than 100 percent implies that the remaining proportion of children within the age group 6-12 is not enrolled at primary schools. The Revised National Policy on Education (RNPE) recommends that the school entry age should be 6 years. To achieve Universal Primary Education the number of over-age pupils needs to decline to free places for pupils in the official primary school age group. The changes in enrolment from year to year can be affected by a number of factors; six year olds may still be at home because their parents feel they are not ready to begin primary school. Others may be in private schools before 6 years old. At the other end of the spectrum, children younger than 12 can already be in secondary school.

The changes year by year can partly be explained by similar statistical reasons. However, the trend in enrolment between 2002 and 2005 in primary schools shows a slightly higher drop out rate among boys than girls as evidenced by the lower enrolment of boys.

The conclusion is that there will probably not be a figure of precisely 100 percent by 2015 as the current trend in the last few years has been declining. Progress is being made as shown by available data but is not sufficient to meeting the goal of 100 percent enrolment by 2015.

Gender equity in education

There are two other indicators presented in this report that explicitly relate to improved conditions and gender equity; those of gender parity in School Life Expectancy and Secondary School Enrolment.

Figure 3: School Life Expectancy

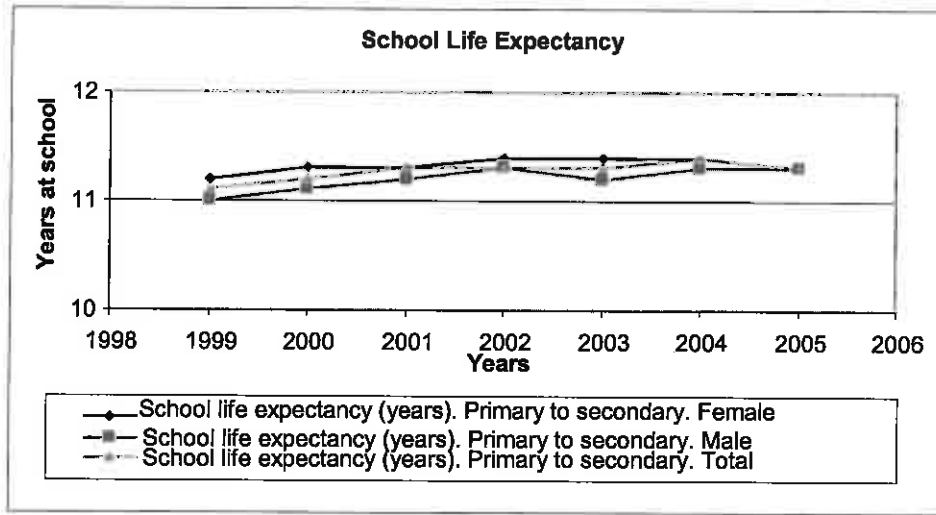


Table 4. School Life Expectancy

School life expectancy (years). Primary to secondary.	1999	2000	2001	2002	2003	2004	2005
Female	11.2	11.3	11.3	11.4	11.4	11.4	11.3
Male	11.0	11.1	11.2	11.3	11.2	11.3	11.3
Total	11.1	11.2	11.3	11.3	11.3	11.4	11.3

Source: Botswana Census. Surveys and UNESCO Institute of Estimates

URL: <http://mdgs.un.org/unsd/mdg/Data.aspx>

School Life Expectancy refers to the total number of years schooling a child of a certain age can expect to receive in the future. The Figure 3 illustrates the possibility of children completing secondary education over the period 1999-2005. During this period school life expectancy for Botswana ranged from 11.1 years to 11.3 years, respectively.

Analysis and comment:

School life expectancy for boys increased slightly from 11.0 years to 11.3 years between the period 1999 and 2005 and girls experienced an increase from 11.2 years to 11.3 years in the same period. These figures indicate there is very little variance on a gender basis and that there seems to be an overall average of school life expectancy for both boys and girls of 11 years.

Gender Parity

Figure 4: MDG Projection: Gender parity index in secondary school

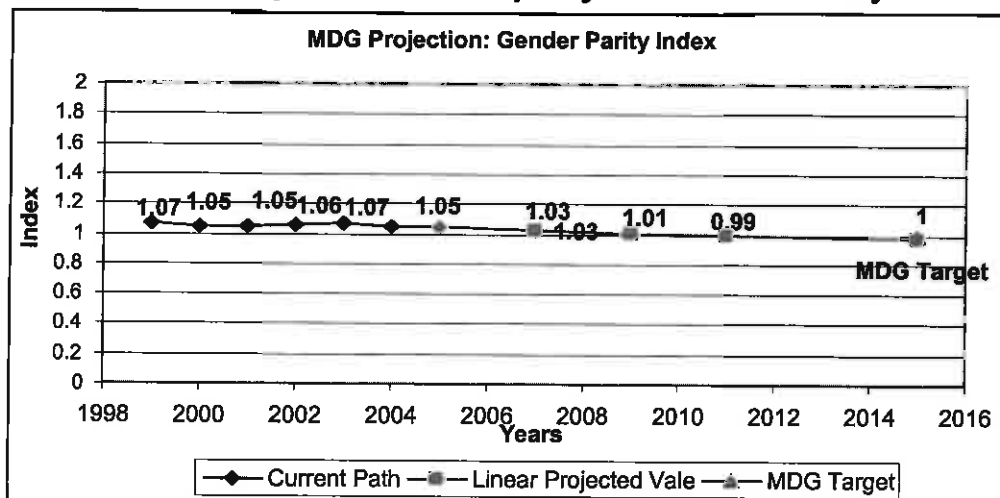


Table 5. Gender Parity Index in Secondary Level

	1999	2000	2001	2002	2003	2004	2005
Gender Parity Index in secondary level enrolment	1.07	1.05	1.05	1.06	1.07	1.05	1.05

Source: UNESCO

URL: <http://stats.uis.unesco.org/unesco/TableViewer/tableView.aspx>

A Gender Parity Index (GPI) of less than 1 indicates that there are fewer females than males in the formal education system in proportion to the appropriate school-age population. A GPI of more than 1 means that there are proportionately more girls than boys attending school. A score of 1 reflects equal enrolment rates for boys and girls².

Analysis and comment:

The GPI provides an indication of the level of participation of girls in relation to boys in secondary education. Figure 4 shows that there have been more girls in secondary school than boys in Botswana from the period 1999 to 2005. The projection shows that the index begins to decline slightly and in 2010 there should be an equal number of boys and girls participating in secondary school.

In conclusion it can be said that the MDG in Gender Parity will be reached either before or by 2015. The greater participation amongst boys will bring the GPI to 1, the figure of complete equality.

² Defined in Appendix 1

Adult literacy

Figure 5: Adult Literacy

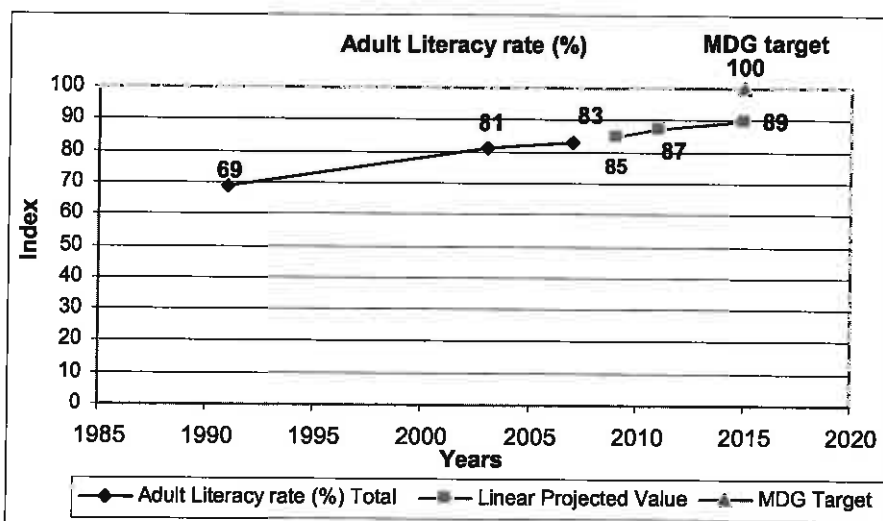


Table 6. Adult Literacy

	1991	2003	2007
Adult Literacy rate (%). Female	71	82	83
Adult Literacy rate (%). Male	65	80	83
Adult Literacy rate (%). Total	69	81	83

Source: Source: UNESCO

URL: <http://stats.uis.unesco.org/unesco/TableViewer/tableView.aspx>

Analysis and comment:

Adult literacy requires special surveys to be undertaken in order to obtain viable data and is not routinely measured. Between the years 1991 to 2007 there has been an increase in adult literacy from 69 percent to 83 percent of the population generally. Table 5 shows an increase in literacy among males with a rise of 18 percent during the period 1991-2007 and an increase of 12 percent among females during the same period. Both male and female literacy stands at 83 percent in 2007.

The projection based on this data shows that overall adult literacy will reach 89 percent in 2015. This is appreciable progress but the failure to reach the target of 100 percent by 2015 is due to the difficulty of reaching the remaining population. A drive to reach the outstanding 12 percent of the population requires more resources especially because of the country is sparsely populated with many people in far flung areas. If this trend continues there will be a general literacy level of 88 percent in 2015 which is short of reaching the MDG goal of 100 percent.

Appendix 1

MDG targets related to education

Indicator	Education	Potential	Additional indicator
1	Target 2a: Ensure that all boys and girls complete a full course of primary schooling; male and female primary completion rate	10	School life expectancy
2	Indicator 2.1 Net enrolment ratio in primary education	10	
3	Indicator 2.3 Literacy rate (male and female) 15 and above	10	
4	Indicator 3.1 Gender Parity Index	10	

Definitions:

1. Total net enrolment ratio in primary education, both sexes
Net primary enrolment rate in primary education is the number of children of official primary school age (according to ISCED971) who are enrolled in primary education as a percentage of the total children of the official school age population. Total net primary enrolment rate also includes children of primary school age enrolled in secondary education. Where more than one system of primary education exists within the country the most widespread or common structure is used for determining the official school age group.

Source: *International Standard Classification of Education (ISCED 97)*. Primary education is defined by ISCED97 as programmes normally designed on a unit or project basis to give pupils a sound basic education in reading, writing and mathematics along with an elementary understanding of other subjects such as history, geography, natural science, social science, art and music.

2. Proportion of pupils starting grade 1 who reach last grade of primary
The proportion of pupils starting grade 1 who reach last grade of primary education, known as the Survival Rate to last Grade of primary, is the percentage of a cohort of pupils enrolled in grade 1 of the primary level of education in a given school year who are expected to reach the last grade of primary school, regardless of repetition. Primary education is defined by International Standard Classification of Education (ISCED97) as programmes normally designed on a unit or project basis to give pupils a sound basic education in reading, writing and mathematics along with an elementary understanding of other subjects such as history, geography, natural science, social science, art and music.

Source: *International Standard Classification of Education (ISCED 97)*. Primary education is defined by ISCED97 as programmes normally designed on a unit or project basis to give pupils a sound basic education in reading, writing and mathematics along with an elementary understanding of other subjects such as history, geography, natural science, social science, art and music.

3. Primary Completion Rate

The primary completion rate is the ratio of the total number of students successfully completing (or graduating from) the last year of primary school in a given year to the total number of children of official graduation age in the population."

Source: United Nations Development Group. 2003. *Indicators for monitoring the Millennium Development Goals: Definitions, rationale, concepts and sources*. New York: United Nations.

4. The Gender Parity Index (GPI) reflects females' level of access to education compared to that of males' access. This is calculated for each school phase. A GPI of less than 1 indicates that there are fewer females, in proportion to the appropriate school-age population, than males in the formal education system

Source: United Nations Development Group. 2003. *Indicators for monitoring the Millennium Development Goals: Definitions, rationale, concepts and sources*. New York: United Nations.

5. School life expectancy is defined as the total number of years of schooling which a child of a certain age can expect to receive in the future, assuming that the probability of his or her being enrolled in school at any particular age is equal to the current enrolment ratio for that age.

Source: United Nations Development Group. 2003. *Indicators for monitoring the Millennium Development Goals: Definitions, rationale, concepts and sources*. New York: United Nations.

6. Adult literacy rate is defined as the percentage of population aged 15 years and over whom can both read and write with understanding a short simple statement on his/her everyday life. Adult illiteracy is defined as the percentage of the population aged 15 years and over who cannot both read and write with understanding a short simple statement on his/her everyday life.

Source: United Nations Development Group. 2003. *Indicators for monitoring the Millennium Development Goals: Definitions, rationale, concepts and sources*. New York: United Nations.