



EDUCATION DIALOGUE

Keynote Paper 1

Understanding the Education Challenge in Sub-Saharan Africa: Policy and Institutions



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CABRI Education Dialogue

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Understanding the Education Challenge in
Sub-Saharan Africa: Policy and Institutions



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List of acronyms

EFA	Education For All
GER	gross enrolment ratio
GIR	gross intake rate
GNP	gross national product
GPI	gender parity index
IFMIS	Integrated Financial Management Systems
MTEF	Medium-Term Budgeting Framework
NER	net enrolment ratio
ODA	Official Development Assistance
PTR	pupil to teacher ratio
SSA	sub-Saharan Africa



1. Introduction

Human prosperity, economic development and education are integrally linked. Education is one of the cornerstones of development and a critical underpinning in the reduction of poverty, improving health, promoting equity and contributing to social and political stability. While the past two decades have seen an enormous expansion in access to education in sub-Saharan Africa (SSA), many of the countries on the continent are lagging behind in universal attainment of primary education; the quality of education provided is insufficient to guarantee life-long literacy or lay the basis for further education attainment; enrolment in secondary and tertiary education is still low; and the match of skills between the education system and the labour market remains sporadic. While some sub-Saharan African countries have seen remarkable economic growth in the past decade(s), the region continues to have the lowest human and economic development indicators of all regions of the world.

The impact of education output as well as the quality and relevance of graduates' skills on the labour market in the region is a critical issue. Widespread shortage of jobs on the one hand and a shortage of skills on the other have highlighted the importance of improving the quality and relevance of the education system. Three multi-national development agencies – the United Nations (through UNESCO), the International Labour Organisation and the World Bank – have focused on the creation of jobs and relevant skills in their major 2012/2013 development reports (UNESCO 2012; ILO 2012; WB 2012a).

The relationship between economic growth, development and skills is not a simple one. Nor is the relationship between the education system and the production of relevant skills. However, there is no debate that quality early schooling, relevant secondary and tertiary education, and an integrated strategy for growth and skills development are cornerstones of prosperity in all countries:

The key role of skills in fostering prosperity is evident worldwide: countries that have invested wisely in skills training have made considerable progress in equitable development. Such investment could also help to protect countries from the impact of economic downturns and lift large numbers of people out of poverty. While countries require a skilled workforce to thrive, skills do not automatically lead to jobs and growth. Skills development needs to be part of a comprehensive, integrated strategy for growth that improves the lives of all. But there should be no question of whether creating jobs or developing skills comes first; both need to be pursued in a coherent, integrated manner. (UNESCO 2012: 203)

The overarching theme for education across the world in 2012 is: getting children into school, ensuring that they learn and develop relevant skills for jobs (WB 2012b: 7).

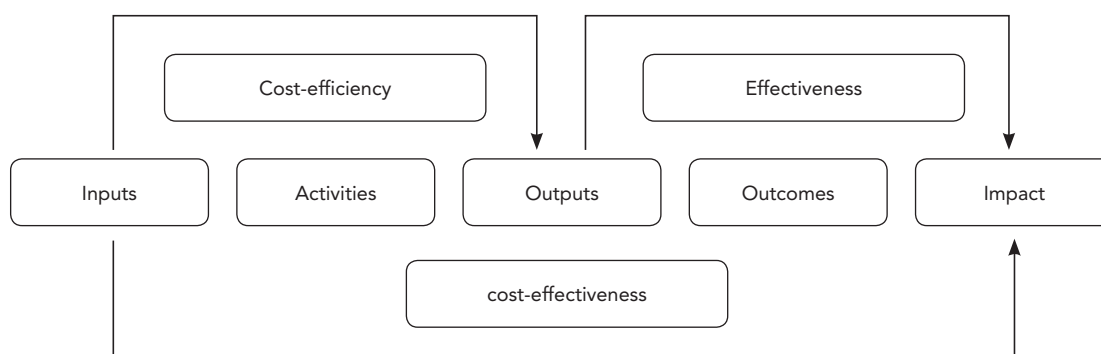
The paper is divided into four sections: The first section briefly elaborates on the results chain framework to situate the provision of education services in context. Secondly, it looks at the state of education in SSA – in terms of access, quality and levels of education in the overall population; thirdly the paper gives a review of the prevailing policies, goals and strategies for the development of education; and finally, it covers the budget and funding imperatives that face SSA in the short term.



2. Overview of the education results chain framework

It is useful to view the provision of education services within a results chain framework (see Figure 1), where education inputs are converted into activities which generate outputs and outcomes at the highest level which translate into impact. The success of the chain is contingent on sound policies and institutions as well as processes that are cost efficient.

Figure 1: The results chain framework



Source: Rawle (2008)

Education inputs may be defined as the resources provided by parents, school management and government authorities to facilitate learning in schools. These include: qualified and well-paid teachers, classrooms, learning materials, facilities, organisation, curriculum, tuition fees, government subsidies and technical support to schools. Indicators of learner enrolment, retention and throughput typically describe the outputs from the system. Outcomes are the education quality measures and education attainment of the population as a whole. The impact of the education system is more difficult to express quantitatively but typically reflects general improvements in human and economic development.

Inputs are relatively straightforward to identify in the education production function process, but outputs or outcomes are extraordinarily difficult to be precise about. This is clearly illustrated in the example of a school that remains unchanged in every respect except for an additional teacher or an extra US\$ 100 to spend on equipment. A reasonable assumption can be made that changes with respect to pupils could be attributed to the extra teacher or extra US\$ 100. The reality is that in the course of the year, pupils and teachers become a year older and there are withdrawals and additions to student body and teaching staff (Vaizey 1971). Thus, changes in the cultural ambience of the school and even within pupils' families can be explanatory factors. Empirical studies, namely education production functions, try to control for such external factors, but Vaizey's concern remains an important caveat that must be borne in mind in the analytical discussions. Indeed, the cumulative nature of learning makes it difficult to measure the relationship between education inputs, outputs and outcomes. This is also partly because of an absence of data and partly because of the intergenerational nature of the impact of education – such as the relationship between mothers' levels of education and decreasing child mortality.

The relationship between education attainment, economic development (as measured by GDP per capita) and government spending on education has changed somewhat over the past decade. In the mid-1990s there was a clear positive relationship between both GDP per capita and percentage of government expenditure on education and primary education enrolment. This correlation is now fairly weak, meaning that increasing expenditure alone does



not generate the desired impact on economic development. It is important for countries to understand the salient drivers of education quality and economic development. Currently, post-primary enrolment is now more strongly positively correlated to GDP per capita and percentage of government expenditure on education.

3. The current state of education in sub-Saharan Africa

3.1 Levels of education spending

In most national development strategies in Africa, relatively large proportions of development resources have been allocated to education. In the 1990s, education budgets in developing nations were absorbing 15 to 27% of total government recurrent expenditure (Todaro 2000). Public spending on primary education in sub-Saharan Africa rose by 29% in real terms between 2000 and 2005 (UNESCO 2010). The percentage of GDP per capita spent on education increased from 3.5% in 1999 to 4.7% in 2010. Actual government spending on education in SSA has increased in real terms by an average of 5% per annum. Due to population growth and increased education enrolment this has meant that per capita spending has only been able to increase in real terms at 1.5% per annum. Sub-Saharan Africa currently spends about 17% of total government expenditure on education and a respectable 4.7 percent of its GNP on education, as shown in Table 1.

Table 1: Global comparative data on education spending and enrolment rates, 2010

	Median Gross National Product per capita (2010 US\$)	Total public expenditure on education as % of GNP	Total public exp on ed as % of total gov exp	Adult literacy (15–65)	Primary gross intake rate	Primary GER	Primary NER	Primary completion	Secondary transition (formal)	Secondary GER	Tertiary GER
Arab states	2 800	4.5	16.7	75	101	98	86	93	94	69	24
Central and Eastern Europe	9 900	5.2	11.8	98	99	100	94	98	98	88	66
Central Asia	2 690	3.5	13.8	99	100	101	90	98	99	95	24
East Asia and the Pacific	3 000	3.9	13.7	94	106	110	95	80	29
Latin America and the Caribbean	6 430	4.7	13.6	91	119	114	94	89	94	90	40
North America and Western Europe	43 110	5.8	12.9	...	100	103	96	...	100	102	76
South and West Asia	1 330	4.4	14.1	63	115	106	88	66	86	59	17
Sub-Saharan Africa	685	4.7	17.6	63	115	101	76	62	69	40	7

Source: UNESCO (2012)



Levels of education spending in SSA vary across countries. A select number of African countries are presented in Table 2 below, showing their expenditure levels and enrolment data.

Table 2: Comparative data on education spending and enrolment rates for selected African countries, 2010

	Gross National Product per capita (2010 US\$)	Gross intake rate, primary	Gross enrolment rate, primary	Net enrolment rate, primary	Survival rate, primary	Gross enrolment rate, secondary	Gross enrolment rate, tertiary	Adult literacy rate	Total public expenditure on education as % of total gov exp	Public current expenditure on ed as % of public current expenditure	Public current expenditure on primary education per pupil
Burundi	170	161	156		56	25	3	67	25.1	45	29
Malawi	330	154	135	97	53	32	0.7	75	14.7	37	20
Sierra Leone	340	127	125					42	18.1	50	
Ethiopia	390	137	102	81	47	36	5	39	25.4	65	40
Guinea	400	104	94	77	66	38	9	41	19.2		30
Mozambique	440	161	111	90	27	26		56			
Uganda	500	155	121	91	32	28	4	73	15.0	58	31
Rwanda	520	195	142	99	37	36	5	71	16.9	37	34
United Republic of Tanzania	530	96	102	98	81		2	73	18.3		
Burkina Faso	550	89	79	63	64	23	4	29	20.8	57	83
Mali	600	79	82	63	75	39	6	31	22.0	40	62
Chad	620	124	93		28	25	2	34	10.1	53	44
Benin	780	153	126	94			11	42	18.2	59	97
Kenya	790		113	83		60	4	87	17.2		
Zambia	1 070	115	115	91	53			71			
Senegal	1 090	103	87	75	60	37	8	50	24.0	40	162
Côte d'Ivoire	1 160	83	88	61	61			56	24.6		
Nigeria	1 180	88	83	58	80	44		61			
Ghana	1 230	110	107	84	72	58	12	67	24.4	35	125
Congo	2 150	109	115	91	70		6				
Cape Verde	3 270	96	110	93	86	88	18	84	14.4	47	504
South Africa	6 090	91	102	85		94		89	19.2	40	912
Botswana	6 790	111	110	87*	93	82		84	16.2	19	574
Mauritius	7 750	97	99	93	98	89	25	89	11.4		

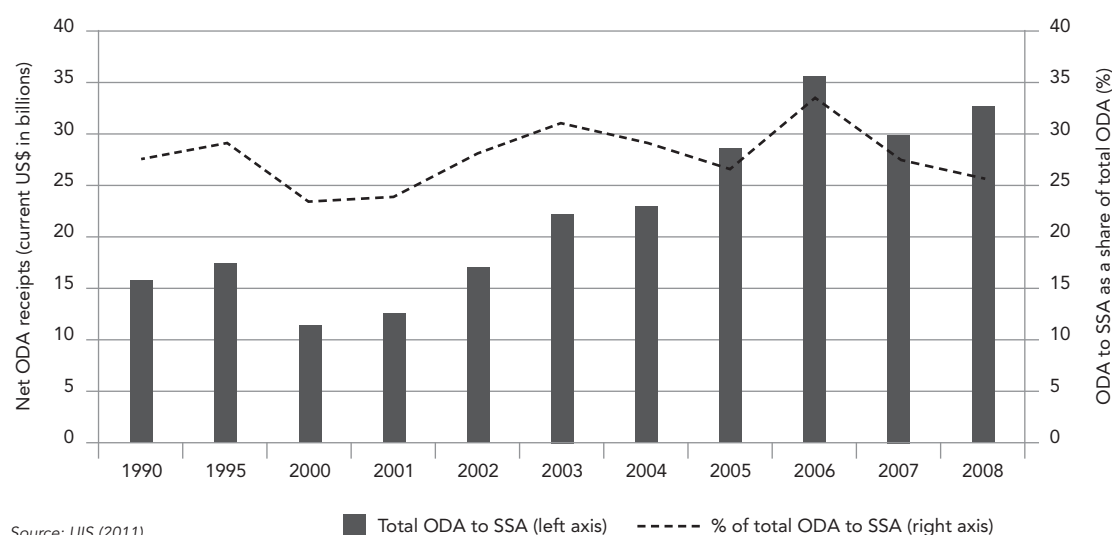
Source: UNESCO (2012)



3.2 Sources of funding

Countries in sub-Saharan Africa that have shown increased financial commitment to education have witnessed impressive progress in education. For example, in 1999, Tanzania spent just 2% of its GNP on education. By 2010, the share was 6.2% (UNESCO 2012). In Senegal, an increase in spending from 3.2% of GNP to 5.7% allowed impressive growth in primary enrolment and the elimination of the gender gap. Kenya spent over 5% of its income on education between 1999 and 2009 (UNESCO 2012). Additionally, aid to education in SSA has been crucial to government efforts to expand education. The graph below shows the trends in Official Development Assistance (ODA) between 1990 and 2008. By 2005, ODA to SSA was more than 25% of all ODA – spiking in 2006 at nearly 30% of all ODA.

Figure 2: Trends in official development assistance flows to sub-Saharan Africa, 1990–2008



Regional or income group averages do not tell the full story. In nine countries, all in sub-Saharan Africa, donors fund more than a quarter of public spending on education. Even among similar groups of countries, there are significant differences. In Kenya, for example, around 4% of the education budget is funded by aid, a much lower proportion than in other low income SSA countries, such as Mali, where the share is 25%.

In financial terms the amount of net ODA to SSA increased threefold between 2000 and 2008, from US\$ 11.5 billion in 2000 to US\$ 32.8 billion in 2008. Ethiopia received the largest amount of net ODA in 2008 (US\$ 3.2 billion), followed by the United Republic of Tanzania and Mozambique, with US\$ 2.3 billion and US\$ 1.9 billion respectively (UIS 2011).

3.3 Education attainment in SSA

Over the past decade enrolments in all levels of education have increased and the region has seen a growth in the adult literacy rates. Increases in GDP per capita plus increases in donor support to education have meant that per capita spending on primary education has increased (despite substantial increases in enrolment). Secondary and tertiary education has grown at a far slower rate. This section looks in detail at access in the various education sectors in the light of the six Education For All (EFA) goals. The EFA is a global commitment to provide quality basic education for all children, youth and adults. At the World Education Forum (Dakar 2000), 164 governments pledged to achieve EFA and identified six goals to be met by 2015. The six goals are:



1. Expanding early child care and education;
2. Achieve universal primary education;
3. Promote learning and life skills for young people and adults;
4. Reduce adult illiteracy by 50%;
5. Achieve gender parity and equality in education; and
6. Improve the quality of education.

GOAL 1: Early childhood care and education

Expanding and improving comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children.

In terms of the expansion of pre-primary education, SSA has seen a 119% growth in this sector between 1999 and 2010 as shown in Table 3 (see page 9). This is the highest regional performance after South and West Asia. However, the improvement is off an extremely low base and the gross enrolment ratio (GER)¹ of pre-primary school in SSA is 17%.

While the health indicators for children under five are a multi-sectoral responsibility, the indicator is appropriate for the education sector as it shows both the long-term impact of education on poverty and child well-being as well as the medium-term successes of governments' poverty reduction strategies. There has been improvement in SSA in terms of under five child mortality rates and under five rates of severe stunting between 2000–2005 and 2010–2015, although the indicators still stand at worrisome levels.

GOAL 2: Universal primary education

Ensuring that by 2015 all children, particularly girls, children in difficult circumstances and those belonging to ethnic minorities, have access to and complete, free and compulsory primary education of good quality.

Enormous progress has been made in the provision of primary education in SSA in terms of access to primary education: the primary gross intake rate (GIR²), survival rate³ to the last grade of primary and the primary net enrolment ratio (adjusted) (NER⁴). The GIR for SSA rose from 92% to 115% between 1999 and 2012 (UNESCO 2012). The GIR alone does not necessarily tell us much about the construction of the cohort in the first grade. In addition a GIR of over 100% indicates one of two things – either that the system is still growing rapidly and over-age children are still coming into school for the first time (along with their appropriately aged peers) or that children are repeating the first grade after falling away during the year (and therefore not being considered 'official' repeaters).⁵

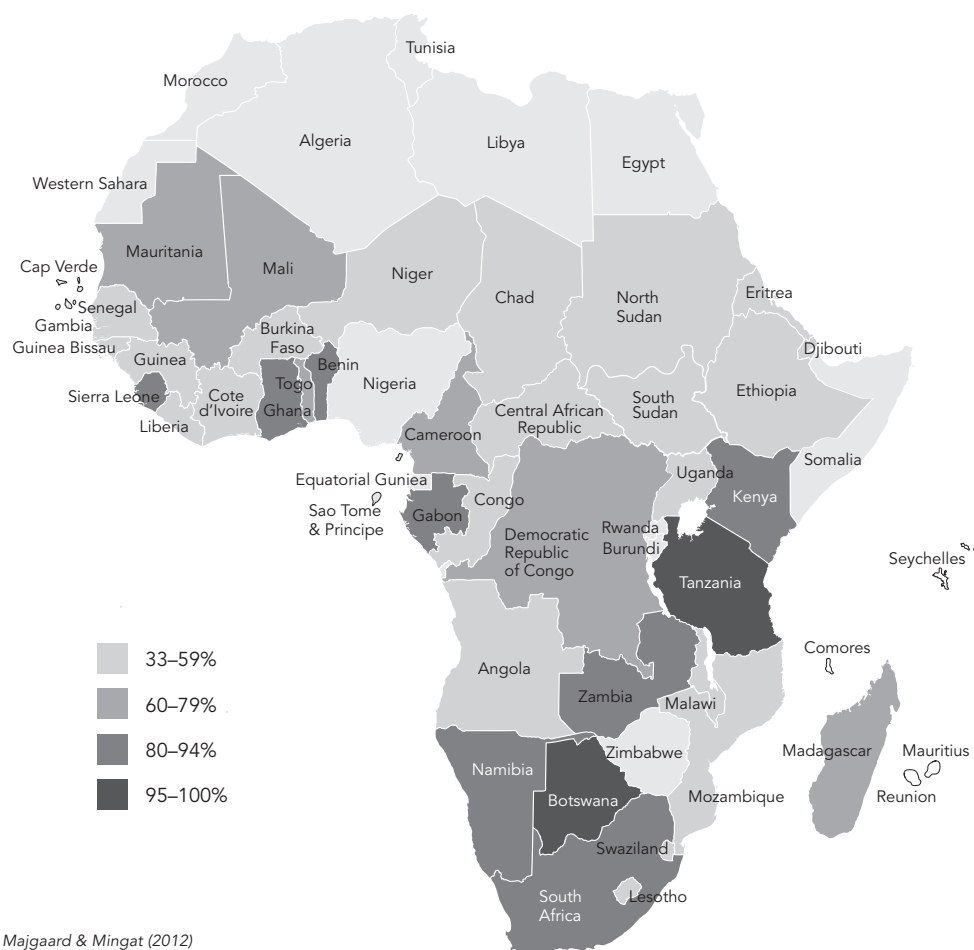
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- 1 GER: Total enrolment in a specific level of education, regardless of age, expressed as a percentage of the eligible official school-age population corresponding to the same level of education in a given school year.
 - 2 GIR: Total number of new entrants in the first grade of primary education, regardless of age, expressed as a percentage of the population at the official primary school-entrance age. Its purpose is to indicate the general level of access to primary education. It also indicates the capacity of the education system to provide access to grade 1 for the official school-entrance age population (UIS 2009).
 - 3 Percentage of a cohort of pupils (or students) enrolled in the first grade of a given level or cycle of education in a given school year who are expected to reach successive grades. Its purpose is to measure the retention capacity and internal efficiency of an education system. It illustrates the situation regarding retention of pupils (or students) from grade to grade in schools, and conversely the magnitude of dropout by grade.
 - 4 Enrolment of the official age group for a given level of education expressed as a percentage of the corresponding population. Its purpose is to show the extent of coverage in a given level of education of children and youths belonging to the official age group corresponding to the given level of education.
 - 5 This is a particular problem with the undercounting of repeaters. Children leave school during the year and schools may not consider them 'official' repeaters. Thus they tend to report on only those repeaters who have completed the year but failed. Thus while a child is a repeater they are recounted by the school as a first time entrant. This tendency to undercount repeaters leads also to erroneously high dropout rates – since the dropout rate is calculated 'by subtracting the sum of promotion rate and repetition rate from 100 in the given school year' (UIS 2009).



The primary net enrolment ratio in SSA has increased from 59% to 77%, which is a good indication that increasingly appropriately aged children are accessing primary school. However, the target for EFA 2015 is to have achieved a NER of 96% and in this regard there are certainly poor children, marginalised groups and girls who are not attending school at all as well as the concern raised before of children dropping out of primary school before completion.

The survival rate to the last grade of primary schooling has not increased in SSA over the past ten years – a worrying indication that the twin impacts of poverty and a lack of quality learning are not being resolved. The map below offers a graphic description of primary school completion rates. It shows the top performers to be Botswana and Tanzania. This is followed by South Africa, Namibia, Zambia, Gabon, Benin, Ghana and Sierra Leone.

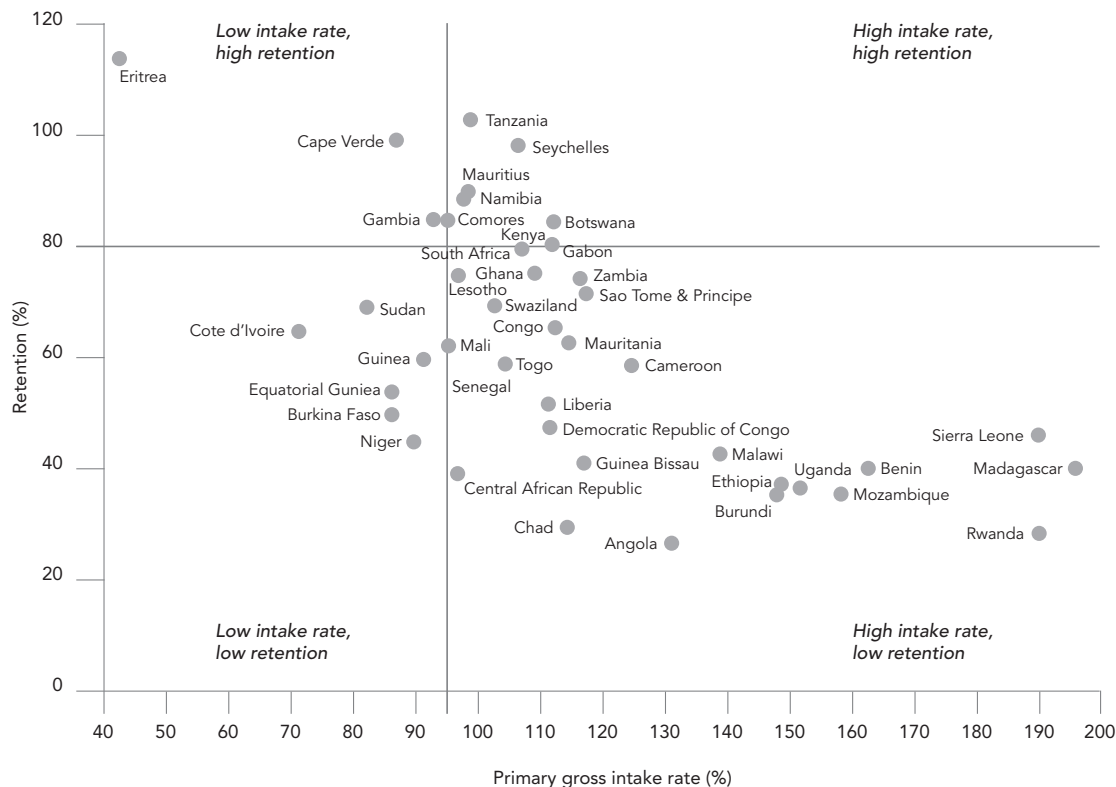
Figure 3: Primary school completion rates, 2009



The attainment of education across SSA is not homogeneous. In the figure below Majgaard and Mingat (2012) cross-tabulate the primary school GIR with the retention rate. Four different types of school access are identified: low intake and high retention – these countries tend to only be able to offer primary education to the elite (usually) urban few who are able to complete primary schooling; low intake and low retention – these countries are not able to offer primary school places or retain children who do manage to attend primary schools; high intake and low retention – these countries constitute the majority of SSA and while they have moved to expand access to schooling, the overwhelming problems of poverty and quality have meant that children do not stay in school for long; the last type are those countries who enrol all children and retain over 80% to the last grade of primary school.



Figure 4: Primary school entry and retention rates in sub-Saharan Africa, ca. 2009



Source: Majgaard & Mingat (2012)

GOAL 3: Youth and adult learning needs

Ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning and life skills programmes.

Secondary education

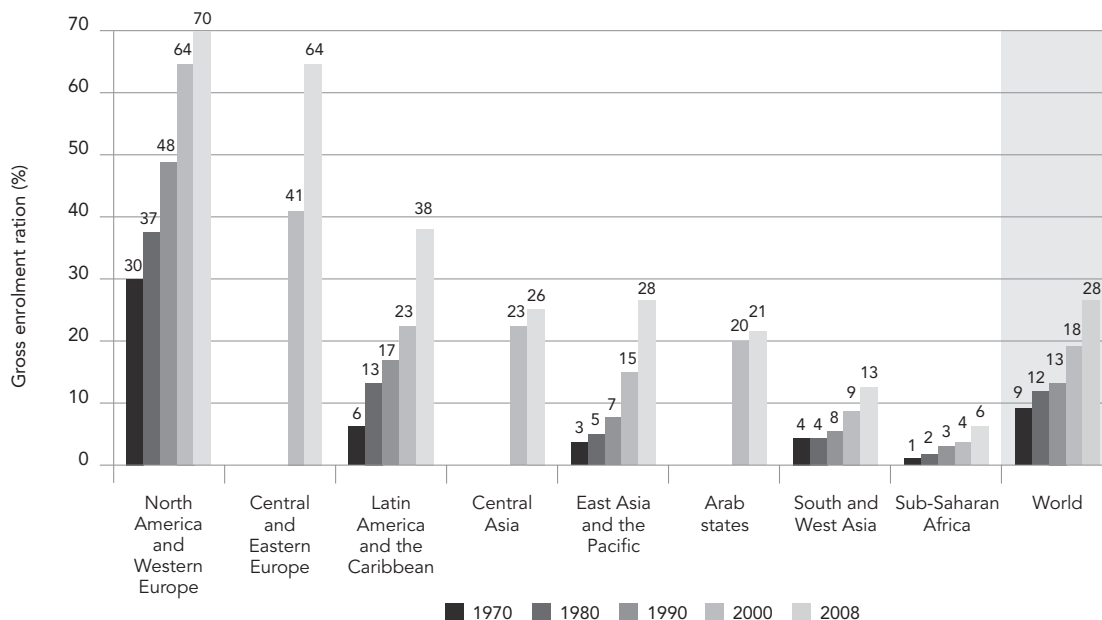
As primary completion rates and the ratio of pupils who are eligible to transition to formal secondary schooling increases, so too has the demand for secondary education. Secondary school enrolment in SSA grew by 110% and the weighted average GER for all secondary has increased in the region from 25% to 40% (UNESCO 2012). With lower secondary and upper secondary GER increasing from 29% to 40% and 20% to 31% respectively between 1999 and 2010 (UNESCO 2012). Available data also shows a very marginal improvement in technical and vocational training.

Tertiary education

Enrolment in tertiary education in SSA has tripled over the past 15 years with enrolments expanding to 4.5 million in 2008 (UIS 2010). However, the GER for tertiary education remains the lowest in the world with 6% of the tertiary age cohort enrolled, compared to a world average of 26%. This is illustrated in Figure 5.



Figure 5: Tertiary gross enrolment ratios by region, 1970–2008



Source: UIS (2010)

While Africa has maintained its public investment in higher education, allocating approximately 0.78% of its GDP and around 20% of its education spending on higher education, the expenditure per student in the poorer SSA countries has decreased in real terms. As with secondary education, priorities in primary education spending have crowded out increased spending on tertiary education.

Table 3: Change in expenditure per student by region, 1990–2006

Country group	Expenditure per student (2006 US\$)		Expenditure per student as a percentage of GDP per capita	
	1990	2006	1990	2006
Africa	2 900	2 000	352.7	292.7
Low-income	1 800	1 330	459.6	356.1
Other	2 800	3 200	228.1	170.3
OECD	9 700	11 500	38.9	31.8
Non-African developing countries	460	875	63.4	63.2
World	2 550	4 600	130.7	124.4

Source: World Bank (2010)

GOAL 4: Improving levels of adult literacy

Achieving a 50% improvement in levels of adult literacy by 2015, especially for women, and equitable access to basic and continuing education for all adults.

While the literacy rates in SSA have increased from 53% to 63% in the past ten years, 'literacy rates have been growing too slowly in sub-Saharan Africa to counter the effects of population growth. As a result, the number of illiterate adults in the region has actually grown by 27% over the past twenty years, reaching 169 million in 2010' (UNESCO 2012: 91). While the gender



parity index (GPI)⁶ for adult literacy in SSA has increased to 0.76, the preponderance of illiterate adults in SSA are women.

GOAL 5: Gender parity and equality in education

Eliminating gender disparities in primary and secondary education by 2005, and achieving gender equality in education by 2015, with a focus on ensuring girls' full and equal access to and achievement in basic education of good quality.

The equalisation of boys' and girls' enrolment in primary (and increasingly in secondary) school has 'been one of the successes of the EFA' (UNESCO 2012: 106). While gender parity in primary education still remains to be achieved in many countries in SSA, at 0.93 it is a remarkable achievement. Prospects for gender parity are less promising in secondary education. At secondary school level, sub-Saharan Africa has moved further away from gender parity, reporting a decline in the regional secondary GPI from 0.82 in 1999 to 0.79 in 2008. Twenty-four countries in the region had GPIs in secondary school enrolment of 0.90 or less in 2008, and nine had GPIs of less than 0.70 (UNESCO 2011b: 5).

GOAL 6: The quality of education

Improving all aspects of the quality of education and ensuring excellence of all so that recognised and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills.

Not only is education attainment in SSA hampered by the poor quality of education received but pathways to further education and training as well as lifelong literacy are compromised. In this regard there has been a growing focus on both the quality of inputs and the quality of knowledge and skills acquired. Merely attending primary school in SSA is not translating into achieving even the minimum levels of learning.

One of the main proxy indicators for school quality is the pupil to teacher ratio (PTR). As a measure of input quality it is significant that SSA is the only region in the world where the PTR has remained the same. However, measures of learning achievement and skills acquired – output quality – are increasingly gaining currency as the most important way to track whether the education system is improving. Most countries have an exit examination at the end of lower secondary and/or upper secondary but the importance of measuring learning acquired at various stages of primary school is gaining purchase. Unfortunately not all countries are able to participate in internationally or regionally standardised tests such as the TIMSS, SACMEQ or PASEC.⁷ The figures below show various countries' – who did participate in some of these international tests – achievement of the minimum levels of mathematics in grade 4.

6 Ratio of female to male values of a given indicator. The purpose of the GPI is to measure progress towards gender parity in education participation and/or learning opportunities available for women in relation to those available to men. It also reflects the level of women's empowerment in society.

7 TIMSS: Trends in International Mathematics and Science Study; SACMEQ: Southern African Consortium for Measuring Quality in Education. SERCE: Second Regional Comparative and Explanatory Study (Latin America). PASEC: Programme on the Analysis of Education Systems (Francophone Africa).



Figure 6: Percentage of cohort who reach grade 4 and attain minimum levels of learning in mathematics in East and Southern Africa, 2007

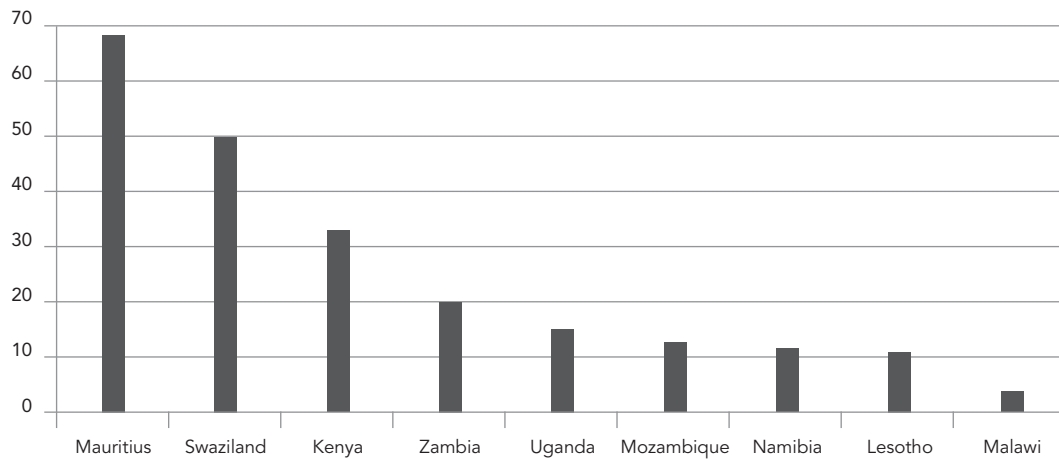
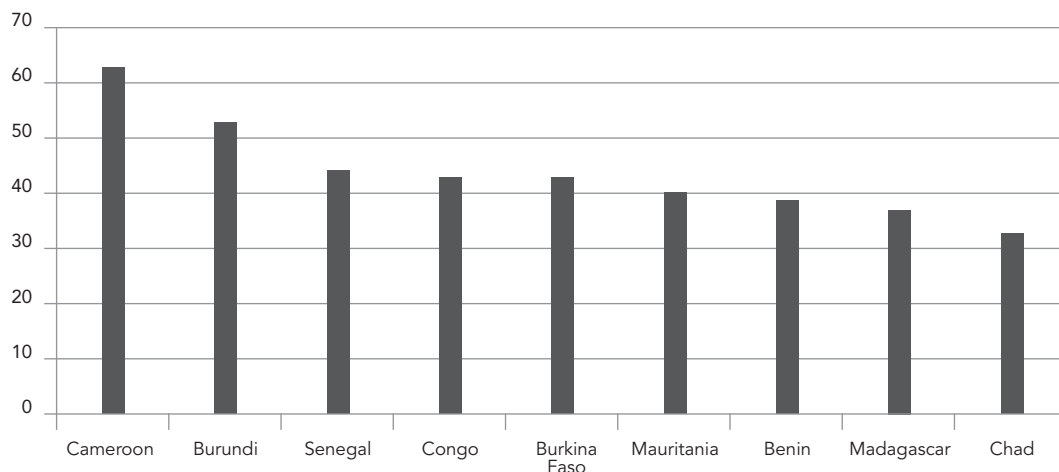


Figure 7: Percentage of cohort who reach grade 4 and attain minimum levels of learning in mathematics in Francophone Africa, 2007



Source: Data for figures 6 and 7 are sourced from UNESCO (2012)

The figures show Mauritius and Cameroon to be among the best performers where achievement in mathematics at grade 4 levels is concerned. Lesotho and Malawi were among the weaker countries in this indicator. Generally, the Francophone countries perform better than the Anglophone countries from the few countries selected above. The findings show that while many pupils progress through the grades, many primary school children do not acquire basic knowledge and skills.

There are various reasons for education systems not reaching the desirable levels of learning, some of which are addressed in the policy section of this paper and some of which are addressed in Keynote Paper 2 on efficiency spending. In summary, the most pervasive reason for poor learning achievements are the levels of under development and poverty experienced in SSA. There is a direct and insidious correlation between social background and educational achievement both in years of schooling attained and in how much is learnt at school. A lack of health, nutrition, parental education levels (especially that of mothers) and family resources impact negatively on learning achievement. At the school level the lack of minimum educational inputs such as overcrowding, teacher shortages, low levels of teacher skills and time spent



teaching as well as shortages of resources, textbooks and materials also impact negatively on learning achievement.

4. Key strategies to improve education provision and quality

With the attainment of universal access to education in all but a few countries, the emphasis of education development is increasingly on improving the quality of education provision and increasing learning achievement. In terms of post-basic education and training, the emphasis is on increasing the quality and relevance of the education and skills attained for the world of work and jobs. This section will review some of the strategies adopted by countries to deliver quality education services and thereby improve outcomes. Years of research thinking and education development proposals have been accumulated by the Education For All 2012 Report (UNESCO 2012) and the World Bank's Education Strategy 2020. As such these two documents will form the backbone of the following review.

4.1 Basic minimum learning conditions

In a context of increasing need for improvements in quality of education outcomes, policy-makers need to make informed decisions about how to invest limited public resources to improve the quality of education and yield cost-effective outcomes. There is ample evidence that investing more in education inputs will not guarantee improvements in the quality of outputs: 'Investments in these inputs expand an education system's physical capacity to deliver services, but do not guarantee that it functions effectively or efficiently' (World Bank 2011: 32).

However, input quality cannot be ignored. Minimum learning conditions and inputs need to exist for any learning to take place and in SSA this still remains an obstacle to basic learning. Paper 2 looks at some of the debates on how much input is cost effective to advance learning outcomes but a minimum provision of classrooms, furniture, textbooks, learning materials and teachers are important. Hungi (2011) analyses SACMEQ 2007 data and finds that school resources, class size, textbooks and teacher-pupil ratios *do* make a difference to pupil performance in the southern African countries.

Increases in pupil to classroom and teacher ratios, shortages of textbooks and materials erode the quality of education for even those in the cohort who have greater potential to do well. Unless this is addressed as a matter of urgency, the cycle of poor quality will continue, with an increasing number of poorly prepared pupils entering secondary schools and eroding the quality of the secondary system.

4.2 Improving the quality of teaching

Recruitment of a sufficient number of teachers to meet the demand of ever-increasing enrolment is not the only challenge confronting African policymakers. Commonly identified problems that affect the quality of teaching in SSA include: teacher absenteeism, under-utilisation of teachers, their deployment and retention in rural and remote areas, the lack of accurate data on the management of teachers, and the precarious status of certain categories of teachers (UIS 2011).

The EFA Global Monitoring Report 2012 suggests that the key to improving the quality of education lies in addressing the crisis in early grade teaching – mostly by increasing teacher pre-service qualifications and subject knowledge and by support in-service training. There is a debate as to whether sufficient evidence exists that increasing the number of years of teachers' pre-service training actually improves the quality of outcomes. The UIS (2011) asserts that the quality of teacher training is more important than the number of years of training.



Certainly the short-term cost of training as well as the long-term costs of increases to the payroll warrant further research before this issue becomes entrenched. The World Bank's proposals for the development of teachers asserts that quality pre-service training 'continues to be vital, but school-based training and mentoring for novice teachers have proved more effective and less costly than traditional pre-service training for developing core teaching and professional skills' (World Bank 2005: xxii).

4.3 Increasing access to pre-primary school

The relationship between early childcare and education is two-fold. Firstly, the education levels of mothers impacts on child health and mortality and secondly, improved early child health, nutrition and education enhance children's later learning achievements. The majority of children in SSA are excluded from pre-primary with a GER of just 17% and children living with high levels of poverty are in greatest need of early childhood care and education (UNESCO 2011b). According to the Education for All Monitoring Report 2012, underinvestment is a key reason for low coverage of pre-schooling. For example, Niger spends under 0.1% of GNP on pre-school, and Madagascar and Senegal less than 0.02%. A somewhat controversial proposal forwarded by the 2012 EFA Global Monitoring Report suggests that compulsory pre-school could increase enrolment if it is complemented with measures that expand supply. A number of middle-income countries have taken this step in recent years – Mexico, Ghana, South Africa, the Philippines, amongst others. 'While making pre-school compulsory gives a strong political signal that it is valued, and can provide the impetus to expand infrastructure and invest in teachers, widely accessible pre-school can emerge without legislation' (UNESCO 2012: 54).

4.4 Reducing costs of education for the poorest

While most SSA countries have abolished school fees for primary schooling, unofficial fees, uniforms, materials, books and transport contribute to the direct costs of schooling. Indirect opportunity costs such as a loss of income, assistance with family and household chores (such as looking after younger siblings) affect family decisions about whether to send a child to school and/or keep them in school. There are a number of strategies recommended for reducing the costs of primary schooling for poor families. These include ensuring that schools aren't charging informal fees, reducing the costs of school uniforms, funding poor children to attend private schools in areas where demand exceeds the supply of government schools and cash transfers to poor households to assist with specific education costs.

Funding poor children to attend private schools in areas where public schools are not available is a complex policy debate, which is covered in detail in Keynote Paper 3 of this series. However, while there is some evidence of poor children accessing private schools, in general the cost to households is substantially more than public schools. Governments have a choice between investing their scarce resources to arrest the decline in public school quality or subsidising households to send children to private schools through voucher programmes. According to UNESCO (2012), vouchers may appear to be a quick fix, but investing in public schools is likely to be the best way to reach the poorest. Direct cash transfers to poor families aimed at covering education expenses have met with some success – especially those aimed at improving girls' attendance at school. These range from scholarships to cash transfers and provision of food and/or fuel (UNESCO 2012).

Many SSA countries – such as Ghana and Uganda – have abolished fees for lower secondary school and seen an increase in the enrolment of girls from poor households (UNESCO 2012). Kenya and more recently Rwanda have abolished school fees for all senior school phases. Strategies for fee-free secondary schooling and supplementary conditional grants (either financial or in food and fuel) for certain sectors, such as poor rural girls, have been adopted by



a number of countries (World Bank 2005). In Malawi, cash transfers to teenage girls and young women reduced dropout rates from 11% to 6% and multiplied by 2.5 the share of re-enrolment of girls who had dropped out before the launch of the programme (Baird et al. 2009 in UNESCO 2012: 235).

4.5 Starting school at the correct age

In SSA the phenomenon of an extremely diverse age range in the first year of schooling is widespread. Early enrolment of children who are not expected to pass the year and drift away during the year is not only wasteful but also demoralising to the children concerned. Late entry into primary school is increasing the likelihood of repeating grades and dropping out. This is endemic in low- and middle-income countries. 'By grade 3, children who have entered late can be four times as likely to drop out as children who started school at the correct age' (UNESCO 2012: 4). Again, poor children are more likely to start school late. Getting children into primary school at the right age can be improved with more stringent regulations on age limits and alternative programmes for over-age children' (UNESCO 2011b).

4.6 Increasing access to secondary and tertiary education

While the social and economic rationale for expanding learning opportunities beyond primary education is clear, the challenges are daunting, and the task of developing sustainable secondary education strategies is complex. For example, African countries must deal with issues of financing, quality and relevance of teaching and learning, curriculum and assessment, science and technology education, teacher training and management, and equity and access. And they must create secondary education systems that promote economic growth and competitiveness, and produce graduates with skills demanded by the local labour markets (World Bank 2012d).

The urgency to expand access to secondary and tertiary education has grown in the past decade. A combination of factors has increased the focus in the post-primary sector. Firstly, the growth of primary education and an increasing number of children completing primary schooling has led to a growing social demand for post-primary education and training. Secondly, the imperatives of economic growth and social development in developing countries has necessitated a new approach to skills training that is more responsive to the needs of the labour market and job creation. In addition to growing demand for post-primary education, SSA has experienced and will continue to experience a large growth in their young population.

The importance of post-primary education in terms of contributing to individual earnings, productivity and economic growth as well as its association with improved health, equity, gender empowerment, social conditions and civic engagement is undisputed (World Bank 2005; Verspoor & the SEIA Team 2008; UNESCO 2012; Majaard & Mingat 2012). And, while enrolment in secondary and tertiary education has grown substantially in the past decade, crowding out of public funding by the imperative of universal primary schooling has meant that the quality of the post-primary sector has eroded (UIS 2010). 'Universities are finding it increasingly difficult to maintain a teaching staff, lecture halls are overcrowded, and buildings are falling into disrepair, teaching equipment is not replenished, investment in research and in training for new teachers is insufficient, and many teachers must supplement their incomes by providing services to the private sector. At worst, the lack of resources may lead to student protests and strikes that jeopardise the completion of the academic year' (World Bank 2010: 2).

4.7 Matching curriculum to the needs of the labour market

Some countries have made secondary education more relevant to the labour market by diversifying the curriculum to cater for a wider range of interests and abilities. A vital first step



in making sure that secondary education offers the most opportunities to the widest range of students, including those from disadvantaged backgrounds, is to provide a common core curriculum that consolidates foundation skills. Providing a common curriculum for all learners up to age 15, rather than sorting students into streams according to academic performance, is a better way of ensuring that all students acquire core skills.

Experience in most regions of the world shows that formal apprenticeships can be beneficial in building bridges between school and the workplace. Formal apprenticeships linked with the school system are most common in developed countries. They can increase the attractiveness of staying in education while benefiting employers. Career counselling also helps disadvantaged youth secure apprenticeships. Although some schools offer career counselling, it tends to focus more on education decisions than on occupation choices.

4.8 Assessment of educational quality

One of the challenges faced in both increasing access and quality of education systems is ensuring the most effective use of limited resources. Policy decisions and resource allocation need to be based on sound evidence of what works. To this end, countries in SSA are increasingly conducting and participate in national, regional and international assessment tests which are designed to yield information on whether students are actually acquiring the skills specified in standards and curriculum, as well as to provide tools for education reform. Making sure that children learn should be at the heart of any education system. National, regional and international assessments have contributed to a growing realisation that increased access to primary school, inequality in learning achievement between countries and within countries remains wide. Utilisation of the results of national tests is an important point of accountability and remediation.

5. Budget structures and procedures

The past decade has seen major developments in the reform of budget structures and procedures. Increasing pressure for more effective service delivery and accountability from both within countries and the donor community has seen public financial management reforms, including the implementation of Medium-Term Expenditure Frameworks, moving away from line-item to programme-based budgeting, intergovernmental planning processes such as the Poverty Reduction Strategy Papers, the introduction of cost centres to improve performance management and accountability and new public accounting and expenditure tracking systems.

5.1 Budget reform

Budget reforms have met with varying success, with most SSA countries successfully implementing the MTEF. Medium-term budget allocations have led to stability in education sector planning and countries are able to develop costed medium-term education plans (UIS 2011; Allen 2009; IIEP 2006).

Problems still lie in budget execution, expenditure tracking and monitoring the implementation of policy targets.

While public financing mechanisms have improved, there are still some constraints related to administrative capacity and governance. It has been argued that simply allocating public resources for the right goods and services may not lead to desired outcomes if good governance is lacking. In the education sector, the consequences of



weak governance are evident, for example, in the leakage of non-salary cash flows and instructional materials, misallocation of resources, weak teacher management (including the problems of high teacher absenteeism and low motivation), and so on. (UNESCO 2008 in UIS 2011: 21)

A number of expenditure tracking and budget implementation monitoring initiatives involving non-governmental organisations have been established over the past years. Most focus on promoting local capacity for budget monitoring and tracking exercises. Some of the findings from the CEF (n/d) report on four country case studies from SSA (Ghana, Kenya, Malawi and Uganda) exemplify the findings of most such projects. At the school level, gaps emerge quite systematically in the following areas:

- Educator management is sporadic with educators not always allocated to schools according to the stated pupil–teacher ratios and attendance not being monitored;
- Grants to schools are not always disbursed and confusion often arises as to what the intention of grants is as well as who manages and audits them;
- Textbooks and materials fail to arrive;
- School buildings are not repaired according to plan;
- Policy objectives and strategies for attaining them are not clearly articulated by government.

At a system-wide level the failures in budget execution, expenditure tracking and monitoring of policy targets are obviously country specific. However, a number of reasons appear to be somewhat universal. The following list is certainly not exhaustive:

- Underlying all other reasons is capacity – both human and physical – skilled staff, underdeveloped administrative systems, lack of physical facilities and IT hardware often plague even central head offices and are endemic in decentralised regional, district and school levels (Allen 2009; IIEP 2006; UIS 2011).
- On the one hand, IT solutions are too often seen as a panacea for solving budget implementation and monitoring problems when the administrative and financial management systems that underlie these are not clear. And on the other hand, a lack of integration of IT systems means that data collection is often duplicated. For example, teacher payrolls are managed by ministries of finance and teacher human resource management falls under the ministries of education. The collection, transfer and utilisation of information between these systems is frequently an impediment to budget planning, execution and monitoring. More effective ways need to be found to manage this, however, a fully integrated IT system is not necessarily practicable (or necessary).
- Often overly ambitious system-wide changes with large scale IT projects – such as an Integrated Financial Management Information Systems (IFMIS) – are not sufficiently carefully designed with realistic time frames and local conditions or capacity in mind (Allen 2009).
- Programme- or performance-based budgeting rely intrinsically on being able to identify accountable cost centres but weak administration and governance and the absence of sufficient expenditure tracking render these initiatives obsolete – with a de facto line-item budgeting system remaining in place (UIS 2011).
- Different ministerial priorities for expenditure tracking/auditing often mean a diversion of systems rather than an integration thereof. Ministries of finance are



not driven by the same performance indicators as ministries of education – understandably. This does, however, give rise to duplications in data collection and analysis.

- Full scale performance and expenditure reviews are often expected to be produced annually – leading to enormous overload and ultimately a lack of meaningful information. Bi-annual or sample surveys done well can be far more valuable.
- Unrealistic performance indicator requirements lead to wastage of effort and again, are ultimately meaningless.
- Decentralisation requires more expertise in budget implementation and tracking.

Pooled aid

The 2005 Paris Declaration on Aid Effectiveness was instrumental in harmonising aid delivery by donors with the objective of having funds flow through government's budgeting (Sector Budget Support) and expenditure reporting procedures. In the interim, pooled funding continues to coordinate the joint funding of a number of development partners and government funding of a sector-wide approach (SWAp) to education development. According to the Fast Track Initiative Secretariat (2008), this approach has been implemented in all donor recipient countries.

The intention of moving from pooled funding to budget support would be to both reduce the duplication of aid budget modalities and expenditure reporting. In this regard, while most countries are able to pool donor funds and align them with country priorities, a lack of sufficiently rigorous public financial management means that they are not yet able to bring them into the budget and expenditure reporting processes. In general, pooled funds have continued to be managed by donor financial management procedures – frequently requiring duplicate financial reporting systems to operate.

A major stumbling block to moving from pooled funding to budget support has been the development of overly data-intensive performance criteria and indicators to measure and monitor the impact of such spending has been onerous and in many cases either data doesn't exist or where highly expensive data collection processes have been put in place, the reporting process has 'degenerated to a ritualistic exercises and the accumulation of vast databases of redundant and unused information which are not linked to the budget itself' (Allen 2009: 13).

5.2 Capacity development in education planning and budgeting

A lack of planning and management capacity has been identified as a major obstacle in achieving EFA. The 2005 Paris Declaration argues that 'the capacity to plan, manage, implement and account for results of policies and programmes is critical for achieving development objectives'. Given that the education budget receives the highest share of the national budget, it is imperative that funds are spent properly and for the benefit of society as a whole.

Changes in the planning and budgeting processes, increasing use of data for decision-making and new information technology systems mean a greater diversity and depth of skills are needed – both in terms of the individuals and in terms of the organisational processes. Governance reform such as decentralisation means that staff in regional and district offices also need access to training programmes.

Individual capacity levels differ widely between and within countries. In some countries planning and budgeting departments have skilled individuals who contribute effectively, in others the skilled individuals are used ineffectively and in others there is a lack of skilled staff



(De Grauwe 2009). A shortage of suitable candidates and the loss of trained individuals mean that training and development need to be continually entrenched in the organisational structure rather than ad hoc programmes.

'Staff effectiveness depends not only on the level of skills but on the functioning of the organisation within which the individuals work' (De Grauwe 2009: 15). Organisational change which facilitates capacity building is an extremely complex process and flexibility within the public service employment process to recruit technical staff at competitive salaries is often an impediment to building planning and budgeting units.

Sustainable capacity development requires complex interventions at the institutional, organisational and individual levels. The following proposals for the overarching principles are made:

- National leadership and ownership needs to be the starting point of any intervention;
- Strategies must be context relevant;
- They should include an integrated set of interventions;
- Partners should commit to long-term investment in capacity development while working towards some short-term achievements (De Grauwe 2009).

The specific training needs in this regard are extremely broad. The following list is a modest attempt to give some sense of what is needed in the education planning and budget management area:

- EMIS development and management of an EMIS system;
- ITC and data processing;
- Collecting, processing and analysing education statistics and indicators;
- Policy research, analysis and advice;
- Monitoring and evaluation;
- Payroll and teacher management;
- Inter-ministerial collaboration;
- Increasing the use of data for evidence based planning (Ulleberg & De Grauwe 2009).

6. Conclusion

This paper has looked at the gains in access to education in sub-Saharan Africa over the past decade. Universal Primary Education is close to 100% in all but a few countries and secondary and tertiary education enrolment is growing at a rapid rate. Within this, gender equity has been substantially improved – especially at the primary level. Efforts need to be concentrated on improving the quality of education throughout the system but especially in the formative years where children who fail the first hurdle seldom catch up. Expanding relevant secondary and tertiary education and training of good quality is crucial to the longer-term economic and social development of the continent.

For this to happen funding for education in SSA will have to continue to grow in real terms. Returns to investment in education and training is long term and both governments and donors need to be reassured of the worth of continuing to fund education in SSA. Part of this reassurance lies in making sound, evidence-led policy decisions, feasible and solidly budgeted plans, well managed implementation, systematically monitored progress and thorough financial accounting. To this end the paper looked at some of the prevailing strategies for



improving the quality of education – the key being that children attend schools with at least the minimum of facilities, that they are healthy and well fed, their teachers are committed and trained appropriately and that the resources available arrive at schools timeously and are well utilised.

In this regard much research needs to be done into appropriate policies and strategies, including relating the most effective inputs to outcomes. Planning and budgeting reforms and capacity development are of great importance but need to be related to the management of the system from the human resources through to the material resources and infrastructure development. Without good governance at all levels of the system, the education development on which the future prosperity of SSA depends will not come to pass.



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