What’s next: how to cope with the success of primary Education For All?¹

Secondary Education In Africa (SEIA)²: engine for economic and social growth

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This article examines some of the issues surrounding the gradual achievement of universal primary Education For All (EFA), and provides arguments for better recognition among senior policy-makers and international donors that ‘There should be life after primary EFA.’ This makes the question ‘What’s next?’ more relevant for Africa’s EFA debate. How good is the quality and relevance of what is taught and learned at primary and junior secondary levels? How does Africa compare internationally with, for example Asia and Latin America? As investment in African education increases and expansion is planned there should be better guarantees on the quality and relevance of graduate output. What will society get in return? Good quality and relevant basic education contributes to social and economic growth. What we do not know is if today’s primary and junior secondary graduates in Africa can compete with those from other parts of the world. This will bring us to analysing the examination and assessment practices in Africa. It will require debate among African and international educators and stakeholders. Can there be better junior secondary education in Africa after decades of neglect by donors and governments? If so, which curricula considerations should be taken into account?

Africa’s primary EFA ship is cruising along and governments and donors are paddling ferociously. But where are we going and what will there be on the other side? As one set of challenges is being solved through the international community’s efforts to achieve primary EFA and the Millennium Development Goals (MDGs) throughout the world, another equally large task is being created. In Sub-Saharan Africa, the demand for junior and senior secondary education is increasing rapidly. The current completion rates for junior and senior secondary education in Africa are only about 15-25% of the relevant age groups (see box 1).

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² The multi year SEIA study initiative, launched in 2002 by the Africa Human Development Department of the World Bank, will be completed in 2006 with a final (3rd) regional SEIA conference. All outputs are published on our website: http://www.worldbank.org/afr/seia/. We gratefully acknowledge generous financial funding from the Norwegian and Irish Education Trust Funds, and the French Government.
How can Africa cope with the success in EFA?

Secondary Education In Africa (SEIA)

There are four main reasons for investing in secondary education in Sub-Saharan Africa. First, secondary education is crucial for economic growth. Globalisation, the increasing importance of Information and Communication Technology in the 21st Century, and rapid technological change have made knowledge a critical determinant of competitiveness in the world economy. Secondary education provides countries with critical higher level skills and knowledge needed for economic growth, including further learning and training of professionals such as technicians, scientists, and entrepreneurs.3 Second, secondary education plays a crucial role in the socialisation of young people and in targeting youth-at-risk. The age group in secondary education demonstrates the greatest capacity to change behaviour.4 Secondary education plays a decisive role in fostering positive social attitudes, civic values, and in fighting against drug abuse and diseases like HIV/AIDS and malaria. Third, secondary education yields considerable private returns. It provides the opportunity to acquire attitudes, skills, and competencies that are unlikely to be developed over the primary grades. These skills enable youth to

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develop job-oriented skills, participate fully in their society, take control of their own lives, and continue learning. Fourth, the demand for secondary education, especially at lower secondary level, is increasing rapidly. The dependency ratio, the number in the economically ‘non-active’ to ‘active’ population, in Sub-Saharan Africa (SSA) is the highest in the world.

Box 2: Africa’s secondary education – a reason for concern

We are living in a complex and contradictory world, marked by rapid, deep-going transformations. The scientific and technological revolution no longer means occasional or periodic upheaval, for it has become a constant human activity process. Every day it propels new discoveries and breathtaking progress in all spheres of human activity, economic, social, cultural and political. One consequence of all this, a major feature of our times, is the hegemony of intellectual capital.

Yet all this today depends on the stock, the level and the quality of the education and training that each country is able to provide the current and future generations of its citizens. I am convinced that basic education for all is still indisputably a priority for Africa. Nevertheless, the very fact that it is still a priority calls strongly for increased attention and greater efforts with regard to other levels of the system, as part of a comprehensive, balanced approach to the development of education.

Clearly, from this perspective secondary education is a leading concern, for several reasons, only a few of which will I mention here. First, basic education is increasingly viewed with a vision that would extend compulsory schooling to the age of 16, thus including the first cycle of secondary education. Second, the progress made towards universal primary education directly results in greater pressure on secondary education and heightened demand from pupils and their families in both quantitative and qualitative terms. A third reason is that the continually increasing complexity of human existence and the world of work, spurred along by the information society and our knowledge-based economy, demand a level of preparation for young Africans that goes far beyond five or six years of primary education.

This is why we advocate a significant expansion of access to secondary education. The African governments and their development partners, the international community and the funding agencies, urgently need to provide proper responses to this need, or else risk breakdowns and inadequacies that will create social and political tensions and conflicts that will prove increasingly difficult to handle.

Mamadou Ndoye, Executive Secretary of the Association for the Development of Education in Africa (ADEA), 4th SEIA regional conference Kampala, Uganda, June 2003

It is well known that economic and social development requires a critical mass of skilled labour with relevant key competencies. Primary education remains a priority for all Sub-Saharan African governments, but at the same time pressure (social, political and economic) is building up for increased access to junior and senior secondary education.


The SSA Youth dependency ratio is determined by the high proportion of people under 20 years of age (in many SSA countries around 40-50%).
cycles. Improved communication, regional and international exchanges of trade and information, higher aspirations of Africa’s youth, these all make for a powerful and dangerous mix if governments will not be able to respond adequately.

The responsibility for a proper response to build improved (junior) secondary education access also lies with the international donor community, which has so far remained relatively cool to the idea that there should be donor responsibility for ‘life after primary completion’ in Africa. In social terms, there are huge pay-offs for better access to and quality of (junior) secondary education. Citizens who have completed ‘basic education’ have fewer children, lead healthier lifestyles, get their own children to school, and are better able to contribute to the economic development of their countries. A completed

Box 3: Chile changes curricula

The key decision regarding curricular structures of secondary education is about the boundaries (curricular, temporal, institutional, etc) which establish a differentiation between general and vocational education.

In Chile, as a result of the reform of the curriculum of secondary education (1998-2002), the difference between the two modes of secondary education was narrowed, from four to two years. The grade in which the curriculum became differentiated was postponed, from grade 9 to grade 11 (or from 14 to 16 years of age). In the first two years of secondary education (grades 9 and 10), the new curriculum structure contains a common curriculum of general education, independently of whether a student attends an academic (general) or vocational educational institution. Thus, all students in the country share a common educational experience until grade 10 (prior to the reform the common curriculum ended with primary education, or grade 8).

During the final two years of secondary education (grades 11 and 12), in both the academic and vocational strands, the curricula combine general education with specialised education. In the academic mode approximately two thirds of the time is spent on general education, including 9 traditional curricular areas: language, maths, history and social sciences, philosophy and psychology, science, technology, physical education, art and religion. Conversely, in the vocational strand about two thirds of the time is devoted to specialised education.


basic education also can reduce the spread of HIV-AIDS and other (sexual) diseases. Many of these gains cannot be achieved with only primary education (of often weak quality). And African countries face the pressure of a growing number of primary education graduates with higher expectations for further learning and insufficient opportunities. This is particularly true for children of the poorest families.

7 We use the OECD’s definition of basic education: nine years of completed schooling with a graduate profile that follows international quality trends and satisfies the need for local knowledge and relevance. In most middle and higher income countries compulsory and free education covers the age group from 5 to 16 years.

SEIA, Africa Region Human Development (AFTHD), World Bank; Nov2004
Jbregman/GS: Article prepared for NEPAD JB2411 NEPAD SEIA-Trends article (commts&revised) .doc
Today only about 25 million children of the secondary age group out of the total of about 90 million\textsuperscript{8} in Africa are in (junior) secondary school. In both the primary and junior secondary cycles in Africa there remain significant quality, inequity and efficiency problems. What is for example the graduate profile of primary and junior secondary school leavers in Sub-Saharan African countries? Is this profile what society and enterprises need? Do school leavers have the required and adequate skills and competencies? Are basic education curricula changing with the changing times? In general the answer to this question is that there is more we don’t know than what we know. We do know that most curricula for junior secondary in Anglophone and Francophone Sub-Saharan African countries have not changed significantly over the past decades, and that at secondary level the curricula continue to be subservient to the academic selection process for the small chance that a student will enter university. This produces systems characterised by the large number of failures rather than successful completers. It should be noted that Sub-Saharan African countries can no longer afford these kinds of practices. It stands in the way of expansion.

Improving internal efficiency will free up resources for expansion. Money saved through efficiency gains should be applied back into the schools and classrooms to enhance quality and relevance. Governments should use international trends as a yardstick for what education systems should deliver. For example roughly the Organisation for Economic Co-operation and Development (OECD) countries allocate between 5-8\% of Gross Domestic Product (GDP) to their education sectors (public and private). Allocation to public schools are about 12-16 percent of total public budget and the recurrent public salary bill is about 18-22\% of the total public wage bill. This money delivers roughly universal basic education completion (5-16 year age group) of

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\textbf{Box 4: Contents and focus of subjects in Chile}

Regarding the foci of changes within the school subjects, the reform included changes in \textit{orientation and content}, according to three criteria: i) changing from an emphasis on contents to an emphasis on skills or competencies; ii) updating and enriching subjects, or requiring higher standards of achievement in them; and iii) ensuring meaning or relevance of the curriculum in terms of pursuing connections to students’ lives. Given the needs of an information and knowledge-intensive society, the skills that are emphasised by the new curriculum, include: ability for abstraction, systemic thought, experimentation and learning to learn, communication and co-operative work, problem resolution, managing uncertainty and adapting to change. The new curriculum also promotes the development of civic habits and attitudes built upon the unquestionable value of democracy and human rights.

\textit{Cristian Cox, Organising Curriculum Reform in Secondary Education: Clues from Latin America. Paper presented at the 2\textsuperscript{nd} Regional SEIA Conference, Dakar, June 6-9, 2004.}

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\textsuperscript{8} Source Unesco Institute of Statistics (UIS) and the World Bank Africa Region SEIA (latest data)

SEIA, Africa Region Human Development (AFTHD), World Bank; Nov2004
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reasonable quality and relevance, up to 80% completion of the senior secondary cycle, including technical and vocational education and (general, pre-job) training.

In many low-income countries current spending levels (3-4% of GDP and relatively high public wage bills) deliver only about 60% or less completion of basic education, less than 25% completion of senior secondary and less than 1-2% enrolment in higher education. In addition, many of the indirect costs and private family contributions are not included in these calculations. And the provision of good-quality teaching and student textbook materials and the school environment leave much to be desired. Anybody can do the maths on the sustainability of expansion using the current unit costs in Sub-Saharan Africa. It will just not be possible without major improvements in efficiency (reduction of repetition rates, increasing completion rates, improved teacher management, better use of infrastructure through double shifting in urban areas, and slimming down the bureaucracy in central ministries). What is it that the current education systems deliver for the public resources allocated to them? On which sustainable basis can these systems be expanded to reach universal primary and a reasonable (40-60%?) junior secondary coverage in the next 10-15 years? These are questions that involve politicians as well as senior technicians.

Current completion rates for junior and senior secondary education in Africa are only about 15-25% of the relevant age groups and over 50% of the population is under the age of 20 years. Lack of education opportunities and poverty increase the risk of HIV/AIDS, conflict and war. To combat poverty, fight HIV/AIDS and get sustainable economic and social growth Africa needs a critical mass of skilled youth with the relevant key competencies.

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Box 5: To expand secondary education, developing countries need to:

- Increase government resources
- Reduce the unit costs of schooling without changing the content or form currently prevailing in the two cycles of secondary education.
- Modify the content and/or the form of secondary education. This would be useful particularly for lower secondary, which could gradually be integrated in a basic education cycle covering 9 or ten years.
- Change the financing structure for secondary educational services; that might work for the two cycles, but possibly under different modalities. For the first cycle, the role of communities could be taken into account, while for the second cycle the role of private education could be studied. At the upper secondary level, increased private financing could help regulate student flows to keep them in line with the demand for educated workers on the part of national economies.


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9 Investment in secondary education yields considerable social and private returns. See ‘Summary of Secondary Education reforms trends in OECD countries with an Africa perspective’; presented at the 1st
For example, under the current conditions it may be a cost-efficient and strategically desirable policy to expand the primary cycle, at least in low-income countries where this cycle is only five years (Madagascar), and/or to seek a better linkage of the junior secondary with the primary cycle, so that a more seamless basic education track will emerge. However, most Sub-Saharan African countries have not started this debate. The donor workshop\(^{10}\) in Amsterdam in October 2004, organised by the Vrije Universiteit and the SEIA core team (see Box 3.) from the World Bank’s Africa Region, was the first meeting where realistic projections were discussed and some discussions took place over what it means to establish sustainable expansion of primary as well as junior secondary education in lower-income countries in Sub-Saharan Africa.

Sub-Saharan African governments rightly continue to focus on achieving primary EFA goals. Several countries are well underway; for example Botswana, Mauritius, Namibia, Senegal, South Africa, Tanzania, and Uganda. Others follow close behind but lack of secondary education development is now threatening these achievements.

In Sub-Saharan African countries where EFA is delivering results expansion of EFA objectives into a Basic\(^{11}\) Education framework can be a logical next step (as a gradual transition.) However, SSA governments first need to address the crippling wastage due to high repetition and dropouts and change the outdated curriculum and assessment practices. Without improving the quality and relevance of what is taught and learned expansion of access will not be financially sustainable. While there is an urgent need to give more attention to the quality of pre- and in-service teacher training, the main obstacles are the lack of (1) management and effective use of teachers; and (2) budgetary capacity of governments to recruit the teachers once trained.

Lessons can be learned from successful middle-income countries over the past decade in Asia, Europe and Latin America, where primary and junior secondary education is rapidly becoming universal with private and public funding. Africa needs sustainable primary and secondary education provision. It also needs to adapt to international standards and secondary students should be able to make flexible transitions between levels.
Generally there is agreement across stakeholder groups and countries that good quality and relevant junior secondary education should include subjects related to four areas:

- Sciences and Mathematics
- Social, Life Skills and Geo-World
- ICT and Technology
- Languages and Communication
- Extra curricular activities

How to translate this into a curriculum for junior secondary is left to the education experts, teachers and educators. This is no easy task. This requires junior and senior secondary education to show flexibility and change over time to ensure that what is learned is of the highest quality and relevant for the local social and economic environment and labour market. For secondary education a thorny question is to what extent the curriculum for junior secondary education should be directly linked the world of work. General consensus has emerged over the past decade that junior secondary education should be included in a basic education cycle where general skills and competencies are learned. At senior secondary level the picture is much more complex, and there is a mix of vocational and technical training involved. In many low-income African countries, however, governments continue to run the secondary system mainly as a selection place for university entrance. That is a very expensive and unsustainable way to do business, and it is an outdated concept.

Most donors in Africa exclusively support primary education under EFA. However, EFA needs to be part of a holistic and broad education sector strategy. Exclusive EFA focus on primary education is causing unsustainable pressure on access to junior and senior secondary education, resulting in social and political problems. It takes several years to prepare and implement investment programmes in junior and senior secondary education, even if the funding would be made available. Many SSA countries are approaching close to universal intake into Grade 1 (the last EFA monitoring report estimates the average intake rate for SSA at 91% for the year 2000/01). While much remains to be done to improve quality and retention to reach a 100% completion rate in primary education, the number of primary school leavers seeking admission to secondary education is increasing rapidly in Africa. Therefore, it is urgent -- for social, economic, financial and equity reasons -- that governments and their development partners start to explore now how to address this increasing demand in a sustainable and cost-efficient way.

To develop sustainable strategies for junior and senior secondary education will be much more difficult than for primary education, because difficult choices will need to be made on issues such as:

- What is an affordable percentage of coverage for junior and senior secondary education cycles in specific African countries?
- What is the most effective mix of general, technical and vocational education and training at junior secondary level in Africa?
- How can the curricula and assessment processes be improved?
- What is the capacity and accountability needed to provide junior and senior secondary education in a constrained economy?
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- How can governments set up effective public-private partnerships for adequate provision of junior and senior secondary education services?

Responding to these issues will require civil society consultations leading to a national secondary education strategy, and making difficult political and technical choices. The biggest question is the economy's ability to finance an expansion of secondary education and to provide gainful employment or further learning opportunities for junior and senior secondary graduates. More needs to be done regarding up-front technical assistance, research into “what works”, international comparative studies, and the development of sustainable national strategies for post-primary education sector development.

**Box 6 Technical education in Africa**

To respond to the growing demand for technical assistance in confronting the problems of reform in secondary education, the Africa Human Development Department (AFTHD) started the regional initiative “Secondary Education In Africa (SEIA)” in 2002. It is a multi-year study (2002-2005) undertaken with public and private African educators and stakeholders, and international donors. The SEIA initiative aims to produce and disseminate information and knowledge to assist Sub-Saharan countries in the development and reform of their Secondary Education systems and to promote coordination and exchange of information between African secondary education stakeholders, the private sector and civil society organizations, and the donor community.

SEIA outputs are (i) an overview of reform trends and best practices in secondary education in OECD countries, (ii) a comparative secondary education database for operational purposes, (iii) eight thematic studies on specific relevant issues, (iv) three regional conferences for senior decision-makers in African countries and the donor community to disseminate the results of SEIA, and (v) assisting SSA countries with technical assistance and research to develop their national secondary education strategies. Funding for the SEIA initiative by the Norwegian Education Trust Fund (NETF), the Dutch and Irish Trust Funds, and the French Government are gratefully acknowledged.

To date five of the eight SEIA thematic studies are nearing completion, several African countries have national post-primary strategies in place, and lending for it is increasing. However, much remains to be done, and demand is outstripping the capacity for support to African governments and education institutes.

*Source: African Region Human Development, AFTHD, World Bank, Oct. 2004*
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All OECD countries have recognised the importance of a dynamic and changing secondary and higher education and training market, which responds to social and economic demand. SSA economies cannot develop with only primary education graduates. The conclusion should be that: ‘Primary Education For All is necessary, but it is not enough!’ Without a relevant and well-targeted education and training for the age group from 12-19 years, it will be impossible for countries to grow and develop. In addition, there are significant social and economic costs for countries failing to do this. Recent conflicts in Sub-Saharan Africa resulted in major upheavals and economic damage (Uganda’s conflict in the north, for example, driven by the Lord’s Resistance Army rebels). Many of the soldiers and other players in these conflicts and wars are the 12-19 years age groups.

Sub-Saharan Africa needs to integrate new teaching and learning mechanisms for the large proportion (80%) of out-of-school youth. This requires measures regarding the current informal education and training systems. HIV-AIDS, life skills, civics, and health education will need to be integrated at the end of primary, but more importantly will need to be part of both the lower- and upper-second cycles. The role and goals of SSA secondary education need to change: from the current (out-of-date and highly inefficient) exclusively academic (university) preparation, to a self-standing and world-of-work preparatory cycle for the majority of the relevant age groups of 12-15 and 16-19 year olds.

A specific Sub-Saharan Africa problem that demands our attention is the secondary school environment. This not only affects education quality, but also the physical school environment. Ideally secondary schools should stimulate and encourage learning for and should be governed by a code of conduct for secondary teachers, and transparent agreed performance standards. Well-functioning or effective secondary schools have a distinct learning and teaching environment. This involves good leadership from the Director and a school “identity”, which is based on consensus and agreement with the major stakeholders. This is in most cases expressed in a school-guide or school information leaflet, which identifies the main characteristics, sets the tone for the school regulations and ethics. When teachers are applying they are informed about the “school identity, which involves also “rules of conduct” and expected quality standards of teaching. This is often referred to as the secondary school’s “code of conduct”. It is all part of the package that defines the secondary school. Secondary school effectiveness studies\(^\text{12}\) have shown that a clear school identity and rules of conduct are important factors for the quality of learning and teaching. However, this is impossible as long as physical living conditions in secondary schools include the current disastrous and inhuman boarding facilities. In Nigeria and Madagascar the boarding facilities are low on the list of priorities for improving secondary (general, vocational and technical) school infrastructure. Small prison-like rooms are shared by 3-4 students. Students are

\(^{12}\) See for example” School Effectiveness Report in Belize”, a study of Secondary Schools in Belize, prepared with the Ministry of Education and Sports, Jaap Scheerens and Jacob Bregman, December 1999, World Bank.
adolescents (often ranging 16-24 years), and come from mostly poor family backgrounds. The sanitary facilities are minimal or lacking totally, and would not pass any standard inspection in most middle- and higher income countries. Furniture is broken, the hallways are dark, and ventilation is poor. Infections are a likely risk, and health services are either completely dysfunctional or simply unable to cope with the needs. In most cases these facilities do not stimulate or help “learning” for the “brightest” young people of a country. In most OECD countries these physical aspects of the secondary school environment have been fixed at an early stage. We must develop the similar solutions for Africa. This will require in-depth studies on improved housing and boarding, better school buildings, and rigorous implementation of quality and efficiency standards for infrastructure and the school / boarding environment. When 12 to 15 and 16 to 19 year old students live in undignified conditions in secondary school boarding facilities it is unlikely they will gain the necessary self-respect and respect for others, develop healthy life styles, and contribute positively to their insertion into the world of work.

A reform underway in England includes the aim that the education and training for 14 to 19 year olds should:

a) meet the needs and aspirations of all young people, including those who face obstacles to their progress in learning, and those who have the potential to reach the very highest levels of achievement;

b) raise the levels of achievement of all young people, reduce the gap in achievement between various socioeconomic and ethnic groups and increase participation in post-16 education and training, including higher education;

c) broaden the skills acquired by all young people to improve their employability, bridge the skills gap identified by employers and overcome social exclusion;

d) be delivered through flexible, integrated and innovative networks of providers committed to achieving ambitious new goals for all young people in the 14–19 phase of their lives and their education.

African economies need to build up their human capital by improving quality, efficiency and relevance of education. A tough competition for Africa comes from the middle- and higher income countries. These countries are continuously improving, reforming and re-shaping their education systems. The example from the UK education system given above is relevant, since it illustrates the importance that countries like the UK attach to their 14-19 year age group. Most OECD countries do the same. These “principles” or “major objectives”, formulated at the political level in the UK, represent the politicians’ commitment to improving secondary education in England. It is important for Africa to show the same kind of commitment and have clearly states general objectives for improvement. Translating these general objectives into technical and practical pathways and learning programs is of course not easy and will require significant expertise from the senior technicians. But in Africa we only have seen time and again, that what is called “secondary education reform” is simply a change in the written syllabus by university professors (and other technicians), without underlying and generally accepted political guidance and support.
It is interesting to take a look at some of the major secondary education reform trends in OECD countries and throughout the world and discuss possible best practices for Africa. Most industrialised OECD countries have implemented major primary education reforms in the early 1990s, and have subsequently continued to reform their lower- and upper secondary education systems over the past few years. Many of these secondary reforms are still ongoing, also fuelled by the increasing and rapid changes brought by the information and communication technology (ICT) revolution.

Where were the most OECD countries with their secondary education in the second half of the 20th century and which were the major issues they have dealt with over the past decade or so? Trends in secondary education are of course intertwined with the global trends in the education systems as a whole. The pace and intensity of education reforms in OECD countries accelerated over the past decade. The focus over the past years has been on youth issues, in which secondary education reforms played an important role. The general move is to retain all 12 to 16 year-old children in schools and to provide meaningful further learning paths for the post sixteen age group. This was accompanied by the launching of incentives for life-long-learning schemes, with the support of enterprises and education stakeholders. Thus new so-called “education industries”, many in the realm of secondary education, have sprouted up in Asia, Latin America and Europe, and lately also in some African countries (Botswana, Mauritius, South-Africa, Senegal). These “education industries” exist already in the industrialized countries, and are one of the driving forces behind the technological and economic dominance of these countries. Universities have “teamed up” with national and international companies to offer more variety of courses, mix international practical work with study, and generally provide better links to the transition from school-to-work. Attracting the brightest foreign students gives a country research power, innovation, and stimulates research. In Botswana, Mauritius, South-Africa and Senegal efforts to establish a more international “exchange program, with mutual benefits for the country and the individual students, are emerging. Lately a second goal in higher-income countries, resulting from the restructuring of higher education, is to attract foreign students for their “paying power, which helps universities to bridge the funding gap from public resources. This requires a country to (1) have an attractive and flexible university environment, (2) have an excellent reputation for high-quality and reliability; (3) offer good facilities and extra-curricular packages for students and scholars; and (4) offer effective student and staff services on campus and / or in distance learning, and (5) have a network of certification that is recognized in the country of the student’s origin and elsewhere.

Although there is a firm conviction among most education stakeholders in the world that ICT will and should contribute to the delivery and effectiveness of education, for many African developing countries ICT presents a risky and capital-intensive investment in their education and training system. The costs are not only relatively high for hardware, but also for training of teachers, providing course materials and updating the courses and equipment at an ever increasing pace as the ICT market further develops. To make rational and cost-efficient choices under those conditions is challenging to say the least, and will use a significant proportion of scarce public resources in an environment of great fiscal constraint in all African countries. There are also prudent reservations emerging.
about the educational benefits of ICT investment versus investments in the classical educational inputs, such as textbooks, teacher guides, and extra-curricular materials. However, ICT is here to stay and African educators are already integrating it. Mauritius has integrated ICT in its primary and secondary education. In Botswana, Senegal, Namibia, and South Africa the ICT integration in secondary schools is underway, in many cases supported and driven by private groups. It should be noted that in many African countries ICT education is being introduced through the “backdoor”, with the help of the private sector and/or enterprises and parent associations. However, the initial investment is significant, and in most cases the recurrent budget does not include a regular replacement and “updating” of the equipment and methods. The ICT curriculum is constantly undergoing (rapid) changes in the middle- and higher-income countries.¹³ For the lower-income countries it is all the more important to get the private sector involved and to look at the effectiveness of the ICT investment against other priorities (for example textbooks, teaching materials supply). In lower-income African countries governments are “tempted” to get into vocational training on ICT. This would be a big mistake, since specific “job-training” changes rapidly (too fast for education ministries to follow). Job-training is best left to private initiatives (private training institutes) and enterprises. If warranted, specific and targeted public financing could be considered for individuals, which has proven to be effective. After all, people will vote with their “feet” if they want the best for themselves.

The benefits of ICT investments which have already proven their pay-off are in administration, management and monitoring. In addition, the potential for improved access to information (for example in school and training centres’ libraries) is enormous and does not stand in doubt. It will be crucial to involve the private sector in Africa to minimize risks, provide greater flexibility and better market orientation, and to make sure that ICT investments and use at the secondary education level responds to economic and labor market demands. This will be a tough challenge for all African countries.

1. Overall OECD secondary education reforms¹⁴ over the past decade focused on:
   a) Meeting the needs and aspirations of all secondary school-age people, including those who need extra support in learning, and those who have the potential to reach the very highest levels of achievement.
   b) Raising achievement levels and reduce the gap between various socioeconomic and ethnic groups.
   c) Increasing participation in post-16 education and training, including higher education and vocational (job) training
   d) Promoting Life-Long Learning (LLL) opportunities and improve skills for future employability.

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¹³ See the OECD education and the European Union education websites on ICT programs. Also many EU countries have national education websites and tools for teachers of ICT.
¹⁴ Source: author’s review of several education and training websites of OECD countries.
e) Using and integrating ICT as learning and teaching tools. This includes specific teacher training for using ICT as a pedagogic tool, and (separately) the development of ICT as a self-standing subject to provide all secondary graduates with basic ICT skills.

f) Modernising the content (curricula) of what is learned and taught, with specific standards for lower and upper-secondary education level.

g) Bridging the skills gap identified by employers and overcome social exclusion. There is now a general consensus that the lower- and upper-secondary education levels need to focus on general skills (even though there is more general vocationalisation at the upper-secondary level, and an integration of vocational training to some degree).

h) Developing general skills for further study and faster integration in the “world-of-work” (which has taken over from the more traditional notions of technical and vocational education) : (i) use and apply communication and information; (ii) apply basic mathematics and science principles; (iii) working knowledge of at least one foreign international language; (iv) problem solving attitude and competency; (v) ability to work in groups; and (vi) general skills to undertake further learning and job training.

i) Promoting more flexible, integrated and innovative networks of providers committed to achieving ambitious new goals (over the past years new, shorter and innovative mechanisms and routes to obtain secondary completion qualifications have been developed.) In all cases the role of the private sector as provider, manager and financier has been enhanced and is pro-actively encouraged by the governments. This also includes the use of distance-learning, ICT use, and shorter courses adapted for second-chance students and adults).

Reforms in OECD countries during the early 1970s lead to lower secondary education becoming compulsory and a part of basic education. Mass education (in terms of quality, access and equity) was achieved by the late 1970s. However, new challenges were on the way driven by the information and technology revolution, which accelerated in the mid-1990s. During the early 1990s, the general focus of education reforms in most OECD countries was on improving the quality and relevance of education, and defining the role and responsibility of public education in the knowledge-based economy. First improvements in primary education were addressed. Many countries realised that primary school graduates needed (a) to be better prepared for the secondary level; and (b) an improved and more relevant curriculum to be able to succeed at the next education level. In many countries this led to a “rethinking” of the role and importance of pre-schooling. In the Netherlands, for example, the kindergarten level was integrated into an 8-year primary cycle.

Please note that an important and specific distinction is made in the definition of technical and vocational education (which promotes general skills and attitudes, preparing for the world of work) versus vocational training (which is job-specific training).
By the mid 1990s, most OECD countries were also implementing major structural reforms at lower- and upper secondary levels so as to adjust to the changing socio-economic needs. In addition, the profile of the job market changed (new job categories). This also pushed through significant changes at the tertiary level, and forced universities to change and diversify their services (more diverse and flexible courses).

Access, retention and transition policies shifted the focus to keeping students in the system, ideally through all of secondary education, rather than selecting them out. Special needs students were more integrated into general education settings. Repetition practices were significantly restricted and automatic access to lower secondary and also upper secondary became common. Student and teacher support systems at the (upper) secondary school level were strengthened and expanded (for example student guidance and information systems for easier transition to tertiary and vocational education and training and to the job-market). Accountability of secondary schools was significantly increased, bringing improved and modern management styles and performance-based monitoring. More schooling options at the upper-secondary level, such as private secondary schools with public funding, were provided to the public. As a result access to higher education also increased.

At secondary levels the curricula content changed with more emphasis on core knowledge (for example in the Nordic countries, the Netherlands, England, Scotland and France\textsuperscript{16}), and at upper secondary more flexibility of pathways. The vocational versus academic mix has been the ongoing debate over the past two decades. In the UK, the government wants half of all secondary schools to select two specialisations by 2006. This would be almost a separate paper. I prefer to leave it at this brief explanation. I added the footnote to look at the education websites of the UK and other countries.

\textsuperscript{16} Please see the websites of the Ministries of Education of these countries for more details and explanations.

\textbf{Box 7: Transition from school to work}

The issue of transition from initial education to working life has been a long standing policy priority among OECD Members. The transition from initial education to work is a key stage in laying the basis for continuing progression in learning and work throughout adult life. Some of the features which contribute to successful transitions are:

- Clearly defined, well organised, open and coherent learning pathways and qualification frameworks designed and developed in a lifelong learning process;
- Attractive and accessible information, guidance, and follow-up services for all young people integrating educational, labour market, and social counselling;
- Institutional frameworks for the organised and continuous involvement of and co-operation among all the relevant players at the national, sectoral, and local levels in order to achieve policy coherence and effective program implementation.


\textsuperscript{16} Please see the websites of the Ministries of Education of these countries for more details and explanations.
But with the arrival of ICT tools, there is a continuing move toward a greater degree of vocationalised and technical education at upper secondary level. However, this poses considerable challenges for teacher training and linking secondary students’ learning to local enterprises and industries. Changes in these areas are still ongoing and many OECD countries are experimenting with innovative schemes. For example in Scotland vocational training courses are offered as selective modules at the upper-secondary level in addition to the more academic-oriented subjects. This is realized through institutional co-operation between vocational colleges and more traditional secondary schools.

In all OECD countries the need for better monitoring of performance outcomes in terms of quality and efficiency is understood and accepted. New and efficient monitoring tools (using ICT) are on the market and are continuing to drive system changes. The academic orientation of the secondary education system began to be mixed with vocational training components. More pathways were created within and at the end of secondary education. Questions regarding the nature and purpose of vocational training were addressed. Most countries are moving away from costly, and often out of date, specialised job-training at secondary level. At tertiary level the universities, in many instances with private sector support and collaboration, changed and started to offer more diverse vocational training.

The need to have a flexible and mobile workforce, qualified for life-long learning necessary to compete in the global knowledge-based economy, generated questions regarding curriculum as well as educational practice. This concern was addressed since the mid-1990s by all European Union countries before the new group of members recently joined. Curriculum moved from input based to outcome based, providing students with key competencies such as team-work, problem solving and finding and applying relevant information. More emphasis was placed on application of

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**Box 8: Managing secondary schools in Mozambique**

Secondary schools in Mozambique generally face management problems, though the quality of management varies greatly. The salary of a School Director (irrespective of type or size of school) does not attract the kind of competition that would ensure high quality managers. There are no performance contracts and the system is characterised by the presence or absence of personal enthusiasm and commitment. Management is complicated by the dual (and often triple) shift system. Management training has been limited. Most principals knew of the ‘Better Schools’ programme, but its implementation varies from Province to Province.

Few schools have management committees or school councils, with representation from the community and civil society. This weakens the accountability of the school to civil society in general and to the local community in particular. Less than 20% of secondary teachers are women, and less than 10% of School Directors are female. This does not allow for the promotion of Role Models for girl students. The sexual harassment of girl students is reported to be an increasing problem and is not being treated as a serious management issue.

*Source: Secondary and Secondary Teacher Education Strategic Plan - Mozambique, 2000.*
knowledge and learning of cross-curricular skills rather than reproduction of knowledge. ICT as a subject as well as a tool of learning is now a major focus at secondary level.

The secondary teacher was also promoted as a facilitator of learning, offering students stronger incentives to participate and learn. Pre-service training included new methods for teaching the new skills aligned with the new curricula. A more systematic support, supervision and counselling for teachers, particularly new teachers was instituted.

Management and governance of the education system was decentralised, allowing for secondary schools to become autonomous, making context-specific decisions regarding programs, curricula and even financing. Standards for performance were developed and formula-funding mechanisms were implemented. This allowed inclusion and public funding of private providers. All reforms required national consensus-building and discussions, often over several years. Discussion involving all education stakeholders allowed for a more efficient distribution of roles and responsibilities required to govern at each level. This led to greater accountability for schools’ performance as well as for the system as a whole.

More sophisticated evaluation and monitoring systems were developed to meet a variety of needs: control, accountability, and to gain systematic, empirical knowledge for improvement. Presently in OECD countries, monitoring and evaluation includes multiple levels, with a clear coherence and identified performance indicators at municipal, regional and national levels. The methods and perspectives vary depending on the purpose of the evaluation. International assessments and evaluations are done in the OECD, where member countries agree to launch evaluative programs in certain subject areas. The results from these evaluations stimulate debates on education quality in each of the participating countries.

2. As lower secondary education became an extension of primary education, the ranking function of traditional exams became less important, and most OECD countries no longer have an examination between primary and lower-secondary education. However, most countries have maintained a diagnostic assessment of primary students at the end of this
cycle. The assessment results are used at the lower-secondary level. All these systems are computerised. It should not be forgotten that many of these measures and monitoring methods were only made possible because of the use of IT tools. A majority of countries still have national exams as an important part of upper secondary completion. Transition and admission to tertiary level courses and institutions are diverse, and in many cases complement the end-of-cycle secondary examination results.

As OECD countries have addressed all facets of secondary education through continuous reforms, so are African countries. As the 2000 World Bank report Can Africa Claim the 21st Century? points out, ‘the new century offers a window of opportunity to reverse the marginalisation of Africa’s people, and of Africa’s governments, relative to donors, in the development agenda. One of Africa’s main productive assets is its people.’

African countries and bi and multilateral donors have created partnerships to address education sector challenges. This includes a shift to a more sector-wide approach, combined with a priority for achieving EFA and MDG goals. There is a trend to emphasise the need for institutional capacity building and strengthening. However, there should be a critical analysis of why the results of institutional capacity building have been so minimal, or weak over the past two or three decades. Obviously donors need to set clearer (and more measurable) goals linked to performance indicators, and improve their identification of bottlenecks in these areas.

In most Sub-Saharan countries junior and senior secondary education is growing, and the demand grows even faster. This will contribute to achieving EFA and, more importantly, social and economic development growth. The issue to be discussed at Africa’s political and technical level is how expansion can be made sustainable in a cost-efficient manner, how the education system can deliver the competencies and skills necessary for the economy and society and, ultimately, make Africa more competitive on the global markets.