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Quality of Secondary Education in Africa (SEIA)

by Jacob Bregman and Karen Bryner

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DRAFT

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Quality of Secondary Education in Africa (SEIA)[1]

This Paper will be presented at the ADEA biennial meetings (in Mauritius from December 3-6, 2003). The focus of the ADEA meetings is on the challenge of "Learning: improving the quality of Basic education in Sub-Saharan Africa."

This paper is also one of the outputs of the multi-year "Secondary Education in Africa (SEIA)" study conducted from 2002-2005 by the World Bank's Africa Region (AFTHD) with Sub-Saharan countries.

1.   As one set of challenges is being solved through the international community's efforts to achieve primary Education for All (EFA) and the Millennium Development Goals (MDGs) throughout the world, another equally large task is unwittingly being created. National governments and donor organizations have concentrated investments on increasing school participation at the primary level in the developing countries. Most of the poorest countries, including most Sub-Saharan African (SSA) countries are increasing their efforts (resources) to improve access to and quality of primary education. However, in many countries this creates an increasing demand by parents and communities to let their children benefit from the next stages in the education cycle. Largely ignoring the need to simultaneously increase quality and capacity at the secondary level has created serious problems in Africa. The First Regional Conference on Secondary Education In Africa (SEIA)[2], which was held in Uganda in June 2003 and attended by 15 SSA countries, highlighted the need to re-examine secondary education issues for Africa.

2.   All African governments remain committed to achieving the EFA goals by 2015 and continue to allocate increasing resources to the primary level. However, all representatives at the first regional SEIA conference were frustrated by the lack of donor funds for a more balanced sector development approach. We cannot continue to "pump up" the volume of primary graduates in Africa without "opening the education and training path" much wider for further improvement. The rapid technological and economic development in the global market place needs to translate itself into visible change and better chances for the Africa's youth. Investment in the education and training of current and future generations is the only way to break a cycle of poverty, conflict and intolerance. Clearly, recent conflicts in Liberia, Burundi, Rwanda, and Ivory Coast have shown that the age group of 12-19 years of age is the most vulnerable in these conditions. Huge post-conflict investment needs by the donor community require a rethinking of our approach toward secondary education and a rethinking of its relative priority.

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[1] The contents, opinions and conclusions in this paper are the responsibility of the authors, and should not be attributed in any way to the World Bank and its affiliated organizations. Comments and correspondence can be sent to Jacob Bregman, Lead Education Specialist, Africa Region, World Bank at jbregman@worldbank.org. This paper will also be made available on our SEIA website http://www.worldbank.org/afr/seia

[2] The 1st Regional SEIA Conference was hosted by the Uganda Ministry of Education and Sports in June 2003. The conference was organized by the SEIA study group of the Africa Region in the World Bank, ADEA, WBIHD, and the Association for Educational Development (USA). Fifteen Anglophone and Francophone African countries attended. The 2nd Regional SEIA Conference is scheduled for June 2004. See website address above.

3.   Access to and successful completion of secondary education shapes the skills mix of the labor force, influencing international competitiveness, foreign investment and prospects for sustained growth (Lewin, 2003a). Several Asian countries, particularly those in East Asia, have successfully coordinated the expansion of education with a rapid transformation of their economies into manufactured good exports, allowing their economies to flourish in the new global economy (ADB, 2003). Governments must ask themselves what their intended purposes of secondary education and training are.

Secondary Education: A leading 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 process. Every day it propels new discoveries and breathtaking progress in all spheres of human activity, economic, social, cultural and political. By intensifying and globalizing interactions among people, cultures, economies and societies, the media explosion and economic globalization are giving global scope to the consequences that flow from these transformations.

One consequence of all this, a major feature of our times, is the hegemony of intellectual capital. It is now a direct productive force, a major factor in economic competition, a primordial source of cultural and ideological influence, and a key determinant of the prosperity of countries and human communities.

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. In this respect, and considering the problems that must be resolved given the current state of its development, 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.

Mamadou Ndoye, Key Note address at the 1st regional SEIA Conference, Uganda, June 2003

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4.   As the current secondary education predicament becomes more apparent to stakeholders, mass secondary education will receive more attention. Additionally, in the global economy, governments cannot afford to support a largely uneducated population. Society's need for technologically capable, highly skilled and adaptable citizens cannot be accomplished through 5 or 6 years of primary level schooling. Expansion of secondary schooling, an unavoidable ingredient in the development of a strong education system, however, is a misspent investment if the services are not of high quality. When considering investment in secondary education while EFA goals are not yet achieved, it is wise to remember that the direction of influence does not automatically flow from lower to higher levels. Increased access and completion in lower and senior secondary levels of schooling can influence completion rates in at the primary and junior secondary levels (AfDB, 2003).

5.   After the following definition of secondary education, the main body of the report will be divided into two parts, as shown below.

Part I:
- What does a high quality junior and senior secondary education system look like?
- Where does the quality of junior and senior secondary education in Sub-Saharan Africa (SSA) stand today?

Part II

- What are OECD trends and best practices for improved quality of secondary education?

Part I provides an overview of the general status of secondary education quality in SSA. Part II offers a summary of OECD trends in secondary education reforms and best practices. It is hoped that these trends will provide decision-makers useful points for discussion when considering reform options.

What is secondary education?

6.   In general, secondary education is divided into a junior and senior cycle, each focused on different age groups, and having vastly different pedagogic goals. Junior, or lower, secondary education provides schooling for the age group of roughly 12-15 years, covering in most countries grades 7 through 9. Senior, or upper, secondary education provides education for the age group of roughly 16-19 years, covering in most countries grades 10 through 12 or 13. Most secondary education, especially at the senior secondary level, includes technical and vocational education and training. These can be in separate or integrated streams.

7.   Patterns of secondary education structures in Africa depend largely on the region, but are often country-specific. By the end of the 1990s the most common structure was: 6+3+3[3]. However, in Mauritius, and some other (mostly Anglophone) African countries, the education structure followed the traditional 6+5+2. This includes 5 years of O-level (lower secondary) followed by 2 years of so-called 6th Form College (upper secondary). In some Francophone countries in West Africa, and in Madagascar, the patterns are 6 (or 5 in the case of Madagascar) +4+3.

8.   In Asia and the industrialized countries, it is natural to include junior secondary as part of basic education, a 9 or 10 year cycle of compulsory education for the age group of 5 or 6 to 16 year old children. Governments subsidize primary and junior secondary education, often in both public and private establishments. The key competencies defined as the learning targets for this age group are considered the basic tools necessary to function in society. Yet, when African countries knock on donors' doors, donors often deny funding for secondary education development, or even for research into the issues of secondary education.

9.   In many African countries, junior secondary is now being included as the last stage of basic education and governments define it (if possible) as free and compulsory. This is largely due to the worldwide EFA initiative. This new movement to incorporate junior secondary into basic education, raises questions concerning junior secondary education's focus on development of future citizens and the balance between gaining knowledge, key competencies and personal and social skills (Greenaway, 1999). This stage in the education system is both a transition from primary to senior secondary or the labor market, as well as a time of transition from childhood to adolescence.

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[3] Six years of primary followed by 3 years of junior secondary and then 3 years of senior secondary.

10.	The problem and utility of senior secondary, by tradition, is more straightforward. Usually senior secondary level in Africa is accessed by too few students and is only seen as a platform for entering tertiary education. As mentioned before, this creates costly inefficiency and denies able students a completion certificate at graduation. Using secondary education solely as a selection tool for university entry is costly and makes the system unaffordable. It will also prevent governments from expanding senior secondary education to cover a greater proportion of the relevant age group. However, the potential opportunity at this level to provide more students a larger base of key competencies for the work force rather than strictly continued academic training is being reexamined. As at the junior secondary level, governments must ask what the desired senior secondary school leaver profile is.

11.	Traditionally, and still largely today, secondary education in Africa has catered to the elite, preparing them to enter higher education. For example, adolescents from the richest 20% of population in Africa are 6 times more likely to be in Grade 9 than those from the poorest 40% (Lewin, 2003b). Secondary education has also functioned for 2-10% of secondary students as a vocational training for specific jobs in industry or the service sector (World Bank, 2002).

12.	The traditional definition of junior and senior secondary education content, dating from the colonial period, was defined with the intention that the few African students who would be allowed to continue after primary would eventually enter university and become the "elite cadre" of the country. Thus the secondary school became a "selection arena" for the university. This created inequity, and denied many African youngsters, quite capable of satisfying secondary school standards, a certificate of secondary education completion. Policy measures and/or Education Laws, which guaranteed "entry into university for secondary education graduates", compounded this problem. This battle for "selection" rather than "certification" in the junior and senior secondary education cycles is still ongoing. Many universities have regularly blocked the necessary changes to the curriculum and pedagogy (i.e. more focus on end-of-cycle key competencies for secondary graduates without direct linkage to university selection). The "selection versus certification dilemma" remains one of the fundamental problems facing African Secondary Education. As a result the graduate profiles of junior and senior secondary education cycles have not been redefined in most countries over the past 30 or so years, and secondary education's main function in most SSA countries is still to serve as a "sieve" for university entry. This is not only a tragedy for the individual African students and their parents, but also for the SSA countries' economic and social prospects. It creates enormous inefficiencies and puts most secondary education teachers on the "wrong pedagogic footing." In most East-Asian countries secondary education is defined by graduate profiles and attainment targets per cycle within a framework of key competencies[4].

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[4] European Union and OECD documents on key competencies. World Bank country reports.

Part I. What does a quality junior and senior secondary education system look like?

13.   First it must be stated that quality is not a definitive quantity or form but rather an evaluation relative to arbitrary standards or international trends. Consequently, most discussions on the quality of an education system concentrate on quality indicators such as inputs. Broad consensus says that motivated teachers, a relevant curriculum, useful teaching and learning materials, an agreeable learning environment and the efficient organization and management of fixed amounts of material inputs that raise student achievement constitute a quality education system (Watkins, 2000; Fuller, 1986). As ministry of education officials are not alchemists, the high caliber and efficient management of sufficient inputs is required. However, social practices that employ these inputs are equally important as the inputs themselves. Policies, political will and work culture provide the context which augments or hinders the development and effective management of inputs.

14.   Identifying system inputs that influence quality is easy. Attaching a standard of quality for each indicator is more difficult, but doing so will offer diagnosis of the system's health. Although evaluation of outputs is more complicated and difficult to assess, skill sets of graduates, absorption into the labor market, scores on examinations, student satisfaction and added value of graduates' participation in society constitute the real touchstones for identifying the quality of schooling.

15.   Which standards are these inputs and outputs to be held to? First, do secondary students accomplish the national expectations and targets for how secondary education students are to behave? Secondly, are the students' performances comparatively competitive with other nations? Traditionally, individual schools, administrations as well as international donors have asserted definitions and evaluations of quality. As mass secondary education becomes a government and donor priority and more resources are allocated to its expansion and development, revision of national standards as well as stronger accountability mechanisms will be necessary.

16.   PISA and TIMSS have established international trends that many donors recommend as quality standards. Students, families and communities have begun to offer their assessments of the education system as well. Although a daunting task, a consensus that accommodates all stakeholders' perspectives regarding standards for quality indicators needs to be reached.

17.   The questions in the table below provide a loose rubric of indicators of a quality education system, mostly inspired by the OECD education monitoring system. Discussion of the table follows.

Attributes of quality junior and senior secondary education

Is the junior and senior system accessible to all?
1. Do all adolescents have equitable access to junior and senior secondary education?
2. Are transition mechanisms in place for smooth progression within and between junior to senior secondary levels?

Are junior and upper secondary education curricula well structured, relevant and balanced?
3. Does the curriculum provide relevant and balanced knowledge content which prepares the students for further studies, competencies for participation in the world of work and skills to participate in a democratic society?
4. Are the secondary education curricula gender and poverty balanced?
5. Do secondary education graduate profiles exist, are they regularly updated (every 4-5 years), and are they agreed by the major stakeholders (enterprises, industry, parents, educators, politicians)?
6. Do the secondary curricula include sufficient information / learning on healthy lifestyles, and the community and civic environment?

Do the inputs (teachers, learning materials, school environment) generate maximum student learning at secondary education levels (junior, senior, and vocational)?
7. Do secondary teachers and trainers have sufficient knowledge and training of subjects they are teaching?
8. Do the teaching and pedagogical practices stimulate student understanding, creativity and application of information in line with international key competencies?
9. Do evaluations and feedback mechanisms appropriately assess student knowledge and guide further instruction?
10. Are sufficient and updated learning and teaching materials available in all regions of the country and at all schools?
11. Does the secondary school and learning environment enhance the learning process?

Do policies and institutional governance allow efficient organization, implementation, monitoring and allocation of resources?
12. Are adequate strategies and operational plans in place and agreed by all major stakeholders (national consensus)?
13. Are funds equitably disseminated and allocated?
14. Do administrative structures allow for accountability mechanisms?
15. Is the structure of the system set up to allow students smooth transition between levels as well as within levels?

Is the adolescent population educated and well prepared for adulthood, life-long learning and the world of work or continued education?
16. What are the retainment, transition and graduation rates?
17. What is the gender balance?
18. What are the completion rates for the key subjects at the secondary education levels (exact sciences, foreign language, ICT, economics)
19. How well does the quality of local examinations respond to generally agreed international guidelines for secondary education quality (i.e. PISA, TIMSS)?
20. Are students equipped with adequate key competencies for successful participation in the local economy as well as the global knowledge-based economy?
21. How well are secondary students absorbed into the next level of education / training and / or the labor market?
22. Are secondary graduates turning into tolerant, productive citizens with healthy lifestyles?

Doc 7.A

Is secondary schooling accessible to all?

18.   A national education system should be just that, a system which provides educational services to all of its citizens, regardless of geographical location, gender, learning abilities, or socio-economic status. In addition to having sufficient buildings (or space) and infrastructure to accommodate all students in and from rural and urban areas, mechanisms are also in place to retain students once they enroll. Such mechanisms ensure students' successful completion of each grade and level as well transition to the next level.

Is the curriculum relevant and balanced?

19.   Relevance is an elusive indicator of quality, particularly when governments, technology, and economies are changing so quickly. Even if the quality of learning is high, it is possible that the relevance of what is learned is questionable. The combination of quality and relevance requires countries to define curricula in the context of social, cultural and economic demands, and in the context of regional and world developments.

20.   There are currently, more than 100 democratically elected governments throughout the world; this is over double the amount 10 years ago. Educated citizens who understand difficult issues, make informed decisions and hold officials accountable for their actions are the key to the survival of democracies. The impact of education on democracy and civil liberties education is invaluable (IEQ, 1999). If a country is to be a self-reliant nation, it must be competitive and up to date in its interactions with the outside world.

21.   Secondary education is a critical entry-point for the provision of appropriate health education necessary for young people to protect themselves from diseases since this age group demonstrates the greatest capacity to change behavior (UNAIDS, 2000). In the continuing absence of a medical cure, prevention of HIV/AIDS demands a 'social vaccine' of which an effective education response is a key component. Evidence from Sub-Saharan African countries (e.g. Senegal, Uganda and Zambia) and Latin America suggests that comprehensive and relevant HIV/AIDS education, provided through formal and non-formal education systems, can contribute to reduced HIV infection levels.

22.   In life skills courses, youth violence and sexual harassment can be addressed. Addressing sexual violence in secondary schools is crucial in increasing enrolment rates among girls and in the fight against HIV infection as well.

23.   Attaining higher levels of scientific literacy is crucial for participating in the new global knowledge economy. Mathematics and science education provide a systematic basis for science-based knowledge and skills to be acquired (Lewin, 2000). Even those jobs not directly related to science and technology often require related abilities (creative thinking, rational logic and problem-solving skills), which positively correlate with effective science and mathematics education (Bregman, 2002).

24.   Learning standards or attainment targets for each cycle are developed and correlate with the curricula and national goals for education and training. Graduate

profiles are established, which define expected key competencies and knowledge to be achieved by students upon completion of junior and senior secondary education. These are part of an integrated framework. Such targets and profiles need to be regularly updated (roughly every 4-5 years, because the costs are significant) with the broad consensus of major stakeholders.

Do teachers, pedagogy, and school environment generate maximum student learning?

25. Possibly the most important single factor in secondary school effectiveness is the quality and relevance of teaching. High quality teaching involves the teachers' solid knowledge of the subjects, interactive pedagogy, keen classroom management and the ability to provide students with helpful feedback and evaluations. Student services such as guidance counseling provide students with direction in course selection as they look toward post-secondary goals. Sufficient supplies of teaching materials and up to date student textbooks augment the teaching and learning process. Well-lit, uncramped schools with sufficient infrastructure, laboratory space, electricity, water supply and sanitary facilities provide a comfortable and healthy environment conducive to learning.

Do policies and institutional governance allow efficient organization, implementation, monitoring and allocation of resources?

26. Supportive government policies are the starting point of a quality national education system. Policies influence the way in which resources are allocated. Sufficient budgets are required. Well-trained and equitably distributed officials and teachers provide needed human resources at all levels and in all areas of the country. Governance which allows for regional and local flexibility in curriculum adaptation to local needs, recruitment of staff, or the involvement of communities, parents, teachers and students in educational decisions create relevance and ownership of the schools. Accountability mechanisms provide motivation for authorities and schools to be actively involved in encouraging quality services. Support services for students offer guidance and assistance in making career goals. The structure of the system itself should be flexible and allow for smooth articulation between levels.

Is the adolescent population well prepared for adulthood, life-long learning and the world of work or continued education?

27. Outputs are the most difficult criteria to assess yet the most telling. Do secondary graduates meet the national attainment targets (graduate profile) for the junior and senior secondary education level? How competitive is the country economically with other countries? This can also be translated into: how good is the workforce. A good workforce, with relevant skills and knowledge will attract

Key competencies for knowledge-based economy
Acting autonomously
• Identify/evaluate/defend one's resources, rights, responsibilities, interests, limits, needs
• Form/conduct a life plan and personal projects
• Analyze/evaluate situations, systems, relationships
Using tools interactively
• Use technology to accomplish goals
• Use information/knowledge to accomplish goals
• Use language and texts to accomplish goals
Joining and functioning in socially heterogeneous groups
• Relate well to others
• Manage and resolve conflicts
• Co-operate, work in groups
Source: *Draft Strategy Paper on Key Competencies*, 2002

foreign investment and create more jobs. Data on student behavior and employment entry into the labor market, linked to performance is expensive to measure, and hard to obtain.

28.   High quality secondary education systems ensure that all students smoothly transfer from primary into junior secondary. Once in the secondary sub-system, students move form one grade to another with few dropping out or repeating. The large majority achieves graduation and certification. Student preparation for post-secondary education life includes attainment of key competencies such as illustrated in box to the right. These competencies provide the graduates with social and life-long learning skills required in the workforce and civil society.

29.   Research and development is essential to monitoring success and progress within a nation. Simply setting standards will not improve a system. The process must be embedded in a long-term process of research, development and evaluation, taking into account relevant international experience (OECD, 1995). Within the Ministry of Education, the Monitoring and Evaluation unit is to provide reliable, relevant and timely data for the evaluation of the country's progress. The data should be able to answer the questions regarding equitable access, student transition, repetition, and graduation/certification rates. Answers to these issues provide indications of system weaknesses and strengths which can then be followed with modification of policies and practices to increase system effectiveness and quality.
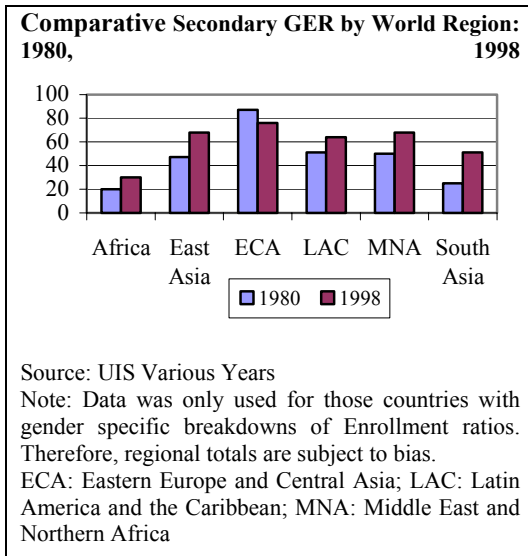
30.   In addition to tracking student movement through the education system, monitoring and evaluation of student understanding indicates the level of learning achieved. The tools used to determine what students have learned are generally formal examinations and continuous assessment. The best standard setting occurs when curriculum and testing considerations are married (OECD, 1995). Examinations of student learning set benchmarks for how healthy, comparatively, schools are among states, countries within a given region or throughout the world.

Where does the quality of junior and senior secondary education in Sub-Saharan Africa (SSA) stand today?

31.   In an attempt to assess Africa's progress in establishing high quality secondary education, it must first be noted that there is a paucity of reliable information. Due to donor focus on primary education, there is considerably more data for primary than secondary. Few Ministry of Education websites in Africa are tuned into the needs of international comparative education performance analysis. The OECD education website provides international comparative data, but has many gaps (and gaping holes) for SSA countries. The World Bank's education website, the SEIA website (**www.worldbank.org/afr/seia**) and UNESCO's website provide public access to some more comprehensive African education databases. Yet these also remain largely incomplete. For Secondary Education In Africa (SEIA) more analyzed data is expected to become available as the eight thematic studies will be completed in 2004.

32.   Overall, Africa's current secondary enrolment and the quality and relevance of learning is insufficient for making economic and social progress. In 2001, the adult illiteracy rate in SSA average was 39%, Gambia had the highest rate at 63% and Zimbabwe with the lowest at 11% (AfDB, 2003). Less than 10% of the labor force has finished secondary education. Although individual countries vary within the region, overall, SSA countries.

Is junior and senior secondary schooling in SSA accessible to all?

Comparative Secondary GER by World Region: 1980,   1998

Source: UIS Various Years
Note: Data was only used for those countries with gender specific breakdowns of Enrollment ratios. Therefore, regional totals are subject to bias.
ECA: Eastern Europe and Central Asia; LAC: Latin America and the Caribbean; MNA: Middle East and Northern Africa

33.   Of Sub-Saharan Africa's (SSA) roughly 600 million inhabitants, about 88 million are of general secondary school age. Secondary level gross enrolment rates average 20-25% (school age population weighted). When considering the (comparatively high) repetition rates[5] at junior and senior secondary levels and the often restrictive transition rates into the next education and/or training cycle, the number of African youth in the "out-of-secondary-school" age group is likely to be 70-75 million, or over 80%, of Africa's young adolescents.   The large majority of SSA countries have secondary education GER[6]s below 40% with secondary completion rates of 10-20%. Although these enrolments do not differentiate between lower and senior secondary, it is likely that junior secondary is higher and senior secondary to be a lot lower than the overall average (Lewin, 2003a). Compared to other world regions, Africa has the lowest SE enrolment in 1998. See the chart above.

34.   Countries throughout Africa have various challenges in enrolling all students in secondary education due geographic location, lifestyles and traditions. For example, more than 65% of the SSA population lives in rural, rather than urban, areas. Additionally, the nomadic lifestyle present in several countries creates obvious challenges to enrolling and retaining students. Despite efforts from governments and organizations such as FAWE, female enrolment continues to be lower than boys. In SSA, access to secondary education for girls is 22% compared to that of boys 26% (EFA Global Monitoring Report, 2002). Several strategies, such as distance education, have been implemented to provide educational opportunities to those living in areas where demand for secondary education is too small to justify the economic investments required to establish and maintain services. In an attempt to reach Nomadic peoples, 'schools' have traveled with the tribes. Additionally, scholastic calendar have been modified to accommodate agricultural seasons for agrarian communities. Programs targeting girls, who are less likely to attend than boys, have been created as well.

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[5] See SEIA website thematic studies outcomes.
[6] GER Gross Enrolment Rate; NER Net Enrolment Rate. We will use OECD definitions for all education indicators.

Is curriculum relevant and balanced in SSA?

35. In general, most secondary curricula in Africa are outdated and overloaded, partly because content is controlled by university academics, who look at the curriculum from a narrow university-entrance selection perspective. When and if new secondary subjects are added, often with good intentions, there is generally no "substitution", but only "addition". This makes the teaching job only more challenging, certainly for new and relatively inexperienced teachers.

36. Secondary education curricula "overhaul" also needs to take cost-efficiency into account. New subjects require more teachers. There are, for example, few SSA countries that have introduced "integrated science" at the junior secondary level, which would be a cost-efficient way of teaching exact and environmental science. This would leave space for new subjects, such as general skills in ICT, and civics or life skills.

A land of orphans: victims of HIV-AIDS

"We boys look at the future with despair. It is very bleak", says Tsepho, at 17 a head of a household of 3 young boys. He had to quit school, has no job, will probably never get one. "I've given up my dreams. I have no hope." Many orphans must fend for themselves, struggling to survive. The trauma of losing parents is compounded by the burden of becoming a breadwinner. Most orphans sink into penury, drop out of school, suffer malnutrition, ostracism, and psychic distress. "They hardly ever succeed in having a life," says Siphelle Kaseke, 22, a counselor at an AIDS orphans' camp near Bulawayo. Many grandparents have had to take over from their children. In many cases both parents died from HIV-AIDS or other diseases. This places an enormous burden on older people, or surviving older siblings. It also has a significant impact on social life in communities, and economic activity. The costs are enormous, not only economically, but also in terms of "quality of life" and happiness.

Source: Local and International Newspapers, 2001.

37. Educators recognize HIV/AIDS and health education's importance as a subject; however, actual development and implementation of such curricula has yet to really take hold across the continent. Often, social and cultural barriers prevent frank discussions of AIDS in school. Science, Mathematics and ICT are vastly different for lower and senior secondary. In Ghana, a decade of "science and mathematics clinics in summer schools for girls" has resulted in Ghana's female students surpassing male students in graduating from secondary school and science and mathematics faculties.
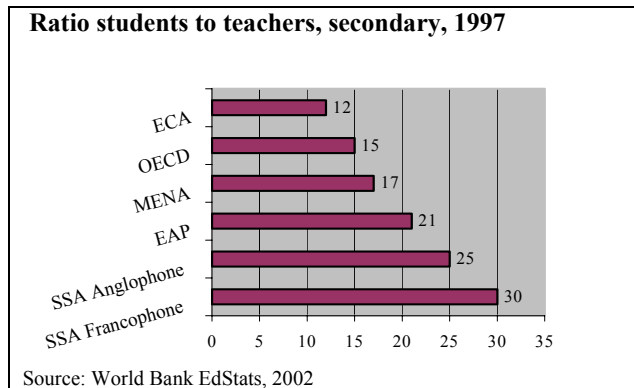
38.   In an effort to expand secondary education towards lower socioeconomic background students, reduce enrollment pressures on academic secondary school tracks, and to respond to trends toward industrialization and use of technology, African countries frequently invest in vocational and technical schools. However, a variety of studies indicate that publicly provided technical-vocational education systems generally have had a weak record in meeting employer demands (ADB, 2001). Countries, such as Rwanda, Kenya, Tanzania, and Zambia continue with the tradition of secondary schools offering fragmented and costly specialized academic and vocational subjects. The "groupings" produce a fragmented and inefficient system. The problem of fragmentation can be particularly acute in technical and vocational schools (Bregman, 2002). International evidence points to weak alignment of skill preparation with labor market needs, limited effectiveness of training, and high costs. Additionally, due to general lack of relevance to the labor market, employers often pay little attention to certifications, insisting on demonstration of skills and abilities instead. The time spent on vocational and technical education is sometimes criticized for diverting time from language and computational skill development that might position graduates better for employment in the modern sector (Chapman 2002, World Bank, 2002).

39.   Some African countries recognized the restrictions of their outdated and rigid curricula and have made great efforts to renew them with relevant content and structure. South Africa, Mauritius and Namibia are such countries. Brief details are given below regarding South Africa's curriculum reform.

Curriculum Reform in South Africa

Participation in the Third International Mathematics Science Study (TIMSS), 1995 and 1999 revealed that South Africa's grade 8 secondary level students were performing significantly below the other 40 and 37 countries in the respective studies. Consequently, a national curriculum reform was initiated to replace the apartheid curriculum which was very prescriptive, content heavy, detailed and authoritarian with little space for teacher initiative. Teaching under this curriculum was primarily chalk and talk, with strong dependency on textbooks and rote learning. The curriculum reform, incorporated the following developmental outcomes, principle underpinnings and learning areas which were aligned with national goals.

Developmental Outcomes
- Explore strategies to learn more effectively
- Responsibly participate as a citizen of local, national and global communities
- Be culturally and aesthetically sensitive across range of societal contexts
- Explore education and career opportunities
- Develop entrepreneurial skills

Principle Underpinnings
- Out-come based education
- Social and environmental justice, human rights, and inclusivity
- A high level of skills and knowledge for all
- Balance of progression and integration
- Clarity and accessibility

Eight Learning Areas
- Languages
- Mathematics
- Natural sciences
- Technology
- Social Sciences
- Arts and culture
- Life orientation
- Economic and management sciences

Schools and teachers took a major role in designing the curriculum according to learners' experiences and needs. Specific outcomes and achievement standards across the eight learning areas were developed. The outcomes outlined learning areas more broadly than in traditional 'subjects' and in so doing, created links from subject knowledge to social, economic, and personal dimensions of learning.
A large challenge in implementing such an innovative (and relevant) curriculum is appropriately training teachers on new approaches and content, particularly when many teachers are under-qualified to begin with.

Source: Howie, S.J., 2002. "Renewal of Secondary Education Curricula and Assessment in South Africa", in Secondary Education in Africa: Strategies for renewal. World Bank, Washington, D.C.

Do teachers, pedagogy, and school environment in SSA generate maximum student learning?

40.   It is a challenge in Africa, as in other world regions, to attract and retain highly skilled individuals into teaching at the secondary level, especially those with science and technology backgrounds. As such, there is a shortage of teachers, particularly qualified ones in SSA. Many secondary education teachers are unqualified or too narrowly qualified (normally secondary teachers should be qualified to teach two subjects at junior secondary, and one subject at senior secondary level). In Uganda, for example, only 28% of the secondary teaching force possesses sufficient qualifications (graduate degree), about 57% need to upgraded their skills and 15% received no training at all. Pressures to rapidly expand secondary enrolments will exacerbate the lack of qualified secondary education teachers (Bregman, 2002). Additionally, in-service training for teachers is usually insufficient and ad hoc. This causes great wasted potential in the system. In Namibia, for example, a new, relevant, nationally unified and standardized curriculum complete with subject curricula for core and elective subjects, complementary curricula materials and an instructional system based on progressive approaches such as learner centeredness, differentiated teaching and learning, multi-grade teaching and cross-curricula/thematic teaching is not being fully utilized because school management and teachers are insufficiently prepared to impart targeted knowledge (World Bank, 2003).

Ratio students to teachers, secondary, 1997

Region	Ratio
ECA	12
OECD	15
MENA	17
EAP	21
SSA Anglophone	25
SSA Francophone	30

Source: World Bank EdStats, 2002

41.   Attracting and retaining bright, motivated, and well-trained teachers would not in and of itself ensure high quality teaching in the classroom. Teachers' performance in the classroom is affected by a large number of other factors having to do with incentives for performance, supportive working conditions, and opportunities for training and retraining.   In many Sub-Saharan African countries, for example, the current remuneration system is based on seniority and not on actual performance.

42.   Learning and teaching materials are often outdated or in many cases unavailable. In many SSA countries 2-3 students are forced to use one book in the classroom sessions. Even when new books are purchased, it is common for bottlenecks and managerial issues to prevent the distribution of learning materials to all schools, particularly in the rural areas. During the 1980s in Nigeria, new textbooks sat in the publishing warehouse and went undistributed (Obanya, 2003). Due to a lack of resources, the teacher is often the only resource for learning. Teaching tends to be "top-down" and there is often limited student involvement aside from echoing what teachers say and copying what is on the chalkboard. When no textbooks are available, students often spend large amounts of school time copying information from the chalkboard into their notebooks, preventing coverage of more subjects.

Do SSA policies and institutional governance allow efficient organization, implementation, monitoring and allocation of resources?

43.   Management capacity is weak in most education systems in SSA countries. The causes are not a lack of ability, but more often a low salary and unfavorable working conditions for teachers and school and administrative managers.   This prevents motivation and ambition. There is also little room for flexibility by regional and local level school administration with regard to issues such as adjustment of the curriculum to local needs, the recruitment of staff, or for the involvement of communities, parents, teachers, and students in educational decisions.   As a result, teachers and principals may not feel accountable to local communities, while parents may not be attracted to the idea of participating in school affairs.   The effectiveness of the secondary education system management is further constrained by the fact that many education managers, especially principals, have not received adequate management training (AfDB, 1999).   In addition, the generally weak information systems are obstacles to an effective management of many secondary education systems in Sub-Saharan Africa.   Data on enrolment, learning performance, teachers, facilities, equipment, and finance are often unavailable or unreliable.

> **Improving Secondary Education Management**
>
> Côte d'Ivoire developed a management information system for secondary school students which can be used to monitor student and school results.   The implementation began with a communication strategy that included posters, information leaflets, stakeholder consultation, and an information campaign through radio and television.   Training local technicians in computer and organizational techniques was also a central part of the implementation strategy. The MIS proved to be useful for monitoring and managing the schools involved in the pilot project. It highlights the organizational problems schools without a MIS have and the possible role of ICT in addressing these problems. The system provides a mean for effective decentralization, which requires detailed information at the local level.
>
> Source: *What works and what's new in Education: Africa speaks*. ADEA, 2001.

> **The Management of Secondary Schools - 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 characterized 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' program, 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, Draft, 2000.

44.   In many African countries secondary school student services to assist in course selection and potential career paths are weak or do not exist for a variety of reasons: financial constraints, other urgent needs, unmotivated staff and teachers. The school system has a chance to play an important role by providing a variety of student services to make the students complete the junior secondary school cycle and either leave school for a job, or continue in further education. During the last years of primary and the junior secondary cycle students need support (information, coaching, support for "learning how to learn") in
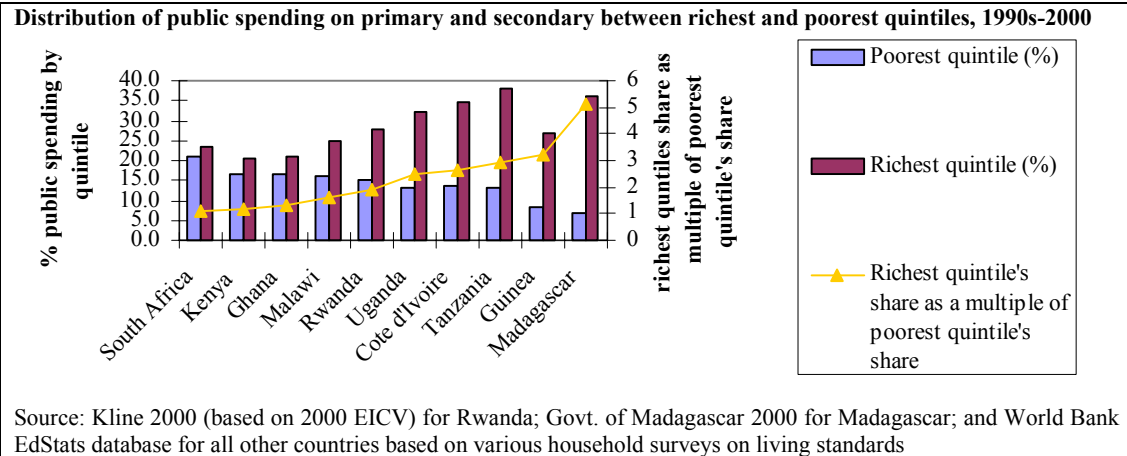
order to make a successful transition. This influences the quality of learning in many ways.

45.   There are several financial constraints for public financing of secondary education and massive expansion. In SSA, about 10-18% of national budgets are allocated to education. Of that, 50% goes to primary, 15% to junior secondary and 15-25% to senior secondary and 10-20% to tertiary. As seen in the chart below, secondary education is more expensive per student than is primary. Among countries with a GNP per capita below US$1,000, Anglophone Africa spends 6.6 times as much on secondary students than primary students, Francophone Africa spends 3.3 and Latin America 1.6 times as much. Developing countries with low secondary enrolments, like most African countries, cannot finance substantially higher participation rates from domestic public resources with current cost structures (Lewin and Caillods, 1999).

Public spending per secondary student in countries with GNP per capita below US$1,000

Source: Mingat, Alain;and Bruno Suchaut. 2000. Les systemes educatifs africains. Une analyse economique comparative, Brussels, Belgium: De Boek Universite.
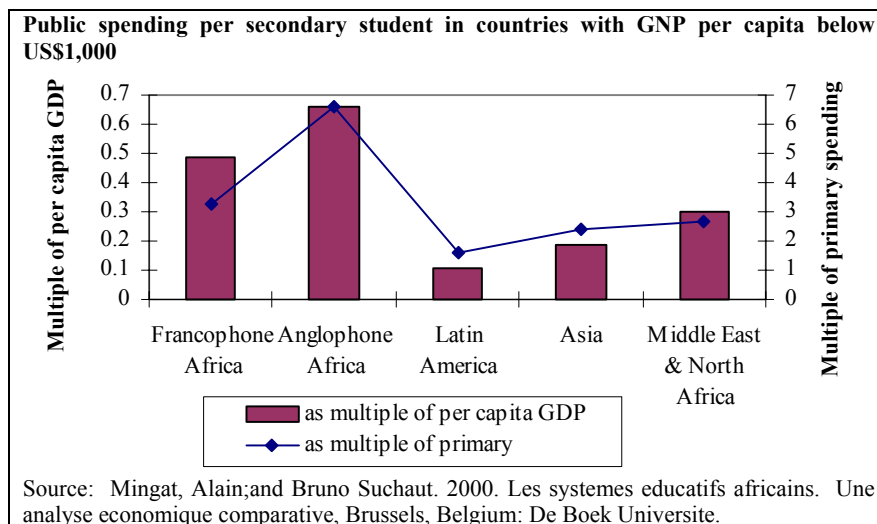
46.   The equity of distribution of resources varies and ultimately, the rich come out ahead. Among this sample below, Madagascar and Guinea have the greatest inequity of primary and secondary spending between poorest and richest. Madagascar spent 5.1 times as much on the richest 20% of the population as they did on the poorest 20% of the population, Guinea spent 3.2 times as much. South Africa has the smallest inequality of spending, 1.1 times as much was spent on the richest than the poorest 20% of the population.

Distribution of public spending on primary and secondary between richest and poorest quintiles, 1990s-2000

Source: Kline 2000 (based on 2000 EICV) for Rwanda; Govt. of Madagascar 2000 for Madagascar; and World Bank EdStats database for all other countries based on various household surveys on living standards

Is the SSA adolescent population well prepared for adulthood, life-long learning and the world of work or continued education?

47.   Currently, 50 and 60% respectively of Francophone and Anglophone African students transition from primary to secondary level. Low transition rates are due to strict testing, lack of open seats in secondary schools and limited number of schools in rural areas. It is likely that transition rates from lower to upper as well as graduation rates from senior secondary are similarly low. Consequently, the large majority of Africans have not received a secondary education.

Transition rates from primary to junior secondary, 1993

Source: Mingat, A & B Suchaut, 2000. Les systemes educatifs africains.   Une analyse economique comparative, Brussels, Belgium: De Boek Universite.
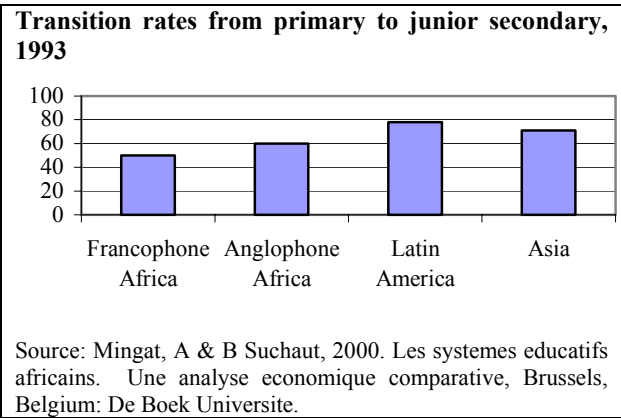
48.   Traditionally   in   Africa, repetition and failure have been regarded as a "proof of quality" since only the highest quality students can survive to the final grades of the secondary system.   Teachers, however, should be responsible for bringing their students to the finish line, and not be proud of the large numbers of students they have not enabled to pass. It is an enormously costly method of providing secondary schooling by the public and private schools alike. It happens in both Francophone and Anglophone countries, and contrary to common belief among teachers in Africa this is not a student-ability problem. Why should African youth be less able to learn than their Asian or Latin American counterparts? It is a problem of misinformed, and insufficiently trained teachers. Consequently, this system creates significant inefficiency and therefore it prevents the system from expanding,.

49.   Often examinations are used as a selection mechanism to eliminate students from the system rather than qualify or certify them. The tools used to "select" students are the examinations and tests, national or school based. The are many factors which contribute to the process of "letting students fail". The true cost (to students and their parents, and to the larger community and the education system) is rarely discussed. Many SSA

education systems face significant opposition from their teaching force when these "system-failures" are discussed objectively and in terms of 'wastage". In many SSA countries the emphasis on "selection" generates an exam-driven curriculum where teachers teach to the test rather than the prescribed curriculum. If the goal of secondary education is to produce a critical mass of students equipped with key competencies for productive participation in a democratic competitive society, the role and outcomes of examination for selection needs to be reexamined.

50.   Weak monitoring and assessment systems remain major obstacles for improved learning outcomes at secondary level. Systematic and internationally comparable assessments of learning in secondary education at classroom, school, and system levels are not widespread and considerable reliance has been placed on public examinations as a means of ensuring that the common curricula are covered (Bregman, 2002). Consequently, students are given little opportunity to develop skills such as observation, problem solving, reasoning, and creativity. Especially less or unqualified teachers are often unfamiliar with assessment terminology and processes. Frequently in-service training is not thorough enough to sufficiently familiar teachers with modern techniques required to conduct exams and school-based assessments.

51.   Re-evaluation of diagnostic assessment tools themselves is also needed. Do the evaluation tools assess quality of learning if they only test rote memorization and lower level thinking skills? Some African countries choose to purchase examinations from international organizations such as the Cambridge International Exams in the UK. This is partly to promote public confidence in the quality of the examinations, since the "stakes" for the students and their parents are high. The question is if these examinations can properly reflect the objectives and desired outcomes of the secondary education systems in African countries. Currently, Namibia is in the process of switching from Cambridge exams to examinations produced in-country.

Namibia: National Assessment Exposed Weakness in Curriculum

In partnership with Florida State University and Harvard University, Namibia assessed the basic language and mathematics proficiencies of students in grades 4 and 7 in 1994. The objectives of the assessment were to inform policy makers on achievement levels to enable them to establish resource targeting for underachieving schools, to sensitize managers to the professional needs of teachers, to enable schools and regions to compare themselves with their counterparts and to provide data for monitoring purposes. Results prompted concern that expected level of performance was too high and suggested that curriculum materials might be too advanced. The study concluded that a new competency-based curriculum would make it necessary to develop new measure to assess basic competencies in subject areas.

Source: Greaney, V. and Thomas Kellaghan, 1996. Monitoring the Learning Outcomes of Education Systems, World Bank, Washington, D.C.

52.   Regionally, the West African Examination Council (WAEC) provides national and regional testing for certification purposes. Results could provide regional comparisons of national performance. Unfortunately, publications are only available at the Council Offices in Ghana, The Gambia, Liberia, Nigeria, and Sierra Leone. Regular participation in regional and international examinations allow countries to evaluate their

progress relative to that of other countries as well as indicate comparative strengths and weaknesses of their systems (National Research Council, 1998).

53.   Internationally, tests such as PISA and TIMSS assess the reading, mathematics, and science capabilities of secondary students. Since international donors fund many education initiatives, there is encouragement to participate in these examinations. However, consideration of resources, both human and financial, required for involvement, should direct countries' decisions in initiating participation in these exams.

54.   Currently, secondary education systems in many Sub-Saharan African countries function in such a way that they tend to perpetuate the social and gender inequalities. The poor may not be able to spare their children – particularly girls – from household work in order to go to primary or secondary school. Poor households may also not be able to afford the monetary costs of secondary education. Greater equity in the distribution of educational opportunities will enable the poor both to capture a larger share of the benefits of economic and social development, and to contribute to an overall increase in the rate of growth. By contrast, large-scale exclusion from educational opportunities results in slower economic growth; the benefits of growth are in turn enjoyed mainly by those with access to skills and knowledge (Lewin and Caillods, 1999).

Source: Filmer, Deon. 2000. *Educational Attainment and Enrollment Profiles: A Resource Book based on an Analysis of Demographic and Health Survey Data.* Development Research Group, World Bank, Washington, DC.
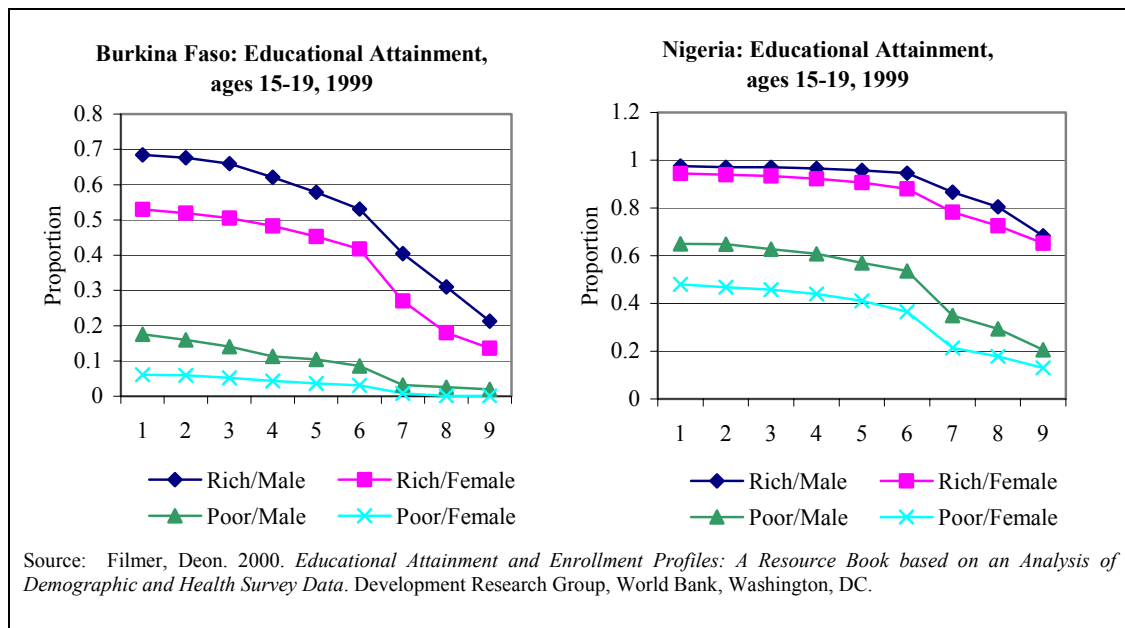
55.   Many governments in Africa assume that a strong monitoring and evaluation system is marked by the production of an annual statistics booklet. Such a booklet only reflects a small slice of the system's health to a very small percentage of the stakeholders involved. In addition to reporting to the regional or national level, schools should also provide formal reports to parents regarding progress of individual students. Additionally, monitoring the progress of students over time for example, at grades 4, 8 and 12 provides a snapshots of the progress, or lack there of, being made in major subjects (National Research Council, 1998).

56.   Most data collected in African countries is inadequate and unreliable due to the lack of reliable information at the school level. Student and teacher attendance can be so sporadic that accurate accounts of enrollment and teachers are questionable. Also, it is not uncommon for verification of statistics to uncover 'phantom schools', schools which not actually exist, but officials have listed as operational so that more funds are allocated to an area.

57.   Within the secondary education monitoring systems of most SSA countries, labor market entry and employment performance data are not regularly collected and analyzed. However, labor market tracer studies allow for evaluation of relevance and adequacy of secondary education and key skills acquired by graduates. Successful absorption into the labor market is not solely dependent on a student's skills but the economy as well. Graduates' added-value contributions to society are even more difficult to obtain.

58.   Many countries in Africa are realizing that access cannot be expanded without major changes in the way secondary education services are delivered today. Financially sustainable strategies for expanding access to those currently out of school as well as to lower unit costs for those enrolled are:

a) *Redefining the role of the private sector*: Some Sub-Saharan African countries are redefining the role of the government vis-à-vis the private sector in order to increase access, cost-effectiveness, and to achieve greater equity at secondary level. Some Sub-Saharan countries, for example, are experimenting with targeted financing mechanisms (e.g. the provision of public subsidies to private schools in Lesotho and matching grants in Botswana and Tanzania).

b) *Altering the structure of the education system*: Another strategy being used is to reduce the high cost of secondary education by re-examining the structure of secondary schooling and how it is segmented into more and less specialized cycles. There are potential efficiency gains when junior secondary is integrated into primary education or junior secondary into senior secondary education.

c) *Alternative modes of delivery*: Alternative modes of delivery (e.g. via the internet or radio) that make use of peer learning, self-instruction, and distance methods could also reduce unit costs without necessarily diminishing quality. Non-conventional modes of delivering secondary education may help to expand access to secondary education in low population-density rural areas. Additionally, flexible schooling alternatives may offer a second opportunity to young adults, recent dropouts or those who could not attend ordinary schooling.

Part II.   What are OECD trends and best practices for improved quality of secondary education?

59.   In OECD countries, secondary education has become intentionally more broad-based to provide a holistic foundation for post-secondary education. Usually a more prescribed junior secondary program is followed by greater freedom in course selection in senior secondary. Currently, there is an increasing emphasis on providing key competencies which prepare students for successful participation in the new knowledge-based economy (NFER, 2002).

60.   Reforms in OECD countries during the early 1970s led to junior 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. In all countries the compulsory schooling age was set at 5-16 years.

61.   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 realized 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. By the mid-1990s, most OECD countries were also implementing major structural reforms at lower- and senior 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).

62.   It is important to note that 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.

63.   Overall OECD secondary education reforms[7] over the past decade focused on:

   a. Meet 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.

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[7] Source: author's review of several education and training websites of OECD countries.

b. Raise achievement levels and reduce the gap between various socioeconomic and ethnic groups.

c. Increase participation in post-16 education and training, including higher education and vocational (job) training.

d. Promote Life-Long Learning (LLL) opportunities and improve skills for future employability.

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

g. Bridge 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 vocationalization at the upper-secondary level, and an integration of vocational training to some degree).

h. Develop 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[8] 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. Promote 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).

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[8] 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).

64.   These reforms elements as described above are not all directly related to quality in secondary education. However, over the past decade it has become clear that the definition of "what is quality" can be defined in different ways. In general most reforms were integrated operations and addressed many aspects of the (secondary) education system in tandem. While most OECD countries had clearly-identifiable reforms of their primary cycle, the reforms of the late 1990s were often addressing system-wide issues, or tackled the secondary and tertiary education and training cycles together. The emphasis of the transition from school to work, and life-long-learning (LLL) was emphasized in most countries.

> **Transition from initial education to working life**
>
> 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 organized, 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, labor market, and social counseling;
> ❑ Institutional frameworks for the organized 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.
>
> Source: OECD, 2000. *From initial Education to Working Life*. Paris.

65.   **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 junior secondary and also senior 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.

66.   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), and at senior secondary more flexibility of "pathways". The vocational versus academic mix has been the ongoing debate over the past two decades.

67.   With the arrival of ICT tools, there is a continuing move toward a **greater degree of vocationalized and technical education at senior 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 cooperation between "vocational colleges" and more traditional secondary schools.

68.   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 pedagogy. **Curriculum moved from input based to outcome based, providing students with key competencies such as teamwork, problem solving and finding and applying relevant information.** More emphasis was placed on application of 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.

69.   Consequently, the curriculum is not overload. Secondary school teachers allocate have 70-80% of class time for pedagogic and academic knowledge and skills related to international economic and social standards (preparing graduates for the labor market and society). The remaining 20-30% of the time is of the greatest importance, and determines the "couleur locale" of secondary education, and, to a great extent, its relevance at the local level. It is expected that as teachers make their teaching relevant to the students' lives, students will remain interested and have motivation to attend classes.

70.   **Pedagogy also moved away from the teacher as a "sole source of knowledge" to a "facilitator of learning and information processes"**, offering students stronger ownership of their education. Pre-service training included new methods for teaching the new skills aligned with the new curricula. A more systematic support, supervision and counseling for teachers, particularly new teachers was instituted.

71.   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, specialized 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.

72.   **Management and governance of the education system was decentralized, allowing 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.

73.   **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.

74. **As junior 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. It should not be forgotten that many of these measures and monitoring methods were only made possible because of the use of INT tools. A majority of countries still have national exams as an important part of senior 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.

Conclusion

75. It is unarguable that secondary education in Africa is not sufficiently preparing all adolescents for adulthood, life-long learning and the world of work or continued education. Unfortunately, there is no silver bullet or easy fix to creating high quality secondary education in each country. One cannot presuppose that a social system such as education can be engineered as a house, only considering inanimate inputs (IEQ, 1999). Each country's reform to improve quality of lower and upper secondary education must be molded to the country's unique political, social and financial landscape. When considering investment in secondary education while EFA goals are not yet achieved, it is wise to remember that the direction of influence does not automatically flow from lower to higher levels. Increased access and completion in lower and senior secondary levels of schooling can influence completion rates in at the primary and junior secondary levels (AfDB, 2003).

76. As governments move toward establishing an egalitarian rather than elitist secondary education system, they must ask themselves and all stakeholders, "What is the purpose and intent of our secondary education system in general and lower and upper levels specifically?" Redefining the purpose of secondary education is the first step in establishing relevant criteria for quality and effectiveness of the system. The OECD trends from part II may provide stimulation for debate and discussion as solutions are explored. Once standards are set, a clear vision can be created and acted upon.

77. As illustrated in this report, SSA countries are at different stages of reforming their systems. Many have already begun to address access issues, reform the curriculum or develop management capacity. Maintaining their eyes on the goal, governments ought to continue to ask themselves: (i) Are junior and senior secondary levels accessible to all?, (ii) Are junior and upper secondary education curricula well structured, relevant and balanced?, (iii) Are the inputs (teachers, learning materials, school environment) generating maximum student learning at secondary education levels (junior, senior, and vocational)?, and (iv) Do policies and institutional governance allow efficient organization, implementation, monitoring and allocation of resources? Monitoring progress is crucial to obtaining the desired goals and must not be neglected. As John Ruskin said, *"Quality is never an accident. It is always the result of intelligent effort."*

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