Developing Youth Skills for Employment

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Developing Youth Skills and Employment

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Abstract
Availability of sufficient quality human resource is a major prerequisite for economic transformation. The level of education and skills of the Sub-Saharan African labor force is very low relative to other regions. While enrolment at the primary level of education has improved in the region to match up with its comparators, the same cannot be said about enrolment at secondary and tertiary levels. Besides, the quality of skills in most countries of the region is low as a result of a number of factors including poor infrastructure and teaching equipment, poorly motivated teachers and supervision among others. The relevance of education and skill training in the region remains a challenge with overemphasis of training in humanities relative to science, technology, engineering and mathematics (STEM). The method of teaching and skill training, which focuses on examination and certification with little or no emphasis on practical orientation, case studies, and problem solving attitude, tends to produce graduates that are not creative with the ability to solve problems at the world of work. The non-involvement of industry in the human capital development process, poor quality of school infrastructure and learning tools, poorly motivated teachers and supervision, and low commitment of the policy makers to the promotion of technical and vocational skills training are some of the other challenges confronting human capital development in Africa. To put Sub-Saharan Africa on the path of economic transformation requires a number of policy actions and programs to reverse the declining trend in the quality and relevance of education and skills training. Addressing skill mismatch by bridging the gap between industry and training/academic institutions, promotion of technical and vocational training, tightening supervision, provision of quality infrastructure and teaching aids, incentives for teacher motivation, and a shift from examination and certification based training to practical oriented and problem solving approach to training are some of the areas that need urgent action. A drastic shift from over-production of skills in humanities to the training of youth in STEM, which is more relevant for economic transformation of the region should be urgently pursued.

Introduction
Africa’s population is very young with more than half aged below 25 years, and
according to the World Bank there will be half a million more 15-year olds than the year before each year between 2015 and 2035. Failure to invest in the educational and skill development of this youthful population could be a drag on growth and a source of political and social instability. On the other hand, the growing numbers of young people constitute a potential resource for growth and economic transformation of the region if they are healthy and better educated with the right skills. Indeed, economic transformation requires a healthy labour force equipped with the knowledge and skills to be highly productive in the workplace and to generate innovations in technologies, processes, products and services.

Essentially, the state of underdevelopment of Sub-Saharan Africa and the struggle to pursue economic transformation is not only due to lack of capital but more importantly a result of lack of adequate knowledge and skills to enhance productivity and promote innovative-driven growth. For instance, over half a century ago, Ghana’s per capita income was 1.17 times better than that of South Korea. However, current estimates put the latter’s per capita income at more than 19 fold relative to the former. Some have argued that a large part of reasons that set the two countries apart is Korea’s success in acquiring and using knowledge. Many SSA countries are endowed with different kinds of natural resources that could be exploited to turn the fortunes of these countries around. Africa accounts for about three-quarters of the world’s diamond and manganese reserves and harbours over 40% of the world’s gold reserves. The continent is endowed with considerable amount of oil reserves in Nigeria, Angola, Equatorial Guinea, Libya, South Sudan, and recently Ghana among few others with more discoveries in Uganda and Kenya. Unfortunately, economic transformation continues to elude the continent due largely to human capital constraints in the form of knowledge, skills and technical knowhow to exploit the natural resources to promote growth and economic transformation.

Sub-Saharan Africa has made considerable progress particularly in terms of access to primary education over the past two decades with increased enrolment closer to other regions. The challenge however is low enrolment at the secondary and tertiary level as well as weak emphasis on vocational and technical education. The issue of quality at all levels has also been a major concern. This paper overviews the challenges of weak human capital base in SSA and provides key relevant questions for discussion at African Transformation Forum to seek workable proposals to upgrade the skills of the youth to drive economic transformation in the region.
Improved access at primary but poor access at higher level

Sub-Saharan Africa has made progress in improving access to primary education over the last two decades. Primary enrolment has improved considerably to catch up with other regions. Gross Enrolment ratio (GER) in the region reached 99.6% in 2013 with gender parity compared with a ratio of between 102.3% and 116.5% in other regions (Figure 1). However, SSA has the poorest access to secondary and tertiary education. The region has the lowest GER of 43% at the secondary level compared with its closest comparator, South Asia with 66% and at least 80% in other regions. Similarly, access to tertiary education in the region where high skills required for faster growth and economic transformation is produced is very low. A GER of 8.6% is reported in SSA compared with 21.9% in South Asia and 33.1%-64.4% in other regions.

Source: World Development Indicators, 2015

Access to education at all levels varies among countries in SSA. Enrolment at primary level in most of the countries soared above 100% with Sudan, Guinea, Cote d’Ivoire, Mali, Mauritania, Tanzania, Senegal, Nigeria and Niger falling short of the mark. At the secondary level, 15 countries reported GER above the region’s average of 42.8% with South Africa, Mauritius, Cabo Verde and Botswana reporting enrolment figures comparable to the ratio in the developed regions. The remaining 13 countries in Table 1 showed enrolment rate below the SSA average with Mauritania, Burkina Faso, Uganda, Mozambique and Niger recording GER below 30% (Table 1). Access to tertiary education in most countries in the region is very poor. As many as about half of the number of countries listed in Table 1 reported GER of less than the SSA average of 8.6% and about three-quarters indicating a ratio of 10% or less. Mauritius is the only
country that could boast of access to tertiary education comparable to the Latin American average and better than the average ratio in South Asia, Middle East and North Africa, and East Asia.

Table 1: GER at all levels of education in selected countries in 2011-2013

<table>
<thead>
<tr>
<th>Country</th>
<th>Primary</th>
<th>Secondary</th>
<th>Tertiary</th>
<th>Country</th>
<th>Primary</th>
<th>Secondary</th>
<th>Tertiary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mauritius</td>
<td>107.8</td>
<td>95.9</td>
<td>41.2</td>
<td>Senegal</td>
<td>83.8</td>
<td>41.0</td>
<td>7.6*</td>
</tr>
<tr>
<td>Botswana</td>
<td>108.2</td>
<td>81.7*</td>
<td>24.8</td>
<td>Mali</td>
<td>83.5</td>
<td>44.9</td>
<td>7.5</td>
</tr>
<tr>
<td>Cab. Verde</td>
<td>114.0</td>
<td>95.7</td>
<td>22.8</td>
<td>Congo DR</td>
<td>113.3</td>
<td>43.4</td>
<td>6.9</td>
</tr>
<tr>
<td>S. Africa</td>
<td>100.8</td>
<td>110.8</td>
<td>19.7</td>
<td>Zimbabwe</td>
<td>109.2</td>
<td>47.2</td>
<td>5.8</td>
</tr>
<tr>
<td>Sudan</td>
<td>70.0</td>
<td>40.7</td>
<td>17.1</td>
<td>Mauritania</td>
<td>97.1</td>
<td>29.5</td>
<td>5.4</td>
</tr>
<tr>
<td>Ghana</td>
<td>108.8</td>
<td>61.1</td>
<td>14.3</td>
<td>Swaziland</td>
<td>114.3</td>
<td>60.7</td>
<td>5.3</td>
</tr>
<tr>
<td>Guinea</td>
<td>92.4</td>
<td>38.1</td>
<td>10.4</td>
<td>Mozambiqu e</td>
<td>105.2</td>
<td>26.0</td>
<td>5.2</td>
</tr>
<tr>
<td>Nigeria</td>
<td>84.8</td>
<td>43.8</td>
<td>10.4*</td>
<td>B. Faso</td>
<td>86.9</td>
<td>28.4</td>
<td>4.8</td>
</tr>
<tr>
<td>Lesotho</td>
<td>108.8</td>
<td>53.3</td>
<td>10.1</td>
<td>Burundi</td>
<td>134.1</td>
<td>33.1</td>
<td>4.5</td>
</tr>
<tr>
<td>Togo</td>
<td>134.4</td>
<td>54.9</td>
<td>10.0</td>
<td>Uganda</td>
<td>107.3</td>
<td>26.9</td>
<td>4.4*</td>
</tr>
<tr>
<td>Comoros</td>
<td>102.9</td>
<td>63.9</td>
<td>9.9</td>
<td>Madagascar</td>
<td>145.2</td>
<td>38.4</td>
<td>4.2</td>
</tr>
<tr>
<td>Congo Rep</td>
<td>109.4</td>
<td>53.7</td>
<td>9.6</td>
<td>Kenya</td>
<td>114.4</td>
<td>67.0</td>
<td>4.0*</td>
</tr>
<tr>
<td>C. d’Ivoire</td>
<td>96.4</td>
<td>39.1</td>
<td>9.1</td>
<td>Tanzania</td>
<td>89.5</td>
<td>33.0</td>
<td>3.7</td>
</tr>
<tr>
<td>Rwanda</td>
<td>133.8</td>
<td>32.6</td>
<td>7.9</td>
<td>Niger</td>
<td>72.2</td>
<td>18.3</td>
<td>1.8</td>
</tr>
</tbody>
</table>

* Botswana is 2008 figure; Kenya, 2009; Senegal, 2010; and Nigeria, 2005

**Source:** World Development Indicators 2015, World Bank

The problem of relevance and quality

**Primary**

While significant expansion of enrolment particularly at the primary level over the past two decades in many countries in the region is commendable, the problem of quality remains a challenge. Primary school completion rate is still low at 69% compared to 91% in South Asia and at least 94% in other regions. Primary education is meant to expose students to basic literacy and arithmetic, but the fact is that in SSA, a considerable proportion of primary school leavers are unable to read and write effectively and achieve minimum learning in mathematics. Teaching and learning in mathematics and science appear to be weak in SSA to the extent that in Lesotho, Malawi, Mozambique, Namibia, Uganda and Zambia, only 20% of children starting grade 1 reach grade 4 and achieve minimum learning in Mathematics.

**Secondary and tertiary**

Beside low enrolment at secondary and tertiary level, the quality is also low.
Completion rate at secondary level of less than 40% in SSA compared to more than 80% in the comparator countries coupled with lower enrolment in science and mathematics make the region less competitive in the current fast growing technology and globally competitive environment. At the tertiary level, only a small proportion of students are enrolled in the discipline of science, technology, engineering and mathematics (STEM) required for economic transformation and competition in technology-driven economies. In Ghana for instance, only 35% of final year undergraduate students in public universities and 29% in polytechnic in 2012/2013 academic year were in science. At the Ghana Transformation Forum (GTF) held in Accra in March 2015, participants bemoaned the increasing number of universities in Ghana training young people in Arts, Business and Social Science even though the country has a deficit of skills in science, technology, engineering, medicine and mathematics. Anecdotal evidence suggests that when Ghana started commercial production of oil in late 2010, there were some specific skills such as engineers, drillers, production and operation workers that were difficult to obtain domestically and thus had filled with people outside the country. The challenge however is the high cost of training in STEM relative to humanities. It is estimated that the cost of training on graduate in STEM is equivalent to training at least 5 graduates in humanities.

In addition to the lack of skills development in the relevant fields, there is also the problem of quality of skills churned out by academic and training institutions in SSA. The overemphasis of certificate qualification as against individuals’ ability to perform on the job tends to shape training and teaching, and how to pass examination takes the better part of the time of students and trainees. Education and skill development that focuses on training the mind to solve problems, with practical training – as well as soft skills (such as computer, communication and interpersonal skills) therefore receives inadequate emphasis. At the GTF in 2015, one employer observed that recruiting engineers locally is a challenge because many of the engineering graduates are mostly familiar with the theory with little or no practical knowledge on how to fix a problem. One industry practitioner put it bluntly that most graduates who are called for interviews demonstrate just raw talent and skills that cannot be used for anything on the job. Several graduates apply for jobs they are not qualified or trained for, which makes the screening process too long and cumbersome and many applicants who queue up for interviews fail to impress. A senior officer of an employers' organization argued that recent tertiary graduates lack basic skills to complete simple routine assignments, indicating that certificate is a mere formality rather an indication of achievement.
Vocational and technical education and training

Vocational and technical education is a vehicle that in addition to providing practical education that makes graduates employable also equips them to set themselves up in business and become employers in the future. In many countries, vocational and technical training occurs at the secondary level (i.e. after primary or basic level) while in some countries such as Singapore, it is a post-secondary education and training. Enrolment of TVET in secondary education in SSA is very low at about 8% in 2010 compared to about 12% for its comparators in Asia. As noted by the African Transformation Report (ATR), 2014 by ACET, apart from Mauritius, TVET enrolment shares do not match the rising aspiration to industrialize in SSA.

Quality of TVET in SSA is also low due to a number of reasons. In many SSA countries, TVET is perceived as an option for those unable to make it in the academic stream. According to ATR, 2014, the low image of TVET and governments’ weak efforts to embed TVET in a robust transformation agenda widen its disconnect from industry and the types of technical industrial jobs that would make TVET attractive to large numbers of good and ambitious students. As a result, many TVET institutes focus on accounting, secretarial studies, and other service jobs.

Why low and poor quality of skills in SSA

The low quality of skills and skills mismatch in terms of quality and quantity has been linked with many factors, of which the key ones are listed below:

- **High pupil-teacher ratio and poorly motivated teachers**
  
  At the primary level increased enrolment in many SSA countries has not been accompanied by increased number of teachers, particularly in rural areas. This has resulted in high pupil-teacher ratios with adverse effects on quality and education outcomes. In SSA, every teacher in 2013 was responsible for at least 42 pupils at the primary level compared to 36 in South Asia and at most 22 in other regions (Figure 2). Lower pupil-teacher ratio facilitates quality and efficient teaching and learning while a teacher with large class size cannot effectively monitor the performance of pupils, which compromises quality. The situation is generally worse in public than in private schools, particularly in rural areas.
Besides the high pupil-teacher ratio is poor teacher motivation in terms of remuneration and other conditions of service. Teachers do not benefit from periodic training and retooling as in the past and so tend to be rusty, a problem that is not peculiar to primary education.

- **Poor quality of infrastructure and pedagogical tools/materials**

Many schools and training institutions in SSA lack modern equipment and tools as well as good quality classrooms, libraries and sanitation facilities to promote effective teaching and learning for the production of high quality skills for the economy. In 10 countries surveyed by SACMEQ,¹ 47% of school buildings were reported to need major repairs or complete rebuilding; only 13% were listed as being in 'good' condition. The percentage of school buildings needing at least some major repair was highest in Uganda (78%) and Lesotho (67%) and lowest in Mauritius (18%) and Seychelles (38%).²

Primary school pupils in many Sub-Saharan countries do not have textbooks they can bring home, and students share books that are locked up at the end of the school day. In 15 SACMEQ countries only about 40% of sixth graders had their own reading and math textbooks. The survey found that over half of grade 6 pupils in Kenya, Malawi, Mozambique, Uganda, the United Republic of Tanzania and Zambia reported that their classrooms did not have a single book. In these and other countries, between 25% and 40% of teachers reported that they did not possess a book or a guide in the subjects they taught. This learning condition does not promote quality education and skills development.

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¹ SACMEQ means Southern and Eastern Africa Consortium for Monitoring Educational Quality
- **Poor school supervision and teacher absenteeism;**
  Teacher supervision particularly at the basic and secondary school levels is very weak and this has been cited as a major cause of teacher absenteeism in many countries in the region. This has a negative effect on teaching and learning resulting in poor performance of students. Findings from service delivery indicators (SDI) show absence rate of teachers in Mozambique, Kenya, Nigeria, Senegal, Tanzania, Togo and Uganda of between 25% and 55% over 2011-2014. At the tertiary level, the proliferation of private universities many of which lack quality teaching staff and infrastructure brings to the fore the need for a quality accreditation process and more effective supervision of state institutions responsible for giving accreditation for private universities to operate.

- **Poor linkage between skills training and industry culminating in skills mismatch**
  This is reflected in training curricula that are developed with no input in most instances from industry and lack of opportunities for instructors to undertake periodic training in industries to be abreast with changes at the world of work. This may largely explain the limited application of practical and case studies in teaching and skill training. The overemphasis of end of period examination as a means of assessing students that makes students adopt the strategy of memorizing and producing it at one sitting examination does not make the student useful in the world of work after graduation. The supply driven approach to skills development, which results in the overproduction of graduates in humanities and a limited number of graduates in science, engineering, technology and medicine and mathematics relative to the requirements of the labor market is also an indication of poor linkage between skills training and skills requirement of industry.

- **Neglect and poor perception of Vocational and Technical Training**
  In most SSA countries, transition from basic to secondary school education is very weak due to significantly increased primary enrolment and completion rates against limited space at the general secondary level. One expects that TVET would provide a very good option for many young people with basic education to acquire hand on employable skills to facilitate acquisition of job in the labour market. The challenge however is that the availability of good TVET institutions to provide quality skills training is lacking from the supply side. At the same time, from the demand side, many young people do not find TVET attractive as a result of negative stigma attached to it. Many parents and guardians discourage and

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3 Education Quality in Sub-Saharan Africa presented by Deon Filmer (World Bank) on behalf of Service Delivery Indicators (Team) at a RISE Conference in June 2015
prevent their wards from pursuing TVET programmes due to its limited opportunities in academic progression and the lack of prestige that have characterized TVET on the continent over the years. This situation has affected the enrolment of students into the TVET programmes in many African countries. A comparison of students’ enrolment into TVET programmes in Europe and Africa reveal an extremely low patronage of TVET in Africa. According to African Centre for Economic Transformation (ACET) in 2009 Germany had 53.2% enrolment in TVET colleges; Finland had 55.1%, Ireland 33.9%, and South Korea 24.4%. In Africa, with the exception of Angola and Ethiopia that had 72.2% and 59.5% respectively, other countries such as Burkina Faso 20.9%, Cameroon 22.4%, Ghana 13.2%, Kenya had 1.0% and South Africa had between 1% and 22%. 9.7%4 (Maiga, 2013).

- **Low investment in education**

Low investment in education, partly on account of lack of adequate resources and prioritisation of other commitments ahead of education and skills development, can largely be blamed for the inadequate educational institutions and poor educational infrastructural base. In contrast, the developed countries and comparators in South-east Asian of Malaysia, South Korea and Singapore focused their priorities and commitments (measured in terms of government expenditure per student in absolute US dollars and as a percentage of GDP per capita) towards the education sector to boost the supply and quality of human capital base of the countries.

![Figure 3: Govt expenditure per student in primary in US$ ans as % of GDP per capita 2010-2013](image)

**Source:** *World Development Indicators 2015, World Bank*

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4 see Maiga (2013)
Even though the implementation of Poverty Reduction Strategy Programmes (PRSPs) in developing countries in recent years has triggered some degree of expansion in human capital investment in Africa, the rate of expansion is still slow and the level remains low relative to some countries in East Asia such as Malaysia and South Korea. Figure 3 reports that government expenditure per pupil in primary school in countries non-SSA countries ranged between US$11,000 in Japan and US$1,700 in Thailand compared to between US$1,400 in South Africa and US$29 in Madagascar. Government expenditure per pupil as a percentage of GDP per capita was also higher in Japan, US, UK and Southeast Asian countries than countries in SSA. Four countries – Cameroon, Rwanda, Uganda and Madagascar spent an amount equivalent to between 6% and 8% of GDP per capita, compared to between 11% in Singapore and 29% in Thailand. Even though, government expenditure per pupil in primary school as a percentage of GDP per capita in Ghana, South Africa and Mauritius was comparable to that of Southeast Asian countries, the efficiency and effectiveness of the expenditure has been questioned in some countries in SSA. As noted by Tony Killick in his book titled “Development Economics in Action” only about a third of expenditure earmarked in the education sector in Ghana gets to its targeted destination with the rest lost through corruption.

**Key Issues for Discussion**

- How can the quality of basic education be improved?
  - Teacher motivation – what form should it take?
  - Reduce pupil-teacher ratio
  - Increase supply of textbook and other pedagogical tools
  - Teaching and learning of mathematics and science at the basic level
- Should secondary education be free and compulsory to raise school enrolment at that level?
- How can this be financed in a fiscally responsible way and in ways that ensure quality is not compromised?
- How can TVET be used as an instrument to produce the first and middle-level of technicians that are the bedrock of industry and to also promote entrepreneurship for employment generation?
  - What is the best approach to removing the negative stigma people have about TVET
  - How can the quality of TVET be improved to make it attractive to the young people
  - How do you get industry involved in TVET— influencing curricula, instruction and upgrading of facilities?
• Increasing the emphasis on STEM in tertiary education. How relevant is the current tertiary education system in the region for economic transformation?
  o How can the imbalance in secondary and tertiary education between humanities and STEM be re-dressed?
  o How can the quality of teaching and learning in STEM be improved based on the following:
    ▪ Teacher competence and motivation
    ▪ Infrastructural facility and equipment
    ▪ Curriculum design and assessment
    ▪ Personal interest and perception of STEM

References


Maiga, E. (2013). Making skills development work for economic transformation in Africa: Demystifying the suit and de-stigmatizing vocational and technical