



## RUFORUM Webinar Series (2020)

### Introductory Note for Webinar 7

Date: 13 August 2020

Time: 15.00-17.30 East African Standard Time

### **Education from foundations and skills to advancements in science, technology and innovation: Considering fundamentals for transforming Africa**

Education is a recognised human right. It is transformative and a life equalizer in many respects; health, gender, income, and notions of identity. Education is a unique engine for fostering development and at individual level provides a raft of benefits including; employment, earnings, health, poverty reduction and life fulfilment. On a global scale, the Word Bank has shown positive returns to investment in education for example, a 9% increase in hourly earnings is realised from one extra year of schooling. Further, the transformative potential of education on societies is immense as it influences medium to long-term economic growth, ignites innovation, strengthens institutions, and fosters social cohesion<sup>1</sup>.

Reaping from the gains of education requires that countries especially from the developing world learn from the repository of global ideas and innovation through educating their populations. Thus, investing in education is investing in people and changing the direction and destiny of societies especially in radically addressing extreme poverty within the developing countries. But, education is still a long shot in many developing and medium income countries. It is estimated that 53% of the children in these countries cannot read and understand a short story by the time they are finishing a full primary school education cycle. This points to a high 'learning poverty' that puts attaining the Sustainable Development Goal 4 (quality education) in question<sup>2</sup>. This points out to the need not just to focus on schooling, but ensuring that actual learning in schools does take place; thus, the importance of quality of education. In this regard, the World Bank Education Strategy 2020 and African Union Continental Education Strategy for Africa (CESA) and Science, Technology and Innovation Strategy for Africa (STISA-2024) stressed learning for all. It is argued that growth, development, and poverty reduction depend on the knowledge and skills that people acquire and not the number of years that they spend sitting in a classroom<sup>3</sup>.

Skills are a vital conduit for success and realising returns on investment on education from individual to societal level. One's productivity and adaptability to new and emerging technologies as well as opportunities is determined by his/her skills base. Further, earnings and economic returns are also directly associated with skills levels in the workforce. This is because investing in fundamental skills affords a win-win for all as the potential for enhancing productivity, promoting greater inclusion, and ensuring the adaptability of the workforce to the markets in the present and future could be strengthened<sup>4</sup>. However, for most of low- and

<sup>1</sup> The World Bank, 2020. Education, overview. <https://www.worldbank.org/en/topic/education/overview>

<sup>2</sup> SDG Compas: SDG 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. <https://sdgcompass.org/sdgs/sdg-4/>

<sup>3</sup> The World Bank, 2011. Learning for All Investing in People's Knowledge and Skills to Promote Development.

<https://openknowledge.worldbank.org/bitstream/handle/10986/27790/649590WP0REPLA00WB0EdStrategyFinal.pdf?sequence=1&isAllowed=true>

<sup>4</sup> The World Bank, 2017. Africa's Pulse. <http://documents.worldbank.org/curated/en/572941507636665377/Africas-Pulse>

middle-income countries, there is a lack of basic skills required to attain quality jobs, this leaves a majority of the population unable to achieve their full productive potential which limits economic growth<sup>5</sup>. This is a particularly phenomenal challenge in Africa. Notwithstanding significant investments the continent has undertaken and the gains made, Africa continues to have the least skilled workforce in the world<sup>6</sup>.

Rapid advances in global knowledge economy are further increasing the complexity of the challenge as the workforce requirements demand for innovativeness, flexibility and adaptiveness. In fact, the [Fourth Industrial Revolution](#) is creating unprecedented disruptions with the dramatic evolution of technological trends that are reshaping life for millions of people around the world. Adapting to the demands and rapid transitions created by the Fourth Industrial Revolution (4IR) requires adaptive workforce, multi-talented and skilled labor for the future. Whilst there is an apparent overall pessimism that the 4IR will potentially create dramatic losses in employment with the global economy needing to create some 600 million new jobs in the next by 2030, and most of these in Asia and sub-Saharan Africa<sup>7</sup>, the 4IR could also deliver a raft of benefits and expand opportunities. The 4IR could be an enabler to Africa's transformation to a global powerhouse through unlocking opportunities in agriculture, agro-industries and agribusiness, strengthening initiatives for fighting poverty and inequality, reinventing labor, skills, and production, increasing financial services and investment, and improving health care and human capital<sup>8</sup>. But, realising these benefits, require that Africa must fix its education sectors to bridge the labor-skills mismatch.

Innovation is at center of transforming opportunities into possible realities that are beneficial. Considering that there is rampant unemployment in the continent at present. Most of the jobs being generated are through necessity micro-enterprises employing on average one to two people, innovation offers a promise for expanding the job opportunities in Africa. Thus, innovation is a critical component to Africa's stability, growth and prosperity in the present as well as in the next decades<sup>9</sup>. But, old problems still constrain the continent's innovation capacity. For example, sub-Saharan Africa region has 91 researchers per million inhabitants compared to the global average of 1,083 researchers and there is equally a critical shortage of qualified human resource especially in science, technology, engineering and mathematics<sup>10</sup>. The African Capacity Building Foundation (ACBF) studies indicate that the continent's ST&I capacity needs are incredibly high (~70,000 to 4.3 M across different fields) and 84% of the countries in the continent have low to very low capacity development outcomes<sup>11</sup>. Further, institutional capacity in the Africa region to develop and sustain ST&I is limited given that fewer public institutions as well as private sector have adequately qualified human resources in science and engineering. It is easier to stay in the course of lamentations on the challenges afflicting education, be it basic education, secondary education and/or higher education as well

<sup>5</sup> The World Bank, 2017. Skills Development. <https://www.worldbank.org/en/topic/skillsdevelopment>

<sup>6</sup> Arias, Evans, & Indhira . (2019). The Skills Balancing Act in Sub-Saharan Africa : Investing in Skills for Productivity, Inclusivity, and Adaptability Africa Development Forum. Washington, D.C. , World Bank Group

<sup>7</sup> Choi, J. 2017. The Future of Jobs and the Fourth Industrial Revolution: Business as Usual for Unusual Business. <https://blogs.worldbank.org/psd/future-jobs-and-fourth-industrial-revolution-business-usual-unusual-business>

<sup>8</sup> Ndung'u, N.S. and Signé, L., 2020. Capturing the Fourth Industrial Revolution: A Regional and National Agenda. [https://www.brookings.edu/wp-content/uploads/2020/01/ForesightAfrica2020\\_Chapter5\\_20200110.pdf](https://www.brookings.edu/wp-content/uploads/2020/01/ForesightAfrica2020_Chapter5_20200110.pdf)

<sup>9</sup> Diop, M. 2017. Innovation in Africa. <https://www.worldbank.org/en/news/speech/2017/11/30/innovation-in-africa>

<sup>10</sup> The World Bank, 2020. Partnership for skills in Applied Sciences, Engineering and Technology (PASET). <https://www.worldbank.org/en/programs/paset>

<sup>11</sup> ACBF, 2017. Building Capacity in Science, Technology, and Innovation for Africa's Transformation: The Role of Higher Learning and Research Institutions. Policy Brief 5. <https://elibrary.acbfact.org/acbf/collect/acbf/index/assoc/HASH9909/99450b34/b3748dd7/43.dir/policy%20brief%205%20eng.pdf>

as ST&I in Africa. What the continent though needs at this pivotal moment and decade, is a real focused attention and renewed commitment to transforming education, skills development and its ST&I including research.

The 7<sup>th</sup> RUFORUM webinar is scheduled to address the fundamentals for transforming education across the educational value chain in Africa. This webinar will address, among others, the following issues: (i) how does Africa eliminate the ‘learning poverty’ using homegrown approaches that are attuned to the political realities of each country, socio-cultural realities, national and regional growth disparities as well as historical injustices; (ii) how may Africa ensure a meaningful and seamless transition and throughput across the educational value chain-from primary school, secondary school, tertiary to university; (iii) Skills development sector including in Technical and Vocational Education requires a rethink; how may the continent approach this, where are the best practices within the continent for bench marking; (iv) How may Africa achieve greater efficiency and better outcomes in skills-building that delivers both productivity growth and skills for today’s workforce and tomorrow’s labor market promise and expectation; (v) how may African public and private education institutions play a leading role in driving science, technology and innovation capacity development adaptive to the realities to Fourth Industrial Revolution to catalyse the continent’s competitiveness, and (vi) what policy and financing modalities are needed to enable the African education sector better respond to the current and emerging needs especially the aftermath of the COVID 19 pandemic?.

**Moderator:**

**Prof. Theresa Nkuo Akenji**, Vice Chancellor, University of Bamenda, Cameroon & RUFORUM Deputy Board Chair

**Panelists:**

1. **HE Prof. Sarah Anyang Agbor**, Commissioner for Human Resources, Science and Technology, African Union Commission
2. **Dr. Amit Dar**, World Bank Africa Regional Director for Human Capital Development
3. **Hon Dr. Elioda Tumwesigye**, Minister for ST&I, Uganda
4. **Hon Dr. Itah Kandjii Murangi**, Minister for Higher Education and Training, Namibia
5. **Hon Pr. Dr Eleonore Ladekan Yayi**, Minister of Higher Education and Scientific Research, Benin
6. **Hon. Dr. Brian Mushimba**, Minister of Higher Education, Lusaka-Zambia

**Discussant:**

1. **Hon. Prof. Aiah Gbakima**, Minister of Technical and Higher Education, Freetown-Sierra Leone

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