Envisioning the Future of Africa and needed Actions

Background

In the recent past the continent of Africa has been playing catching up game in driving its social-economic development agenda. Well-read scholars such as Dr. Kwame Nkrumah of Ghana, Nelson Mandela of South Africa, Julius Nyerere of Tanzania to mention but the few, made attempts in one way or the other in contributing to this development agenda of the continent of Africa to be at par if not equivalent to the developed continents globally. Scientists and scholars as mentioned by Newsham (2008) have also emerged on the African continent, and studies have been conducted during the process of the aforementioned developments.

Prof. Hulela Keba, BUAN, Botswana

On the contrary despite the encouraging efforts made as strategies the continent of Africa has not achieved much to date due to the tragedies of poverty, warfare and diseases (Show, 2015). Several other factors including natural disasters continue to hinder the design and implementation of sound economic plans in Africa to bring prosperity to the continent. According to Show (2015), planning for such development requires the consideration of an inclusive political system, visionary leadership, open markets, investment in human and economic capital, good regional integration, and good relationships with foreign powers. Kabba as far back as 1997 envisaged some developments and changes taking place on the global scene, which were foreseen to have far-reaching ramifications for the continent and its development partners. Until today, strategies are still being sought and envisioned for the future of Africa and actions needed. Strengthening Higher Agricultural Education, Science, Technology and Innovation has the potential to catalyse the needed development in Africa.

Africa is a continent with very diverse cultural settings coupled with the different colonial background legacies which have been accepted across Africa. However, the strategy of the Africa Union that encourages a modern agriculture for increased productivity and production together with development partners, calls for increased role of higher education to become

throttlehold for today. Higher education in agriculture if planned, implemented, and well executed will help propel development in the continent. Specifically, among other factors to consider about higher education are that it (i) should be demand-driven (Deegan & Martin, 2019), (ii) transformative and innovative education (Holley, 2009; Yee, Raijmakers, and Ichikawa, (2019), (iii) skill-matching education (Chris Ryan and Mathias Sinning, 2009; International Labour Organization, 2015), (iv) career-ready education, demand- ready education, and (v) gender-balanced synergies in leadership of higher education. These are elaborated below.

The demand-driven education

Deegan & Martin (nd) argue that it matters how education systems merge with work learning to develop the human skills that matter in development plans. Deegan & Martin (nd) further stated that the world of work is changing as both the technology and the demographics of our populations are changing. As a result, jobs and work environments have also changed requiring a more flexible, dynamic, and equitable system of preparation. Traditional routes to employment have functioned much like these roads, which are also changing. Conventional credentials, like the university degrees, and vocational training qualifications have offered defined entrances and exits for individuals looking for jobs that lead to careers. A map of this system may look less like a highway that runs from one city to the other and more like the iconic web of circles and intersections of any network that exist in a community. Africa is connected through university technology networks where education offered matters at these higher institutions in the network. The education offered at these networks should be demand-driven. The demand-driven higher education, which refers to the education required by the students than education required by the institution (supply driven education) is one that is required and envisioned for the continent. As indicated by Kirschner and Valkce (2005), the evolution of the demand-driven education comes at a time when it is coupled with technology and related systems need to be strengthened for Africa to enhance its development.

Transformative and innovative education

Transformative and innovative education matters a lot in the development of Africa. The two concepts which are 'transformative and innovative' education are crucial in Africa's economic development. According to Koh, Chapmman and Larry (2020), it is an important initiative in education that would create an equal learning opportunity for many learners to develop Science, Technology Engineering and Mathematics (STEM) literacy, and global competencies. As indicated by Lee and Rojan (2010), transformative education refers to innovative and transformative education that provides practical real-life experiences to students to explore the problems that may be encountered in the real world with the support of technologies. These according to Lees and Rojas (2010) would be realistic in today's environment because many students today have grown up with technology including computers, the Internet, video games, digital recorders or players, and mobile phones. Innovativeness

in education improves access to and quality of education as seen in today's students. These students prefer instant learning through all senses simultaneously that include seeing, touching, and interacting with learning environments.

Skill-matching education or curriculum

Thirdly, skill-matching education or curriculum for agriculture is on demand today. According to Morsy and Mukasa (2019) skill and educational mismatches are prevalent in Africa as 17.5% of employed youth are over-skilled, 28.9% under-skilled, 8.3% over-educated and 56.9% are under-educated. Skills mismatch is a discrepancy between the skills that are sought by employers and the skills that are possessed by individuals searching for the job. This means that agricultural education and training institutions should supply the skills needed in the farms and related industries.

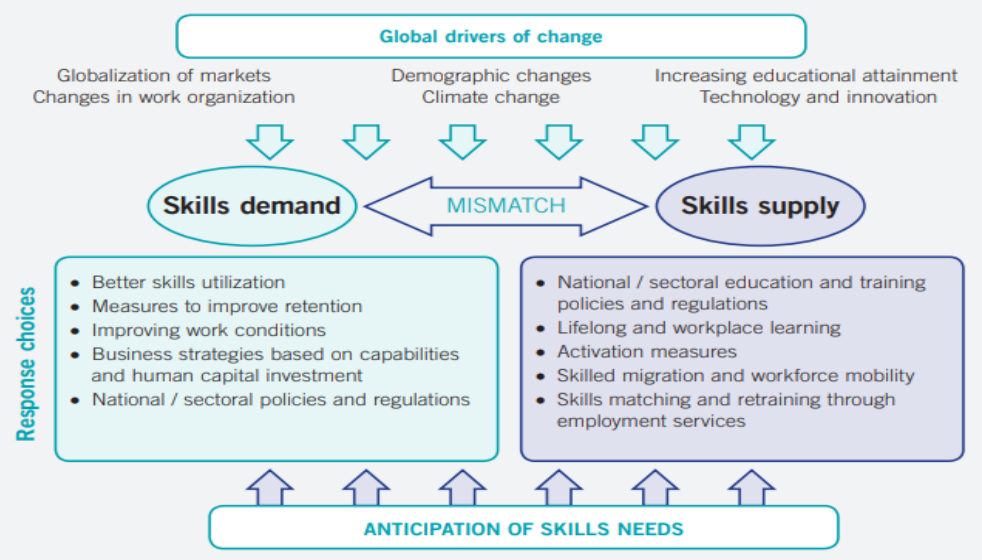
According to the ILO (2019), the skills anticipation has become a strategy through which labour market finds a way in which to prepare to meet future skilled labour needed, to avoid potential gaps and mismatch between skills demand and supply. This concept enables training providers who are at higher institutions and other sectors together with *policymakers, employers, and workers to make better educational and training choices, and through institutional mechanisms and information resources leads to improved use of skills and human capital development*. The International Labour Organisation (ILO) further pointed out that the mismatch of skills in today's world exacts high economic risks and social costs to individual people, business organisations and government entities, which has resulted in the high rates of structural unemployment. Several factors have contributed to this, and Africa should address these through higher education more so that the continent has the highest youth population. The following actors as outlined by ILO are important and influence the mismatch between skills demanded and skills supplied, (i) globalization of markets changes in work organization, (ii) demographic changes, (iii) increasing educational attainment technology and innovation to be strengthened through STEM education. Figure 1 explains the mismatch as understood from the perspective of the International Labour Law (ILO). According to the Food Organization of the United Nations (FAO) (2017) there has been a significant change in our societies due to technology, rapid urbanization, and innovations in production systems thus demanding a change in education and training.

Regarding varying demographic changes, in developed nations, it is characterised by the old while in developing nations that include Africa majority are youth. Africa then should take advantage of moving from the knowledge-based economies to green economy. According to Dlimbetova, Zhylbaev, Syrymbetova and Aliyeva (2016) adoption of the economy gives an opportunity for high quality of life and efficient use of natural resources using advanced technology as most of the youth in Africa are advanced in usage of technology. John Karutha (2020) reported that during Covid 19 statistics showed that even though there were variations

at least 17% students from west Africa were able to register for online learning, 43% in East Africa while 41% were in southern Africa.

The increased level of educational attainment by many youths makes the uneducated people fail to get jobs or employed. Lastly, the availability of qualified people has become a decisive factor for globalization, trade and investments as it gives an opportunity for labour mobility. Mobility of workforce and businesses has become important with the increase in Technology development and innovation coupled with STEM, A number of factors are influencing the global evolution of skills demand and supply, and if left unaddressed they are likely to contribute to skills mismatch in the future (see Figure 1):

Figure 1. Global drivers of change and necessary responses to avoid future skills mismatch



According to the ILO skills-need anticipation is a situation whereby organisations would have to make decisions about what education and training investments they need to make now to maximize the future return on those investments. This is to say assessing prospects on the labour market and the potential imbalance between the demand for, and supply of skills by higher education. This would mean higher institutions indulging in research and development to support systems in education.

Career-*ready education* for higher education of agriculture:

Last but not least career-ready education in higher education of agriculture is one of the strategies to consider for the productive population across the communities in African countries. Higher Agriculture Education institutions in Africa have the potential to prepare students to be ready for careers and to be employable. To achieve this dream, universities, particularly those of and with agriculture awarding degree programs are to be assisted to prepare students for a career, that is concentrating on skills needed for one to be successful in real life jobs. This will demonstrate changes in student skills, profiles, and the curriculum in

higher institution of developing countries will require some reforms as informed by, among other factors researches. In addition, it demonstrates the consequences of curriculum mismatched and construct a model that portrays learning as the result of synchronized student skill and instructional levels. According to DiBenedetto and Myers (2016) preparing a 21st century students for college and career ready is complex and requires collaborative efforts among secondary schools, colleges and universities, policy makers, and business and industry leaders. The authors further pointed out that several factors do contribute to the process which include their developmental processes, motivation, interest, aspirations, socioeconomic status, and support systems.

Gender-balanced synergies in leadership of higher education

Gender inequality in higher education for African universities leadership do exist and is insignificantly but slowly improving. This affects economic development in Africa. According to Mulwa (2021), gender equality promotes sustainable development, and is pointed out in the mission and vision of Agenda 2063 Africa We Want. Mulwa (2021) further pointed to the fact that research has shown some increase in students' enrolment in colleges and universities by 9%, in Ghanaian universities 8% are women, in sub-Sahara Africa 24% are women, while African-led research has shown that out of 2510 researchers in the database, only 32% are female. This means 68% were male, which is 0.67 (2/3) of all researchers on the continent. According to University World News, Higher Education has a role to play in our general life on daily basis. For Africa to be seen as developing, all partners including women and girls should be seen as active participants. Gender gaps have negative impact as indicated by Education Sub-Sahara Africa, which include failing to realise one's potential if not involved, affecting professional and leaderships opportunities, economic inequalities, and lacking role models. Such data is important and crucial. For example, it is reported that in the United States, 57% of Higher Education students are women, but women's unadjusted average earnings are 78% of those of men. The report points out that the choice of degrees and fields of study explain between 15% and 25% of the male-female earning gap among higher education graduates.

Conclusions and needed actions

Agriculture in higher education institutions in Africa has the potential to prepare youth in the continent to be ready for a career and to be employable to contribute to the development of the continent. There is need for leadership in education, scholars, decision, and policy makers to revisit and consider demand-driven education and curricular for higher institutions of learning. Furthermore, 'transformative and innovative' education as a crucial strategy, skill-matching education, career-ready education, and gender equality promotes sustainable development. Important also is that fair participation and involvement of all stakeholders in the contribution towards the development of the African continent would show the way forward.

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About the Author:

Prof. Hulela, Keba is an Associate Professor of Agricultural Education and Curriculum and Instructional Technology is a teacher educator at Botswana University of Agriculture and Natural Resource (BUAN). Her research work is focused on teacher education and professional development rooted on the integration of technology into strategies of teaching and learning. In her storyline manuscript for agricultural education in Botswana the project method is a teaching technique infused in the teaching of technical skills in agricultural education in schools. Contact: Private Bag 0027 Gaborone. Botswana, Email: khulela@buan.ac.bw

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