ADEA 2022 Triennale

SUB-THEME CONCEPT NOTE

Sub-Theme 4 Reimagining Higher Education and Scientific Research

A. Context

The ADEA Triennale on Education is one of Africa's seminal high-level forums for political dialogue, knowledge sharing and fruitful experiences. It focuses on critical themes that transform Africa's education systems for sustainable social and economic development. Through the Triennale, ADEA fosters continental, regional, and cross-country interactions in support of peer learning and knowledge exchange.

The 2022 Triennale, whose theme is *"Reflecting on the impact of COVID-19 on Africa's educational systems, and how to build resilience to sustain the development of skills for the continent and beyond"* follows the first two held in Ouagadougou and Dakar in 2012 and 2017. It is structured around Africa's key priorities, constituting the four sub-themes of foundational learning, the impact of COVID-19 on the continent's educational systems in terms of policy and practice responses, matching demand with supply in technical and vocational skills development, and reimagining higher education and scientific research in Africa.

Technology, and particularly digitalization, is a critical component in the current quest to build back better resilient education systems for the continent. It therefore cuts across the four sub-themes, in addition to the cross-cutting themes of gender, equity, inclusion and climate change.

As part of accelerating progress towards SDG 4 - and CESA 16-25 for Africa, the UN Secretary-General is convening a Transforming Education Summit (TES) in New York in September 2022. The aim is to rally education actors to commit to "mobilizing action, ambition, solidarity and solutions". This is critical in transforming education in the remaining period, and beyond, for SDG4 and CESA 16-15. The outcomes of TES (renewed commitments, greater public engagement, and summary and call to action) will be disseminated and further discussed at the ADEA 2022 Triennale in Mauritius in October.

Africa's development hinges on a higher education system and research that plays a key role in knowledge-based economic growth strategies, contributes to the constitution of human capital, supports innovation, and validates scientific knowledge. Although some countries have adopted higher education governance structures and initiated innovations in training (university, vocational) with quality diversification, there is a clear case of insufficiency in these efforts. This deficit is linked to financing methods and limitation and, above all, lack of effectiveness and efficiency in the use of resources.

Research remains poor, as a priority, in the policies of many African countries, with infrastructure, equipment, personnel, and funding having greater focus. Africa's contribution in the diagnosis and research of vaccines against the COVID-19 pandemic was comparatively minimal, accounting to only 1% of the results of research in the world, according to the World Bank (2020). In addition, there is a mismatch between existing research and potential areas of needs where the research results can be applied. For example, there is little research conducted in the continent in fields of STEM, accounting for only 29% of scientific research in sub-Saharan Africa (World Bank, 2014).

B. About the Sub-Theme

Innovation would enable Africa to leapfrog stages of development while creating the jobs it needs. The digital sector makes it possible to envisage disruptive solutions for young people in certain key sectors and areas, such as the development of digital educational platforms and in remote health centers.

Moreover, research in Africa is still at a low level as evidenced with the absence of the continent in the diagnosis and research of vaccines against the COVID-19 pandemic; in which they contributed to only 1% of the results of research in the world according to the World Bank (2020). Although Africa-led research remains weak, it has the potential to overcome the challenges and lead to an improved economic transformation in Africa.

Developing or reforming appropriate policies that promote national research can be informed by the experiences of situations like the COVID-19 pandemic that negatively impacted higher education institutions. It illuminated previous and new issues such as lack of national and international mobility, reduction in career progression, limited networking and financial strain in institutions that has limited their expansion. Interventions include providing scholarships to enhance access to university education among the youth, addressing issues of transition to tertiary education, and building the knowledge ecosystem for education.

Africa must therefore improve the governance of national research, promote African-led research, and adapt the research results to meet its needs and priorities. Developing the right policies for national research systems, ensuring they have the right capacity and capabilities for coordination and collaboration are also key interventions. It is also important to identify innovative and alternative financing options that can be used to expand higher-level teaching and learning mechanisms. Partner involvement in this endeavor is key. Such involvement can be in the form of resource provision in support of institutions such as African Centres of Excellence to address the identified need on lack of trained academic staff and weak linkages to industry.

This sub-theme will look at the factors, conditions, and drivers promoting African-led research, and interrogate the role of the different actors, including existing Centers of Excellence in the continent. The aim is to enrich the discourse and showcase achievements and innovations in the implementation of reforms in higher education and scientific research that may be worth replicating elsewhere.

Specific Objectives:

1. Share knowledge and evidence around working policies and governance that promote African-led research aligned to the national needs and priorities.
2. Identify examples and lessons of successful coordination and collaboration that have resulted in greater access and quality teaching in higher education and scientific research.
3. Explore factors that enable research to positively impact Africa's agriculture and food industry, the skills required to produce qualified manpower for the industry, and effective ways of leveraging technology to support productivity and competitiveness.
4. Interrogate the role of different actors, including universities and research institutions, in promoting land use and value addition as part of limiting reliance on imports.

Expected Results:

1. Greater awareness and appreciation of policies and governance that promote African-led research aligned to the national needs and priorities.
2. Shared understanding of successful coordination and collaboration mechanisms for improved learning and research in higher education.

3. Clarity on the key factors, research skills, technology manipulation and use in promoting Africa's agriculture and food industry.
4. Partnership strategies in research that can effectively promote land use and value addition to contribute to the national economic development.

C. Storyline

The global SDG4, AU CESA 16-25, ADEA Strategic Plan 2018-2022, AU STISA 2024, and Africa's Agenda 2063 all illustrate the clear desire to establish a responsive higher education, research and innovation ecosystem that would enable countries to ensure their competitiveness and growth. Indeed, in a world characterized by a predominantly knowledge-based economy, well-trained and highly qualified human resources is key to sustainable development. It is now recognized that education, especially higher education, is critical for economic growth, job creation, competitiveness in the global market, socio-cultural revitalization, and improvement in the standards of living of the populations. To succeed in these areas, countries must make substantial and intelligent investments in various fields of higher education and scientific research to train qualified higher-level professionals and a technical workforce capable of meeting development needs.

Sharing knowledge and evidence and enhancing higher education and scientific research must be the priority and key focus to ensure institutions provide more access and quality teaching to students; and can produce relevant and innovative knowledge to enhance the economic transformation in Africa. In sub-Saharan Africa, the average economic growth of 4.5% per year from 2000 to 2018 has only led to an increase in GDP per capita of 1.7% per year. Indeed, the population growth of 2.8% has absorbed 62% of economic growth (Vie Publique, 2021). The growing share of youth in the African population is a reality: 60% of Africans are under 24 years old. By 2030, it is estimated that 30 million young people will enter the labour market each year, i.e., three quarters of the world's young people. This gap between supply and demand is likely to widen if nothing is done, creating situations of high insecurity and unemployment in some regions. This is an ongoing issue throughout Africa – in North Africa, 30% of young people and nearly 55% in sub-Saharan Africa are already considered inactive (ID4D, 2021).

Key issues in higher education relate to inappropriate teaching and learning environment; capacity and non-modernization of the higher education system (few and outdated infrastructure); inadequate levels of qualified teaching staff; few vocational courses in STEM – making it difficult to improve the employability and integration of graduates - weak existing vocational and STEM courses; under-developed remote learning (inadequate training of teachers in the mastery of educational technologies, lack of distance learning offers with international quality standards to improve access and the quality of ICT infrastructures); difficulty in combining the different types of knowledge in training and research to develop transversal skills and expose students to innovative and multidisciplinary environments; and weak governance of national research and absence of national structures for the promotion and transfer of research results.

Globally, and particularly for Africa, the biggest challenge is to improve access to higher education while ensuring the quality of training. Higher education in Africa is also marked by the overcrowding of students in the university space and the insufficiency and lack of training of teaching and research staff. For the past two years, the crisis of the COVID-19 pandemic has considerably disrupted education systems; aggravated the quality of teaching, and significantly reduced the number of hours taught. Furthermore, most of the research conducted in Africa are in the areas of agriculture and health sciences, such as HIV/AIDS, malaria, the Ebola epidemic and more recently the COVID-19 pandemic.

The digital divide continues to widen, a situation that should be arrested since higher education will continue to rely on digital technology in the future, especially to increase access for vulnerable groups.

Improving the quality of higher education systems in Africa calls for greater interaction between governments, development partners and private sector players, buttressed by digital strategies, tools and national regulatory policies that support the implementation of quality assurance systems, accelerate the adoption of change, and provide long-term financial investment. Investing in long-term, multi-level and multi-stakeholder partnerships is key. Such partnerships provide the necessary drive for the digital transformation of universities and have a profound impact on the students' experience. On financing higher education systems, there is need to break out of the traditional funding models and reach out to philanthropies and the private sector. Other creative ways include leveraging alumni engagement, engaging with strategic partners, and establishing innovation hubs within universities as part of involving communities in the institutions. This is in addition to encouraging inter-university connection in terms of sharing resources by leveraging the power of networks. To sustain the capacity building of human resource in higher education institutions, both public and private, calls for greater linkages with existing initiatives to move from working in silos, supporting early career researchers, and training supervisors and leaders. Lobbying for access to resources should be national in scope and not specific to individual universities. Additionally, institutions need to build local resource centers to undertake ongoing monitoring and continuous coaching, as part of addressing the issues and scaling the solutions. Finally, embracing a systems-level approach is needed to achieve all these while harnessing the energy and momentum generated and enhancing collaborating at all levels between universities and with policymakers and the private sector. Solutions should be developed in a thoughtful manner, with sustainability at the center.

Placing research and innovation at the center of national response to economic and environmental challenges requires some reflection. There are several innovative ways to support governments in appreciating and investing in research and development. One of these is by focusing support on improving education, training, and applied research at the post-graduate level in key priority fields such as STEM. This can be done through provision of learning resources to STEM based institutions as well as short courses for industry professionals. Stakeholders could also support governments in providing a conducive policy and regulatory environment to catalyze greater private sector involvement in the co-creation of innovations, and to focus more on applied research.

D. Guiding Questions

1. Do we have evidence of working policies and governance systems that deliberately focus on promoting national research that are African-initiated and African-led? To what extent has the results of these research addressed the development needs and priorities of the community?
2. What are some of the success factors that have led to greater enrolments and uptake of scientific research in higher education institutions?
3. Apart from qualified manpower and technology, what are the other key factors that can enable, or have enabled, research to positively impact Africa's agriculture and food industry?
4. How can the different actors in the higher education space play their roles effectively to promote land use and value addition, as part of limiting reliance on imports, and avoid duplication and unhelpful competition?

E. Structure

- Each break-out session will discuss a specific sub-theme, or cross-cutting theme, with a moderator and rapporteur.
- The moderator will introduce the session and its structure. There will be a short lead presentation followed by a policymaker response (Minister).
- The moderator will then introduce the 4-person panel and engage the panel based on the questions above.

- This will be followed by an engagement between the audience and the panelists, after which the moderator will wrap up the session highlighting the ley messages / takeaways, in liaison with the rapporteur, to be presented in plenary during the report-back session.