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Strengthening Equitable **Access to Quality** **Higher Education** in the Pandemic Environment in Kenya

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List of Acronyms

ACU	Association of Commonwealth Universities
AIDS	Acquired Immunodeficiency Syndrome
ANIE	African Network for Internationalization of Education
CEOs	Chief Executive Officers
CESA	Continental Education Strategy for Africa
COVID 19	Coronavirus disease
CUE	Commission for University Education
EAC	East African Community
EIPM	Evidence Informed Policy Mechanisms
GB	Gigabyte
GRF	Gross Domestic Product
HELB	Higher Education Loans Board
HIV	Human Immunodeficiency Viruses
ICTs	Information Communication Technologies
IUCEA	Inter-University Council for East Africa
KEPSA	Kenya Private Sector Alliance
KESSP	Kenya Education Support Program
KNBS	Kenya National Bureau of Statistics
NESSP	National Education Sector Strategic Plan
NCSTI	National Commission for Science, Technology and Innovation
NRF	National Research Fund
PASGR	Partnership for African Social Governance and Research
PPPs	Public Private Partnerships
PSSP	Privately Sponsored Students Programs
PWC	PricewaterhouseCoopers
R&D	Research and Development
SAPs	Structural Adjustment Programs
SARS	Severe Acute Respiratory Syndrome
SDGs	Sustainable Development Goal
SET	Science Engineering and Technology
STEM	Science, Technology, Engineering and Mathematics
TVET	Technical and Vocational Education and Training
WHO	World Health Organization

Executive Summary

In March 2020, the World Health Organization (WHO) declared COVID 19 a global pandemic. From that onset, the pandemic escalated from a public health catastrophe to a complex and multifaceted global crisis with impact on almost all facets of life. It affected different sectors of society leading to various unprecedented ramifications. Due to the fast pace of its spread, the fatalities it caused, its far-reaching effects, the relevant duty bearers and stakeholders experienced several challenges in making proactive responses to the pandemic. This was especially true in developing nations such as Kenya, where its impact revealed apparent gaps, flaws, and fragility in systems, structures, and policies.

One of the critical sectors impacted by the COVID 19 pandemic was the education sector. This Synthesis Paper examines the effects of the pandemic on the higher education sector in Kenya. Higher education is seen as essential for societal progress, transformation, and enabling societies to adapt to crises such as COVID 19. Since their inception, universities have played a crucial role in identifying and cultivating the high-quality human capabilities necessary for the advancement of society. These capabilities have been effective for generating solutions to the escalating societal problems. Due to their vital position in society, it is essential to get understanding into the consequences of the pandemic on Kenya's higher education sector and the adaptive methods created by universities in response to these effects.

As noted at the outset, this Synthesis Paper was generated within the context of the project *Strengthening Equitable Access to Quality Higher Education in the Pandemic Environment in Kenya*. The purpose of the paper is to provide more in-depth information on the effects of the pandemic on Kenya's higher education, making it a crucial component of this endeavour. Within this perspective, the paper is organized according to the three themes of the project, namely:

- resourcing for access, equity and quality education during and post-COVID-19;
- opportunities for public private partnerships in strengthening access to higher education; and,
- impact of the pandemic on postgraduate training and research and the future of emerging academics.

A multi-stakeholder Research Policy Community named “*Higher Education Utafiti Sera¹ House*” was instituted to undertake a series of policy dialogues to unearth the effects of the pandemic on Kenya’s higher education system based on the above thematic areas. In addition to the adaptive strategies developed by the higher education institutions, consideration was made regarding the prevailing policy context for the higher education sector and the impact of this on the strategies and responses of the universities to the pandemic.

This Synthesis Paper thus consolidates useful information from the Utafiti Sera House dialogues and from a review of relevant literature on recent developments in Kenya’s higher education sector, especially focusing on the above thematic areas. In addition to analyzing the adaptive strategies and responses of the universities to the effects of the pandemic, the paper further explores the extent to which the adaptive strategies and policies were anchored on Evidence Informed Policy Mechanisms (EIPM).

The paper makes an important contribution to this contemporary issue –impact of Covid-19 pandemic on Kenya’s higher education- and will thus be useful to university leaders, policy makers, academics and other key stakeholders such as the private sector and international development partners. It makes a strong case for Evidence Informed Policy Making for future responses to such crises and as a way of building capacity and resilience of Kenyan universities for such disruptions.

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¹ Utafiti Sera refers to ‘research-policy communities’; a platform that facilitates the convening of stakeholders working together to ensure that appropriate and negotiated policy uptake occur around a particular public problem for which there is evidence. It is expressed in the form of “policy-communities” houses, which are spaces, places and processes for policy engagement. Utafiti Sera houses set relevant agendas, generate debates and awareness, and provide comparative evidence for formulating and debating programme design, policies, or administrative action.

1.0 ***Introduction and Context***



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The onset of the COVID-19 pandemic in Kenya in early 2020 brought forth an unprecedented phenomenon that affected nearly all facets of life with varying consequences. Like most other sectors, the education sector bore the brunt of the consequences of the pandemic (Ngwacho, 2020). As a result, schools and colleges in Kenya closed down in March 2020 bringing the whole sector to a halt. Due to the national response and containment measures that were put in place, the education sector remained shut for several months till January 2021 when schools started re-opening, but in shifts. In Kenya, such a long closure of the learning institutions was unprecedented. It occasioned several challenges to the education system and its key stakeholders and institutions. It led to significant loss of time leading to complications to the school calendar and will require considerable amount of time for normalcy to be restored. It presented several other attendant impact on institutions, students, teachers, parents and other stakeholders.

Even though the government made frantic attempts to facilitate distance learning especially through the Kenya Institute of Curriculum Development (KICD) and other agencies and partners, not all learners could be reached. Due to the long time of isolation due to the closures,

learners could not access their peers thus affecting a large part of their socialization (Ng'ang'a, 2021). It was noted that these conditions led to several learners developing mental health challenges and other complications on their health and wellbeing. The same was for teachers who were also isolated at home during the same period. In addition to these, cases of early and unplanned pregnancies became another challenge leading to several learners not reporting to schools and colleges when the system reopened.

The re-opening of schools came at a time when the pathological effects of the pandemic were beginning to slow down and with expectations that the social and economic ravages of the pandemic could continually decline (Ngwacho, 2020). The containment measures that had been put in place were further scaled up in the learning institutions. When vaccinations were commenced, the education sector was prioritized with most teachers being the first to receive the vaccinations. With these, face-to-face teaching and learning slowly picked up and was hoped to continue without further escalation of the pandemic.



Source : Education Week



Even though the government made frantic attempts to facilitate distance learning especially through the Kenya Institute of Curriculum Development (KICD) and other agencies and partners, not all learners could be reached.

SCHOOLS CLOSED

Source : Shutterstock

However, even with these developments, most effects and challenges of the pandemic to the education sector have persisted and some might even take much longer to address. Though the pandemic grossly impacted all levels of education in similar magnitude, this synthesis paper focuses on its effects on Kenya's higher education. While there has been considerable exploration and analysis of the impact of the pandemic on the basic education level sector in Kenya (Ossai, 2021), the higher education level does not have equal attention, especially from a policy perspective. This paper thus gives some in-depth exploration of the impact of the pandemic on Kenya's higher education and strategies for enhancing access, equity, and quality of higher education including fostering private-public partnerships and postgraduate training and research.

The higher education sector is a crucial component of the national education system and has a pivotal role to play in developing skilled human resource and developing new knowledge and innovation needed for societal development. Through their research and innovations, universities as higher education institutions respond to the needs and challenges facing society. In recent years, the demand on universities to play a role in societal transformation has been more prominent than ever (Oanda, 2013), placing universities at the

centre of societal development and transition. In response, universities have endeavoured to meet these demands and expectations by boosting the quality and relevance of their teaching, research, and societal engagements. In addition to increasing governance and management and building strategic partnerships and collaborations, they have also taken steps to broaden access and provide a variety of program offerings (Owino, Oanda & Olel, 2011). While these advancements have resulted in significant improvement throughout the years, Kenyan institutions continue to face a number of obstacles that demand concerted efforts.

In the history of higher education in Kenya, the COVID 19 pandemic is unprecedented, as it is for all other levels of education. It caught universities off guard and unprepared, so providing significant difficulties to the institutions and their leadership. In addition to compounding the perennial challenges facing the higher education system, the pandemic gave rise to new ones. Among others, the pandemic exposed the fragility of the higher education system, especially in responding to such crises. It further laid bare the deep-seated inequalities amongst and within the higher learning institutions. This was largely discernible in their varied abilities and capacities to respond and cope with the consequences of the pandemic. Kenyan universities had to close down for several months from the onset of the pandemic. This

led to several consequences on the institutions and their key stakeholders especially students, academic staff, parents and university leadership.

In general, the effects of the pandemic unveiled and aggravated several systemic and institutional challenges facing Kenya's higher education. Amongst these were the glaring policy gaps and inadequate institutional capacities, which inhibited the institutions from adequately responding to the effects of the pandemic. The several months of closure of higher learning institutions and the containment measures put in place including lockdowns led to several impact that adversely affected the delivery of the key mandates and roles of the universities.

Inequalities were also discernible amongst university students especially based on their socio-economic backgrounds. Staff in the universities –both academic and administrative- were also affected in varied ways. The pandemic further tested the capacity, tenacity and ingenuity of institutional leadership (Boshoff et.al 2021). Generally, the pandemic pushed the universities into a crisis mode forcing them to quickly develop adaptive strategies and innovations to respond to the many consequences of the pandemic (Wachira & Ombati, 2020). It was noted that some universities

quickly devised mechanisms to respond to the effects of the pandemic to their core mandates especially of teaching, learning and research. The universities made frantic efforts to remotely prepare their students and staff to remote learning within a context of serious constraints. One of the main transformations was the shift to digitalization and online learning (Ochieng & Waithanji Ngware, 2022). This too brought in new challenges to the institutions. In several instances, the institutions demonstrated weak capacities to shift to online learning. This was due to a variety of reasons including poor ICTs infrastructures, inadequate ICT skills amongst staff and students, high cost and limited access to internet especially for students in marginalized regions (Ochieng & Waithanji Ngware, 2022), among others.

While the impact of the pandemic on the universities were multifaceted, this paper focuses on the impact of the pandemic on access, quality, equity, research and postgraduate training, which are the core themes of this project. It further explores the opportunities for partnerships and collaborations, especially with the private sector and international development partners to enable the universities better respond to such situations.

This Synthesis Paper problematizes and addresses the above thematic areas guided by the following key questions:

1. What are the impact of the COVID 19 pandemic on access, equity and quality on Kenya's higher education?
2. How has the pandemic affected postgraduate training, research and emerging academic engagements?
3. What adaptive strategies and responses have Kenyan universities employed to respond to the effects of the pandemic?
4. What policy frameworks exist (at national and institutional levels) to facilitate the implementation of these adaptive strategies? What gaps exist and how can they be addressed?
5. How have other stakeholders, especially the private sector and international development partners been engaged to support the efforts of the universities and government to response to the pandemic?

In the next sections, the above guiding questions are pursued into more detail.

1.1 The transformative role of universities



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Universities play a pivotal role in societal transformation, advancement, and self-renewal through their mandates and capacities in knowledge production, innovation, and human resource development. There is accumulating evidence that no nation, region, or society has ever achieved exceptional development without making deliberate and strategic investments in higher education, research, and innovations (Castells, 2011). The capacity of nations to produce, adapt, and utilize knowledge is a key factor in their continued economic growth and competitiveness (Jowi & Obamba, 2013; Mohamedbhai, 2012). This places universities at the centre of the growth, development, and prosperity of nations and society (Jowi & Chika, 2017). Kenya, like most other developing countries, lies at the periphery of the growing and fast-paced knowledge society (Lutomiah et al., 2022). This is largely due to the weak national and institutional capacities of their universities for research, knowledge generation and innovations that are crucial for developing solutions to perennial challenges of their societies. Though the situation is improving, African universities still contribute a paltry 1.2% of global research outputs. This is largely a contribution of handful countries mainly Egypt, South Africa, Nigeria, Kenya and Ghana (UNESCO, 2015).

The fast pace of globalization and the emergence of the global knowledge society puts knowledge centrally as a key driver of modern economies (Oyewole 2010; Castell, 2011). Developed economies have demonstrated massive and deliberate investments in their capacities to produce, adapt, disseminate and commercialize knowledge. Such investments in research and innovations have been mainly through development of research-intensive universities with a strong focus on postgraduate training, innovation and cutting-edge research (Cloete et al., 2018).

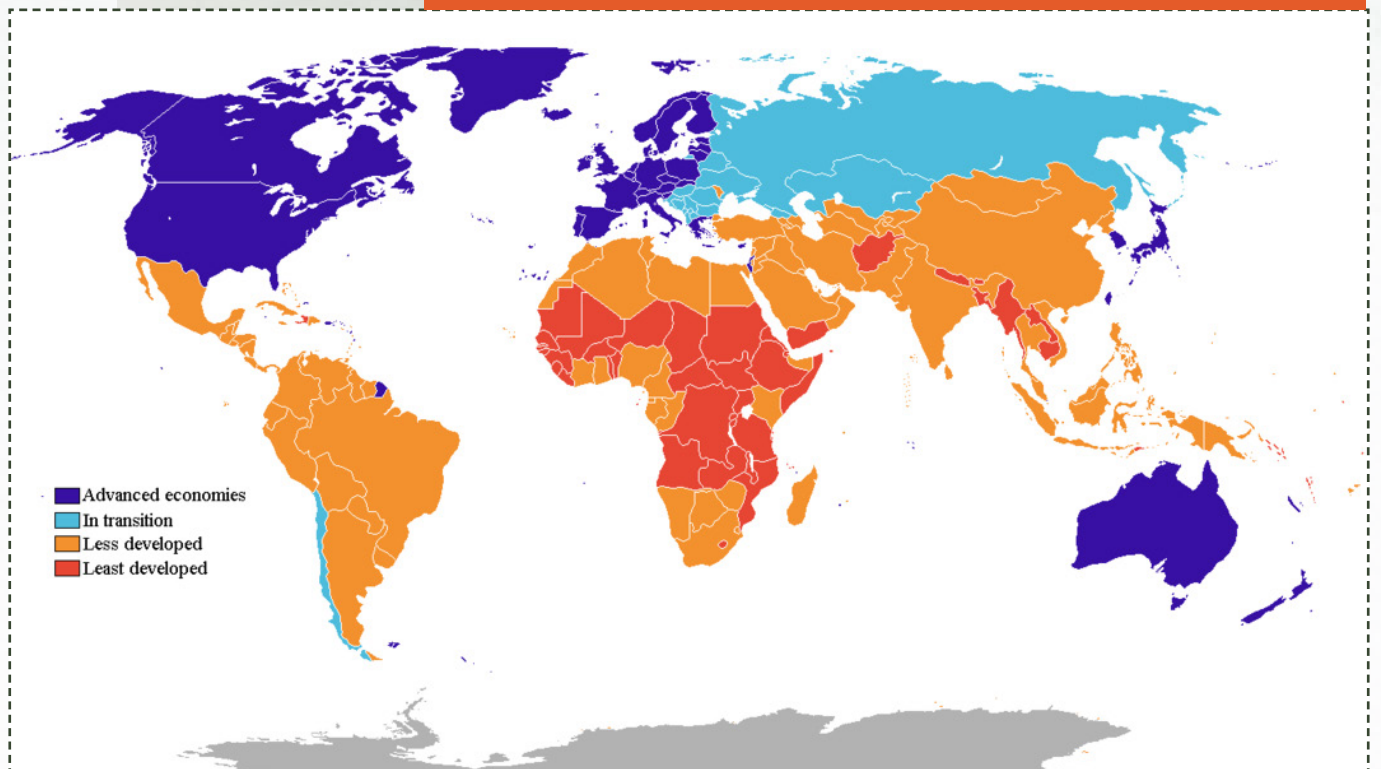
Developing countries such as Kenya, on the other hand, have not developed comparable research, innovation and postgraduate training capacities (Lutomiah et al., 2022) partly due to the perennial challenges of inadequate funding, weak capacities for research and postgraduate training, poor institutional infrastructures, and weak collaborations with other stakeholders among others (Jowi, 2021; Zeleza, 2021). The purpose of research and innovation in developing nations such as Kenya is not just to increase their global competitiveness, but also to enable them to fulfil their mandates and address the most pressing societal concerns. On this basis, the Government of Kenya has made relentless efforts to develop the capacity of the higher education system, not just for increased access but also for improved quality in order to generate graduates who are competitive and responsive (Odhiambo, 2018).

In the same vein, despite the challenges they face, Kenyan universities have contributed enormously to national development and growth of several sectors of the Kenyan economy (Odhiambo, 2018). As a result, Kenya has attained significant progress and developments in key productive and social sectors such as agriculture, tourism, health, water and environment, energy, business and entrepreneurship, ICTs, innovations, science and technology, among others. These sectors have largely been driven by the knowledge, expertise and workforce developed by the universities and colleges.

The recent move by the Government of Kenya to establish universities in nearly all the regions of the country, despite its attendant challenges, demonstrate the belief in the potential of universities to stimulate growth and development, especially in some of these formerly marginalized regions (Munene, 2015). For Kenya to achieve her development aspirations, access to quality higher education has been identified as imperative at all levels including the postgraduate levels, which plays a key role in research, knowledge production and innovations (Wanzala, 2017; Mukhwana, 2017). While government is making all efforts to support higher education, it is not sufficient, thus the need for inclusion of other stakeholders such as the private sector and international development partners to augment the support by government. Crisis situations such as the COVID 19 pandemic, in most cases negate some of the gains and progress that have been made. It is thus imperative to analyse the impact of the pandemic on the higher education system while at the same time taking stock of the responses the universities made in helping society respond to such calamities.



Developing countries such as Kenya, on the other hand, have not developed comparable research, innovation and postgraduate training capacities (Lutomiah et al., 2022) partly due to the perennial challenges of inadequate funding, weak capacities for research and postgraduate training, poor institutional infrastructures, and weak collaborations with other stakeholders among others (Jowi, 2021; Zeleza, 2021).



Source : Wikimedia

1.2 Universities and Disciplinary Variations

From their onset, universities have been organized along disciplines. These were also referred to as academic tribes and territories (Becher, 1989) in a bid to demonstrate the organization of academic disciplines as territories and groups which members protected dearly. Members of one discipline thus related to their similar colleagues in other universities and rarely with colleagues in other disciplines within the same institutions. This is what prompted Weick (1976) to regard universities as loosely coupled organizations in which professionals operated within their own specialties with little or no coordination or involvement with colleagues from other disciplines. In Kenya, in the formative years of university education, this seemed to be the trajectory. As such, the governments established universities with specific focus in key disciplines such as Agriculture, Science and Technology, teacher education, among others.

The seminal paper by Frans van Vught (2007), argues for differentiation of the higher education sector. With regard to disciplines, the argument is that countries would develop differentiated institutions focused in specific disciplinary or priority areas. As such, there could be universities specifically focused on areas such as agriculture; others focused on science, technology and innovations; and others on teacher education. This approach has been viewed to be more effective than having all universities as comprehensive institutions. In the last couple of years, especially based on the works by Altbach (2009), there have been calls for developing countries to develop few research universities while the others remain teaching universities focused on applied disciplines.



This disciplinary organization of universities is also discernible in the relationships between the Science, Technology, Engineering, and Mathematics (STEM) disciplines and the social sciences and humanities. As has been highlighted, the academic staff and departments in these dichotomies have worked within these academic silos and mainly advanced knowledge in the respective areas. Over the years, the role of the social sciences has been downplayed while the STEM disciplines have been elevated (UN, 2022; UN Office of the Special Advisor on Africa [OSAA], 2022). As a result, many universities and governments have placed a strategic emphasis on these science disciplines, which are gaining recognition as the most essential for development compared to the social sciences. This has led to allocation of more resources to support the STEM subjects while support to other disciplines especially the social sciences has gradually been dwindling. International funding agencies have also aligned their funding models to mainly focus on the STEM areas in addition to Agriculture, Health and Environment. As Jowi (2021) notes, most research publications from Kenyan universities emanate from these well-resourced disciplines.

The Government of Kenya further committed additional resources to fund its Agenda with strong emphasis on STEM related disciplines in 2019. As such, it is discernible that the disciplinary dichotomy between sciences and arts is strengthened by government policy and funding. Such developments go further to perpetuate the historical academic boundaries in which university programs have been organized.

The dichotomy is also based on some literature that posit a strong connection between STEM subjects and rapid national development (e.g., Un, 2022). As such, the role of the arts and humanities, especially in social transformations, societal developments, inclusivity, livelihoods and shaping up worldviews seem to be rather downplayed. It is however noted that only a few of the Kenyan universities, especially the public ones could offer programs in the STEM fields especially due to the associated costs. In addition, the STEM subjects

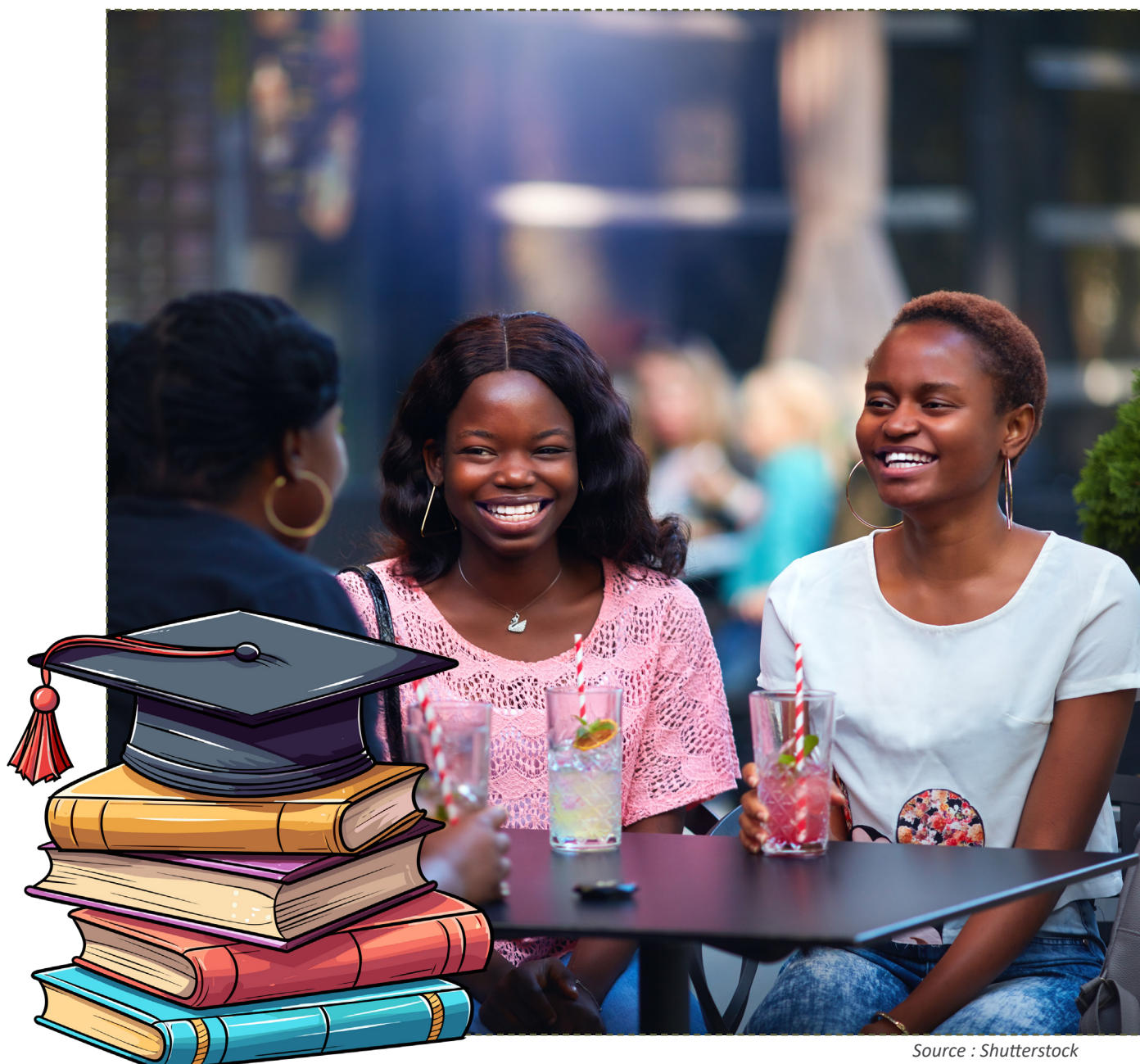
still record low enrolments in Kenyan universities especially at postgraduate level.

Gender disparities also escalate in these disciplines with very low participation of women. According to Amunga and Amadalo (2020), women make just 19% of students enrolled in Computer Science and Engineering. Globally, women account for less than 29% of those working in scientific research and development (R & D) worldwide (Wofford & Blaney, 2021). This is at a time when STEM occupations are among the most sought-after skills in the world and are projected to play a major role in shaping the world in the next decades.

There is, however, an emerging recognition of the role that multidisciplinary in research, knowledge creation and organization of disciplines. The multifaceted and multidimensional effects of the COVID 19 pandemic on nearly all aspects of our lives ranging from health, education, economy, mental and social well-being, religion- amongst others, puts into sharp focus the need for reflections and bridging of boundaries in these disciplinary dichotomies. This lends credence to arguments that the pandemic could have been best addressed through a multidisciplinary, multistakeholder and multisectoral approach (Ali et al., 2022; Monaco et al., 2021). This is also pegged on the fact that the effects of the pandemic are socially and economically patterned, thus affecting certain sectors of society much more than others. This requires academics and other professionals to collaborate to find solutions to these challenges. Multidisciplinary, co-designing and joint implementation by researchers and practitioners from the different academic and professional backgrounds would thus be the most feasible strategy for tackling the effects of the pandemic (Bell, Deshpande & Hales, 2020).

The following section provides a brief overview of higher education in Kenya, including a brief history and development of the sector as well as some of the sector's challenges. The core topic areas of access, quality, equity, postgraduate training and research, and business sector participation are discussed.

2.0 Higher Education in Kenya: A brief context



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Higher education in Kenya is comparatively recent and spans just a few decades (Jowi, 2018). It has however attained phenomenal growth and transformations (Nyangau, 2014; Jowi, 2018). The development of university education in Kenya can be traced to 1963 when the Royal Technical College became the University College, Nairobi. It was then made part of the University of East Africa, which had campuses in the three East African countries (*i.e.*, Kenya, Uganda and Tanzania). Following the dissolution of the University of East Africa, the University of Nairobi was established in 1970 by an Act of Parliament (Republic of

Kenya, 1984:12) with the main mandate of quickly developing the required human resources for the newly independent nation.

The rising demand for university education surpassed the capacity of University of Nairobi leading to the establishment of Moi University in 1984 as the second university in Kenya. This was followed by a remarkable growth in number of universities with the establishment of Kenyatta University in 1985, Egerton University in 1987, Jomo Kenyatta University of Agriculture and Technology (JKUAT) in 1994, Maseno University in 2000 and the Masinde Muliro University of Science and

Technology (MMUST) in 2007 (Jowi, 2018). By 2021, Kenya had over sixty universities of which 23 are public, 17 private, ten public university constituent colleges and the rest private universities with letters of interim authority. This growth was largely a result of the supportive legal framework put in place in 1984 and the rise in demand for university education in Kenya.

The development of higher education in Kenya can largely be summed in three main phases, that is, the *development university phase*, the *crisis phase*, and *the renewal and revitalization phase* (Republic of Kenya, 2007). The *development university phase* immediately after independence when the University of Nairobi was the only university in the country was focused on developing the human resources needed to take up places that had been occupied by the departing colonial administrators. Due to the few numbers of students, the government bore the full cost of university education, including students' fees and other requirements (Republic of Kenya, 2007; Jowi, 2018).

About a decade later, the developmental phase was followed by the *crisis phase* beginning from the late 1980s to the end of the 1990s. This period presented one of the most difficult times in the history of Kenyan universities which was mainly attributed to the impact of the Structural Adjustment Programs (SAPs) which introduced several austerity requirements to the sector. This phase was also characterized by politicization, strong state control and interference in management of universities, stifling of academic freedom and chronic underfunding of the system. This period also ushered in many changes into the system such as the introduction of student fees, cost sharing and cost reduction measures which impacted unfavourably on students and staff. These led to several instances of strikes and closures of the universities due to

unpopular policies (Sifuna, 2009). These had serious impact on access, quality, research, governance and negatively affected the growth of the system (Kiamba, 2004; Wangenge-Ouma, 2007).

Beginning in the year 2000, Kenyan higher education has undergone a period *of renewal and revitalization* characterized by a sector rejuvenation. There has been a massive expansion of the sector in number and diversity of universities. Several reforms have also been undertaken in governance and management, quality assurance and standards, and funding among others. This phase has also occasioned the rapid growth of private higher education, which has further enhanced access and diversity of programs (Jowi, 2018).

The higher education sector has also made significant progress in enhancing research and innovation targeting key development sectors. In recent years, the Kenyan government has put significant efforts in strengthening the universities. By the end of 2021, several of the public universities were facing serious financial and governance challenges with some being declared bankrupt and not able to sufficiently undertake their responsibilities. Despite these challenges, Kenya still has a vibrant higher education and research system in the region, which could be bound to attain further growth.

In the next sections, this paper briefly discusses the current situation regarding access, quality, equity, research, postgraduate training and stakeholder participation in Kenya's higher education. These are targeted to address the focal areas of this paper.



No. of registered higher learning institutions

● Public Universities	32
● Public University Constituent Colleges	6
● Private Universities	35
● Public Colleges	168
● Private Colleges	44
● National Polytechnics	10
● Teacher Trainer Colleges	4

KEY:

- with universities
- without universities

Counties with and without public universities

Source : The Star Newspaper

2.1 Access and equity



Source : Shutterstock



Source : Shutterstock

Since independence in 1963, there has been a steady rise in student enrolments leading to Kenya being considered as having one of the fastest growth in student enrolment in Sub Sahara Africa (Mukhwana et.al, 2016; Omingo & Mberia, 2019). The government of Kenya has steered the expansion of the higher education sector to provide a broader base for access and diversity of academic programs offered by the universities. In recent years,

there have also been attempts to infuse flexibility into the system through initiatives such as privately sponsored student programs (PSSP). In addition to these, the newly established universities have been distributed to different parts of the country in attempts to take the universities closer to the people (Oanda, 2013) and contributing to further enhancement of access and equity.

Kenya has experienced extraordinary enrolment increase during the previous couple of decades. At independence in 1963, there were only 571 pupils enrolled in the system. By 1983, there were 7,418 students, and by 2005, there were 92,316 students. The population increased from 112,229 (68,345 males and 43,884 females) in 2006 to 539,749 in 2017 (317,280 males and 222,484 females). There were around 550,000 students enrolled in Kenyan universities in 2021, with an estimated 50,000 pupils studying abroad. The increase in enrolment led to an increase in graduation rates. By 2018, Kenyan universities were sending approximately 100,000 graduates into the workforce annually (Jowi, 2018). The expansion of the higher education sector and the 2003 implementation of free primary and affordable secondary school education are expected to increase enrolment and graduation rates.

Even with these improvements, access to higher education remains one of Kenya's greatest challenges, with just approximately 10% of secondary school graduates gaining admission to colleges (Odhiambo, 2016). Access to higher education has been a perennial challenge and a policy issue in Kenya, and has drawn the attention of the government and several other actors. Many qualified students, especially those from disadvantaged families, are locked out of the system after missing out on government support programs that are typically competitive and insufficient.

It should be emphasized, however, that while undergraduate enrolment has increased continuously, postgraduate enrolment has not increased at the same rate. This is particularly true at the PhD level, the apex of research and knowledge production. Postgraduate students constituted only 11.7% of the student body (Kenya National Bureau of Statistics, 2020). In 2020, there were 7,146 students enrolled in PhD programs (4,915 men and 2,231 women), with the majority attending state universities.

Another challenge that has hampered access to higher education in Kenya has been lack of finance and insufficient institutional capacity to accept additional students. This is also owing to the fact that, despite technological developments and new modalities of distribution, the majority of institutions have maintained face-to-face delivery. In addition, the sector has expanded beyond the government's ability to completely fund, compelling universities to seek alternate funding streams. In the 1990s, when

this problem first arose, the government capped the number of students admitted to public universities at 10,000 per year. This was followed by the introduction of university fees, which disadvantaged many students, particularly those from impoverished backgrounds. As a coping mechanism, the public universities implemented the Privately Sponsored Students Programs (PSSP) as a mechanism to generate additional income (Kiamba, 2004; Wangenge-Ouma, 2007), and as a result, enrolments in the universities skyrocketed and exceeded the institutions' limits. This, however, opened doors for eligible students who were previously excluded from the system because they did not get government funding. The declining popularity of these degrees in recent years has deteriorated the universities' financial plight (Nganga, 2021). By 2021, only about 10% of graduating high school students had access to higher education. Even though this is a huge increase from the 5% access rate of this category ten years ago, it is still significantly lower than the 40% access rate in OECD countries (Gudo, 2014). The Higher Education Loans Board's (HELB) assistance to poor students through its loan program has played a crucial role in increasing equity and access. However, it has not been adequate. The Daily Nation of May 20, 2021 reported that HELB's inability to support 95,000 students will prevent them from attending institutions and colleges. These indicate that many needy students continue to face impediments to accessing higher education.

The rising socio-economic disparities between households in Kenya significantly affect access to higher education leading to equity concerns. This becomes even more glaring from a gender perspective. Though the gender parity index shows improvement from 0.68 in 2013 to 0.78 in 2018 (Republic of Kenya, 2018), there is still low enrolment of females in higher education, especially in Science, Engineering, and Technology (SET) subjects. According to Akala (2019), female students face more challenges accessing and succeeding in higher education compared to their male counterparts due to persistent structural inequalities. In an attempt to address the challenge of access since 2017, the Government of Kenya committed to ensure that all students who qualify for university education got support to access university education.

2.2 Quality and relevance

Quality is another challenge and key issue in Kenya's higher education. The quality challenge arises from several factors including the rapid expansion of universities, spiralling enrolments, weak regulatory frameworks, inadequate funding, deficient physical and human resources and leadership and governance challenges, amongst others. In recent years, significant progress has been made to improve quality in the higher education system. The Commission for University Education (CUE) has been reformed and granted adequate authority and mandate for quality assurance of the higher education system. These include accreditation of programs, developing criteria for admission to universities, recognition and equating of degrees amongst others (CUE, 2014). In addition to the efforts by CUE, the universities have also developed internal quality assurance mechanisms including attainment of ISO certifications by most of them and establishment of offices responsible for quality assurance.

In addition to the quality challenge, the system has also been having the sesame twin challenge of relevance of its programs. The universities have been challenged over the years that their trainings did not meet the expectations of the labour market. This was mainly due to the rather long time that university graduates took to find appropriate employment. In 2021, when the Kenya Universities and Colleges Central Placement Service (KUCCPS) released the outcomes of student selection of courses, it was noted that several university programs did not attract any students. Instead, several students who had qualified for higher education opted to join technical and vocational colleges largely due to the closer connection between TVET programs and the job market. The rising challenge of graduate unemployment is in a way attributed to academic quality and relevance of programs offered by the universities. There have been claims that most graduates coming from the Kenyan universities do not have the requisite skills for the world of work.



Source : Business Daily

2.3 Postgraduate training and research

Investing in postgraduate study, particularly at the doctoral level, is essential to the creation of a critical mass of new academics and researchers needed to address the expanding societal challenges. In 2017, there were 7,146 PhD students enrolled in Kenyan universities, which represented a meagre 1.3% of total student enrolments (Jowi, 2021). Most of them (above 70%) were enrolled in Arts, Humanities, and Social Sciences at public universities (CUE, 2016). The ratio of male to female PhD students is 2:1, but it is considerably more prominent in STEM disciplines. The average time required to earn a PhD has been six years, despite programs being designed to take three years. This has resulted in a dismal 20% completion rate (Mukhwana et al 2016). Kenya's Vision 2030 recognizes the essence of research in knowledge generation and utilization for the transformation of the country. The national Science, Technology and Innovation (STI) Strategy further emphasizes the essence of a national research and innovation system and commits to invest resources in such high-level training (Republic of Kenya, 2017). Postgraduate training and research require several support and steering mechanisms. In Kenya, over the years, priority had been given to the undergraduate level of education leading to several years of near neglect of postgraduate training. This situation seems to be changing in recent years with higher education policy documents showing government commitment to strengthening postgraduate training and research. As a result, there has been significant growth in PhD programs leading to a rise in number of doctoral graduates in Kenyan universities. While the public universities were each graduating just about five PhDs annually ten years ago, the average has grown to about thirty PhDs per institution by 2017 (Barasa and Omulando, 2018).

In 2017, there were 7,146 PhD students enrolled in Kenyan universities, which represented a meagre 1.3% of total student enrolments (Jowi, 2021).

Other significant developments include the establishment of the National Commission for Science, Technology and Innovation (NACOSTI) to coordinate, steer and fund training and research in science, technology and innovation. By 2016, NACOSTI has funded 433 PhD postgraduate research projects and supported the establishment of several research chairs to attract top scholars from the diaspora back into the country.

The other key development was the establishment of the National Research Fund (NRF) to support research, again with a focus on STEM areas in addition to the Government Research Endowment Fund (GREF), which also supported scientific research and innovations. As already highlighted in the previous section, CUEs quality assurance reforms are also focused on research and postgraduate training. The recent CUE requirement for academic staff in Kenyan universities to attain PhD qualifications triggered a rise in enrolments in PhD programs. Most of these trainings are however mainly domiciled in a handful universities, especially the old public universities with private universities playing a rather minimal role (CUE, 2014). Several universities have also in recent years joined different networks and consortia and developed international collaborations which have provided other avenues for enhancing funding for post graduate students (Jowi, 2021; Barasa & Omulando, 2018).

Most postgraduate students, especially at the doctoral level are staff in the universities. They are thus weighed down by heavy teaching loads and other departmental responsibilities, further hampering their training. These complexities in the conditions of the postgraduate students' impact

on the efficiency of the programs and often lead to delayed completion. Most of them perceive their supervisors as largely inexperienced, having heavy workloads and poorly remunerated for supervision. These constraints impact negatively on quality of supervision and thereby, on quality of programs. The survey further points out insufficient support to post graduate students with departments lacking basic infrastructure for research thus not providing a conducive environment for the needs of the early career researchers. According to Altbach (2009), American universities are successful in research and postgraduate training based on their stability, good infrastructure, a culture of research excellence, high salaries, available research funding, institutional autonomy and academic freedom and the ability to attract and retain top global talent.

Though Kenya's investment in research and postgraduate training is still comparatively low by global standards, Kenya is rated amongst the most competitive research systems in Africa with about 4,000 research personnel falling just behind South Africa, Egypt and Nigeria (Jowi 2021; Odhiambo, 2018). In recent years, the number of university staff with PhD qualifications has risen to 35% with government still pushing universities to ensure that a large number of teaching staff attain PhD qualifications (Barasa and Omulando, 2018). The government therefore demands universities to be at the forefront of cutting-edge research and innovation and to play a pivotal role in helping the nation to address its most pressing developmental needs and challenges (CUE 2015).

2.4 Public-Private Partnerships

Education is largely a national function in many countries and thus a key responsibility of the state. In Kenya, the state has a pivotal role in education including in policy development, regulation, quality management, ensuring access/equity, funding, among others. The state also has a role to safeguard public interest and providing a favourable environment for education to flourish. However, as highlighted in the preceding sections, the efforts by the government are insufficient to cover all the demands of the education sector. This is more so with the funding and other capacity needs of the sector.

Some of the challenges facing the higher education sector have been documented in the preceding sections, including in relation to the key areas of this *Utafiti Sera House*, namely access, equity, quality, postgraduate training, and research. As a result, a stakeholder-based strategy to tackling these issues is essential, as it augments government contributions. Thus, it is becoming increasingly apparent that corporate sector partners, international agencies, and institutions in other regions can help initiatives addressing these difficulties through structured and mutually beneficial relationships. Partnerships with the private sector have immense potential in enabling universities address some of the challenges they have in supporting research, innovations, infrastructure development, enhancing staff capacities, endowments, support to scholarships, facilities for students amongst others. In the next sections, instances will be presented where private sector partners, especially ICT and Telecom companies extended support to higher education institutions to respond to the pandemic. Universities with long-standing and mutually beneficial partnerships with the private sector and other development partners have gained enormously from these relations.

In most developing nations, including Kenya, the private sector is underdeveloped and just beginning to take shape. Nevertheless, by regional standards, Kenya boasts one of the most robust private and industrial sectors, which is also emerging as a crucial partner for universities. According to Musila (2020), 30% of the funding for higher education in 2020 came from the business sector. In Kenya, the private sector has contributed significantly to private higher education investment. Thus, Kenya's private higher education sector is one of Africa's most thriving and robust. The expansion of private universities in Kenya has contributed to increased access and program diversity. Some universities, including United States International University (USIU), Strathmore University, University of Nairobi, Moi University, and Egerton University, have international affiliations that provide students with more enriching educational opportunities, particularly through student exchanges and collaborative research.



Some universities, including United States International University (USIU), Strathmore University, University of Nairobi, Moi University, and Egerton University, have international affiliations that provide students with more enriching educational opportunities, particularly through student exchanges and collaborative research. Several of these have also strengthened their relationships with the private sector and industry.

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In addition to the above developments, private investors have also heavily invested in private higher education in Kenya leading to a vibrant and quality private higher education sector. In recent years, the government has been placing government-funded students into private universities (KEPSA, 2018). Such students were previously the preserve of the public universities. Within this framework, the government in 2016 placed the first cohort of 12,096 government-funded students into private universities. This number has been rising steadily and demonstrates the confidence of the role of private sector in higher education in Kenya.

Several organizations in the private sector have founded philanthropic organizations through which they support worthy causes, such as education. Charitable foundations such as Safaricom Foundation, KCB Foundation, Equity Foundation, Chandaria Foundation, Rattansi Foundation, Toyota Foundation, among others, have supported universities and students in different ways. Some such as the Chandaria Foundation, Safaricom Foundation and KCB Foundation have supported the institutions in infrastructure development including the infrastructure and equipment for ICTs, which are now so much needed with the massive shift to online learning. Through these foundations, the private sector organizations have developed programs to support needy students access university education. The Wings to Fly program, which is backed by the Equity Group Foundation and the MasterCard Foundation, has helped hundreds of kids earn a university education at Ivy League universities in the United States and internationally.

The Rattansi Education Trust provides bursaries to needy university students annually.

Obosi and Opere (2018) point out some partnerships with international development Partners such as the World Bank's *Elimu Scholarship Program* that support qualified and deserving students. In addition to such support to needy students, over the years, companies and industries have provided opportunities for internships for university students. Some have supported small research projects in the universities. Several student clubs and activities also get support and sponsorships from these private sector players. Due to the already discussed funding challenges facing the universities, some universities, especially public ones, established companies (private entities) to run their non-core functions. This is best exhibited by the University of Nairobi Enterprises (UNES). Through these entities, universities developed and produced products which they could sell to the market.

With internationalization growing in importance in several Kenyan universities, some of the institutions have developed impactful partnerships and collaborations with established universities in other world regions. Through these they access study opportunities through scholarships and exchange programs, undertake joint research, curriculum reforms and joint application for grants. Some of these collaborations such as the flagship Academic Model Providing Access to Healthcare (AMPATH) project at Moi University have been useful in strengthening infrastructure in the institutions. Overall, engagements between Kenyan universities and the industry, private sector and international partners are still weak and needs to be enhanced.

3.0 Impact of COVID 19 on Kenyan Universities

As mentioned in the introduction, the COVID 19 pandemic created disruptions in Kenya's higher education. The impact on the system have also been highlighted in the introductory section. In general, the pandemic forced the Kenyan universities to shut down for close to a year. Such was an unprecedented scenario in the history of higher education in Kenya. Not only did it push the universities into an inestimable crisis overnight, but it also brought in new challenges to the institutions.

Due to the global isolation and lockdowns that ensued from the pandemic, society witnessed the universities' inability to provide solutions to the numerous challenges posed by the virus. The COVID-19 pandemic began as a health crisis but quickly had a socioeconomic dimension (PWC, 2020). Regarding higher education, as previously noted, it presented the system with several consequences and obstacles. Universities had to suspend campus-based operations, including core mandates such as teaching and research.

Responding to such a sudden and multidimensional crisis has been a challenge for both academic institutions and government agencies. The pandemic struck at a time when Kenya's higher education sector was already facing profound challenges, most of which were mentioned in the preceding section. Thus, it would be beneficial to investigate in detail the challenges posed by the pandemic to universities and the adaptive methods implemented by the universities in response to these challenges.

As was mentioned at the onset, the focus will be restricted to the focal areas of this paper, that is, impact of the pandemic on access, equity, quality, research and postgraduate training. This would then be dovetailed with the contributions that other stakeholders such as the private sector partners and international development agencies can make to enable the universities better respond to such crises.



Source : iStock

3.1 Impact of other Previous Pandemics on Higher Education



One of the early pandemics was the devastating Black Death that struck Europe in the 14th Century and ended up killing close to half of the population (The Black Death A Catastrophe in Medieval Europe, 2010).



Source : Shutterstock

Though the COVID-19 pandemic has impacted the higher education sector in unprecedented ways, it is not the first pandemic to have affected the higher education sector. The sector has in the past proactively grappled with other crises, which is a true manifestation of the historic resilience of universities in times of crises. This history of pandemics and universities dates back to the early years of the development of higher education. One of the early pandemics was the devastating Black Death that struck Europe in the 14th Century and

ended up killing close to half of the population (The Black Death A Catastrophe in Medieval Europe, 2010). The pandemic had enormous effects on Oxford University, which was by then a young institution. The university responded to the situation by requiring academic staff and students to vacate the city (Brown, 2020). Thereafter, several other pandemics struck, forcing universities to adopt new responses. The most common then was to develop escape plans to flee whenever such pandemics struck.

The other pandemic was the plague that struck London from 1665 to 1666, leading to the death of close to 7,000 inhabitants within a week. It led to the closure of universities and a tight lockdown in which any strangers entering the city had to produce health certificates. This, to an extent, has similarities to the effects and responses to the COVID 19 situation (Little, 2020). Though such pandemics had adverse consequences, it was noted that during this plague, Isaac Newton, then a student at Cambridge University, escaped from the city to the countryside. It was during this time of escape and solitude that he made most of his discoveries. It turned out to be one of the most productive periods in his career. This could suggest, as could be now, that the pandemics could also have their unseen benefits.

Another notable pandemic was that of the influenza or Spanish flu which affected the American society in 1918 leading to the death of over 50 million people (Beach et al., 2022). Just like with the COVID 19 pandemic, during this epidemic, universities, such as Stanford University, required students to wear protective masks, otherwise they would bear a heavy penalty. There were several instances of students volunteering to assist members of the public. The smallpox invasion of 1885 required that students (e.g. at McGill University) be vaccinated to protect them from the pandemic (Fenner, 2011). Just like with most of the previous pandemics, among the

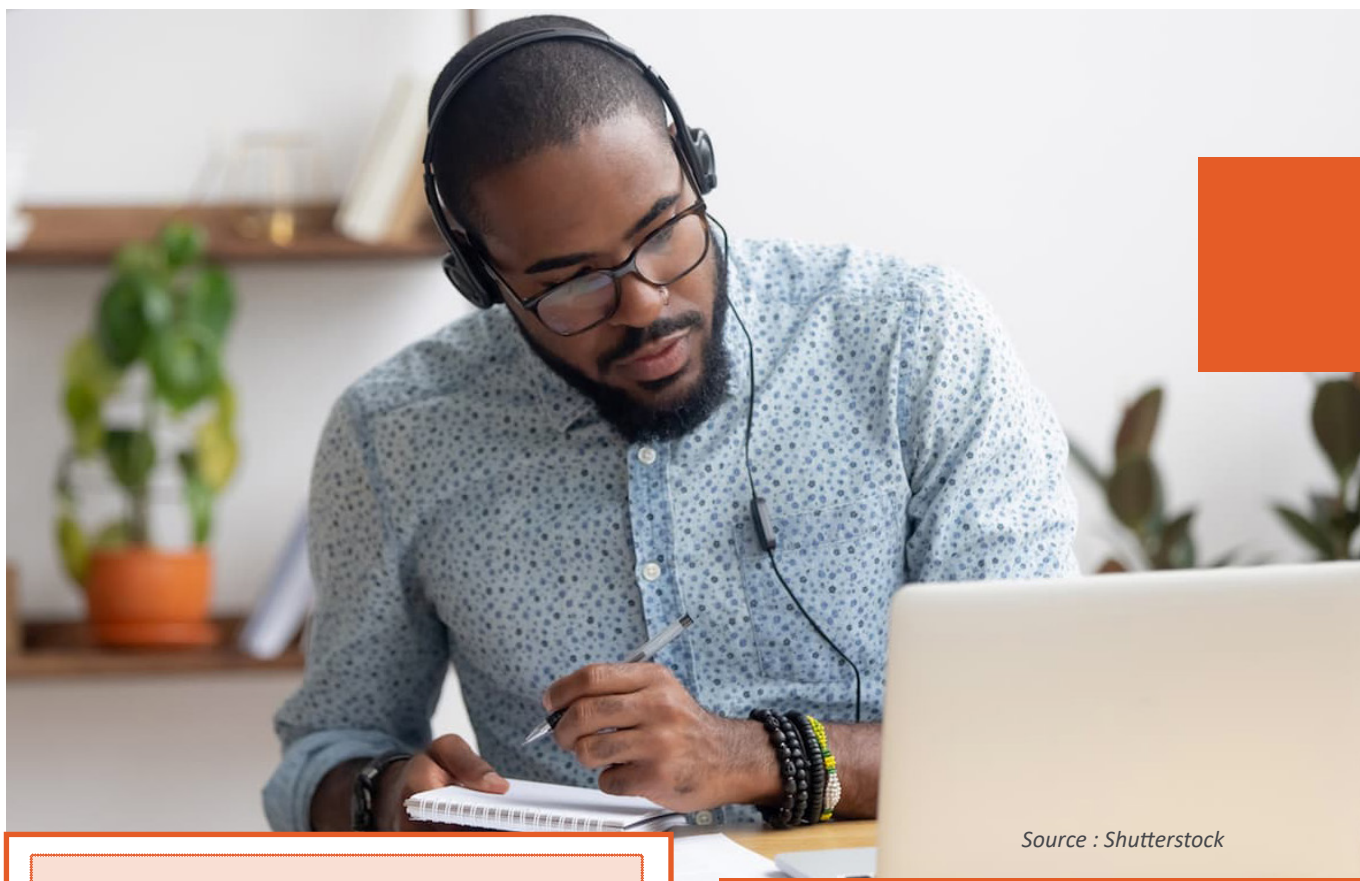
measures to limit the spread of the Covid-19 virus included bans on large gatherings, remote working and schooling, prescribing health protocols (PWC, 2020).

Pandemics have increased in number over the past century (Madhav et al., 2017) with rapid transmission and difficulty of containment. In 2009 the world witnessed the swine flu, resurgence of polio in 2014, Ebola in 2014, Zika in 2016 and the new Ebola wave in 2019 (Mhlanga & Moloi, 2020). According to Bloom, et al. (2020), many epidemics and pandemics are ongoing, claiming millions of lives per year. In Africa, one of the major pandemics was the trypanosomiasis pandemic that hit the Great Lakes Region and killed over 250,000 people (Fevre, 2004). It in addition led to quarantine of those affected. It also led to widespread displacement of populations. This however did not have an effect on universities, which did not exist by then. Several other tropical epidemics followed. It was however the HIV/AIDS and the recent Ebola pandemics that have had serious impact not only on most of Africa's populations but also on the education systems, and for the purpose of this paper- on universities. It is thus evident from the above scenarios that universities have weathered the storms of pandemics before and could possibly do so against COVID 19.



Source : The Guardian

3.2 Impact on Access, Equity and Quality



Source : Shutterstock

The impact of COVID 19 on Kenya's higher education sector has been noted as unprecedented (Ng'ang'a, 2021; Ossai, 2021). While it impacted on several facets of the sector, it has aggravated the challenges the institutions face in access, quality and equity. Discussions during the second *Utafiti Sera House* convening confirmed that the pandemic indeed worsened access to higher education. Several families faced reduced capacity to send their children to school due to the economic impact of the pandemic. This was more grievous for learners from families in the marginalized or disadvantaged backgrounds. Many families faced loss of employment and reduced incomes. This disadvantaged them and widened the inequality gap between them and their counterparts from contexts that were not as much affected. In rural communities prone to several deficiencies such as lack of electricity, internet access, poor infrastructure for online learning, the challenge was even more compounded (Jelimo, 2020).

Following the long closures, the universities responded by massive shift to online learning and digitalization to continue with teaching and learning when students were away at home (Ochieng & Waithanji, 2022). The universities had previously relied on face-to-face learning with minimal investments in ICT infrastructure and skills needed for such a shift. Both staff and students lacked the requisite skills and facilities to enable them sufficiently operate in this new mode. The universities had to quickly develop programs to attempt upscaling the skills of their students and staff for online learning amid serious capacity deficits and financial challenges. A survey undertaken by the Inter University Council for East Africa, that included Kenyan universities, highlighted the challenges the universities, academic staff and students faced with online learning programs. Most of the universities had no experiences with online learning (IUCEA, 2020).

In corroboration of this, one of the deans participating in the second *Utafiti Sera House* convening commented that:



The shift to online learning excluded some learners from poor backgrounds, those with disabilities, or those in areas with poor infrastructure for the Internet. As a result, some learners had to repeat classes, missed exams, lost contact with peers, and experienced a serious lack in psychosocial support. Finally, there is evidence of quality reforms at national and institutional levels. In response to COVID-19, many universities introduced policy guidelines and standards to cope with the new demands of online learning and examinations.

The shift to online learning also brought in requirements for substantial investments in required facilities and equipment to comply with the COVID 19 protocols. In some cases, students were required to buy masks, sanitizers and observe other standard operating procedures (Ngwacho, 2020). This worsened the situation for learners from poor background who could not afford this.

It was also noted that students from poor backgrounds and resident in rural areas lacked computers or smart phones required to facilitate their learning online. One of the university participants summed it up:



'It is generally assumed that that students are learning, and students are learning online... but when you have 700 students, and you only have 45 of them are connecting online, can this still be considered equitable access?'


These challenges were confirmed during the first and second *Utafiti Sera House* convening during which the difference between 'E-learning' and 'teaching using ICT' was emphasized. As explained during the second convening, E-learning has several other variables that are important, like pedagogy and that, the type of platform the university uses may enhance or limit access, especially to students living with disability.

The pandemic situation thus worsened this already bad access situation opening up attendant equity issues. The effects of the pandemic compounded the rising disparities and associated equity concerns of the system. At the same time, it affected the lifelines of the universities leading to quality concerns especially of the newly adopted online learning. This has created unforeseen challenges and opportunities (Giordani & Rullani, 2020). It has led to leaps that could have taken several years to accomplish in normal times (George, 2020).

According to Jelimo (2020), the pandemic caused deeper socio-economic challenges that included loss of time for learning, mental health challenges especially amongst the students and staff, unplanned pregnancies and many other social pressures on parents, students and university staff. Some parents had challenges in keeping the students at home over this long period. As was ascertained in the *Utafiti Sera* convening universities required more funding to meet the new requirements of online learning. This was in addition to the resources required to

respond to the other institutional shocks of the pandemic.

According to Nganga (2021), due to the economic situation occasioned by the pandemic, the government reduced the budget to universities by USD 120 million. The allocation to universities thus went down from USD 1.13 billion in the previous financial year to USD 1.003 billion in the 2021/22 fiscal year. Such a significant reduction, within a crisis and at a time when most of the public universities have been in financial crisis, could affect quality of programs and other university services. On this, one of the Vice Chancellors had the following to say:



Looking at the way things are, most of the institutions will not be able to pay salaries for all staffers if the lockdown continues....learning programs have been affected severely, raising the question how we are going to pay the lecturers and other staff.

The government has also not heeded to the quest by the universities to increase fees for students. The universities had proposed a fee increase of USD 600 per year from the current USD 265. Amid the COVID 19 pandemic, the fresh students joining the universities for the 2021/2022 academic year enrolled before receiving the financial support from HELB. This disenfranchised many students who could not afford the costs and had laid their hopes in the HELB funding, with universities reporting low enrolment rates in 2021 compared to the previous years. There were also reported cases of students failing to report to the universities due to challenges in paying fees. One month after opening for the 1st year students, the University of Nairobi reported that 1,971 government-sponsored students had not reported (Daily Nation, 2021, October 25). This could have been the situation in other public universities as well.

It has been notable that during the pandemic, learners from disadvantaged rural areas and high poverty-stricken areas faced several challenges ranging from inaccessibility of learning opportunities, isolation and loss of time, which further exposed them to more vulnerabilities (Ochieng & Waithanji, 2022). Due to these structural disparities, most underserved students had difficulties accessing internet and participating in online learning. This was further compounded by the high cost of internet and the ramifications that the pandemic brought to the economic status of these poor families. Thus, in addition to loss of lives and the socio-economic impact, the pandemic took a toll on students' mental health and general well-being.

The lockdowns and other restrictions undermined the mental and emotional well-being of the students. At the same time, students had less time on university campuses, with online learning restricting them at home with their families (Ngwacho, 2020). This loss of peer-to-peer learning is a major impact not only on their socialization but also on the quality of learning. This is in addition to the less and not so meaningful time spent with teachers in the online classes, which became boring, expensive and of much fatigue to the students.

It is evident that Kenya has considerable mobile phone penetration (Kharono et al., 2022) and thus mobile internet access is about 90%. However, many students who live in remote areas do not have access to internet services. For those who may be able to access the internet, it is at a high cost: about US\$ 4.90 per GB in Kenya compared to countries like Egypt, where it is about \$1.20 per GB. In addition to this, even though 75% of Kenyans have access to the grid or off-grid electricity, supply is not always reliable. These challenges mean that probably only students in urban areas will benefit from the transition to online learning (Nyerere, 2020). The problems are compounded for the learners with special needs who, besides the internet, lack access to platforms tailored for their needs.



Source : Shutterstock

Consequently, the absence of coordinated equity policies and actions, combined with exclusive rather than inclusive institutional cultures and new forms of teaching and learning dictated by the COVID 19 Pandemic, exacerbated inequalities in access to quality higher education. The universities have for long been slow and even hesitant to adopt disruptive innovations and new technologies. Another shift was thus the development or strengthening of policies both at the national and institutional levels to respond to the shifts and gaps opened up by the COVID 19 pandemic.

However, viewed from another perspective, the shift to online learning and other forms of online engagements occasioned by the pandemic, if well

utilized, could lead to several transformations in Kenyan universities. ICTs provide many possibilities for enhancing access to university education and even lowering costs of training in some cases. The new possibilities can also enhance quality of programs including the quality of teaching and learning and at the same time enhance efficiency of the system. The submissions by the universities in the *Utafiti Sera House* convenings noted the policy reforms the universities had made to embrace these new developments and the other interventions being made to integrate them into institutional plans and activities.


3.3 Impact on Postgraduate Training and research

Postgraduate training in Kenya has not been spared the brunt of the COVID 19 pandemic. The closure of the universities for several months forced postgraduate students to be dislocated from their research and academic programs. They also could not easily access their supervisors thus affecting supervision, which was already a challenge even before the pandemic. The long closure also denied the postgraduate students access to pertinent research facilities such as laboratories, workshops, libraries and other knowledge depositories located within the institutions. This resulted in loss of time and investments in research.

The situation was even more complicated for postgraduate students undertaking research in disciplines that required human interactions. Such studies were hampered by the containment measures and protocols in response to the pandemic situation leading to several months of delays. The shift to online learning, which has also been discussed extensively in the previous section also had its fair share of effects on postgraduate training

and research. It presented several challenges to the institutions, postgraduate students and their supervisors especially due to inadequate capacities to use online platforms. This denied postgraduate students the opportunities to learn together (peer learning), share experiences, support each other and loss of time in supervision.

The graduate programs that were supported through international collaborations suffered due to loss of time in project implementation and restriction of travel of project partners. External funding for most projects was in several cases stopped since implementation could not continue within the pandemic situation. Academic mobility for staff and students especially within the framework of the collaborative programs also suffered the same fate. Most projects lost funds due to challenges of implementation, which in some cases were time-barred or could not be extended due to stringent funding regulations. This caused more agony to the students, supervisors and the institutions. As one of the students asserted;



We are a group of three students working on an internationally supported program and we take some of our courses in Netherlands. The pandemic occurred when our external partners and supervisors were to visit our project sites and assist with our supervision. With this situation, we are now not sure when they will come. The funding is however not affected, we have not been told anything on that.

Besides, while activities like mobility of scholars have gained centrality as avenues enhancing institutional capacities for postgraduate training and engagements, COVID 19 jeopardized most of these initiatives in the universities. Student and staff mobility has been brought to a halt since the advent of the pandemic. Most scholarships and research funding opportunities have also been halted as a result of COVID 19. This is in addition to international conferences, which have mostly gone virtual due to the difficulties in international travel.

These impact of the COVID 19 situation affected time to graduation, catapulted dropout rates, affected the quality and efficiency of the programs and the personal well-being and mental health of the students (Ngwacho, 2020). While research activities were largely affected, some forms of academic writing could actually proceed. Some postgraduate students actually mentioned that they made use of the “lock-downs” to advance writing their research projects and dissertations.

I actually tried to take advantage of the stay at home and not travels to keep on writing. Though at times it is very boring, it has in a way helped me to catch up. I was really lagging behind.

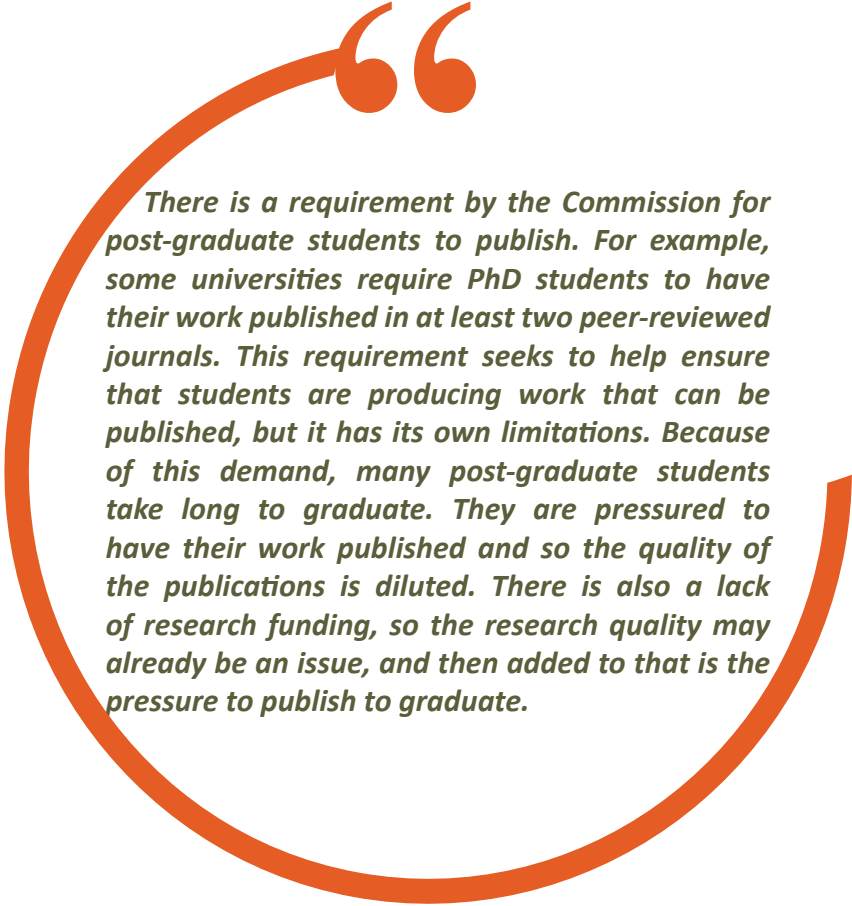
In the second *Utafiti Sera House* Convening, some postgraduate students reported an influx of online academic forums organized by their own universities and other networks through which they gained a lot in their academic endeavors. A study conducted by Boshoff et. al (2021) indicates that most of the early career researchers in Kenya considered themselves as having the requisite digital skills necessary for utilization of these new and emerging opportunities. While they noted the high costs associated with internet access, they still found the online forums very useful for their academic progress. As one postgraduate student from Kenyatta University underscored;

I used to find it difficult to attend conferences, especially those in my field. I tried looking for funding support to enable me go but always failed. Yet these seminars and conferences are very useful. With the pandemic situation, I just need to get internet access and from my house I can now join most of the international conferences I have always missed.

With this development, activities such as conferences, workshops and seminars were at first cancelled but later adopted the online mode. This gave many academics and postgraduate students the possibility to attend academic events that they would have hitherto not managed due to high costs of participation.

The challenge however, and which has been clear during the pandemic period, is the deficiencies within the universities to rise up to the occasion and quickly take advantage of the unfolding situation. It is a common adage that when calamities strike, they come in droves. The COVID 19 pandemic came at a time when Kenyan universities were on their knees in very many crucial respects. The financial situation in most public universities had deteriorated, causing serious distress to the institutions thus affecting their research activities. In such situations, responses to such pandemics could thus be chaotic and ineffective.

Kenyan universities thus need to deliberately invest in ICTs and digital technologies to support research, postgraduate training and other key mandates of the institutions. In this, development of viable policies and strategies for postgraduate training and for ICTs and digitalization among others, would become imperative from the discussions in the convenings. These have also brought new challenges to postgraduate students. One participant underscored this by remarking:



There is a requirement by the Commission for post-graduate students to publish. For example, some universities require PhD students to have their work published in at least two peer-reviewed journals. This requirement seeks to help ensure that students are producing work that can be published, but it has its own limitations. Because of this demand, many post-graduate students take long to graduate. They are pressured to have their work published and so the quality of the publications is diluted. There is also a lack of research funding, so the research quality may already be an issue, and then added to that is the pressure to publish to graduate.

Despite the serious challenges that it caused to the postgraduate students, academic staff and supervisors, normalcy is getting restored with an enormous change of attitude and perception of these ICT based modes of teaching, research and interactions. These digital transformations have opened up new possibilities for enhancing postgraduate training. They give more opportunities for enhancing access, improving quality, assessing students, facilitating more interactions and exchanges between students, enhanced supervision as a result of quick engagement between students and supervisors through these online platforms, among others. It could also give graduate students access to opportunities that were hitherto out of reach such as participation in international conferences and seminars, participation in academic networks, accessing international knowledge resources and funding opportunities that could support their research and academic careers.

Some of the adaptive strategies developed by the institutions in response to the COVID 19 situation have however unveiled new opportunities for postgraduate training. The shift to online and digital learning has opened up opportunities such as higher access and lower costs of post graduate training, enhanced efficiency of supervision, easier access to online resources for their studies and even opening up more possibilities for employment. Universities that will invest adequately and take advantage of these developments for their postgraduate training will make significant leaps. These technologies also create avenues for enhancing collaborations with international partners and even more funding opportunities.

3.4 The Role of Public Private Partnerships (PPP)



Source : Shutterstock

The private sector, including businesses were vastly affected by the COVID 19 pandemic. Just like the universities, most businesses and industries closed down, leading to massive losses of incomes and employment opportunities. The Small and Medium Enterprises (SMES) and start-ups were worst affected with most of them finding it difficult to reopen.

Given the government's limited budget allocation to the higher education subsector, promoting Public-Private Partnerships (PPPs) and university-industry linkages has been critical to expanding access and improving quality of learning (Wangenge-Ouma & Nafukho, 2011). Though the private sector is not so much developed in Kenya, by regional standards Kenya has one of the most vibrant private sectors. Kenyan universities managed to bounce back mainly due to the investments that private sector companies had made in the information and communication sector.

There are growing examples of investments into higher education, and in some cases, private universities have flourished. Private universities have flourished in Kenya to compliment the public universities and bring more diversity into the system (Kamau, 2013). According to Simson & Harris (2020), enrolments in the private universities have only marginally affected overall enrolment figures. Enrolments in private universities have however grown tremendously over the past few years. By 2005, private universities in Kenya collectively had an enrolment of about 6,000 students (Abagi, 2005). However, by 2020, it was estimated that they had an enrolment of over 70,000 students. Due to improved regulatory mechanisms and the competitiveness of the Kenyan higher education system, most private universities have improved the quality and relevance of their programs and are now becoming the institutions of choice to a growing number of students.

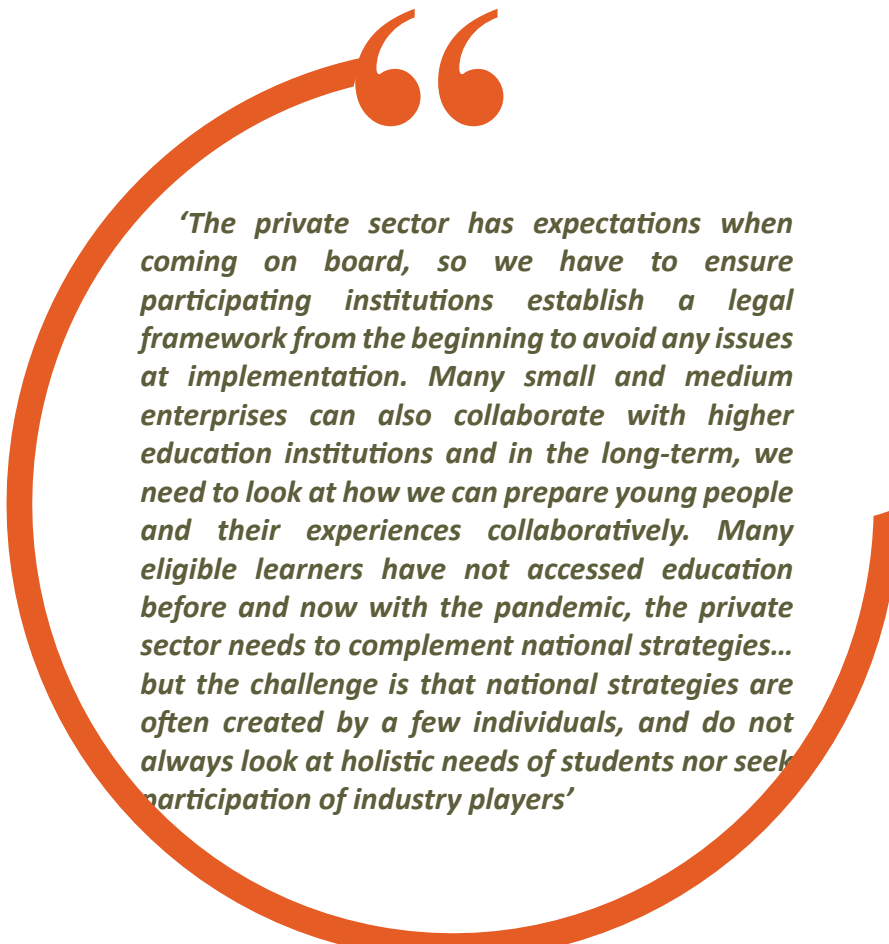
The private sector actors became linked with universities to develop interventions to COVID-19. The impact of the pandemic made the universities to develop new adaptations and interventions some of which led to monumental shifts which could

have taken years, if not decades to realize. The requirements of these responses brought to the fore the essence of strong local, regional and international collaborations. Collaborations with the private sector and industry also became imperative for critical interventions and support by this sector.

Some private sector partners supported universities' shift to digital learning through the provision of the Internet, building capacities, granting loans, and developing infrastructure (Obosi & Opere, 2018). Some private sector entities supported with internet access, support with infrastructure, development of technical capacities, medical and sanitary supplies needed by the institutions for containment measures, among others. The multi-, inter- and trans-disciplinary approach should foster closer collaboration between academia and university business entities and support the representation of academia on wider societal

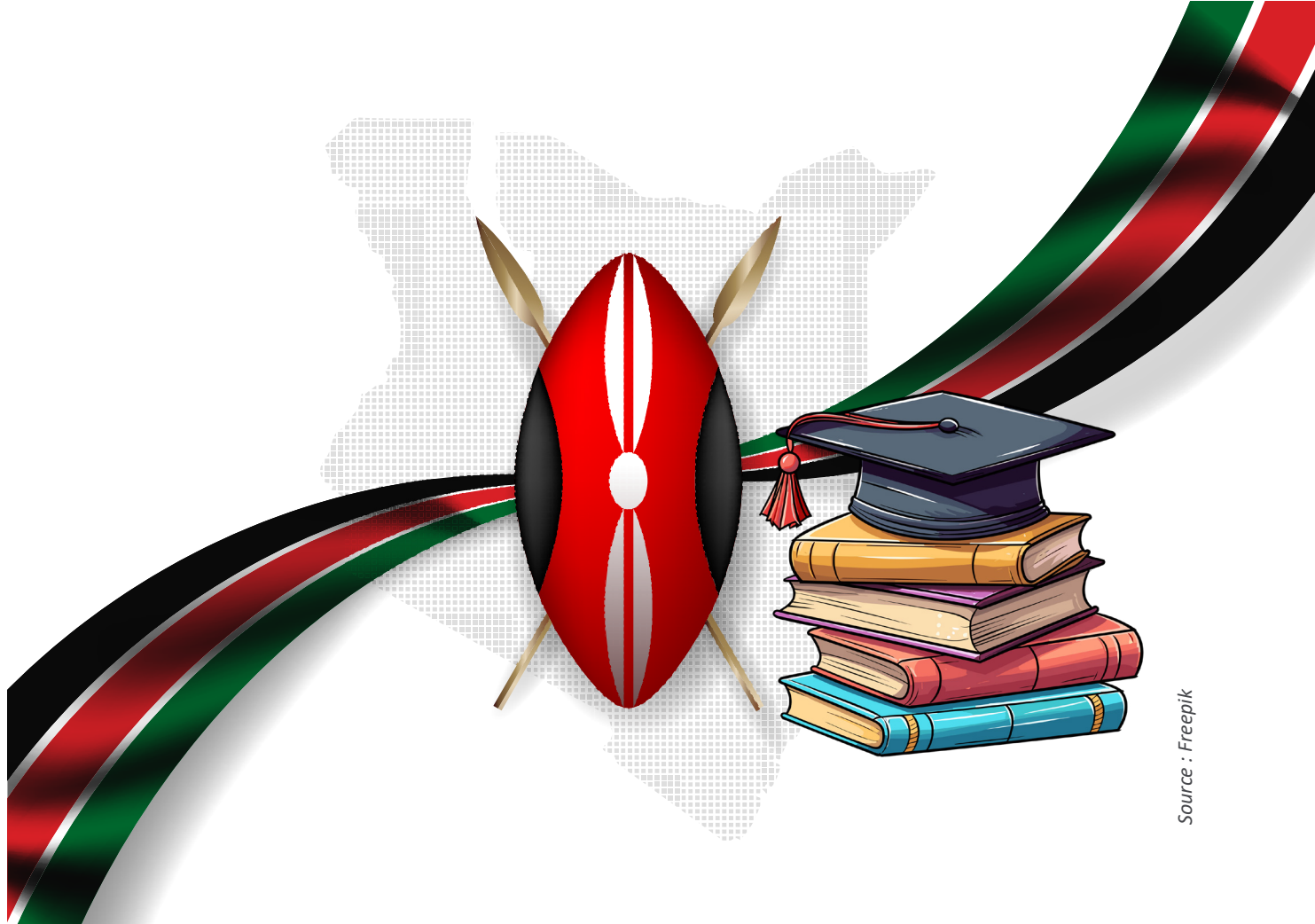
platforms. Further, partnership projects between universities and the private sector and civil society organizations are encouraged.

The preliminary synthesis shows that despite these advances, there are currently weak links between higher education institutions and the private sector/industry. Few universities have engagements with the private sector and, overall, policies remain scanty and should be explored further. There is enormous unexploited potential in this sector, and huge potential for PPPs to enhance the growth and development of both higher education institutions as well as private enterprises. The questions that remain to be addressed to move PPPs forward include what policy gaps exist and what policies are needed to strengthen this area? The policy landscape appears more developed than the uptake. Why is this? One of the participants in the PPP group remarked;



'The private sector has expectations when coming on board, so we have to ensure participating institutions establish a legal framework from the beginning to avoid any issues at implementation. Many small and medium enterprises can also collaborate with higher education institutions and in the long-term, we need to look at how we can prepare young people and their experiences collaboratively. Many eligible learners have not accessed education before and now with the pandemic, the private sector needs to complement national strategies... but the challenge is that national strategies are often created by a few individuals, and do not always look at holistic needs of students nor seek participation of industry players'

It is notable that there have been efforts to engage the private sector in the development of higher education in Kenya though not optimally. In which ways can the private sector be involved in higher education in response to the challenges posed by the COVID 19 pandemic? In which ways have university-private sector partnerships been structured? What have been the key challenges and how can they be addressed? Is the prevailing policy context supportive/facilitative to public-private partnerships in higher education?



Source : Freepik

4.0 COVID 19 Pandemic and Kenya's Higher Education Policy Context

Since independence, Kenya has made key policy developments in higher education, mainly spearheaded by the government through various Commissions and Task Forces. Through these, key policy documents and blueprints have been developed which have charted the trajectory and developments in Kenya's higher education in different spheres. These policy developments have been major turning points for the higher education sector. The Ominde Commission of 1964, immediately after independence, outlined Kenya's education goals, formulated a new education policy framework, and linked education to economic development and the national aspirations of the new nation (Republic of Kenya, 1964). In the subsequent years, other legislations, commissions, and task force reports have guided policy and provision of higher education in Kenya. The most prominent ones include the Sessional Paper No 10 of 1965, the Gachathi Commission Report of 1976, the Mackay Commission Report of 1984, the Kamunge Commission Report of 1988, the Koech Commission Report of 1998, Sessional Paper NO.1 of 2005, Constitution of Kenya 2010, and Kenya's Vision 2030.

In addition to the commission reports, the government of Kenya has also over the years developed several blueprints and sessional papers focused on the higher education sector. These include Kenya's first *National Development Plan 1964-1970* which attached significant political and economic importance to promoting higher education and made recommendations for substantial funding. Consequently, there was a focus on expansion of higher education opportunities to promote economic and social development as was earlier affirmed by the Sessional Paper No.10 of 1965 (Republic of Kenya, 1965). Due to these cardinal national obligations attached to higher education, the making of modern-day Kenya's higher education was therefore largely a function of the government.

Some of these policy developments have focused on the thematic areas of this project. Several policy documents have been developed over the years to address the perennial challenges of access, equity, and quality in Kenya's higher education. Over the past couple of years, the Sessional Paper NO.1 of 2005 has been the main policy reference point for higher education in Kenya. It emphasizes the

development of a demand driven and competitive higher education sector. This Sessional Paper led to the development of the Kenya Education Support Program (KESSP), which introduced new modes of financing higher education including diversification, privatization and public-private sector partnerships. The Constitution of Kenya 2010, however, proclaims education as a right of all citizens. The University Act 2012 also underscores the efforts that government would make to ensure equitable access to higher education. It should thus be noted that the growth of the higher education sector, including in access, brought in new challenges especially in funding qualified learners to access the university education. As mentioned in the early parts of this section, these can be traced to the Structural Adjustment Programs (SAPs) of the 1990s and the governance and austerity reforms that followed (Sifuna, 2009).


The enactment of the Universities Act in 2012 has been a major turning point in Kenya's higher education policy landscape. It brought the establishment, governance and administration of all universities under one legal framework (Republic of Kenya, 2012; Commission for University Education, 2014). The Act puts in place new regulations for the development of university education, the establishment, accreditation, and governance of universities thus enhancing the quality, relevance and governance of Kenya's higher education sector. The Act also upgraded several university colleges to attain full university status, thus expanding opportunities for access and capacity of the higher education sector. It further transformed the Commission for Higher Education (CHE) to the Commission for University Education (CUE) and granted it a broader mandate on higher education in the country. These include promoting the objectives of university education, advising the government on policies on university education, setting standards, assuring quality in university education, recognition, and equating degrees from other countries, undertaking regular inspections of universities and accrediting and auditing university education in Kenya (Republic of Kenya, 2012).

Through the Commission for University Education (CUE), the government is making efforts on strengthening the quality of university education. During the pandemic, CUE developed guidelines for online learning including accreditation for online and blended programs (CUE, 2014). These are augmented with the regional quality assurance standards and benchmarks developed by the Inter-

University Council for East Africa and the UNESCO quality guidelines (Shabani, Okebukola & Oyewole, 2014; Garwe & Gwati, 2018). Most of the universities have also established internal quality assurance mechanisms and departments responsible for institution-wide quality assurance mainly for academic programs. In addition to these, there are quality assurance committees and those to ensure that ISO certifications are attained and sustained. These desirable developments are commendable and have led to quality improvements but have not put to rest the quality challenge facing Kenyan universities.

As noted during the second *Utafiti Sera House* convening, a number of universities in Kenya have mainstreamed national gender and disability policies. The notable policies are the one-third gender rule, which is applied across every institution and requires that no one gender should occupy more than one third of the total population. This also applies to the regional balance whereby no one ethnic community should occupy more than one third of the total population. There are certainly challenges to implementation of this rule but there is advancement towards success. There is however no policy to streamline this in the universities. Regarding persons living with disabilities, there is a National Council for Persons with Disability, which links with institutions of learning. For instance, they state that 5% of any recruitment in universities must involve persons with disabilities.

When the pandemic led to the closure of learning institutions, the Commission for University Education developed guidelines on online learning following the transition online learning. While they were useful, institutional representatives in the dialogues noted that the guidelines did not have adequate information on how to deal with students based on gender, disability, or marginalization, which are crucial for access, equity and even quality of learning for these groups of students. The guidelines mainly focused on design and delivery of online programs. Gleaning from the discussions during the *Utafiti Sera* meetings, most university staff were of the view that lack of implementation of the guidelines were as a result of various capacity challenges which still rendered many students to be marginalized from university programs.



As Al-Taweel et. al (2020) acknowledge, several countries have put in place supportive policies and regulations to help their higher education institutions to take advantage of the opportunities of online learning. These could be useful examples for the Kenyan system. In addition to this, and as also observed by participants in our convenings, there is need for enhanced support to students and staff to access and utilize online platforms and technologies, especially in universities which didn't have much experience with this mode of learning.

The policy environment for postgraduate training in Kenya has been strengthened over the years but is still lacking in some aspects. It should be noted that due to their orientation and focus, these policy blueprints largely focus on the basic aspects of enhancing access, quality and equity mainly at the undergraduate level. The postgraduate level of training has been quite small in most of the universities compared to the undergraduate level. In recent years, government higher education policy has put considerable importance on the research mandate of universities, especially to seek solutions to some of the national development needs and challenges.

It is outrightly notable that the government through the Ministry of Education is the main policy actor and has the mandate for policy development, implementation and monitoring. The Ministry has several agencies and directorates, which also have roles in the higher education policy sphere. The Commission for University Education (CUE) was established by the Universities Act 2012. The mandate of the commission is to regulate the provision of university education in Kenya and specifically ensure maintenance of standards, quality and relevance of university education. The other key government agency is the National Commission for Science, Technology and Innovation (NACOSTI) established in 2013 which manages and regulates research in Kenya. It also administers the Government Research Endowment Fund to support scientific research and innovation in science and technology as priority areas of development.

The policy landscape for public private partnerships in Kenya is still rather weak as shown by the insights from university leaders. One of the landmark developments was the Kenya Education Support Program (KESSP), which introduced a clear orientation towards Public Private Partnerships in 2015 as a way of developing sector-wide funding for the universities. It called for a market-oriented coordination of the sector, financial diversification, privatization and public-private partnerships. The aftermath of this was the development of industry and private sector liaison offices in addition to offices to coordinate internationalization activities. Partnerships with the private sector could for instance enable lowering internet costs, access students to better infrastructure and support with requirements for COVID protocols.

There are a number of policy documents issued by the government beginning around the year 2005 to try to ensure the relationship between universities and the private sector is closer due to the mutual benefits that the two sectors have. These include the Privatization Act in 2005, the PPP Committee established in 2010, the Public Private Partnership Act in 2013 and the Public Private Partnership Bill of 2021. There have also been regional, continental, and international developments. International universities have set up campuses, international businesses are supporting higher education, and the private sector has promoted student and staff mobility.

Apart from the national level, the institutions themselves play a key role in developing institutional policies, which in most cases are aligned to the national policies and priorities of the government. The institutions themselves have also developed various policy documents to guide their operations e.g. policies for research, access, quality assurance, ICT usage. Kenya's higher education policy environment is also to some extent being influenced by regional, continental and global developments. At the regional level, the developments within the East African Community (EAC) through the Inter University Council for East Africa has led to the declaration of East Africa as a common higher education area with common policies and frameworks for the sector. At the continental level, the African Union Agenda 2063 and the CESA 2016-2025 have been important policy documents for the alignment of national policies. There are also several new global and international factors shaping higher education policy making.

Arising from the outcomes of the deliberations of the meetings, the obtaining policies have not adequately enabled the higher education sector to respond to emerging situations and crises such as that presented by the pandemic. These developments seem to be ahead of the policy process, calling for the need to develop forward-looking policies that can anticipate the future. Part of the reason why the universities could not respond adequately to the challenges of the pandemic was the lack of these policy frameworks. For instance, there has not been a policy to guide online learning till the advent of the pandemic. The same has been for an overarching policy for postgraduate training and research- most of which are largely at institutional level. Persistent challenges to the system such as access, quality, equity and participation of the private sector could be better addressed through proper policy guidance.

5.0 Policy gaps analysis and Post Covid-19 policy considerations

This section summarizes some of the policy considerations that could be made. This is based on the policy gaps identified from analysis of policy documents and outcomes of the meetings held. Though there have been positive policy developments in the sector, especially on the focus areas of this paper, there are still some gaps that need strengthening. Some of these are discussed below and will be further strengthened with the outcomes of the next meetings.



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5.1 Access to quality education

Noting the challenges of access and equity in higher education, notable education innovations have been developed in the past decade including improving the quality of teaching and learning with technology; changes to curricula and assessment; alternative learning methods that improve access (such as open and distance learning); reaching young people who are marginalized from mainstream education for financial or geographical reasons; and enriching existing programs with non-cognitive and entrepreneurial skills and knowledge (Burnett & Jayaram, 2012).

For instance, to enhance access and respond to the inequalities, the Government of Kenya established the Higher Education Loans Board (HELB) in 1995 to administer a loan scheme to support poor but qualified students to access university education. The HELB support has, however, been largely focused on undergraduate students and recently extended to those joining the TVET sector. Not much has been provided to

support those joining postgraduate training, thus the lower enrolments and more strains facing the postgraduate students. Though this loan scheme has contributed in expanding access and enhancing equity, according to Lebeau & Oanda (2020), it has in other ways exacerbated some of the inequalities especially in instances where students from wealthy families at times get higher support than the needy ones. Lebeau and Oanda further claims that loan policies do not represent a viable alternative to maintenance grants and that undergraduate fees still present a barrier to students from marginalized backgrounds. Generally, the low participation in higher education in Kenya is largely compounded by gender, socio-economic status and the regional disparities amongst the prospective students.

The establishment of regional public universities and colleges to promote equity and regional development has further compounded the challenges facing the sector (Lebeau & Oanda, 2020) by escalating focus and enrolment especially of fee-



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paying students, consequently excluding students of low socioeconomic status who cannot afford it (Itegi, 2015). With the aim to enhance the country's competitiveness in line with Vision 2030, the government must enhance access and investment in research. In 2018, the government formulated a new five-year National Education Sector Strategic Plan (NESSP, 2018–2022) that stipulates the priority areas for investment in higher education (Republic of Kenya, 2018).

Over the same period, enrolment in universities grew by 92.5%, from 148,009 in 2013 to 363,884 in 2018. Further, the university sub-sector experienced growth over the same period due to the establishment of new universities and expansion of the existing ones. Between 2012 and 2018, the number of universities increased from 57 to 74. According to Muema and Lavery (2018), an increased number of universities in Kenya increased higher education access, but resulted in a higher education characterized by the massive production of low-quality non-standardized university graduates. The Kenyan government's push for differentiated unit costing of programs to determine the tuition fees charged to students continues to limit access to the most rewarding courses to students from disadvantaged backgrounds in public and private universities (Lebeau & Oanda, 2020).

Schendel and McCowan (2016) highlight the significance of paying attention to equity of access,

both in absolute terms and with regard to the stratification of higher education systems in low-income countries. They explain that in Kenya, a low middle-income country, gender, ethnicity and economic background act as general barriers to equitable access in higher education. A study by Odhiambo (2016) highlighted that there were still persistent inequalities in higher education access, participation and outcomes. Odhiambo argues that higher education in Kenya tends to be excessively accessible to the children of financially well-off families, parents, and those who share the dominant language, ethnicity, and 'appropriate' cultural and political affiliations. On their part, Ilie et al. (2021) also found that inequalities by socioeconomic background mar access to higher education. The authors explain that while early learning is essential in predicting later higher education participation, significant barriers to higher education participation remain for low socioeconomic status groups.

This finding by the World Economic Forum highlights the shift in the lens through which quality education is viewed from just looking at facilities, infrastructure and resources, to include the relevance of skills developed. These skills go beyond the cognitive to include communication, leadership, perseverance, empathy, and emotional regulation, as well as financial and information technology literacy and entrepreneurship capabilities (Brown et al., 2015).

5.2 Postgraduate training

The government established the National Research Fund (NRF) in 2014, to facilitate research amongst staff and students, facilitate sharing research outcomes, collaborations and mobilizing private sector partners to support the research fund. Though not sufficient, this has been useful in supporting research and postgraduate training. In recent years, the Higher Education Loans Board has also embarked on advancing loans to postgraduate students thus opening more opportunities to students to access postgraduate training. Brain drain has had a serious effect on postgraduate training. Most of the highly talented Kenyans who have trained abroad have been retained there, thus depleting the pool of critical staff required in different disciplines. This is at a time when the pioneer academics in most Kenyan universities are ageing. In addition to expanding opportunities for PhD training, the government has also made a requirement for academic staff in

the universities to attain PhDs or in the future lose their positions (CUE, 2016). Postgraduate training, especially at the PhD level is also crucial for academic progression in the universities especially with the implementation of the CUE promotion criteria. These have triggered many young academics to enrol for postgraduate training.

In recent years, the government in collaboration with international partners has embarked on different strategies to enhance capacities for postgraduate training. One of these is the development of Centres of Excellence in targeted specialized areas with capacity deficiencies. Such centres have also come up through regional efforts, especially through the Inter University Council for East Africa (IUCEA). The focus on local postgraduate training is also aimed at reducing the impact of brain drain and the need to structure training within local contexts.

5.3 Digitalization

There is enormous evidence that gives credence to the enormous potential of digital transformations in fostering research, innovations, product development, and diversification, which would highly compliment or transform the traditional or existing ways of undertaking postgraduate training in our universities. It could catapult the capacity of the system and address the low enrolments and quality of programs by bringing in efficiency and lowering costs (e.g. travel, accommodation, stationery, printing) which make postgraduate training costly, but of course without compromising the quality of programs. In some universities, the shift to online learning was only a strategy to wait for the pandemic to calm down and then resort back to face-to-face learning.

This is already the situation in most Kenyan universities. With this the gains made in online learning as a response to the pandemic might go down the drain, yet they need to be sustained. They also have to deal with the attitude and stigma that has perceived online learning as inferior, especially in regard to quality, compared to face-to-face learning. Consequently, quality of online learning has to be enhanced. Some of the institutions affirmed that one of the reasons for not fully transitioning to online learning is due to the quality and accreditation requirements for these programs.

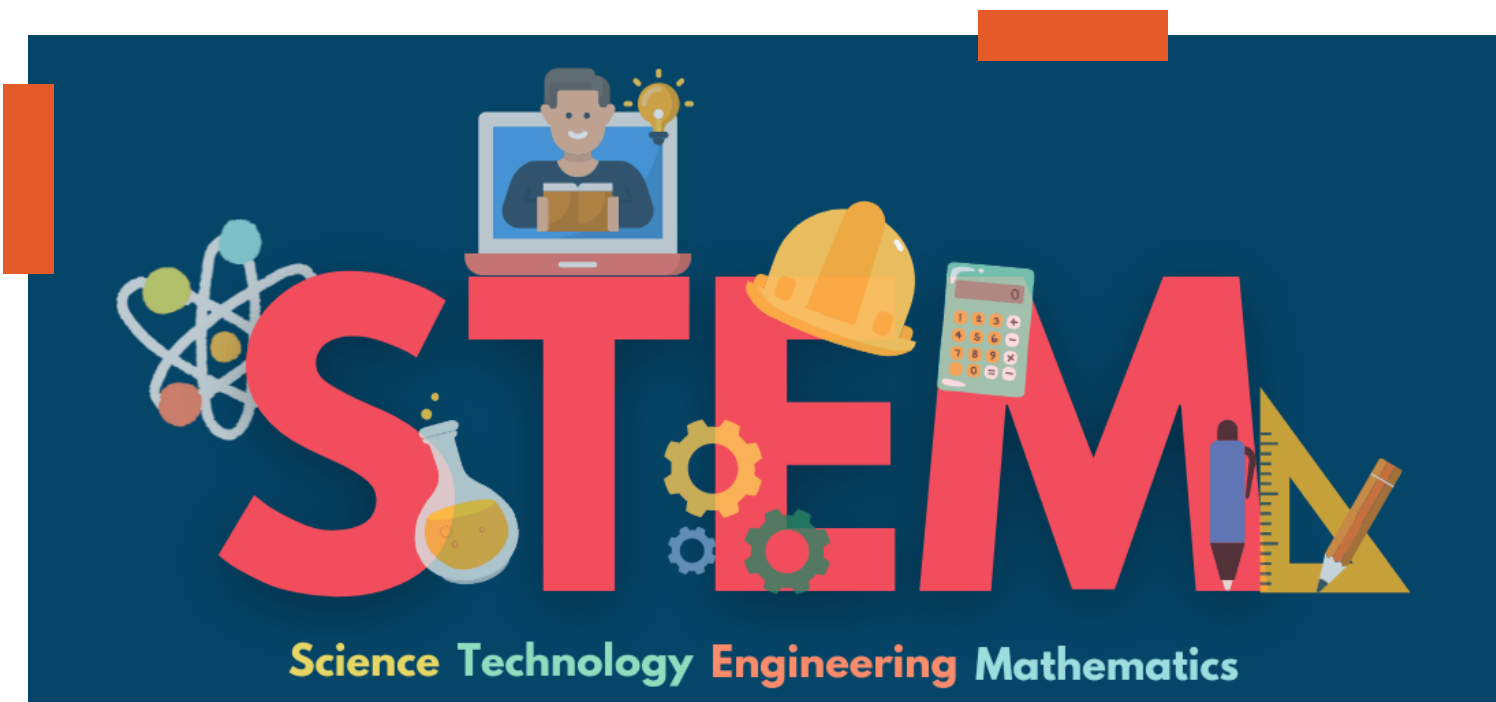
5.4 Disciplinary orientations

In recent years, in acknowledgement of the complementary roles of the different disciplinary orientations, there is now a growing move towards multidisciplinary in knowledge generation and even utilization. This is based on the justifiable prism that societal challenges and even research and knowledge generation can no longer be approached from a singular perspective. Universities could also thus orient their training to embrace multidisciplinary. The COVID-19 pandemic has demonstrated that neither the STEM nor the art/humanities disciplines are on their own sufficient to address such multifaceted challenges. How then can government policies provide for multidisciplinary noting the complementary roles of the STEM subjects and the arts and humanities?

COVID 19 struck the majority of Kenyan universities during their biggest financial crises due to a variety of factors. The government needs to review funding policies and allocate adequate funds to universities to develop required infrastructure not only for teaching and research but also to safeguard their institutional stability and ability to respond to such situations. They must come back to financial health.



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6.0 Outcomes and Recommendations

This Synthesis Report sheds some light on how Kenyan universities responded to the COVID 19 Pandemic especially with regard to access, equity, quality, postgraduate training and the role that partnerships with the private sector and other stakeholders can contribute in responding to such crises. The report further takes stock of the adaptive strategies adopted by the universities to respond to the pandemic. It has unveiled some policy gaps at different levels ranging from institutional to national levels and which will require redress to enhance the policy environment and the capacities of the institutions to respond better to such situations. These highlights could also enable government to identify the policy issues and other areas of intervention that need strengthening.

On the other hand, the pandemic has inspired innovations in digital technologies and online learning which have caused several challenges to the higher education sector but also opens up many possibilities for future development of the higher education sector in many ways including access, quality, research and governance. Arising from the above outcomes, the following recommendations can be advanced:

- i. Establishment of a facilitative policy environment for the private sector to engage/support universities. This could include areas such as research, endowments, resource mobilization, supervision of students, provision of learning facilities such as internet. Even without the pandemic, Kenya faced and would continue to face serious challenges in access, quality and equity of higher education. Government efforts to enhance access, strengthen institutional quality and enhance equity have been noted but are not sufficient. The growing quality challenges with mass online learning as a response to the pandemic has also been highlighted. This calls on the government and all other relevant institutions to join hands in ensuring inclusivity especially for marginalized learners and disadvantaged/young institutions. Through the Commission
- ii. Digital technology has become an integral part of life and will continue being central in university activities in the years to come. It is however noted that Kenya has not developed sufficient policies for digitalization. Universities may have started responding by developing institutional policies, which will have to be anchored on national policies and frameworks. The policies need also to provide avenues and trajectories for investment, growth and development in online learning, digitalization and other ICT based endeavours of the universities. Digitalization, if sufficiently invested in and utilized, could be a game changer in postgraduate training and research in Kenyan universities. Governments and institutions should invest heavily in IT systems that support the integration of online and blended learning and will improve capacity. Furthermore, universities need to offer e-learning pedagogy as an integral part of career-



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- long training for their academics. The need for capacities to use various technologies is now imperative. Universities have no option but to invest in high quality and modern technologies to serve the needs of postgraduate students, researchers and other institutional needs. The crisis has pushed postgraduate students and researchers from their comfort zones to a situation where they must deploy these technologies. Equipping them with the requisite skills will thus be essential.
- iii. While there is enormous opportunity for the private sector to support universities to enhance access, quality, equity and postgraduate training, engagements between the private sector and the universities is still rather weak. Though there is some evidence of collaborations with some private sector actors during the pandemic, much more could be done. There is need for a multistakeholder approach including the higher education institutions, government, private sector and other key actors to ensure concerted efforts in such situations. The policy framework for engagement with the private sector seems to be not fully developed. Forums for public-private sector engagements are also still deficient. Stronger coordination with the private sector and other actors is therefore imperative. Establishment of forums for engagements between the private sector and the universities and integrating private sector in higher education policy making at different levels including in the governance of the universities would also be important.
 - iv. The shift to online learning, deployment of various forms of technologies especially ICTs in teaching, learning and research is one of the main consequences of the pandemic. Though it has taken a toll on the universities in the enormous resources that were needed to equip the institutions for online learning and build the capacity of students and staff, this is a development that could be a major turning point in Kenya's higher education with key effects (both positive and negative) to access, quality, equity and postgraduate training in Kenya's higher education. It also opens up important avenues to foster collaborations and partnerships with other universities -locally and internationally- and with other stakeholders such as the private sector.
 - v. There is need to radically revise the curriculum of higher education institutions to suit remote, distance, online, and digital forms of delivery. This crisis is offering a better moment to start implementing a more sustainable curriculum guided by the 2030 Agenda and the Sustainable Development Goals, to work on reducing inequalities and on offering equal opportunity when it comes to access to tertiary education, promoting true lifelong learning. This is an area of great potential noting the change of attitude and capacities that are being developed for online learning and deployment of ICTs.
 - vi. The potential of private sector engagement and involvement of international development partners has not been fully utilized. It was evident during the pandemic, for instance from telecom companies and local industries that the private and international development partners can play a key role in supporting universities enhance their capacities for innovation, quality improvement, improving access and other perennial challenges. Some of these partners played a key role in assisting the institutions to respond to the pandemic. Facilitative policy frameworks have been developed but need to be strengthened, implemented, and communicated to relevant users. Development of strategic partnerships with international partners also came out as imperative.
 - vii. Social and psychological support to the most affected is necessary and urgent. Social support system may provide valuable relief to those severely affected by the crisis. There have been several reports of the negative effects of the pandemic on the well-being of students and staff.
 - viii. Overall, the challenges that Kenyan universities experienced with the COVID situation demonstrated that the universities have deficiencies in handling crisis situations. However, the quick shift to online learning, for instance, demonstrated the quick pace with which the institutions could embrace change and innovations when needed.

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